

Architectural Services Department

**Slope Upgrading Works at
Feature No. 11SW-A/R526,
King's College,
Bonham Road, Hong Kong**

Project Profile for Slope Upgrading Works at
Feature No. 11SW-A/R526, King's College

May 2018

ARUP



Contents

	Page	
1	Basic Information	1
1.1	Project Title	1
1.2	Purpose and Nature of the Project	1
1.3	Name of Project Proponent	1
1.4	Location and Scale of Project and History of Site	2
1.5	Number and Types of Designated Projects to be covered by the Project Profile	2
1.6	Name and Telephone Number of Contact Person(s)	3
2	Outline of Planning and Implementation Programme	4
2.1	Outline of Project Planning	4
2.2	Tentative Project Programme	6
2.3	Interactions with other Projects	6
3	Major elements of the surrounding environment	7
3.1	General	7
3.2	Noise	7
3.3	Air Quality	8
3.4	Water Quality	9
3.5	Ecology	9
3.6	Landscape and Visual	10
3.7	Cultural Heritage	10
4	Possible Impact on the Environment	12
4.1	General	12
4.2	Potential Environmental Impact During Construction Phase	12
4.3	Potential Environmental Impact During Operation Phase	18
5	Environmental Protection Measures to be incorporated in the Design and any Further Environmental Implications	19
5.1	Environmental Protection Measures	19
5.2	Environmental Monitoring and Audit	31
5.3	Severity Distribution and Duration of Environmental Effects	33
5.4	Further Implications	33
6	Use of Previously Approved Project Profiles	34
7	Public Relations	35
8	Conclusion	36

Tables

- Table 2.1 – Sequence of Proposed Slope Upgrading Works
- Table 2.2 – Tentative Construction Programme
- Table 3.1 – Summary of Representative Existing Noise Sensitive Receivers
- Table 3.2 – Summary of Representative Existing Air Sensitive Receivers
- Table 4.1 – Range of Predicted Construction Noise Levels (Unmitigated Scenario)
- Table 4.2 – Estimated Quantities of Waste Materials Generated from the Project
- Table 5.1 – Proposed Mitigation Measures for Different PMEs
- Table 5.2 – Range of Predicted Construction Noise Levels (Mitigated Scenario)
- Table 5.3 – Summary of Proposed Noise Mitigation Measures During Construction Stage
- Table 5.4 – Limiting Criteria for Settlement, Tilting and Vibration Level Monitoring During Construction
- Table 8.1 – Summary of the Potential Environmental Impacts and Proposed Mitigation Measures

Sketches

- SK01 – Proposed Soil Nail System Arrangement (1)
- SK02 – Proposed Soil Nail System Arrangement (2)

Figures

- Figure 1 – Site Location Plan
- Figure 2 – Works Layout Plan with Representative Sensitive Receivers
- Figure 3 – Proposed Noise Monitoring Checkpoints during Construction Stage

Plates

- Plate 1 – Direction of Plates
- Plate 2 – General View of the Feature
- Plate 3 – General View of the Feature at the Western Portion
- Plate 4 – General View of the Feature at the Middle Portion
- Plate 5 – General View of the Feature at the Eastern Portion
- Plate 6 – Water Seepage at the Middle Portion of the Masonry Wall
- Plate 7 – Water Seepage at the Western End of the Masonry Wall
- Plate 8 – General View of the Feature Crest at the Western Portion
- Plate 9 – General View of the Feature Crest at the Middle Portion
- Plate 10 – General View of the Feature Crest at the Eastern Portion
- Plate 11 – General View of the Feature Crest at the Eastern Portion
- Plate 12 – General View of the Boys' Changing Room
- Plate 13 – General View of the Boys' Changing Room

Appendices

- Appendix A – Detailed Design Drawing of Proposed Slope Upgrading Works to Slope Feature No. 11SW-A/R526
- Appendix B – Construction Noise Assessment
- Appendix C – Photographs of Representative Noise/ Air Sensitive Receivers and Photographs of King's College and its surrounding
- Appendix D – Defect Lists with Photos and Locations Extracted from Structural Condition Survey – Interim Report
- Appendix E – IEC Site Audit Checklist

1 Basic Information

1.1 Project Title

Slope upgrading works at Feature No. 11SW-A/R526, King's College (hereinafter referred to as "the Project").

1.2 Purpose and Nature of the Project

King's College is built in 1923-26 that it is one of the six surviving pre-war government school buildings in Hong Kong.

The foundation stone of King's College was laid in 1923. Site formation, foundation works and construction of retaining walls were undertaken by Messrs. Foo Loong & Co. in the same year and the superstructure was erected by Messrs. Kin Lee & Co. in 1924. The works were completed in 1926. The Hongkong Administrative Report of 1926 described King's College as "one of the finest and most modern of school buildings".

When it was completed in 1926, the school comprised an east wing, a south wing and a north wing with a bell tower (now removed) above a colonnaded curved entrance porch at the junction of Bonham Road and Western Street. This part of the King's College has been declared as monuments.

The King's College is now a 4-storey tall composite building. Feature No. 11SW-A/R526 is a sub-vertical retaining wall located underneath the North Wing of King's College. Stability assessment has been carried to the subjected retaining wall and it indicated that the existing wall stability is not up to the current geotechnical standard. Apart from ensuring public safety, upgrading works at the Feature would also protect the structures of the Declared Monument from potential damages arising from failure of the Feature since the north wing of King's College is located above the Feature immediately. Hence, upgrading works is proposed to improve the stability of the feature to meet the current geotechnical standards.

1.3 Name of Project Proponent

The Project Proponent is Architectural Services Department (ArchSD).

1.4 Location and Scale of Project and History of Site

Feature No. 11SW-A/R526 is a sub-vertical retaining wall located at the north of King's College, which the east, south and north wings of the school building together with parts of the retaining walls and boundary walls of King's College is a declared monument. Boundary of declared monument of King's College is presented in **Figure 2**. The Feature is located within a "Government, Institution or Community" (G/IC) zone on the Sai Ying Pun & Sheung Wan Outline Zoning Plan (OZP) No. S/H3/30. The location plan of the Feature and the boundary of the declared monument of King's College is shown in **Figure 1** and the general views of the Feature are illustrated in **Plates 2 to 7**. The direction of plates are shown in **Plate 1**. **Figure 2** shows the general location of the Works Site (approximately 180m²).

The feature as shown in **Plates 2 to 7** is basically a retaining wall made up of masonry dressed blocks with pointing. The entire length of the feature is 67m with a maximum height of about 6m. Face angle of the wall is about 85°, and immediately above the wall crest is a three-storey north wing of King's College and a swimming pool. A high-rise residential building, Silver Court, is located 2m away from the wall toe.

The Feature is identified as substandard man-made retaining wall judged to require upgrading and improvement works based on the site specific ground investigation. The proposed upgrading works is to improve the stability of the Feature to meet the current geotechnical standards. All the construction works of the Project would be conducted within the project boundary as indicated in **Figure 1**. For history of the site, please refer to the website http://www.amo.gov.hk/en/monuments_101.php

1.5 Number and Types of Designated Projects to be covered by the Project Profile

The Feature is located inside the King's College, which the east, south and north wings of the school building together with parts of the retaining walls and boundary walls of King's College is a Declared Monument under Antiquities and Monuments Ordinance (Cap. 53). Since the Project is wholly inside a site of cultural heritage, it is classified as a Designated Project under item Q.1 in Schedule 2, Part 1 of the Environmental Impact Assessment Ordinance (Cap. 499) (i.e. "All project including ... earthworks... partly or wholly in ... a site of cultural heritage ..."). Hence, it requires in Environmental Permit prior to the construction works.

The Project Profile is prepared in accordance with Annex 1 of the Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM) under Section 16 of EIAO 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.

1.6 Name and Telephone Number of Contact Person(s)

Mr. C.H. Chan

Architect

Leigh & Orange Ltd.

Tel: 2899 9322

Fax: 2571 9435

Email: hong.chan@leighorange.com

Mr. Fokker Ng

Senior Engineer

ARUP

Tel: 2908 4641

Fax: 2908 3970

Email: fokker.ng@arup.com

2 Outline of Planning and Implementation Programme

2.1 Outline of Project Planning

The proposed upgrading works will be carried out within the Works Site (approximately 180m²) (see **Figure 2**). Details of the proposed upgrading design are presented in construction drawings enclosed in **Appendix A**. Tentative location of proposed soil nails is shown in **Sketch Nos. SK01 and SK02 of Appendix A**.

A sequence of the proposed upgrading works, comprising major activities as described in **Table 2.1** below:-

Table 2.1 – Sequence of Proposed Slope Upgrading Works

Activity Reference	Activities	Details
Activity 1	Site possession and preparation	<ul style="list-style-type: none"> - Application to AMO for a permit granted by the Authority under section (6) of Antiquities and Monuments Ordinance (Cap. 53) - Consensus from Architectural Services Department (ArchSD), Antiquities and Monuments Office (AMO) and property occupant (i.e. King's College) for the types, numbers and actual locations of monitoring points. - Contractor should submit material submission to The Architect's approval for noise mitigation measures, e.g. noise enclosure, top enclosure, and Cantilever movable noise barrier. - Closely liaise with King's College, the occupant, is necessary with the programme of proposed works
Activity 2	Removal of existing masonry blocks	<ul style="list-style-type: none"> - Only the existing masonry blocks which are located at the proposed soil nail heads will be removed that masonry blocks temporary taken out should be properly protected, recorded, numbered and stored
Activity 3	Drilling of soil nails	<ul style="list-style-type: none"> - Form a 200mm dia. holes by concentric drilling method on the existing masonry wall with permanent casing, if necessary

Table 2.1 Cont'd

Activity Reference	Activities	Details
Activity 4	Installation of soil nails	<ul style="list-style-type: none"> - Insert steel bar and grouting - Closely liaise with King's College, the occupant, is necessary with the programme of grouting works
Activity 5	Construction of soil nail heads	<ul style="list-style-type: none"> - Removal parts of masonry walls behind masonry blocks facing for construction of soil nail heads with 400x400mm size
Activity 6	Reinstatement of masonry wall face	<ul style="list-style-type: none"> - Existing granite blocks of masonry wall will be reinstated to their original locations according to the record and numbering system during removal stage. If existing granite block is broken, same colour tone and granite block size for reinstatement should be used. The sample of the proposed new granite block should be submitted to AMO for comment and approval.
Activity 7	Construction of raking drain	<ul style="list-style-type: none"> - Form a 85mm hole by concentric drilling method and install raking drain (Type 3)
Activity 8	Site restoration and reinstatement	<ul style="list-style-type: none"> - Repair of existing surface drainage system, if any - No significant excavation works is involved
<p>* Prior to the installation of the permanent soil nails, 3 nos. of pull-out tests will be carried out on site to check the pull-out capacity and workmanship and integrity of installation of soil nails.</p>		

2.2 Tentative Project Programme

The construction period would last for 8 months. The project is scheduled to commence June 2018 and to be completed in early of 2019. The tentative programme of the proposed slope upgrading works is illustrated in **Table 2.2**.

Table 2.2 – Tentative Construction Programme

Activity Reference	Activities (Anticipated duration)	Year/Month							
		2018							2019
		6	7	8	9	10	11	12	1
Activity 1	Site possession and preparation	✓							
Activity 2	Removal of existing masonry blocks		✓	✓					
Activity 3	Drilling of soil nails		✓	✓	✓	✓	✓		
Activity 4	Installation of soil nails		✓	✓	✓	✓	✓		
Activity 5	Construction of soil nail heads					✓	✓	✓	
Activity 6	Reinstatement of masonry wall face							✓	✓
Activity 7	Construction of raking drain							✓	
Activity 8	Site restoration and reinstatement								✓

2.3 Interactions with other Projects

Based on the latest available information at the time of preparing this Project Profile, there would be no interactions with other projects during the slope upgrading works.

3 Major elements of the surrounding environment

3.1 General

The Works Area of the Project is located near a declared monument namely King's College. This section presents an outline of the major elements of the surrounding environment which might have an effect on the existing environmental condition of the Works Area and its vicinity. It also identifies the existing and planned sensitive receivers and sensitive parts of the natural environment that might be affected by the proposed Project.

The environmental assessments covering the areas in the vicinity of the Project site include noise, air quality, water quality, waste management, ecology, landscape and visual resources and cultural heritage.

3.2 Noise

The project is located in urban area which could be sensitive to noise, as shown in **Figure 1**.

The first layer of identified noise sensitive receivers (NSRs) facing the works areas were selected as the representative NSRs summarized in **Table 3.1**. **Figure 2** shows the locations of the representative NSRs. Their photographs are shown in **Appendix C**. Only the first layer of NSRs were selected for the assessment because they are closest to the works areas, thus indicating the worst-case scenario. The mitigation measures proposed based on the worst-case scenario should provide adequate protection for the other NSRs within the 300 m study area which are further away from the works areas, shielded from the works areas by the first layer of NSRs, and have no direct line of sight to the works areas. As informed by King's College, no examinations are held at North Wing and the closest examination room will be the East Wing of King's College which is NSR no. N9.

Table 3.1 – Summary of Representative Existing Noise Sensitive Receivers

NSR	Description	Distance from Site* (m)	Land Use
N1	King's College (North Wing)	0	Educational Institution
N2	The Summa	19	Residential
N3	Ling Yuen Sin Cannossian Kindergarten	13.5	Educational Institution
N4	Siu Tak Building	6.5	Residential
N5	Tsui Wah Building	13.5	Residential
N6	Silver Court	9	Residential
N7	Kensington Hill	6.5	Residential
N8	King's Hill	12.5	Residential
N9	King's College (East Wing)	9	Educational Institution
* Distance is the distance between notional source position and NSR			

Pedestrians along Western Street would potentially be impacted by the proposed construction works. No major noise source was identified in the vicinity of the Study Area apart from the road traffic along Western Street, Bonham Street and High Street. The ambient noise level is expected to be low to moderate.

3.3 Air Quality

The existing air quality near the proposed project site would be mainly contributed by emissions from vehicular traffic on nearby road networks. In the absence of in-situ monitoring data, reference is made to the annual average concentrations of major air pollutants measured at EPD's nearest monitoring stations (i.e. Central/Western Station). The annual average concentrations of respirable particulate matter (RSP/PM₁₀) and fine particulate matter (FSP/PM_{2.5}) measured at EPD's Central/ Western air quality monitoring station for the latest five years (2012 – 2016) are presented in Table 3.2. As shown in Table 3.2, the annual average concentrations of RSP and FSP complied with the respective AQOs of 50µg/m³ for RSP and 35µg/m³ for FSP.

Table 3.2 – Annual Average Concentrations of Air Pollutants at EPD's Central/ Western Air Quality Monitoring Station (2012-2014)

Pollutant	Annual Average Concentration, $\mu\text{g}/\text{m}^3$				
	Year 2012	Year 2013	Year 2014	Year 2015	Year 2016
RSP	46	49	44	39	32
FSP	29	33	28	26	22

Air Sensitive Receivers (ASRs) of interest are listed in **Table 3.3** and their locations are as shown in **Figure 2**. Their photographs are shown in **Appendix C**.

Table 3.3 – Summary of Representative Existing Air Sensitive Receivers

NSR	Description	Distance from Site* (m)	Land Use
A1	King's College (North Wing)	0	Educational Institution
A2	The Summa	6.5	Residential
A3	Ling Yuen Sin Cannossian Kindergarten	13.5	Educational Institution
A4	Siu Tak Building	9	Residential
A5	Tsui Wah Building	6.5	Residential
A6	Silver Court	12.5	Residential
A7	Kensington Hill	0	Residential
A8	King's Hill	6.5	Residential
A9	King's College (East Wing)	9	Educational Institution
* Distance is the distance between notional source position and ASR			

3.4 Water Quality

A 200mm half-round drainage channel lies along the wall toe which is connecting to an approximately 2.2m width step-channel running between Ling Yuet Sin Cannossian Kindergarten and Siu Tak Building. They have been identified as water sensitive receivers. The water sensitive receivers are shown in **Figure 2**.

3.5 Ecology

As the works site is located in urban area, potential ecological impacts is unlikely.

3.6 Landscape and Visual

Feature No. 11SW-A/R526 is a retaining wall located immediately below north wing of King's College. The wall surface is basically with masonry dressed blocks. Minor vegetation was noted along the mortar joints, which should be removed under routine maintenance. No tree is identified within the works area and project boundary for the Feature. Since no construction works would be carried out outside the project boundary and works area, all trees located within King's College would be preserved. Location plan and aerial views of the surrounding environment of the Works Area are shown in **Figure 1** and **Plates 1 to 7** respectively.

3.7 Cultural Heritage

The east, south and north wings of the school building together with parts of the retaining walls and boundary walls of King's College is a declared monument. Immediately above the wall crest is a three-storey north wing of King's College and a swimming pool. King's College is a declared monuments built in 1926. It is one of the six surviving pre-war government school buildings in Hong Kong.

The notable Neo-classical style features such as arched colonnades, colonnaded verandahs, rusticated quoins, moulded cornices and classical stone surrounds make it an interesting piece of heritage. For details, please refer to website below.

http://www.heritage.gov.hk/en/buildings/monuments_101.htm

Caritas Ling Yuet Sin Kindergarten which is located in the western side of King's College within is around 25m away from the Project Site is a Grade 3 historic building. The old two-storey building was built in 1893. It was a boarding school, called the First House, for the Eurasian children. In 1907, it became an orphanage and nursery. In 1949, Mr Lee Po Chun made a donation to build a new building for the boarding school with medical facilities. It was a four-storey building. It was called Ling Yuet Sin Children Nursery, with the name after his stepmother. In 1960, the nursery moved away and in 1968, it was changed to Ling Yuet Sin Cannossian Kindergarten. In 1990, it merged with the Sacred Heart Cannossian Kindergarten. In 1993, the kindergarten and the office moved to their new premises at Caine Road. The Caritas now occupies the buildings. The old two-storey building has a slanting roof and a balcony at the front. The new building is a three-storey building with flat roof.

In the 50m away from the southern side of King's College opposite to Bonham Road, the Exterior of Tang Chi Ngong Building of The University of Hong Kong is a declared monument. The building which was constructed in 1929 with a generous donation from Mr. Tang Chi-ngong, father of Sir Shiu-kin Tang, was opened as a School of Chinese in accordance with his wishes. It is a three-storey flat-roofed building with Shanghai plaster surfacing and was officially opened by Sir William Peel, the Governor of Hong Kong on 28 September 1931. It now houses the Jao Tsung-I Petite Ecole. For details, please refer to website below.

http://www.heritage.gov.hk/en/buildings/monuments_58.htm

No sites of archaeological interest were found within or nearby the Project area during the construction and operation phases.

3.7.1 Structural Condition Survey – Interim Report

Condition Survey based on visual inspections has been carried out to King's College from 25 to 27 January 2017 and the results of the condition survey has been detail discussed in Structural Condition Survey – Interim Report and the defect list with photos and locations included in **Appendix D**.

Finding of the Report are summarized below:

- 1) General condition of the red brick is fair with few significant damage or materials deterioration. Inconsistent brick colors identified from visual inspection suggest previous repair or the building works under different construction phases.
- 2) The white powdery efflorescence on brick surface in the semi-exposed corridor of South Wing facing the school garden is considered to be aesthetic.
- 3) The condition of other building materials, i.e. concrete, granite block and structural steel is considered to be good with no significant materials deterioration found.
- 4) Several cracks along the mortar joints with vegetation growth and water seepage were observed on the subject retaining wall.
- 5) Multiple cracks were observed on the brick boundary walls, as well as some internal walls in North Wing.
- 6) A series of cracks were identified on the brick columns, concrete slabs and brick walls around the interface area between the southern and northern portions of the building on west elevation from LG/F to 3/F in East Wing.
- 7) A brick boundary wall at the west of swimming pool, which is not a part of the monument, is considered to be in poor condition, with several wide cracks, loose bricks and surfaces spalling / erosion observed. A large tree with a network of roots was found growing over the wall.

4 Possible Impact on the Environment

4.1 General

Potential environmental impacts arise from the Project during construction and operations phases have been identified based on the preliminary project design information, as presented below.

4.2 Potential Environmental Impact During Construction Phase

4.2.1 Noise

Regarding the construction works plan, it is envisaged that construction works will be conducted during normal working hours (i.e. time between 0700 and 1900 on any day not being a general holiday (including Sunday) according to the preliminary construction programme. The working hours will be specified in the Contract Documents. In case of any construction works planned beyond normal working hours, it is the responsibility of the Contractor to ensure compliance with the Noise Control Ordinance (NCO) and the Technical Memoranda (TMs): Noise from Percussive Piling (PP-TM); Noise from Construction Work Other Than Percussive Piling (GW-TM); and Noise from Construction Work in Designated Areas (DA-TM). The Contractor will be required to submit Construction Noise Permit (CNP) application to the Noise Control Authority and abide by any conditions stated in the CNP, should one be issued.

During construction, noise will be generated from the vehicular visits for transportation of equipment and materials to the site as well as powered mechanical equipment (PME) being used. The noise impact from vehicular visits to the site is not considered significant as only up to 2 visits are expected per day, and therefore not assessed. To minimise noise disturbance to the sensitive receivers in the vicinity, it is also intended that mobilisation of heavy machinery would be avoided as far as practicable from 0700 to 0900 hours and from 1800 to 1900 hours unless appropriate noise mitigation measures are in place. The noisy construction works would be avoided from the examination seasons.

The use of powered mechanical equipment (PME) for the proposed slope upgrading works as mentioned above would be the main source of noise impact during the construction phase of the Project. Due to the limited areas for the slope improvement works and the limited areas of footpath between King's College and Silver Court, only one construction activity would be carried out at any one time. The items of PME that are likely to be required for the proposed works at the Works Area has been identified and these are listed in **Table B3-1 of Appendix B**. The Architect has confirmed the PME inventory (including % on-time) are being reasonable, feasible and practicable in the context of the construction programme.

Regarding the construction of designated projects, noise standard of day time (0700 to 1900) construction activities is refer to Table 1B of Annex 5 of Technical

Memorandum under EIAO. It applies to uses which rely on opened windows for ventilation. EIAO-TM Noise Criterion to each NSR is refer to **Table 4.1**. Construction noise levels at the representative NSRs were calculated following the assessment methodology outlined in the Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM) issued under the Control Ordinance (NCO) (Cap. 400). Sound power levels (SWLs) of the equipment were taken from Table 3 of the GW-TM. Where no SWL is provided from the GW-TM, reference was made to “Sound Power Levels of Other Commonly Used PME” and the “Quality PME” list documented by EPD, or other previous similar studies at other sites in Hong Kong. A positive 3 dB(A) facade correction was added to the predicted noise levels in order to account for the facade effect at each noise assessment point.

Following to the activities of the proposed works listed in **Table 2.1**, the noise impact assessment calculation is presented in **Appendix B** and the predicted noise levels of each Activity at each NSR during the slope upgrading works are shown in **Table B4 of Appendix B**. By considering the nature, extent and duration of the activity 8 which no PME would be adopted during construction phase, hence, the noise impact to the NSRs are considered limited and activity 8 is not included for noise impact assessment. Results of the predicted SPL at the NSRs are summarised in **Table 4.1**.

In addition, the Contractor is required no construction activities (refer to Activity ref. no. Activities 1 to 7 listed in **Table 2.1**) to be carried out during examination period. Therefore, predicted noise levels to King’s College during examination period is not being assessed in this report. Also, as informed by Ling Yuen Sin Cannossian Kindergarten (NSR no. N3), there is no specific examination dates in the kindergarten. Hence, the noise standard of day time construction activities for Ling Yuen Sin Cannossian Kindergarten (NSR no. N3) is conservatively considered as 65 dB(A) throughout entire construction period.

Table 4.1 – Range of Predicted Construction Noise Levels (Unmitigated Scenario)

NSR Ref.	Description	Predicted SPL (dB(A)) ⁽¹⁾	EIAO-TM Noise Criterion, dB(A) ⁽²⁾	Exceedance (Y/N)
N1	King’s College (North Wing)	84-102	70	Y
N2	The Summa	58-76	75	Y
N3	Ling Yuen Sin Cannossian Kindergarten	62-80	65	Y
N4	Siu Tak Building	68-86	75	Y
N5	Tsui Wah Building	62-80	75	Y
N6	Silver Court	65-83	75	Y
N7	Kensington Hill	68-86	75	Y
N8	King’s Hill	62-80	75	Y

Table 4.1 – Cont'd

NSR Ref.	Description	Predicted SPL (dB(A)) ⁽¹⁾	EIAO-TM Noise Criterion, dB(A) ⁽²⁾	Exceedance (Y/N)
N9	King's College (East Wing)	65-83	70	Y
<p>(1) Refer to Appendix B for the detailed assessment.</p> <p>(2) Table 1B of Annex 5 of Technical Memorandum under EIAO.</p> <p>Notes:</p> <ul style="list-style-type: none"> - No construction activities (refers to Activities 1 to 7 listed in Table 2.1) will be carried out during examination period of King's College (NSR nos. N1 & N9); - There is no specific examination period for Ling Yuen Sin Cannossian Kindergarten (NSR no. N3) and students may have activities held in the open-air space of the kindergarten, noise standard during entire construction period is conservatively adopting 65dB(A); and - Only one construction activity using PME will be carried out at any one time. 				

The result indicated that predicted noise levels at all NSRs under most of the construction periods will exceed the noise standard. Therefore, noise mitigation measures will be necessary to reduce the noise impact during these activities, as detailed in **Section 5**.

4.2.2 Air Quality

No major site formation or excavation works will be carried out for the Project. Soil-nailing is utilized as appropriate to upgrade the wall stability.

Given the small amount of spoil to be generated during soil nail drilling in the construction phase and the proposed works area is close to an existing road, construction of haul roads or installation of conveyor system will not be required. Since there are no major open excavation works, it is anticipated that the dust emission from the proposed works areas would be relatively insignificant.

Due to limited areas for the slope upgrading works and the limited areas of footpath between King's College and Silver Court, number of construction plant on site would also be limited such that gaseous emissions from the operation of construction plant should not be a concern and the dust impact would be low.

However, drilling operations for soil nailing works could generate dust, particularly during dry season. Dust could also be generated from the stockpiling of construction materials and waste. Therefore, it is important to ensure that sufficient dust control measures as required in the Air Pollution Control (Construction Dust) Regulation are implemented to alleviate any potential dust emission impact on the ASRs to acceptable levels. It is expected that with standard dust suppression measures, potential dust nuisance to the adjacent sensitive receivers will be acceptable and insignificant, and any temporary impacts to the walkers using the footpath will also be minimized. Proposed

preventive measures and good site practice on dust suppression discussed in **Section 5** will be implemented to reduce the impact as far as practicable.

The construction of the Project would not induce significant additional traffic to Western Street. The vehicle visits to the site for the Project will be as few as two per day, therefore the exhaust emission from the vehicles is considered insignificant. Air quality impact due to project-induced traffic emissions would be expected to be minor.

4.2.3 Water Quality

An existing 200mm half-round drainage channel lies along the wall toe which is connecting to an approximately 2.2m width step-channel running between Ling Yuet Sin Canossian Kindergarten and Siu Tak Building. Given that the small scale of slope upgrading works involving mainly soil nailing works, impact on water quality would be low. However, any uncontrolled discharge from the Works Area in could affect the water quality in the existing drainage system found within the Works Area. Site surface runoff and drainage may contain increased loads of suspended solids and contaminants.

Potential sources of pollution include runoff and erosion from exposed soil surfaces and stockpiles; release of grouting and cement materials during rainfall; wash water from dust suppression sprays; and fuel and lubricants from maintenance of construction vehicles and mechanical equipment. Sewage arising from the on-site construction workforce would also have the potential to cause water pollution if it is discharged directly into the nearby water bodies without any appropriate treatment.

4.2.4 Waste Management

The construction activities to be carried out for the Project would generate the following type of waste:

- Construction and demolition (C&D) materials: mainly comprising inert excavated materials (e.g. soil, broken concrete) generated from soil nailing works. A small quantity of non-inert C&D materials (C&D waste) that consist of timber, plastic and other solid waste would also be generated;
- General refuse: mainly consists of packaging waste from construction materials and food waste from onsite workers;
- Chemical waste: such as lubricating oils generated from maintenance of construction equipment and vehicles.

Since only some minor excavation will be required for the proposed slope upgrading works, the Project will not generate a large quantity of C&D materials. The volumes of excavated materials are estimated in **Table 4.2** below.

Table 4.2 – Estimated Quantities of Waste Materials Generated from the Project

Type of C&D Waste	Anticipated Source	Estimated Volume
Soil/ broken concrete	Drilling and grouting of soil nails	50m ³
Non-inert C&D materials (C&D waste)	Site clearance	<5m ³

The C&D materials would require disposal at the designated public fill reception facility and the non-inert material will be disposed to designated landfill managed by EPD. Given that a trip-ticket system is established for the disposal of the C&D materials, and that good site practices are adhered to, adverse environmental impacts and nuisance would not be anticipated.

The quantities of general refuse and chemical waste arising from the proposed works in the Works Area is expected to be insignificant. Recyclable materials such as metals, papers and plastics in the general refuse (and in the construction waste) shall be segregated for recycling.

Provided that the wastes generated from the construction works are handled, transported, recycled as far as possible, and disposed of in accordance with the good site practices (as recommended in **Section 5**), it is not expected that the proposed works will generate any adverse environmental impact or waste management implications.

4.2.5 Landscape and Visual

As Feature No. 11SW-A/R526 is a subvertical retaining wall. It is basically a concrete retaining wall with masonry dressed blocks facing. Soil nailing works is proposed to upgrade the slope to current geotechnical standards. The masonry blocks of existing retaining wall will be carefully removed during soil nail construction and reinstated after soil nail head construction.

During construction works, temporary working platforms and scaffolding will be erected within Works Area along the retaining wall for the installation of soil nailing works. Site hoarding will be erected along across the entrance of footpath between King's College and Silver Court. The Works Area will be surrounded by buildings and hoarding. Movable noise enclosure/ barriers will be erected for the use of PME. No trees is found within the works area and no tree felling works is required.

The construction activities are not sensitive to the Visually Sensitive Receivers due to the surrounded works area. Hence, no landscape and visual impact resulted.

4.2.6 Cultural Heritage

Feature No. 11SW-A/R526 is located at the north of King's College, a declared monument. It is basically a retaining wall. Soil nailing works are proposed to upgrade the slope feature up to the current geotechnical standards. The masonry blocks of existing retaining wall will be carefully removed during soil nail construction and reinstated after soil nail head construction. It is anticipated that the adverse impact on the appearance of the retaining wall should be insignificant and the appearance of the subject feature would not be altered after the masonry block reinstatement. As shown in Typical Details of Soil Nail in **Drawing No. 9AN03R/11SW-AR526/GE/05F**, existing masonry wall behind the masonry block at the soil nail head area of size 400 x 400mm would be removed for the construction of soil nail heads. Following the removal of existing masonry wall for the soil nail head area, the construction of the soil nail head will be carried out immediately. Hence, no adverse structural or visual impact to the subject feature. Grout loss problem in fill layer are anticipated. Also, the ground-borne vibration from the use of PME may indirectly impact the historic features mentioned in **Section 3.8** during construction. The vibration may cause the extension of existing cracks on the structures within the Monument. All cracks identified during site inspection are shown in **Appendix D**. However, in light of the overall healthy condition of the building structure, and with the implementation of the recommended mitigation measures mentioned in **Section 5.1.6** and good site practices, no adverse impact on the cultural heritage from the Project is envisaged.

As mentioned in **Section 3.8**, Caritas Ling Yuet Sin Kindergarten, a Grade 3 historic building, and the Exterior of Tang Chi Ngong Building of The University of Hong Kong, a declared monument, are located in the vicinity of the Project Site. By reviewing the scope of proposed slope upgrading works and the distance away from the proposed works site, no adverse impact to both historical buildings are envisaged.

As mentioned in **Section 3.7**, no sites of archaeological interest were found within or nearby the Project area. Hence, there is no potential archaeological impact arising from the Project during the construction and operation phases.

4.3 Potential Environmental Impact During Operation Phase

4.3.1 General

Following the slope upgrading works, there will be no activities related to the Project during operation phase. Therefore, there will be no adverse environmental impact on noise, air quality, water quality and waste to the sensitive receivers during the operation phase.

4.3.2 Landscape and Visual

As mentioned in **Section 4.2.5**, the masonry blocks of existing retaining wall will be reinstated after soil nail head construction. Hence, potential environmental impact during operation phase is negligible.

4.3.3 Cultural Heritage

As mentioned in **Section 4.2.6**, following the slope upgrading works, no structural or visual impact will be made to King's College. Hence, no potential environmental impact during operation phase.

Also, no adverse structural or visual impact will be made to Caritas Ling Yuet Sin Kindergarten and the Exterior of Tang Chi Ngong Building of The University of Hong Kong, hence, no potential environmental impact is anticipated during operation phase.

In addition, following the **Section 4.2.6**, there is no potential archaeological impact arising from the Project during the operation phase.

5 Environmental Protection Measures to be incorporated in the Design and any Further Environmental Implications

During the construction work, the requirements specified in EPD's "Recommended Pollution Control Clauses for Construction Contracts" will be followed. This document has covered areas of noise control, air pollution control, water pollution control and waste management. Specific control requirements during construction are reviewed and presented below.

5.1 Environmental Protection Measures

5.1.1 Noise

As revealed from the quantitative noise impact assessment presented in **Section 4.2.1**, while the proposed works at the Works Area could be potential construction noise impact on the nearby NSRs given their proximity to the Site. Therefore, it will be important to ensure that sufficient noise mitigation measures are implemented to alleviate the predicted noise impact. The recommended construction noise mitigation measures are described below.

(a) Good Site Practices

Good site practices will considerably reduce any potential impact from the construction works on NSRs, including nearby education institutes, residential buildings and pedestrian along Western Street. The following measures shall be implemented during the construction phase for the proposed works in the Works Area:

- (1) Before commencement of any construction works, the contractor shall submit to the Project Engineer for approval the method of work, including the PME and sound-reducing measures intended to be used;
- (2) The number of PME operating shall be kept to a minimum. Only well-maintained plant shall be used;
- (3) Regular maintenance shall be provided to all plant and equipment;
- (4) Equipment that may be in intermittent use shall be shut down or throttled down to a minimum between work periods;
- (5) Silencer, on the construction equipment to reduce noise without impairing machine efficiency, quiet plant and/or purpose-built Cantilever movable noise barriers shall be used as necessary;
- (6) No construction activities would be allowed during 7pm to 7am.

(b) Review of construction method

To reduce the noise impact arising from the construction works, the proposed construction method is reviewed. Concentric drilling (coring method) is proposed to the drilling works in order to reduce the ground-borne vibration and noise generated during drilling. Hence, the drilling rig is replaced by coring machine in the noise impact assessment under mitigated scenario and air compressor is no longer found necessary. Hilti Diamond Coring Tool DD 200, see **Appendix B**, is suggested for the hole making process (i.e. Activity 3 – Drilling of soil nails) and the sound power level recommended by the manufactory is adopted for noise impact assessment. The contractor may propose alternative coring machine with equivalent or lower sound power level for Architect's approval prior to the commencement of works.

In addition, by reviewing the feasibility of the use of concrete lorry mixer for the soil nail heads construction at Western Street which is a busy road not favourable to loading and unloading and the amount of concrete required for every activity of soil nail heads construction, mixing concrete manually is hence proposed. Therefore, concrete lorry mixer is not included in the noise impact assessment under mitigated scenario.

The above suggested construction methods are not the only methods that reduce the noise impact to public, the Contractor may propose alternatives with similar goals during construction works for the approval from the Architect.

(c) Use of Quiet PME

Use of quiet PME is recommended for reducing the excessive construction noise predicted at the affected NSRs. The items of PME that are recommended to use for the proposed works which have lower sound powered levels are listed in **Table B3-2 of Appendix B**.

The various types of PME have been identified based on the inventory on Quality Powered Mechanical Equipment (QPME) established by EPD. No QPME have been selected for the purpose for the quantitative assessment due to the proposed construction method. However, the Contractor is recommended to use QPME or other types of PME, which have the same or lower total sound power levels (SWLs), to meet its needs. The amended construction method proposed by the Contractor should be reviewed and approved by the Architect prior to the commencement of the construction works.

(d) Use of Enclosure/ Temporary Noise Barrier

Use of cantilever movable noise barrier, noise enclosure and silencer are recommended to further reduce the construction noise impacts at the affected NSRs. In order to minimize adverse effects to the nearby NSRs, noise enclosure is recommended to provide for placing machineries. Coring machine and breaker shall be operated behind cantilever movable noise barriers while grout mixer and grout pump shall be operated in noise enclosure. In general, cantilever movable noise barrier can achieve a 5dB(A)

reduction for movable PME, 10dB(A) reduction for stationary PME while noise enclosure can achieve a 15dB(A) reduction for PME depending on the design of the Cantilever movable noise barrier and noise enclosure. Noise barrier and noise enclosure shall be made of acoustic barrier material with a minimum of 10mm thick plywood (or 1mm thick steel outer skin) and a minimum of 50mm thick sound absorbing lining. The surface density of barrier materials shall be at least 10kg/m^2 to achieve maximum screening effect. The contractor shall be responsible for the design and actual position of the Cantilever movable noise barriers with due consideration given to the position and size of the PME, and the requirement of intercepting the line-of-sight from the NSRs to the PME, as well as ensuring that the barriers should have no opening and gap. Noise insulating fabric is proposed for coring machine and a noise reduction of 10dB(A) is expected.

In order to further reduce the noise impact to adjacent noise sensitive receivers, an additional top-enclosed noise barrier around 5 - 10 m long is proposed to cover the location where construction works are being carried out. The extent of the top-enclosed noise barrier should be reviewed continuously by the Architect to ensure it is able to cover the construction works using PME and the PME itself. A noise reduction of 10dB(A) is expected.

The indicative design of aforesaid mentioned enclosure/ temporary noise barrier is provided in **Appendix B**. The environmental protection measures for various types of PME assumed in the construction noise assessment is proposed in **Table 5.1**.

Table 5.1 – Proposed Mitigation Measures for Different PMEs

PME	Proposed Mitigation Measures	Reduction, dB(A) ¹
Welding Set	Top-enclosed noise barrier	10
Breaker, Hand-held, mass 10kg and <20kg	Cantilever movable noise barrier & Top-enclosed noise barrier	5 + 10 = 15
Hilti Diamond Coring Tool DD200 or similar	Cantilever movable noise barrier & Top-enclosed noise barrier	5 + 10 = 15
Grout mixer	Noise Enclosure & Top-enclosed noise barrier	15 + 10 = 25
Grout pump	Noise Enclosure & Top-enclosed noise barrier	15 + 10 = 25
Poker, vibratory, hand-held (electric)	Cantilever movable noise barrier & Top-enclosed noise barrier	5 + 10 = 15
Grinder, hand-held (electric)	Cantilever movable noise barrier & Top-enclosed noise barrier	5 + 10 = 15
Note:		

PME	Proposed Mitigation Measures	Reduction, dB(A) ¹
The noise reductions of typical cantilever movable noise barrier and noise enclosure are referred to EIAO Guidance Note No. 9/2010, Preparation of Construction Noise Impact Assessment under the Environmental Impact Assessment Ordinance, http://www.epd.gov.hk/eia/hb/materials/GN9.pdf		

The noise enclosure for PME should either be provided with acoustic door for access purpose which should be kept closed during the construction works or should be designed with no direct line of sight from the open side to the NSRs so that all NSRs will be adequately protected throughout construction period.

(e) Make good use of power supply provided by King's College

As all the PME required for the proposed works are electric reliable, generator is required for every activity throughout the entire construction period. To reduce the noise impact arising from the works, alternatives of power supply for the proposed works are sought. As confirmed by King's College, the proposed slope upgrading works can make good use of existing power supply facilities from King's College. Hence, generator is excluded from the noise impact assessment in the mitigated scenario.

Prior to the commencement of construction works, the condition of the power supply facilities of King's College should be checked to avoid electric overloading of and any disturbances to the power supply to the King's College is not allowed. If there is any damages of the power supply facilities of King's College arising from the use the power supply for the proposed works, the Contractor is responsible for the repair. Also, the Contractor should provide continuous checking of the power supply facilities of King's College. Hence, operation of King's College should not be affected in the aspect of power supply during the construction period and continuous liaison with King's College is required throughout the planning stage and construction stage.

(f) Review of construction period during examination period of King's College

The Liaison Officer, as designated by ArchSD, should closely liaise with King's College and review the construction period during the examination period. Construction activities using PME (refers to Activities 1 to 7 listed in Table 2.1) will not be carried out during the examination period.

The Architect has confirmed that the PME inventory (including % on-time) and the proposed noise mitigation measures under the mitigated scenario are being reasonable, feasible and practicable in the context of the construction programme. With implementation of the recommended noise mitigation measures mentioned above, **Table 5.2** set out the range of predicted noise levels under the mitigation scenario at the same representative NSRs for the construction works at the Works Area. Detailed assessment results are presented in **Appendix B**. As shown, all the above measures could help screening out the construction noise impact for about 10 – 25 dB(A). The predicted construction noise levels at the representative NSRs

with mitigation measures are in the range of 35 – 54 dB(A) for residential and 39 – 70 dB(A) for schools which are below the criteria of 75 dB(A) for residential and 70 dB(A) (non-exam period) for school respectively. Hence, no adverse construction noise impacts on nearby sensitive receivers are anticipated.

Referring to tentative project programme in **Section 2.2**, the proposed construction is scheduled and critical activities will commence after the Mock Exam for S.6 Students of King's College. Closely liaise with King's College is required during both tendering stage and before the commencement of the works such that no construction works using PME will be carried out during examination period of King's College.

Table 5.2 –Range of Predicted Construction Noise Levels (Mitigated Scenario)

NSR Ref.	Description	Predicted SPL (dB(A)) ⁽¹⁾	EIAO-TM Noise Criterion, dB(A) ⁽²⁾	Exceedance (Y/N)
N1	King's College (North Wing)	61-70	70	N
N2	The Summa	35-44	75	N
N3	Ling Yuen Sin Cannossian Kindergarten	39-48	65	N
N4	Siu Tak Building	45-54	75	N
N5	Tsui Wah Building	39-48	75	N
N6	Silver Court	42-51	75	N
N7	Kensington Hill	45-54	75	N
N8	King's Hill	39-48	75	N
N9	King's College (East Wing)	42-51	70	N
<p>(1) Refer to Appendix B for the detailed assessment</p> <p>(2) Table 1B of Annex 5 of Technical Memorandum under EIAO</p> <p>Notes:</p> <ul style="list-style-type: none"> - No construction activities (Activities 1 to 7 listed in Table 2.1) will be carried out during examination period of King's College (NSR nos. N1 & N9); - There is no specific examination period for Ling Yuen Sin Cannossian Kindergarten (NSR no. N3) and students may have activities held in the open-air space of the kindergarten, noise standard during entire construction period is conservatively adopting 65dB(A); and - Only one construction activity using PME will be carried out at any one time. 				

As advised by King's College, air-conditioners are provided and the campus does not rely on opened windows for ventilation in summer (around July to September). Hence, the construction noise impact would be further minimized.

Table 5.3 below summarized the noise mitigation measures proposed during construction stage in this project.

Table 5.3 – Summary of proposed noise mitigation measures during construction stage

Period (for King's College)	EIAO TM- Criteria	Predicted SPL (without Mitigation Measures)	Predicted SPL (with Mitigation Measures)	Noisy Activities (Yes/No) The major activities involved	Mitigation Measures
Summer Holidays (tentative period: Jul - Aug 2018)	School: 70	School: 66-102	School: 39-70	Yes (Activities 1 to 7, refers to Table 2.1)	<ul style="list-style-type: none"> - Good Site Practices - Review of construction method - Use of enclosure/temporary noise barrier - Avoid using generator, make use of the power supply provided by King's College
Winter Holidays (tentative period: Dec 2018 - Jan 2019)	Residential: 75	Residential: 65-102	Residential: 47-69		
School Days (Non- Exam period) (tentative period: Sep 2018)	School: 70	School: 80-102	School: 46-68	Yes (Activities 3 to 4, refers to Table 2.1)	<ul style="list-style-type: none"> - Good Site Practices - Review of construction method - Use of enclosure/temporary noise barrier - Avoid using generator, make use of the power supply provided by King's College
	Residential: 75	Residential: 76-86	Residential: 42-52		
School Days (Exam Period) (tentative period: Oct 2018 - Jan 2019)	School: 65	N/A*	N/A*	No and only activities without using PME will be carried out (refers to Activity 8 listed in Table 2.1)	<ul style="list-style-type: none"> - No construction works using PME will be carried out during examination period of King's College
* No construction works using PME will be carried out during examination period of King's College.					

There will be no activities relating to the Project during operation phase, therefore mitigation measures are not required in such phase.

5.1.2 Air Quality

The dust control requirement stipulated in the Air Pollution Control (Construction Dust) Regulation shall be implemented to control fugitive dust emission from the Works Area during soil nailing works. Good site practice should be employed to minimise the dust generated as far as practicable. Dust control measures include:

- (a) Erection of hoarding of not less than 2.4m high from ground level along the Works Area that adjoins a road or other area accessible to the public, where appropriate;
- (b) All dusty materials shall be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet;
- (c) Cover stockpile of dusty materials by impervious sheeting or sprayed with water so as to maintain the entire surface wet; and
- (d) Any debris shall be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the 3 sides.

Despite the impact on air quality due to the additional road traffic for the slope upgrading works is assessed to be insignificant, we will encourage the contractor to minimise vehicle trips as far as practicable by appropriate planning to maximise the utilisation of each trip to the Works Area by the vehicle.

There will be no activities relating to the Project during operation phases, therefore mitigation measures are not required in such phases.

5.1.3 Water Quality

The Contractor shall comply with the Water Pollution Control Ordinance (WPCO) and its subsidiary regulations. Site runoff shall be controlled in accordance with the guidelines stipulated in EPD's Professional Persons Environmental Consultative Committee Practice Note (ProPECC PN1/94) "Construction Site Drainage".

- (a) All surface runoff from the Works Area generated from construction works, dust control and vehicle washing etc, shall be collected and directed towards de-silting facilities for treatment before discharging into stormwater drains or natural streams.
- (b) Channels, earth bounds or sand bag barriers shall be provided onsite to properly direct storm water to the silt removal facilities provided.
- (c) De-silting facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.
- (d) Perimeter channels should be provided at site boundaries of Works Area where necessary to intercept storm runoff from outside the works Area.
- (e) No excavated material, silt, debris, rubbish, cement slurry or construction waste shall be deposited into natural stream.
- (f) All effluent discharges shall comply with the standard as stipulated in the WPCO Technical Memorandum (WPCO-TM).
- (g) Drip trays with oil absorbent for stationary plants and chemical drums shall be deployed to avoid leakage.

- (h) Open stockpiles of construction materials should be avoided as far as practicable or where unavoidable, should be covered with impervious sheeting such as tarpaulin or fabric during rainstorms.
- (i) All site discharges shall comply with the terms and conditions of a valid discharge license issued by EPD.
- (j) Portable chemical toilet facilities shall be provided on site and a licensed water collector will be appointed by the Contractor for regular collection of foul water.
- (k) Contractor will be required to carry out regular site cleaning and tidying throughout the construction period. Regular environmental inspections will be carried out during the construction period to ensure the site cleanliness and tidiness.
- (l) It is recommended that tool box talk on site run-off control be carried out by the Contractor to increase the awareness of the workers especially before and after rainstorms.

The measures mentioned above should be implemented to ensure all construction runoff and effluents discharges during construction phase are well controlled so as to minimise water quality impact arising from the construction of the project.

Impact on water during operation phase is avoided by implementing the design as detailed under Construction phase provided above. Furthermore, there will be no activities relating to the Project during operation phases, therefore mitigation measures are not required in such phases.

5.1.4 Waste Management

The Contractor shall comply with the Waste Disposal Ordinance and its subsidiary regulations and the Waste Disposal (Chemical Waste) (General) Regulation. Provided that good site practices are strictly followed, adverse environmental impacts related to waste management are not expected from the Works Area. The following good waste management practices are recommended:

- (a) The Contractor shall submit to the Project Engineer for approval a waste management plan with appropriate mitigation measures as a part of the Environmental Management Plan in accordance with ETWB TC(W) No. 19/2005 “Environmental Management on Construction Sites”;
- (b) The possible reuse of waste materials onsite shall be investigated and exhausted by the Contractor prior to consideration of treatment or disposal off-site;
- (c) The Contractor shall be responsible for identifying what materials could be reused or recycled, where onsite or offsite. For offsite reuse or recycling, the contractor shall arrange for the collection of the recyclable materials;
- (d) Surplus C&D materials (inert and non-inert) generated from the proposed works requiring disposal shall be properly transported to the designated disposal facilities managed by CEDD and EPD. In order to monitor the proper

disposal of C&D materials and to control fly-tipping, a trip-ticket system shall be implemented by the Contractor and monitored as a standard item in the relevant technical audit, in accordance with the requirements specified in DWVB TC(W) No. 6/2010 trip Ticket System for Disposal of Construction & Demolition Materials;

- (e) The Contractor shall register as a Chemical Waste Producer if chemical wastes such as spent lubricants are generated onsite. All chemical waste shall be properly handled, stored, labelled, packaged and collected in accordance with the requirements of the Waste Disposal (Chemical Waste)(General) Regulation;
- (f) The Contractor shall ensure that a sufficient number of covered bins are provided onsite for containment of general refuse. These bins shall be emptied on a daily basis and collected waste shall be disposed of properly;
- (g) The Contractor shall not permit any sewage, waste water or effluent containing sand, cement, silt or any other suspended or dissolved material to flow from the Works Area onto any adjoining land; and
- (h) The Contractor shall provide tool box talks to workers on relevant topics including site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling.

There will be no activities relating to the Project during operation phases, therefore environmental mitigation measures are not required in such phases.

5.1.5 Landscape and Visual

As mentioned in **Section 4.2.5**, the Works Area will be surrounded by buildings and hoarding. No trees vegetation is found within the works area. Hence, no particular mitigation measures is proposed in this aspect.

In order to preserve the appearance of existing masonry wall of Feature No. 11SW-A/R526, those masonry blocks which are being removed for the construction of soil nail heads will be preserved and protected, recorded, numbered and stored properly after they are temporarily removed from the wall so that the existing masonry block could be reinstated to its original location after the slope upgrading works. The removed masonry blocks should be stored to locations with proper shelter within the Works Area and up to the satisfaction of The Architect.

5.1.6 Cultural Heritage

As mentioned in **Section 4.2.6**, grout loss problem and vibration caused by drilling works for soil nails are anticipated during construction of soil nail works. To minimise vibration and impact to King's College, the proposed soil nails will be drilled by concentric drilling method (coring method) with permanent steel casing at the fill layer to avoid collapse of drillholes and against potential grout loss problem.

Photographic condition survey at the existing components of the Monument should be conducted prior to the commencement of the construction works to inspect the structural integrity of King's College. Protective and monitoring measures shall be provided to the structure of King's College subject to results of condition survey. Should any critical problems be identified, appropriate mitigation measures, such as amendments on the construction methods, should be considered. Details of the condition survey refer to **Drawing Nos. 9AN03R/11SW-AR526/GE/01E & 02G** enclosed in **Appendix A**. Tarpaulin curtain should be provided for the temporary working scaffolding during the construction phase.

Ground settlement markers, tilting monitoring markers and vibration monitoring points should be installed around the construction site before the commencement of the construction works round the site and readings should be obtained at a daily interval.

Referring to Section 7.2.6 of Code of Practice (CoP) for Foundations 2017 (BD, 2017), stringent requirements on vibration control are imposed, apart from general buildings, in order to protect historic buildings or structures.

Hence, the vibration of the proposed slope upgrading works should not cause a peak particle velocity of ground movement exceeding the limits of ppv given in Table 7.3 of the aforesaid CoP with building condition of vibration-sensitive or dilapidated buildings.

The settlement/ tilting and tell-tale monitoring discs should be glue-fixed or any appropriate method which would not cause irreversible damage to historic building. Consensus from Architectural Services Department (ArchSD), Antiquities and Monuments Office (AMO) and property occupant (i.e. King's College) should be sought for the types, numbers and actual locations of such monitoring points before installation. Seismographs (similar to the one as shown in **Figure 5.1**) should be adopted for vibration monitoring. The locations of the monitoring points should also avoid any architectural and decorative features of the site. In order to minimise the potential damages to the building structure and the masonry walls, the building settlement and ground settlement, as well as ground-borne vibration and tilting caused by the work should follow the limiting criteria in **Table 5.4**. Details of the monitoring refer to **Drawing No. 9AN03R/11SW-AR526/GE/02G** enclosed in **Appendix A**. The indicative locations of the proposed ground settlement markers, building settlement markers and utility settlement marker are shown in **Drawing No. 9AN03R/11SW-AR526/GE/03E** enclosed in **Appendix A**.



Figure 5.1 – Seismograph for vibration monitoring

Table 5.4 – Limiting Criteria for Settlement, Tilting, Tell-tale and Vibration Level Monitoring During Construction

Monitoring Type	Alert Level	Alarm Level	Action Level
Building/Ground Settlement Marker	6mm	8mm	10mm
Building Tilting Marker	1/2000	1/1500	1/1000
Tell-tale	5mm	7mm	10mm
Building Vibration in PPV on the G/F	2mm/s	2.5mm/s	3mm/s

The monitoring readings should be taken by the contractor's staff. If there are any readings exceeding the proposed limiting criteria, staff of the Consultant should be notified as soon as practicable. The respective actions if monitoring results exceed the proposed limiting criteria as stipulated in the following section should be implemented. The monitoring readings should be checked by Independent Environmental Checker (IEC) for any non-compliance in bi-weekly basis.

If any monitoring results exceed the alert level, the monitoring frequency for the affected area should be increased to twice a day. More monitoring points should be added as necessary. If the alarm level is exceeded, design of the construction should be amended to reduce the settlement of the adjacent ground and building. All works should be stopped, and the design and construction method should be reviewed if the action level is reached. Remediation should be implemented before resuming the works.

Application to AMO for a permit granted by the Authority under section (6) of Antiquities and Monuments Ordinance (Cap. 53) before the commencement of the proposed works would be required. The proposed works details of the tarpaulin, protective measures and photo montage should be provided to support the application. Photos showing the condition of affected areas before and after the works should also be provided to AMO for their record. The erection of hoarding, scaffolding and working platform should avoid causing any damages to the existing historic fabric of the declared monument. The protective measures, method statement of erection of hoarding and working platform should be submitted to AMO, Architectural Services Department and King's College for consideration and comment before the commencement of work. Likewise, King's College, the occupant of the Monument, should be liaised with the proposed schedule of works and site arrangement to minimise the inconvenience which may be caused to the daily operation of King's College.

Portable equipment, e.g. hand-held breakers, should be adopted for dismantling of masonry facing at Feature No. 11SW-A/R526. Drilling process should be operated manually and under full-time supervision of experienced works supervisor, who possesses at least two years of geotechnical experience, at least one year experience in site supervision of soil nailing and wall thickening and approved by Geotechnical Engineering Office of Civil Engineering and Development Department.

As mentioned in **Section 5.1.5**, those masonry blocks which are being removed for the construction of soil nail heads will be preserved and protected, recorded,

numbered and stored properly after they are temporarily removed from the wall so that the existing masonry block could be reinstated to its original location after the slope upgrading works.

During construction, the remaining masonry blocks on the masonry wall face should be covered by polythene sheet to avoid possible grout outflow and for easy removal of excessive grout.

Non-excavation type of hoarding shall be adopted during the construction phase in order to avoid damage to main building during construction of hoardings. Protective measures to existing monument building should be submitted with regard to the results and recommendations of condition survey which should be carried out upon commencement of works.

5.2 Environmental Monitoring and Audit

With the implementation of recommended mitigation measures, no adverse environmental impacts are anticipated. Environmental site audit should be conducted by Independent Environmental Checker (IEC) during the construction phase to ensure the recommended mitigation measures be implemented properly and confirms full compliance through monthly report to EPD during and upon completion of the construction work.

Based on the monitoring procedure, some key information are suggested to the monthly EM&A report are listed in the following.

- The correspondence between the Liaison Officer and the Public/ King's College;
- to ensure that the conservation aspects of the Project are carried out to the highest possible standard, with the co-operation of the Heritage Consultant;
- to ensure that the general aspects of environmental quality will comply with the project requirements;
- to ensure that precautionary measures will be implemented to protect the King's College from damage under the supervision of the Heritage Consultant;
- to supervise the Contractor to ensure that the requirements in the Project Profile are fully complied with;
- to instruct the Contractor when action is required to reduce or prevent any impacts;
- to effectively and speedily deal with any complaints on environmental performance; and
- to prepare a summary of the environmental performance of the Contractor on completion of the Project.

Based on the monitoring procedures mentioned above and those environmental protection measures proposed, environmental monitoring is hence considered necessary by the Contractor during the construction stage. Some key informations are suggested to the monthly EM&A report are listed in the followings.

- Status of environmental licences, notification and permits
- Implementation status of environmental mitigation measures
- Monitoring results

Waste management

- Ensure sorting to be carried out for C&D materials and wastes
- Receptacles are available on site
- Record of inert C&D material generated and reused, record of general refuse generated, record of collection from recycling contractor and record of disposal

Noise management

- Ensure noise mitigation measures mentioned in this Project Profile has been implemented
- Noise monitoring to be conducted every week at Noise Sensitive Receivers in the first layer. The tentative locations of the noise monitoring checkpoints (6 nos.) is shown in **Figure 3**. The locations will be confirmed on site by the Architect

Cultural heritage management

- Ensure the readings of ground settlement, tilting monitoring and vibration monitoring to be obtained at a daily interval and fully complied with the standard as in this Project Profile

Wastewater management

- Ensure all wastewater generated from construction activities to be collected and pumped to the storage tanks for reuse on site
- Ensure no wastewater to be discharged out of the site
- Environmental site inspection and audit
 - Joint weekly site inspections to be carried out by IEC together with the Engineer and the Contractor during the construction stage
 - IEC Site Audit Checklists to be submitted to EPD at monthly interval. A sample of the checklists is enclosed in **Appendix E**. Details of the checklists to be updated and reviewed by the Architect during the construction stage
 - Summarize any deficiencies observed during site audits or particular issues drawn to the Contractor's attention or require rectification

- Environmental non-conformance
 - Summarize the environmental non-compliance or complaint recorded during the construction stage
 - Summarize the environmental related prosecution or notification of summons received during the construction stage

5.3 Severity Distribution and Duration of Environmental Effects

No adverse residual environmental impacts are anticipated with the implementation of the recommended mitigation measures.

5.4 Further Implications

No further environmental implications are anticipated for both the construction and operational phases of the Project.

6 Use of Previously Approved Project Profiles

Relevant Project Profiles submitted for application for permission to apply directly for an Environmental Permit (EP) are listed below:

Agreement No. CE 24/2012(GE) Landslip Prevention and Mitigation Works at Feature Nos. 11SW-A/R94 and 11SW-A/FR218, Caine Lane, Mid-Levels [submitted to EPD on 20 June 2016 (Application No. DIR-250/2016) and the EP was granted on 26 July 2016 (EP No. 520/2016)]

7 Public Relations

As mentioned in **Section 5**, several environmental mitigation measures are proposed in order to provide reduce the environmental impact to the adjacent facilities and users in areas of noise control, air pollution control, water pollution control and waste management. And the expected environmental impact under mitigated scenario is predicted within the current environmental regulations. Apart from the environmental monitoring and audit mentioned in **Section 5.2**, ArchSD shall designate a Liaison Officer as a contact point to handle enquires and complaints on environmental issues related to the Project during the construction of the Project, and set up and operate a designated hotline during the construction of the Project to address related concerns and enquiries. The hotline will be displayed outside the hoarding that it provides an additional channel to allow public to understand the proposed works and reflect any environmental issues arising from the site.

The Contractor should always review the environmental impact to public and have immediate review of construction method and report to the Architect if there are any queries from public received. Proper and immediate response to querists can be provided.

Therefore, the contractor should always implement good site practice and maintain good relationship with adjacent facilities

8 Conclusion

The potential environmental impacts arising from the Project have been assessed, including air quality, noise, water quality, waste management, ecology, cultural heritage, and landscape and visual aspects.

Based on the findings of the assessed aspects with proper implementation of the recommended mitigation measures given in **Section 5**, no adverse environmental impact is anticipated during the construction phase of the Project.

The potential environmental impacts arising from the construction of the Project and proposed mitigation measures are summarized in **Table 8.1**.

Table 8.1 – Summary of the Potential Environmental Impacts and Proposed Mitigation Measures

Project Impacts	Proposed Mitigation Measures
<u>Noise</u>	
<p>Construction Phase:</p> <p>Noise generated from the construction activities</p>	<p>Construction Phase:</p> <ul style="list-style-type: none"> • Implement good site practices • Use of noise enclosure and temporary noise barrier • Use quiet construction method, such as using coring method to replace drilling method that coring machine replaces both drilling rig and air compressor • Make use of power supply provided by King's College to avoid the use of generator • No noisy construction works (refers to Activities 1 to 7 listed in Table 2.1) during examination period of King's College
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>
<u>Air Quality</u>	
<p>Construction Phase:</p> <p>Dust generated from the construction activities and stockpiling of soil</p>	<p>Construction Phase:</p> <ul style="list-style-type: none"> • Dust suppression measures, • Cover stockpile • Implement good site practice
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>

Table 8.1 – Cont'd

Project Impacts	Proposed Mitigation Measures
<u>Water Quality</u>	
<p>Construction Phase:</p> <p>Potential site runoff to an existing 2.2m width stepped-channel running between Ling Yuet Sin Canossian Kindergarten and Siu Tak Building</p>	<p>Construction Phase:</p> <ul style="list-style-type: none"> • Implement good site practice to control runoff from Works Area
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>
<u>Waste Management</u>	
<p>Construction Phase:</p> <p>50m³ of C&D waste and less than 5m³ of C&D materials are estimated to be generated from the Project</p>	<p>Construction Phase:</p> <ul style="list-style-type: none"> • On-site sorting of waste • Implement trip ticket system • Implement waste management plan
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>
<u>Ecology</u>	
<p>Construction Phase:</p> <p>No impact</p>	<p>Construction Phase:</p> <p>No impact</p>
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>

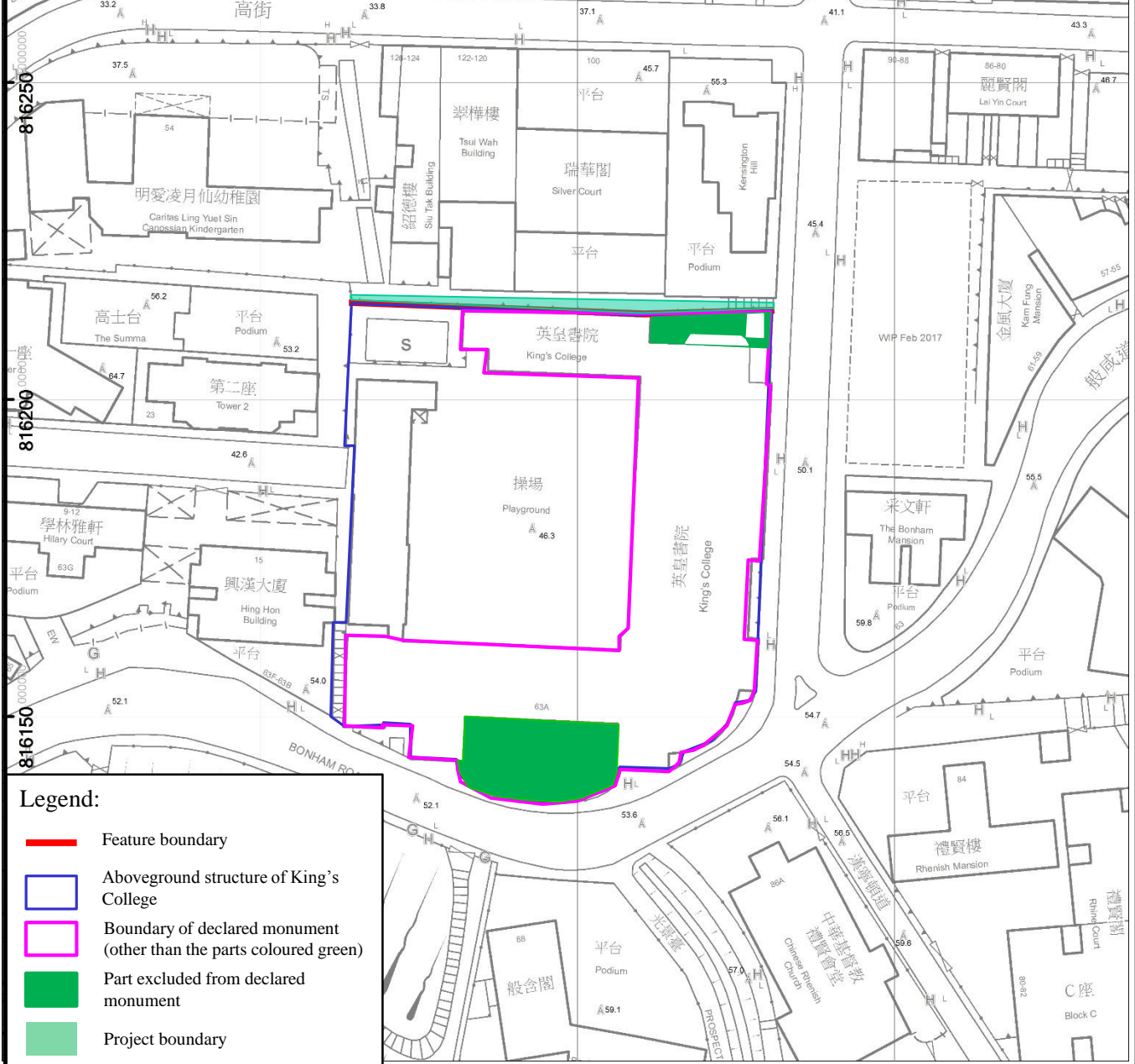
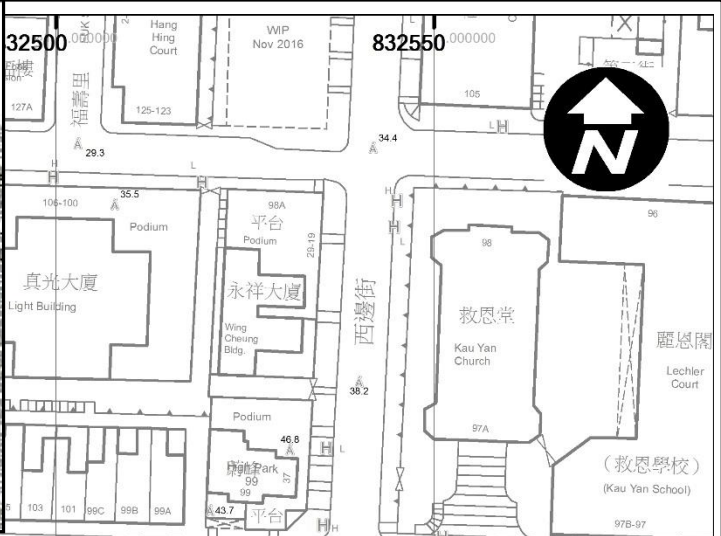
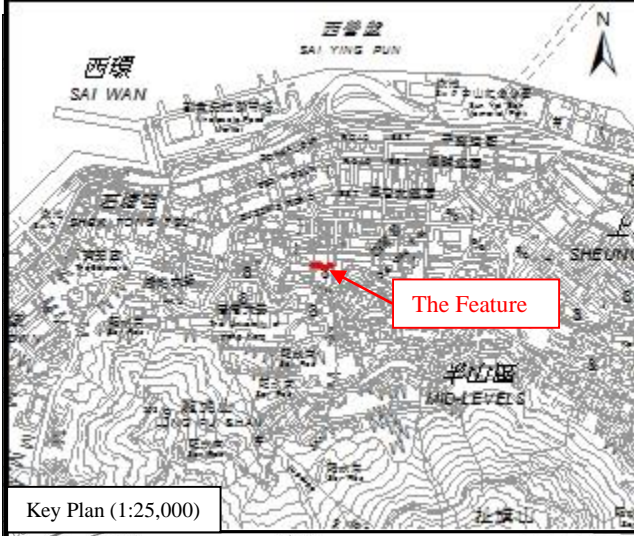
Table 8.1 – Cont'd

Project Impacts	Proposed Mitigation Measures
<u>Landscape & Visual</u>	
<p>Construction Phase:</p> <p>No impact</p>	<p>Construction Phase:</p> <p>No impact</p>
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>
<u>Cultural Heritage</u>	
<p>Construction Phase:</p> <p>The subjected retaining wall is included as declared monument with King's College. Masonry blocks of the wall will be temporarily removed prior to soil nail installation works. Grout loss problem and Ground-borne vibration from the use of PME may indirectly impact the historic features, such as causing extension of existing cracks on the structures.</p> <p>Within 50m of the project site, two historic buildings were found, i.e. Caritas Ling Yuet Sin Kindergarten and the exterior of Tang Chi Ngong Building, The University of Hong Kong.</p>	<p>Construction Phase:</p> <p>To preserve the appearance of existing masonry wall, the masonry blocks which are being removed for the construction of soil nail heads will be preserved and protected, recorded, numbered and stored properly. Then, the masonry blocks will be reinstated back to their original locations after soil nails works.</p> <p>To minimise grout loss problem and vibration caused by soil nailing works, the proposed soil nails will be drilled by concentric drilling method with permanent steel casing.</p> <p>Condition survey based on visual inspections has been carried out to identify the existing structural condition of the historic building. Photographic condition survey is proposed to be conducted prior to the commencement of the construction works to inspect the structural integrity.</p> <p>Monitoring such as ground and building settlement, tilting, vibration will be carried out throughout the entire construction period with limiting criteria. The monitoring record will be reviewed timely with respective actions if necessary.</p>
<p>Operation Phase:</p> <p>No impact</p>	<p>Operation Phase:</p> <p>No impact</p>

The Contractor should strictly comply with the requirements specified in the permit issued under Section (6) of the Antiquities and Monuments Ordinance by the Antiquities Authority.

The Project would protect the structures of Declared Monument from potential damages arising from failure of the Features as this feature is part of the Declared Monument.

Figures



Legend:

- Feature boundary
- Aboveground structure of King's College
- Boundary of declared monument (other than the parts coloured green)
- Part excluded from declared monument
- Project boundary

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) Is Responsible

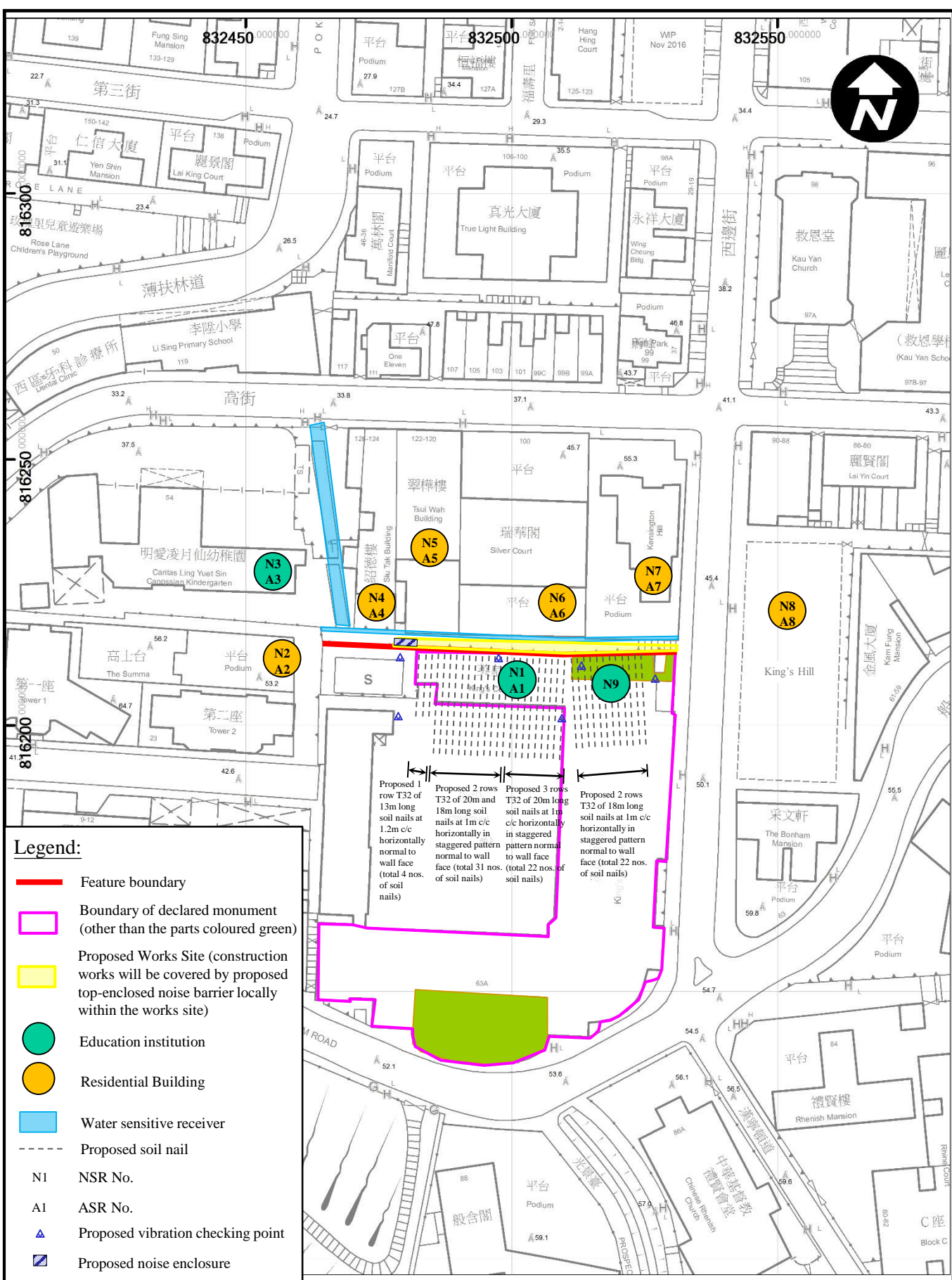
Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College
Site Location Plan

ARUP Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Dwn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168 Figure No. Figure 1



Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) Is Responsible

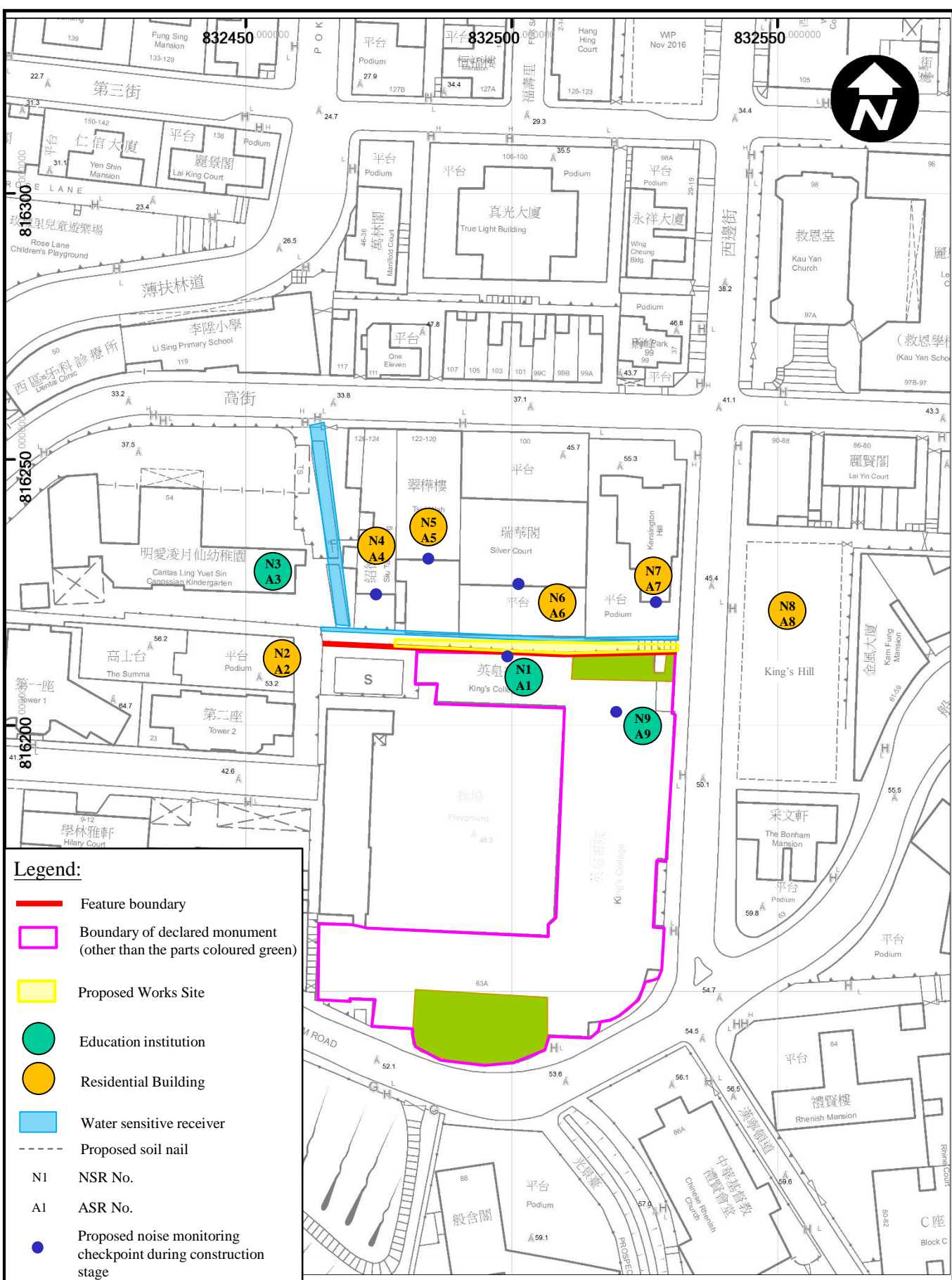
Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College
Works Layout Plan with Representative Sensitive Receivers

ARUP Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn. MF Date 12/17 Chd. FN Passed SM

Job No. 24168 Figure No. Figure 2



Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College
Proposed Noise Monitoring Checkpoints during Construction Stage

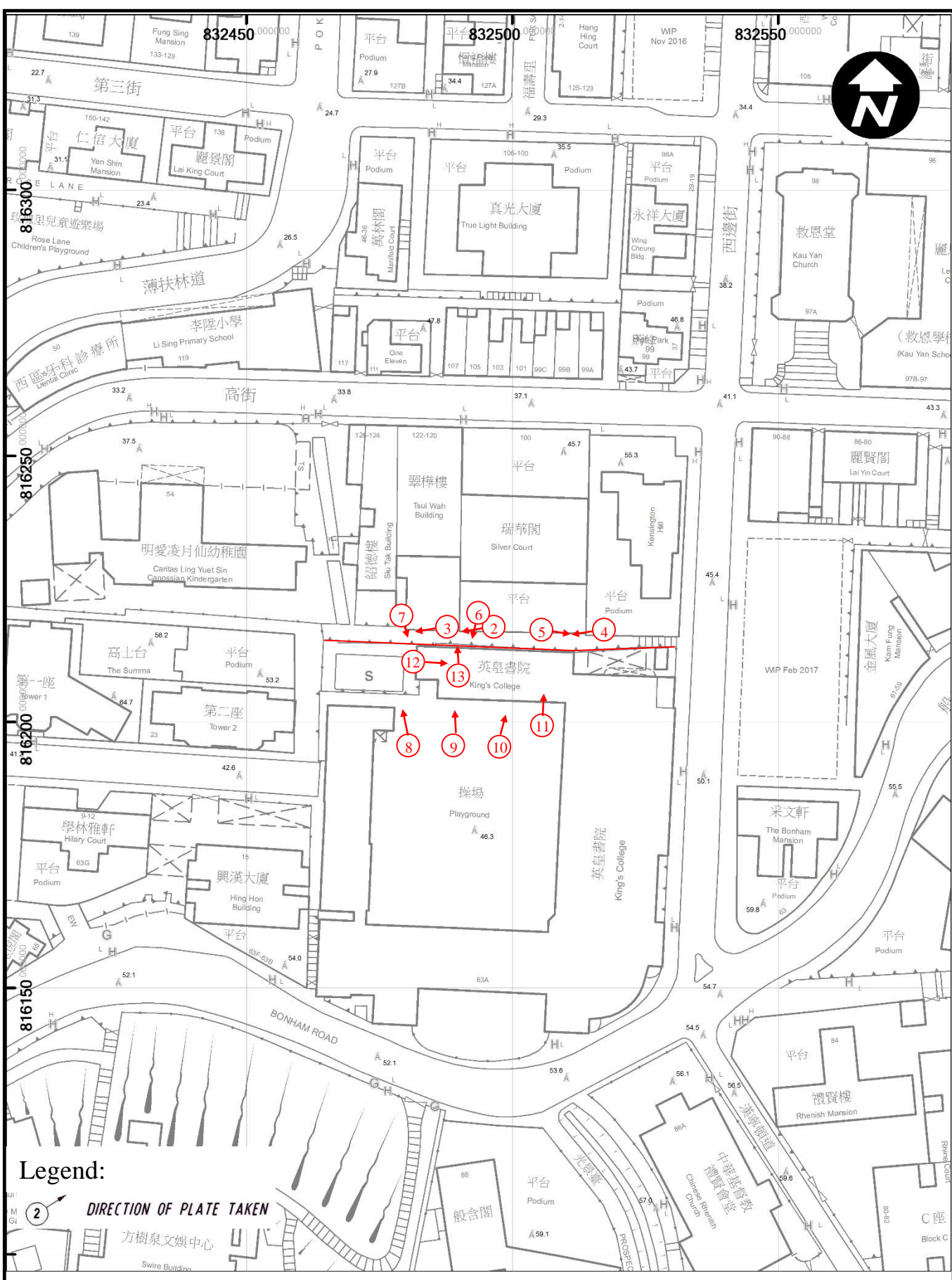
ARUP Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn.	MF	Date	12/17	Chd.	FN	Passed	SM
------	----	------	-------	------	----	--------	----

Job No.	24168	Figure No.	Figure 3
---------	-------	------------	----------

Plates



Legend:

② **DIRECTION OF PLATE TAKEN**

方樹泉文娛中心
Swire Building

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works
 to Government Properties for which
 the Architectural Services Department
 (Property Services Branch)
 Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College

Direction of Plates

ARUP Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000
 Dn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168 Figure No. Plate 1



Plate 2: General View of the Feature



Plate 3: General View of the Feature at the Western Portion

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) Is Responsible

Drawing Title
 Project ID P1000427

Feature No. 11SW-A/R526
 King's College

General View of the Feature

ARUP

Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168

Figure No. Plates 2 & 3

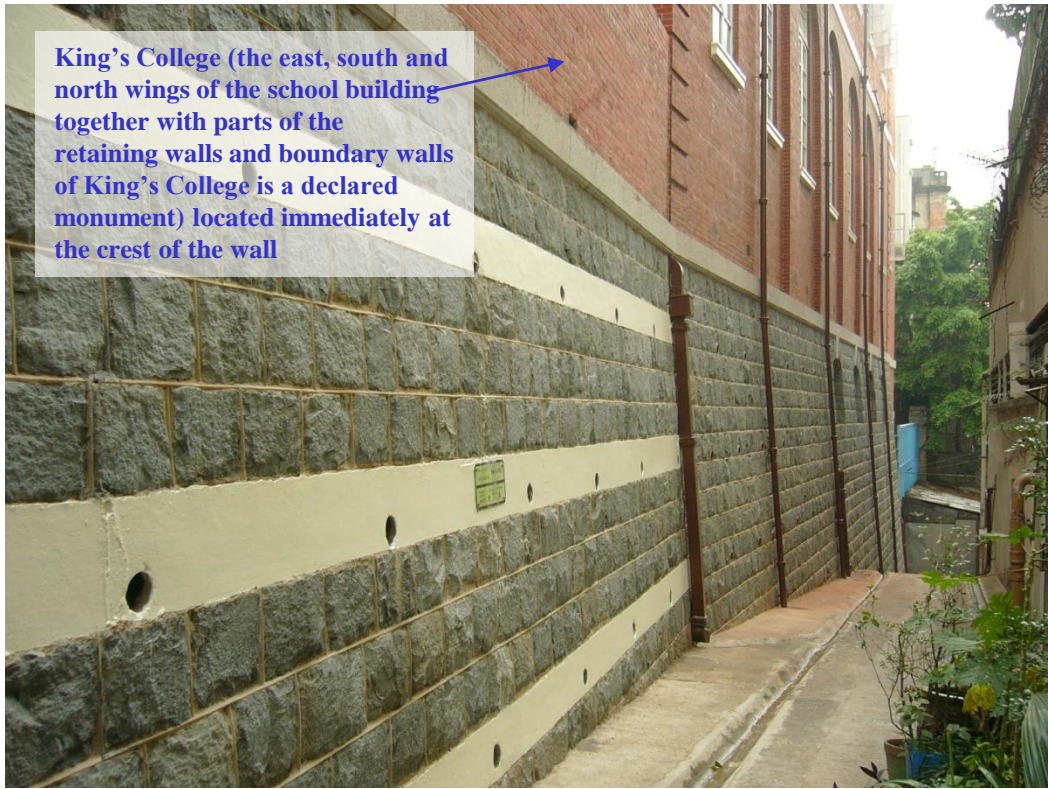


Plate 4: General View of the Feature at the Middle Portion

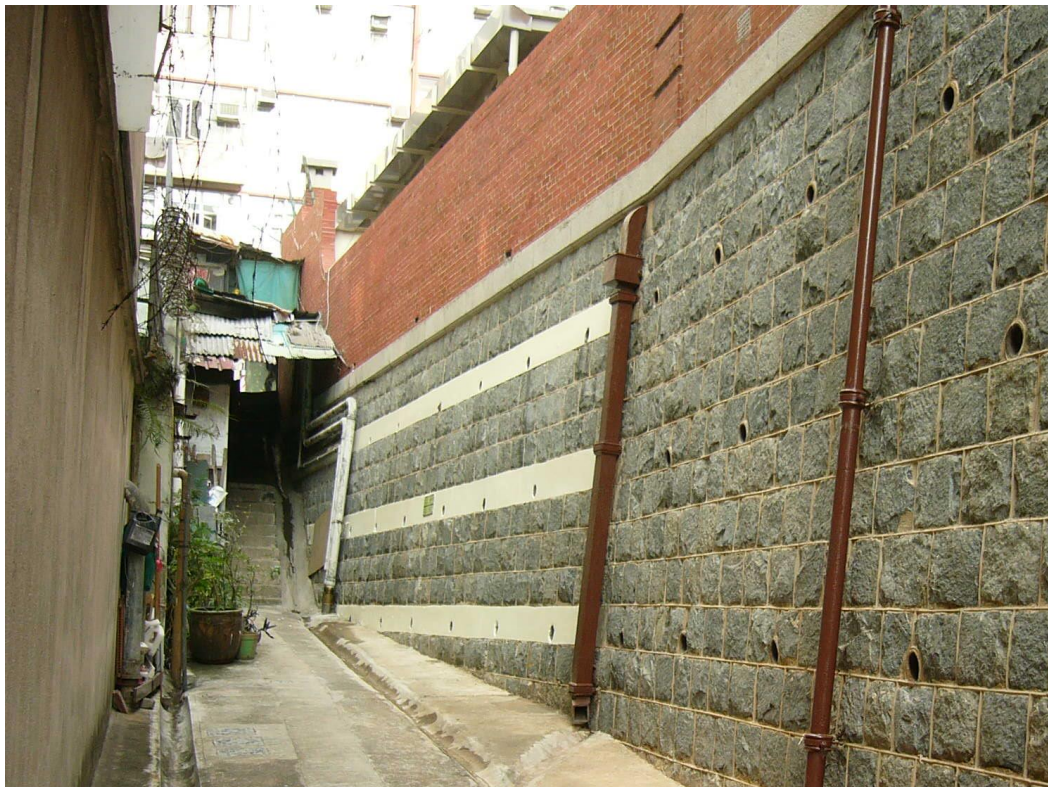


Plate 5: General View of the Feature at the Eastern Portion

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works
 to Government Properties for which
 the Architectural Services Department
 (Property Services Branch)
 Is Responsible

Drawing Title
 Project ID P1000427

Feature No. 11SW-A/R526
 King's College

**General View of the
 Feature**

ARUP

Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn. MF Date 12/17 Chd. FN Passed SM

Job No. 24168

Figure No. Plates 4 & 5



Plate 6: Water Seepage at the Middle Portion of the Masonry Wall

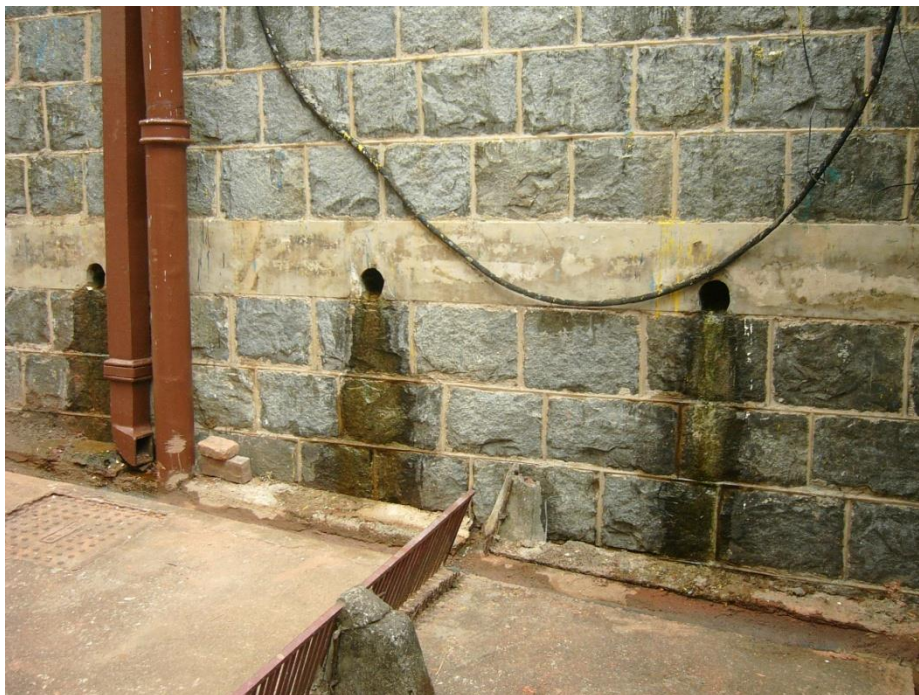


Plate 7: Water Seepage at the Western End of the Masonry Wall

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works
 to Government Properties for which
 the Architectural Services Department
 (Property Services Branch)
 Is Responsible

Drawing Title
 Project ID P1000427

Feature No. 11SW-A/R526
 King's College

**General View of the
 Feature**

ARUP

Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168

Figure No. Plates 6 & 7



Plate 8: General View of the Feature Crest at the Western Portion



Plate 9: General View of the Feature Crest at the Middle Portion

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works
 to Government Properties for which
 the Architectural Services Department
 (Property Services Branch)
 Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College

**General View of the
 Feature**

ARUP

Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168

Figure No. Plates 8 & 9



Plate 10: General View of the Feature Crest at the Eastern Portion



Plate 11: General View of the Feature Crest at the Eastern Portion

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works
 to Government Properties for which
 the Architectural Services Department
 (Property Services Branch)
 Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College

**General View of the
 Feature**

ARUP

Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

Drn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168

Figure No. Plates 10 & 11



Plate 12: General View of the Boys' Changing Room



Plate 13: General View of the Boys' Changing Room

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works
 to Government Properties for which
 the Architectural Services Department
 (Property Services Branch)
 Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College

**General View of the
 Feature**

ARUP

Ove Arup & Partners
 Hong Kong Limited

Scale 1:1000

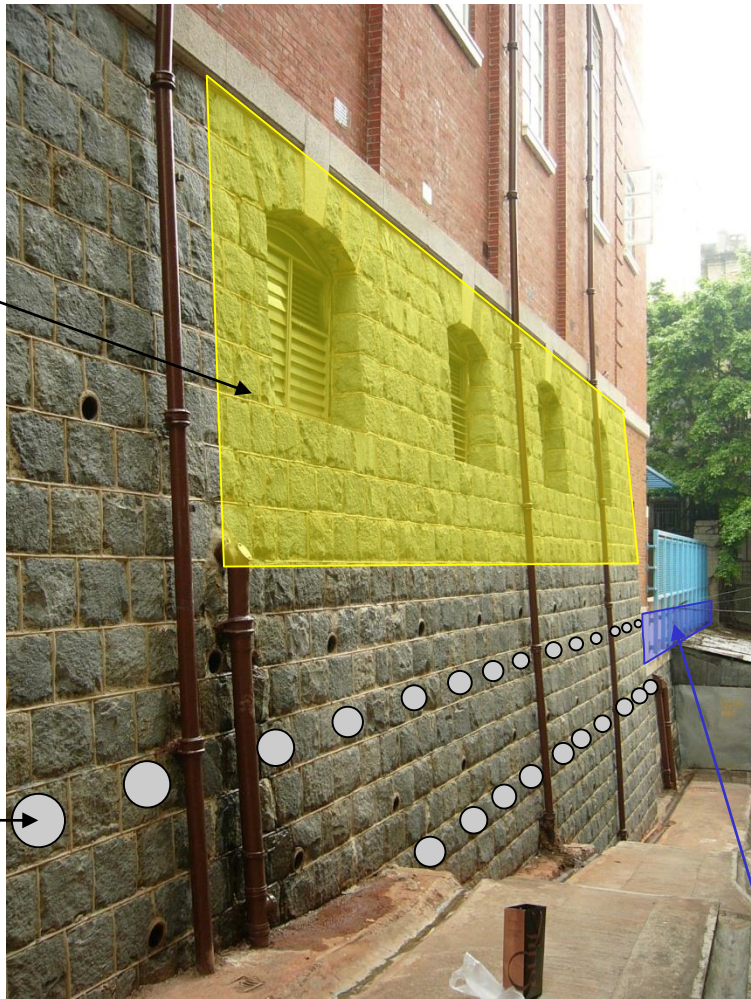
Drn. MF Date 08/17 Chd. FN Passed SM

Job No. 24168

Figure No. Plates 12 & 13

Sketches

Boys changing room



Proposed soil nails at the middle portion

PROPOSED SOIL NAILS

A swimming pool located immediately at the crest of the wall



PROPOSED SOIL NAILS

A flimsy structure with registration no. H.K. CW/F3/90 D.P. 8x3x3 abutting on the masonry wall

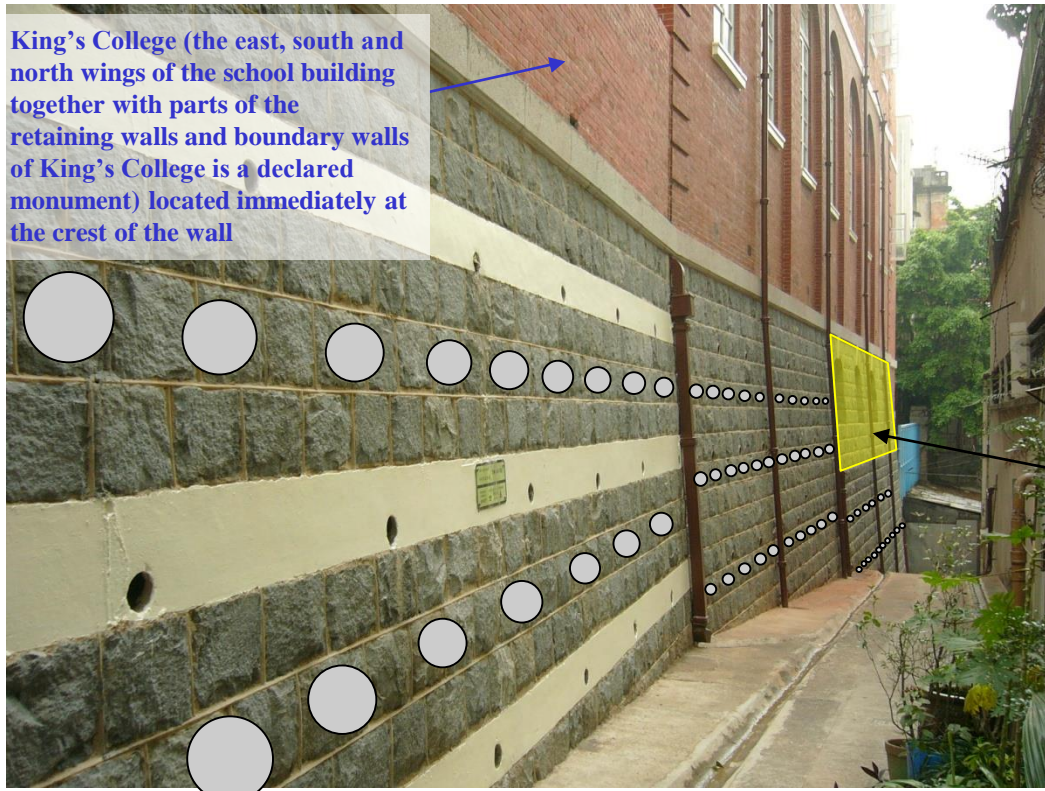
Proposed soil nails at the western portion

* Soil nails shown on photos are indicatively only

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College
Proposed Soil Nail System Arrangement (1)

		Ove Arup & Partners Hong Kong Limited					
		Scale	1:1000				
Drn.	MF	Date	08/17	Chd.	FN	Passed	SM
Job No.	24168		Sketch No.	SK01			

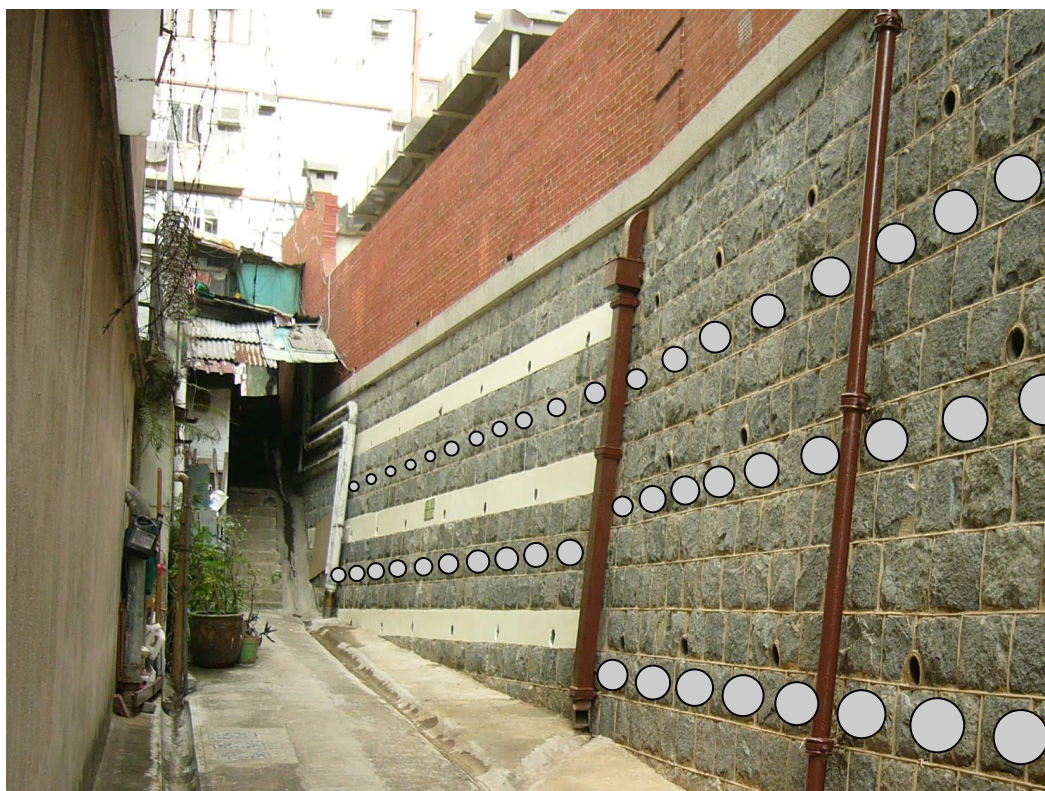


King's College (the east, south and north wings of the school building together with parts of the retaining walls and boundary walls of King's College is a declared monument) located immediately at the crest of the wall

Boys changing room

PROPOSED SOIL NAILS

Proposed soil nails at the middle portion



Proposed soil nails at the eastern portion

* Soil nails shown on photos are indicatively only

Job Title
 Consultancy Agreement No.: 9AN03R
 Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) Is Responsible

Drawing Title
 Project ID P1000427
 Feature No. 11SW-A/R526
 King's College
Proposed Soil Nail System Arrangement (2)

		Ove Arup & Partners Hong Kong Limited					
		Scale	1:1000				
Drn.	MF	Date	12/17	Chd.	FN	Passed	SM
Job No.	24168		Sketch No.	SK02			

APPENDIX A

**Detailed Design
Drawing of Proposed
Slope Upgrading
Works to Slope
Feature No.
11SW-A/R526**

GENERAL NOTES ON DRAINAGE WORKS

- ALL CONCRETE WORKS SHALL COMPLY WITH GENERAL SPECIFICATION FOR BUILDING, ISSUED BY THE ARCHITECTURAL SERVICES DEPARTMENT 2017 EDITION (HONG KONG GOVERNMENT).
- ALL CONCRETE TO BE GRADE 20D/20 TO GENERAL SPECIFICATION BUILDING, ISSUED BY THE ARCHITECTURAL SERVICES DEPARTMENT, 2017 EDITION (HONG KONG GOVERNMENT), EXCEPT FOR MANHOLES AND SANDTRAPS WHERE GRADE 30D/20 SHALL BE USED.
- THE DRAINAGE WORKS SHALL COMPLY WITH THE GENERAL SPECIFICATION BUILDING, ISSUED BY THE ARCHITECTURAL SERVICES DEPARTMENT, 2017 EDITION (HONG KONG GOVERNMENT).
- DETAILS OF DRAINAGE CHANNEL AND CATCHPITS SHALL BE IN ACCORDANCE WITH CEDD STANDARD DRAWINGS.
- MINIMUM GRADIENT SHALL BE 1 IN 50 FOR SURFACE CHANNELS AND 1 IN 10 FOR STEPPED CHANNELS OR OTHERWISE STATED OR AS DIRECTED BY ENGINEER ON SITE.
- EXISTING CHANNELS AND CATCHPITS TO BE RETAINED SHALL BE MAINTAINED BY THE CONTRACTOR AND SHALL BE REPAIRED WHERE NECESSARY AS DIRECTED BY THE ENGINEER ON SITE.

NOTES ON MONITORING

- PRIOR TO THE COMMENCEMENT OF ANY WORK ON SITE, THE CONTRACTOR SHALL SUPPLY AND INSTALL ALL MONITORING INSTRUMENTS AT THE LOCATIONS AND IN ACCORDANCE WITH THE DETAILS SHOWN ON THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PLAN HIS WORKS SUCH THAT NONE OF THE MONITORING INSTRUMENTS WILL BE OBSTRUCTED OR OBSCURED THROUGHOUT THE DURATION OF THE CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL MONITORING INSTRUMENTS THROUGHOUT THE CONTRACT INCLUDING PREVENTING THE MARKER SOCKET IF ANY BEING BLOCKED BY CONSTRUCTION MATERIAL OR DEBRIS AND KEEPING ALL METAL PARTS FULLY GREASED AND FREE FROM RUST AND DAMAGE. UPON COMPLETION OF THE WORKS, ON THE INSTRUCTION OF THE ENGINEER, THE SETTLEMENT MARKER SOCKETS SHALL BE REMOVED CAREFULLY, THE STRUCTURES AND PAVEMENTS SHALL BE MADE GOOD TO THE SATISFACTION OF THE ENGINEER.
- ALL MONITORING POINTS SHALL BE INSTALLED AND INITIAL READINGS SHALL BE SUBMITTED TO THE BUILDINGS DEPARTMENT PRIOR TO COMMENCEMENT OF WORKS. AS-BUILT LOCATION AND RECORD PHOTOS OF THE CHECK POINTS SHALL BE SUBMITTED TO THE ENGINEER. THE CHECK POINTS SHOWN ON THE DRAWINGS ARE THE MINIMUM REQUIRED AND THE CONTRACTOR SHALL INSTALL ADDITIONAL CHECK POINTS FOR HIS OWN MONITORING PURPOSE AS NECESSARY. DETAILS OF MONITORING CHECK POINTS SHALL BE AS SHOWN ON THE DRAWINGS.
- PRIOR TO THE COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL CARRY OUT A SURVEY OF THE EXISTING CONDITIONS OF ADJACENT STRUCTURES, RETAINING WALL, ROADS, BUILDINGS, SERVICES AND PAVEMENTS. A REPORT SHALL BE SUBMITTED TO THE ENGINEER.
- SHOULD ANY EXISTING CRACKS CAN BE OBSERVED ON THE BUILDING STRUCTURES PRIOR TO THE COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL INSTALL TELLTALES UNDER THE DIRECTION OF THE ENGINEER ON SITE TO MONITOR ANY MOVEMENT ACROSS THE CRACKS. LOCATION OF PROPOSED CRACK WIDTH MONITORING REFER TO, BUT NOT LIMITED TO, SECTION 2.1.2 OF TEST PLAN.
- THE SETTLEMENT/ TILTING AND TELL-TALE MONITORING DISCS SHOULD BE GLUE-FIXED OR ANY APPROPRIATE METHOD WHICH WOULD NOT CAUSE IRREVERSIBLE DAMAGE TO HISTORIC FABRIC, SUBJECT TO APPROVAL OF THE ARCHITECT.
- ALL MONITORING RECORDS SHALL BE SUBMITTED TO THE ENGINEER TWICE WEEKLY. THE MONITORING RECORDS SHALL BE SUBMITTED TO THE BUILDINGS DEPARTMENT EVERY TWO WEEKS.
- ALL MONITORING POINTS SHALL BE CARRIED OUT BY AN INDEPENDENT SURVEYING AGENCY APPROVED BY ENGINEER.
- ALL INFORMATION SHOWN ON THIS DRAWING SUCH AS EXISTING GROUND LEVEL, MANHOLES ETC. EXCEPT THE MONITORING CHECK POINTS, ARE FOR INFORMATION ONLY.
- ON REACHING THE 'ALERT LEVEL' AS SHOWN IN THE TABLE BELOW, THE MOVEMENT SHALL BE REVIEWED WITH ASSESSMENT OF THE EFFECTS ON THE STRUCTURES, THE PREDICTION OF FURTHER MOVEMENT AND PROPOSAL FOR REMEDIAL MEASURES IF ACTION LEVEL IS REACHED. NITED AND PROVEN TO BE EFFECTIVE TO LIMIT FURTHER MOVEMENT. RECOMMENDATIONS FOR EMBEDDING WORKS TO PROCEED SHALL BE OMITTED TO THE SATISFACTION OF THE BUILDINGS DEPARTMENT BEFORE RESUMING WORKS.
- ON REACHING THE 'ALARM LEVEL' AS SHOWN IN THE TABLE BELOW, THE WORKS SHALL ONLY CONTINUE TO PROCEED IF THE REQUIREMENTS ARE REACHING THE ALERT LEVEL HAVE BEEN SATISFIED BY THE ENGINEER AND THAT APPROVED REMEDIAL MEASURES HAVE BEEN IMPLEMENTED AND PROVEN TO BE EFFECTIVE TO LIMIT FURTHER MOVEMENT.
- ON REACHING THE 'ACTION LEVEL' AS SHOWN IN THE TABLE BELOW, THE WORKS SHALL BE CEASED IMMEDIATELY AND ARRANGEMENTS WILL BE MADE FOR POSSIBLE EVACUATION OF THE SECTION OF THE SITE UNDER THREAT. A REPORT DETAILING THE FULL HISTORY OF MOVEMENTS, THE REMEDIAL MEASURES ADOPTED IN RELATION TO THE ACTION CONSTRUCTION SEQUENCE AND THE RECOMMENDATIONS FOR EMBEDDING WORKS TO PROCEED SHALL BE SUBMITTED TO THE SATISFACTION OF THE BUILDINGS DEPARTMENT BEFORE RESUMING WORKS.

MONITORING INSTRUMENTS	ALERT LEVEL	ALARM LEVEL	ACTION LEVEL
BUILDING, GROUND AND UTILITY SETTLEMENT	6mm	8mm	10mm
TILTING MONITORING	1/2000	1/1500	1/1000
BUILDING VIBRATION IN PPV ON THE G/F	2mm/s	2.5mm/s	3mm/s
CRACK WIDTH MONITORING	5mm	7mm	10mm

△ G

- THE FREQUENCY OF MONITORING SHALL BE AS FOLLOWS:

MONITORING INSTRUMENTS	FREQUENCY
BUILDING, GROUND AND UTILITY SETTLEMENT	DAILY
TILTING	DAILY
VIBRATION	DAILY
CRACK WIDTH	DAILY

- SHOULD ANY MONITORING POINTS INCLUDING BUT NOT LIMITED TO GROUND SETTLEMENT AND BUILDING SETTLEMENT MARKERS BE DAMAGED BY THE CONTRACTOR'S WORKS OR FOUND TO BE MALFUNCTION, THE CONTRACTOR SHALL REINSTATE THE DAMAGED INSTRUMENT IMMEDIATELY AT HIS OWN COST.
- DURING SOIL NAIL INSTALLATION, VIBRATION MONITORING SHALL BE CARRIED OUT AT EACH VIBRATION CHECK POINTS OR ANY OTHER LOCATIONS AS REQUIRED BY THE ENGINEER. THE VIBRATION LIMIT SHALL NOT BE GREATER THAN 7.5mm/s AS STIPULATED IN PNAP APP-137, SHOULD THE VIBRATION LIMIT BE EXCEEDED THE CONTRACTOR SHALL REVIEW HIS/HER EXCAVATION METHOD FOR APPROVAL BY ENGINEER. NO VIBRATION MONITORING IS REQUIRED DURING EXCAVATION WORK.
- THE STABILITY OF THE PRESERVED STRUCTURES WILL BE MAINTAINED AND ASSESSMENT WILL BE PROVIDED UNDER SEPARATE SUBMISSION.
- MONITORING TO PRESERVED STRUCTURES WILL BE CARRIED OUT AT ANYTIME OF CONSTRUCTION.

NOTES ON LEAKAGE DETECTION

- PRIOR TO THE COMMENCEMENT OF UPGRADING WORK, THE CONTRACTOR SHALL BE RESPONSIBLE TO CARRY OUT LEAKAGE DETECTION INCLUDING CCTV SURVEY FOR ALL EXISTING GROUND UTILITIES INCLUDING WATER-CARRING SERVICES IN THE VICINITY OF THE FEATURE.
- IF LEAKAGE IS DETECTED, THE UTILITIES SHALL BE REPAIRED BY CONTRACTOR. THE PROPOSED REPAIR METHOD SHALL BE SUBMITTED BY THE CONTRACTOR AND AGREED WITH THE ENGINEER ON SITE.
- THE CONTRACTOR SHALL SUBMIT 4 COPIES OF LEAKAGE DETECTION REPORT AND CD ROM TO THE ENGINEER WITHIN 7 DAYS AFTER THE TEST.

CONSTRUCTION SEQUENCES OF WORKS

- CARRY OUT PHOTOGRAPHIC SURVEY AND CONDITION SURVEY.
 - CONFIRM WORKING AREA AND PERIOD WITH KING'S COLLEGE AND OWNER OF PRIVATE STRUCTURE WITH REGISTRATION NO. H.K. CW/F3/90 D.P. 8x3x3 LOCATED AT WESTERN END OF THE WALL TOE.
 - SITE CLEARANCE AND CONSTRUCTION OF HOARDING AND SCAFFOLDING.
 - CARRY OUT INITIAL SURVEY AT THE RETAINING WALL TOE AND CREST, LOCATION OF COLUMNS AND WALLS SHALL BE RECORDED.
 - SETTING OUT OF TEST NAILS AND SOIL NAILS, NO NAILS SHALL DRILL AGAINST THE EXISTING COLUMNS AND STRUCTURAL WALLS.
 - REMOVE AND PROPERLY STORE MASONRY BLOCK AT NAIL LOCATION WITH PROPER RECORD AND NUMBERED SYSTEM.
 - REMOVE CONCRETE PART OF EXISTING RETAINING WALL BY CORING METHOD.
 - INSTALL TEST NAILS AND CARRY OUT PULL-OUT TESTS.
 - TRIAL INSTALLATION OF SOIL NAILS AND REVIEW ON BUILDABILITY OF SOIL NAILS AND PROPOSED CONSTRUCTION METHOD.
 - DRILLING AND INSTALLATION OF SOIL NAILS.
 - CARRY OUT PERFORMANCE TESTS.
 - ARCH SD AND GEO SHALL BE INFORMED 3 DAYS FOR RANDOM AUDIT PRIOR TO THE CONSTRUCTION OF SOIL NAIL HEAD.
 - CONSTRUCTION OF SOIL NAIL HEAD.
 - REINSTATE MASONRY BLOCK IN FRONT OF SOIL NAIL HEAD TO THEIR ORIGINAL LOCATION.
 - REPAIR AND MAKE GOOD EXISTING DRAINAGE CHANNEL.
- APPROVAL FROM THE ENGINEER SHALL BE SOUGHT PRIOR TO THE COMMENCEMENT OF EACH WORKS

NOTES ON EXISTING UTILITIES

- THE POSITION OF UTILITIES INDICATED WAS APPROXIMATE ONLY. EXACT LOCATION AND DEPTH OF THE UTILITIES HAD BEEN ASCERTAINED BY TRIAL PITS ON SITE. EXTREME CARE HAD BEEN TAKEN DURING EXCAVATIONS IN THE PROXIMITY OF THE UTILITIES. PRECAUTIONS HAD BEEN TAKEN TO PREVENT DAMAGE TO ANY OF THE UTILITIES.
- THE INFORMATION INDICATED WAS GIVEN IN GOOD FAITH AND NO GUARANTEE WAS GIVEN AS TO ITS ACCURACY OR COMPLETENESS. THE USE OF THIS INFORMATION BY THE CONTRACTOR OR ANY OTHER PARTY HAD NOT RELIEVE HIM OF ANY OF HIS OBLIGATIONS OR RESPONSIBILITY UNDER THE CONTRACT.
- RELOCATION OF WATER MAIN HAD BEEN CARRIED OUT AS DIRECTED BY THE ENGINEER ON SITE.

NOTES
DO NOT SCALE DRAWING.
ALL DIMENSIONS SHOULD BE CHECKED ON SITE.
THE OWNERSHIP OF THE COPYRIGHT IN THIS DRAWING IS RETAINED BY THE ARCHITECT WHOSE CONSENT MUST BE OBTAINED BEFORE ANY USE OR REPRODUCTION OF THE DRAWING OR ANY PART THEREOF CAN BE MADE.

G	TENDER DRAWING	03/18	F	NG
F	EPD COMMENT	12/17	F	NG
E	GEO COMMENT	01/16	F	NG
D	GEO COMMENT	08/15	F	NG
C	GEO COMMENT	08/15	F	NG
B	SOIL NAIL REARRANGEMENT	05/15	F	NG
A	GEO SUBMISSION	02/11	E	CHAN

REV	DESCRIPTION	DATE	CHECKED BY

CONSULTANT
19/ FLOOR
EAST WARWICK HOUSE
TAIKOO PLACE
979 KING'S ROAD
HONG KONG
TEL: 2899 9000
FAX: 2806 0343

L&O
ARCHITECTS

CONSULTANT
ARUP Ove Arup & Partners
Hong Kong Limited
Project Managers, Consulting Civil,
Structural & Building Services Engineers
M&E Consultant
LEVEL 5, FESTIVAL WALK, 80 TAT CHEE AVENUE
KOWLOON TONG, KOWLOON, H.K.
Tel : (852) 2388 8000
Fax : (852) 2385 8483

	NAME	SIGNED	DATE
DESIGNED	K RENN	<i>K Renn</i>	06/2008
DRAWN	K RENN	<i>K Renn</i>	06/2008
CHECKED	E CHAN	<i>E Chan</i>	06/2008
APPROVED	A HO	<i>A Ho</i>	06/2008
ENDORSED BY	L&O		

CONTRACT NO. :

FILE NO. :

PROJECT NO. :
24168

CONTRACT
9AN03R
Term Consultancy for Minor Works
to Government Properties
P1000427 FEATURE NO. 11SW-A/R526
KING'S COLLEGE

DRAWING TITLE

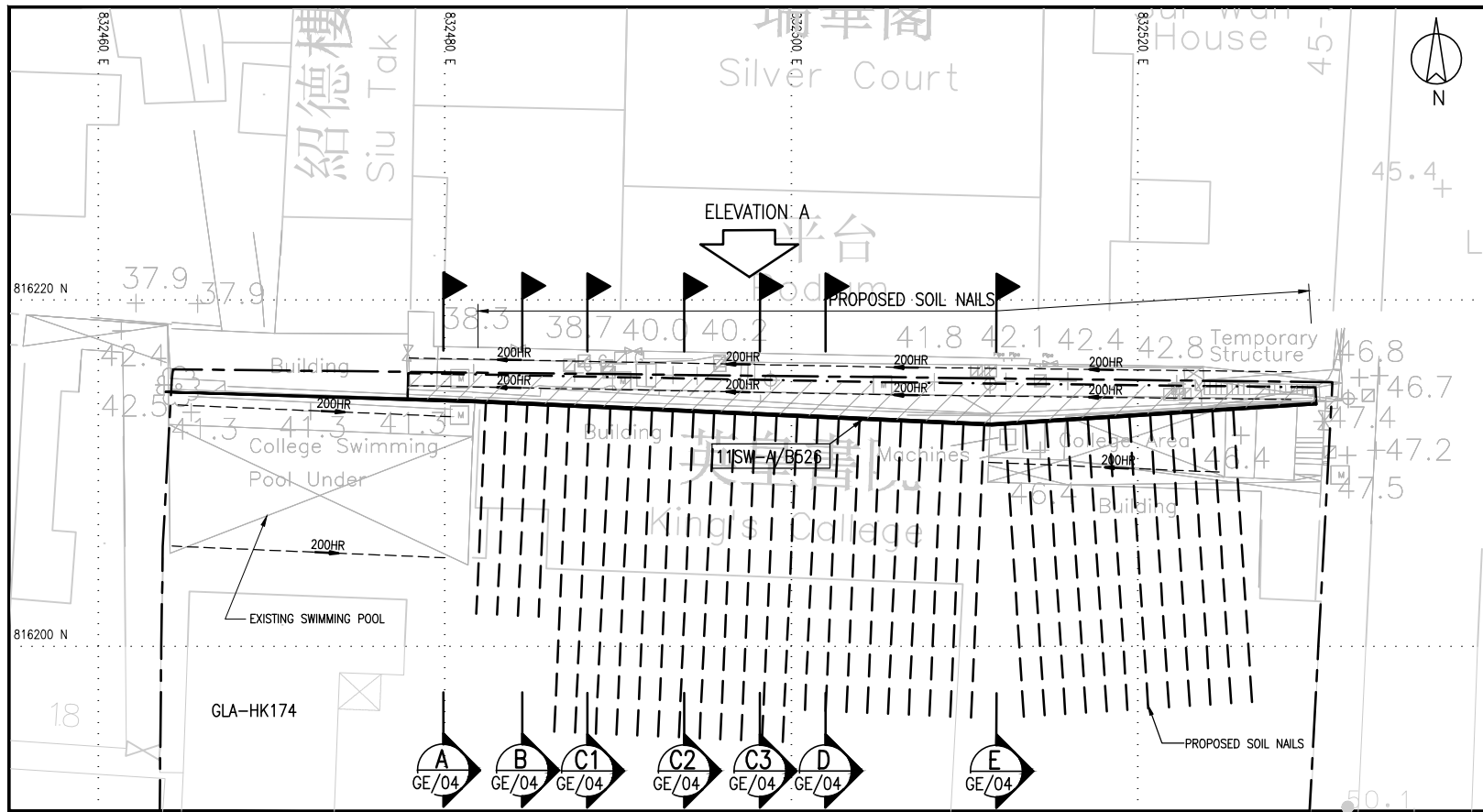
FEATURE NO. 11SW-A/R526
SITE LOCATION PLAN
AND GENERAL NOTES
(SHEET 2 OF 2)

DRAWING NO. 9AN03R/11SW-AR526/GE/02G	SCALE : N/A
APPROVED :	SIGNED : DATE : 05/2015

CLIENT

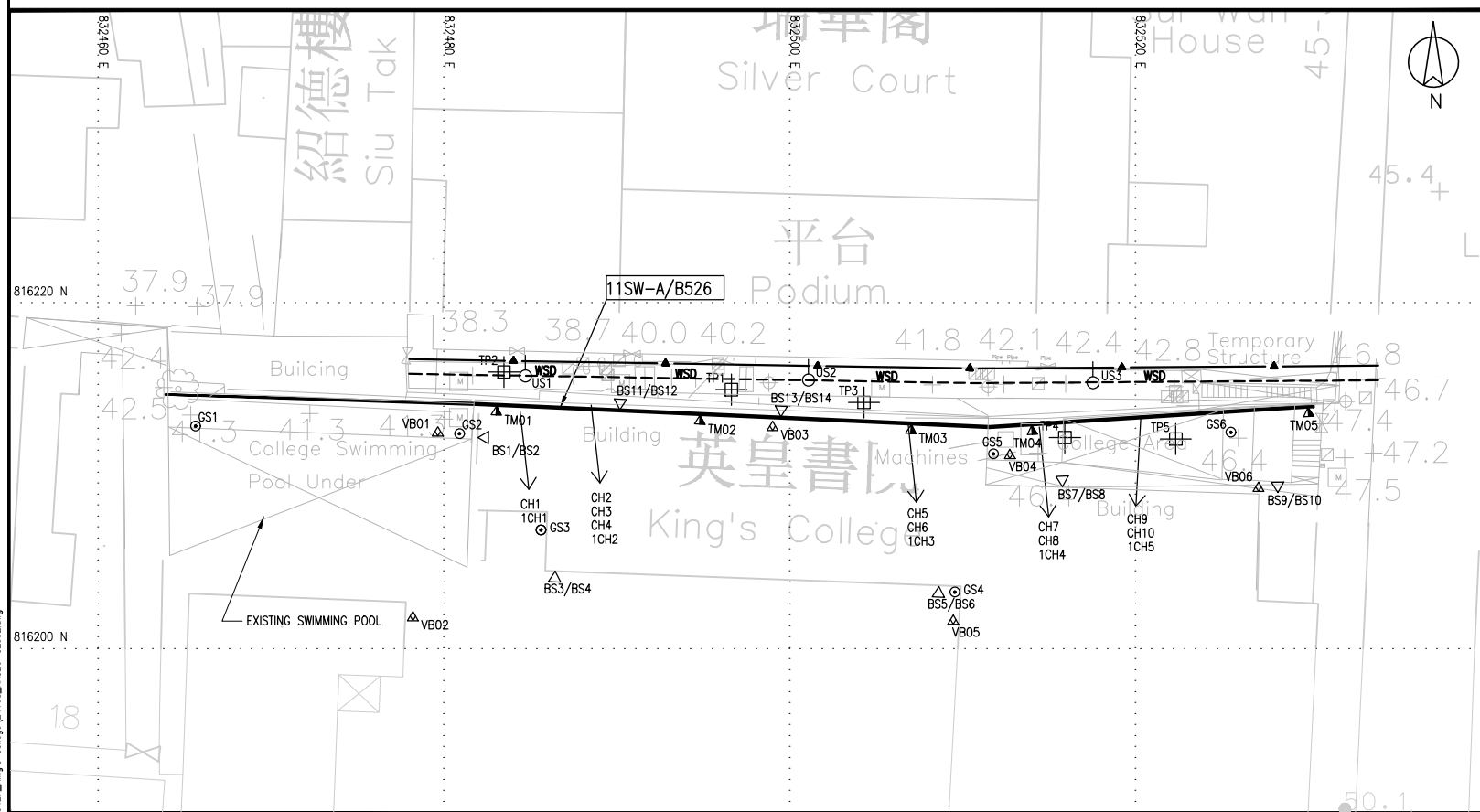
AS Architectural
Services
Department

Plot Time : 12/04/2018
File Path : \\24168\Temp\Geo\1000427_King's College\24168_AR526-GE02G.dwg



LAYOUT PLAN OF SLOPE UPGRADING WORKS

1 : 200 @ A1
1 : 400 @ A3



LAYOUT PLAN OF EXISTING UTILITIES, GROUND INVESTIGATION WORKS AND PROPOSED SETTLEMENT MARKERS

1 : 200 @ A1
1 : 400 @ A3

NOTES
DO NOT SCALE DRAWING.
ALL DIMENSIONS SHOULD BE CHECKED ON SITE.
THE OWNERSHIP OF THE COPYRIGHT IN THIS DRAWING IS RETAINED BY THE ARCHITECT WHOSE CONSENT MUST BE OBTAINED BEFORE ANY USE OR REPRODUCTION OF THE DRAWING OR ANY PART THEREOF CAN BE MADE.

LEGEND:

- EXISTING FEATURE BOUNDARY
- PROPOSED SOIL NAILS
- WSD EXISTING WSD WATER PIPE
- CH1 EXISTING COREHOLE UNDER THIS STUDY
- 200HR EXISTING 200mm HALF-ROUND CHANNEL
- GS1 PROPOSED GROUND SETTLEMENT MARKER (GS1-GS6)
- BS1 PROPOSED BUILDING SETTLEMENT MARKER (BS1-BS14)
- US1 PROPOSED UTILITY SETTLEMENT MARKER (US1-US3)
- TP1 EXISTING TRIAL PITS UNDER THIS STUDY
- LOT BOUNDARY
- PROPOSED WORK SITE
- TM01 PROPOSED TILTING MARKER (TM01-TM05)
- VB01 PROPOSED VIBRATION CHECKING POINT (VB01-VB06)

E	TENDER DRAWING	03/18	F NG
D	EPD COMMENT	12/17	F NG
C	GEO COMMENT	01/16	F NG
B	SOIL NAIL REARRANGEMENT	05/15	F NG
A	GEO SUBMISSION	02/11	E CHAN
REV	DESCRIPTION	DATE	CHECKED BY

ARCHITECT
19/F FLOOR
EAST WARWICK HOUSE
TAKO O PLACE
979 KING'S ROAD
HONG KONG
TEL: 2899 9000
FAX: 2806 0343

CONSULTANT
ARUP Ove Arup & Partners
Hong Kong Limited
Project Managers, Consulting Civil,
Structural & Building Services Engineers
M&E Consultant
LEVEL 5, FESTIVAL WALK, 80 TAT CHEE AVENUE
KOWLOON TOWNS, KOWLOON, H.K.
Tel. : (852) 2558 3033
Fax. : (852) 2865 6483

	NAME	SIGNED	DATE
DESIGNED	K RENIN	<i>[Signature]</i>	06/2008
DRAWN	K RENIN	<i>[Signature]</i>	06/2008
CHECKED	E CHAN	<i>[Signature]</i>	06/2008
APPROVED	A HO	<i>[Signature]</i>	06/2008

ENDORSED BY: *[Signature]*
CONTRACT NO.:

FILE NO.:

PROJECT NO.:

CONTRACT

9AN03R

Term Consultancy for Minor Works

to Government Properties

P1000427 FEATURE NO. 11SW-A/R526

KING'S COLLEGE

DRAWING TITLE

FEATURE NO. 11SW-A/R526

LAYOUT PLAN OF SLOPE UPGRADING

WORKS

DRAWING NO. 9AN03R/11SW-AR526/GE/03E

SCALE: AS SHOWN

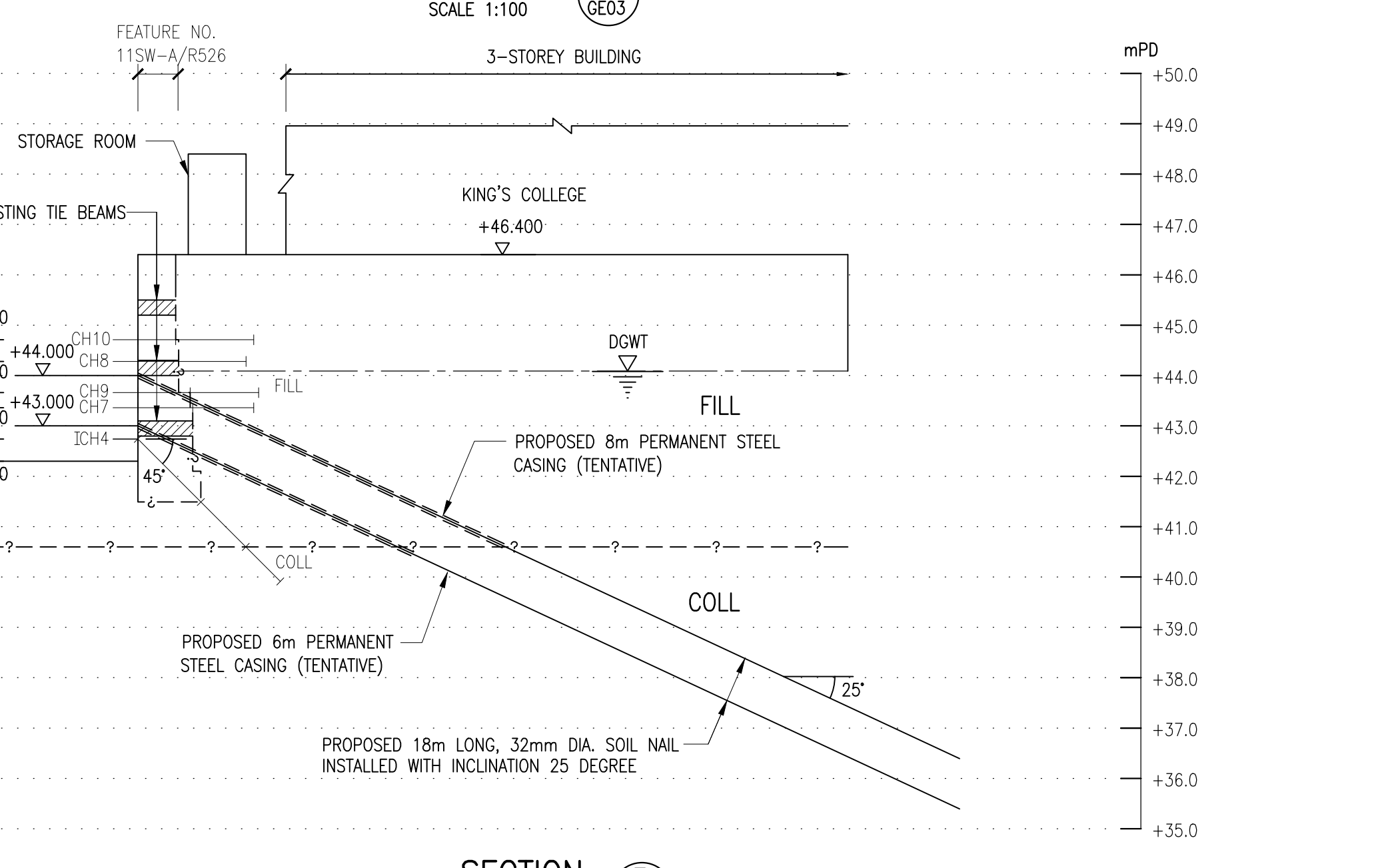
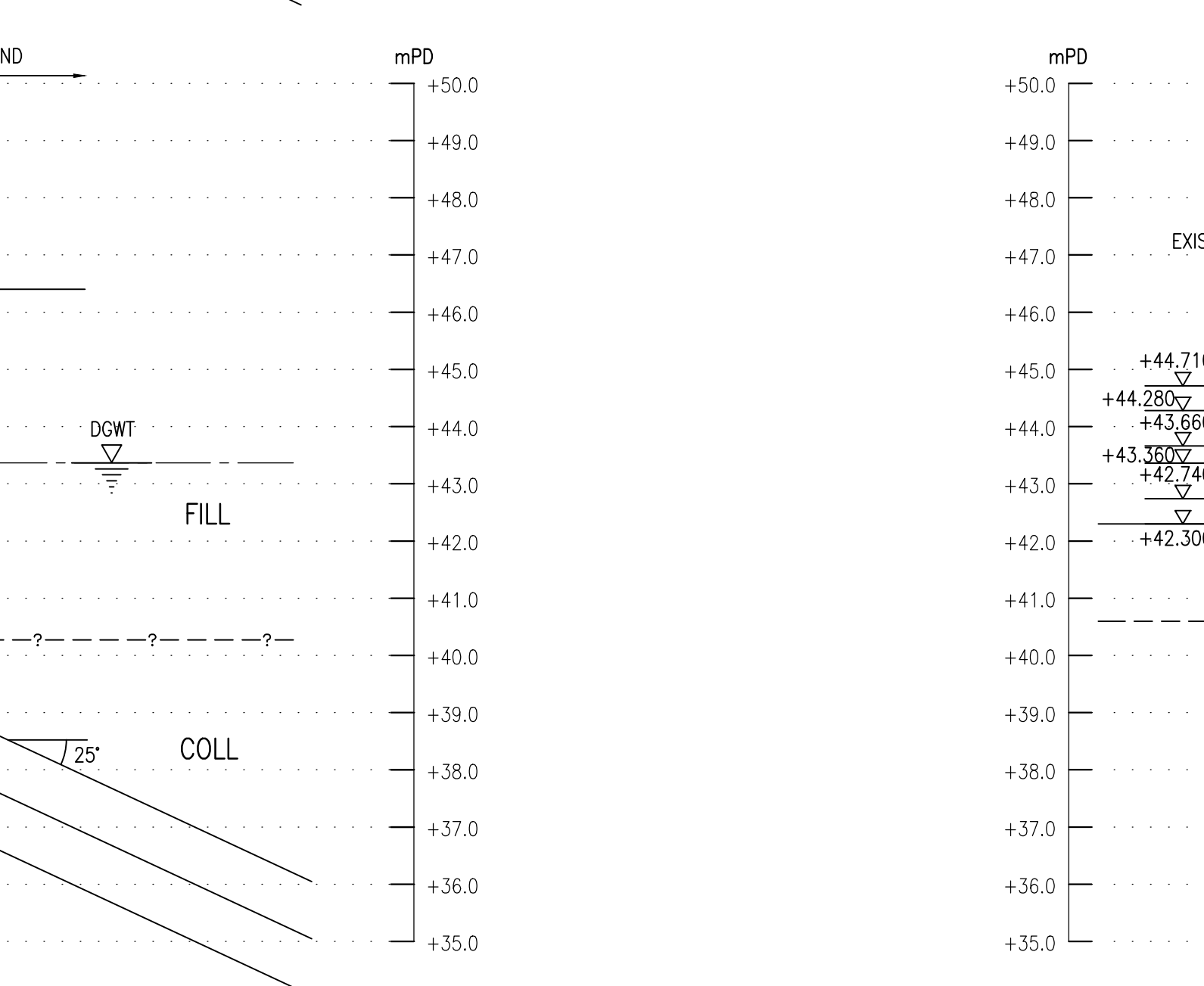
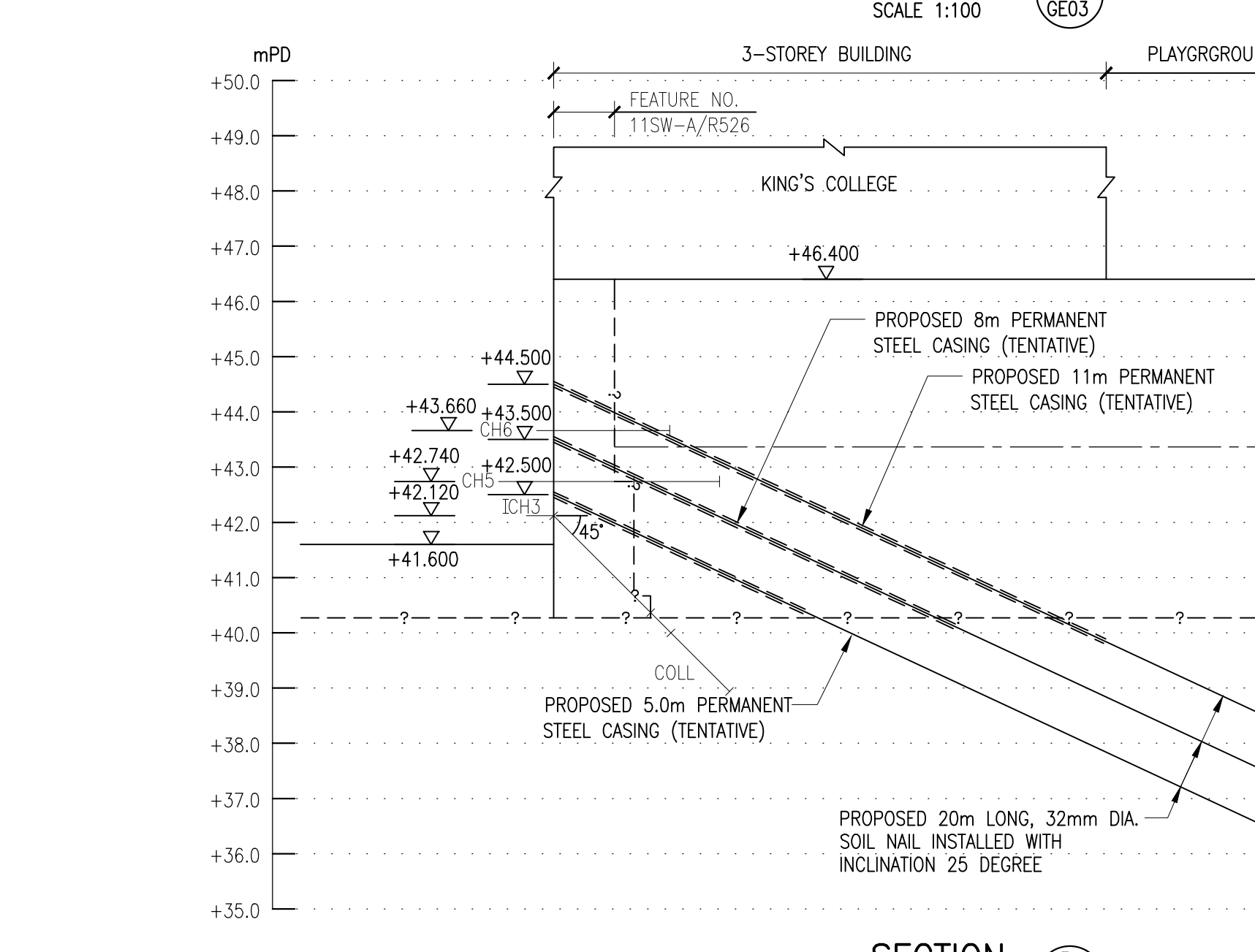
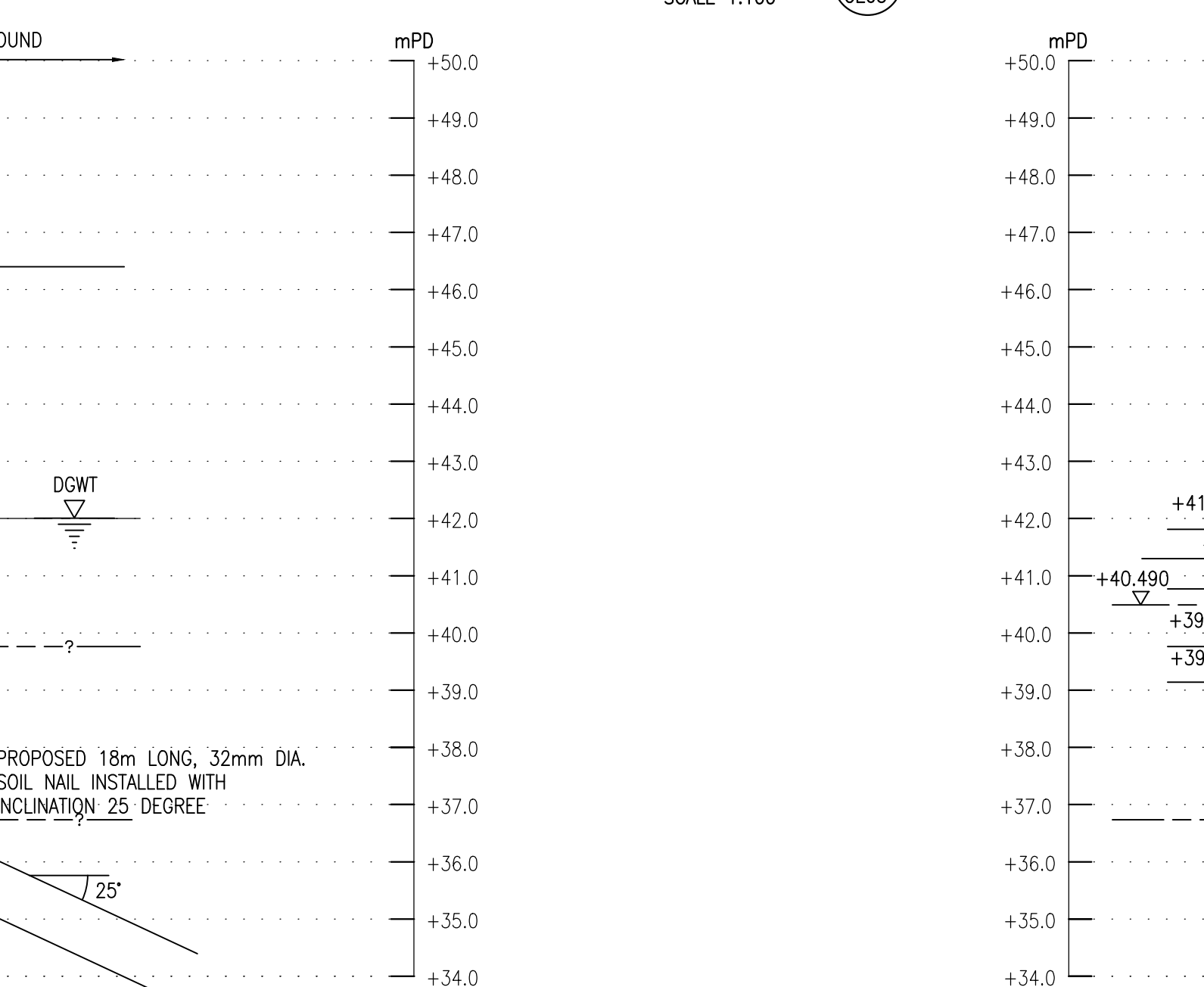
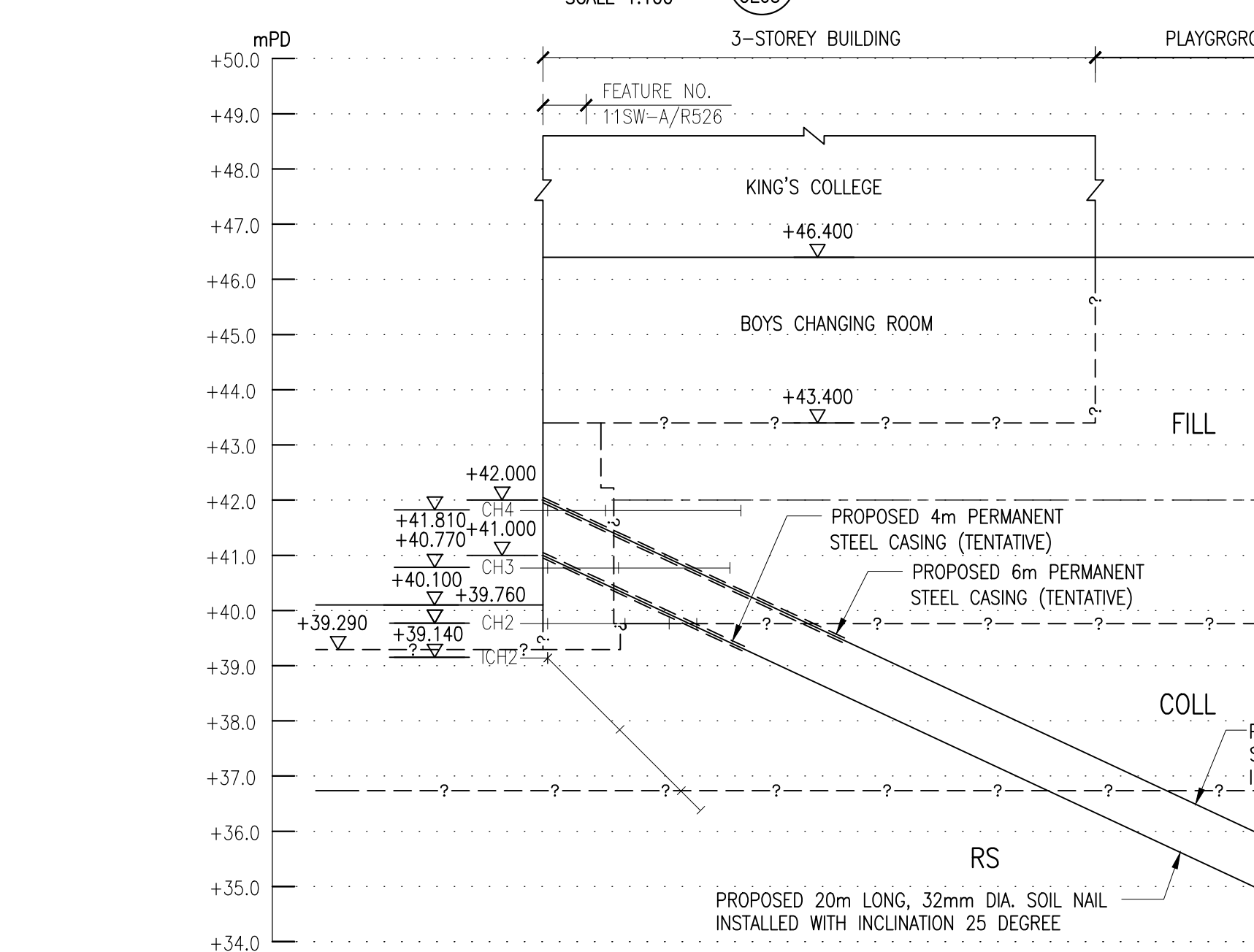
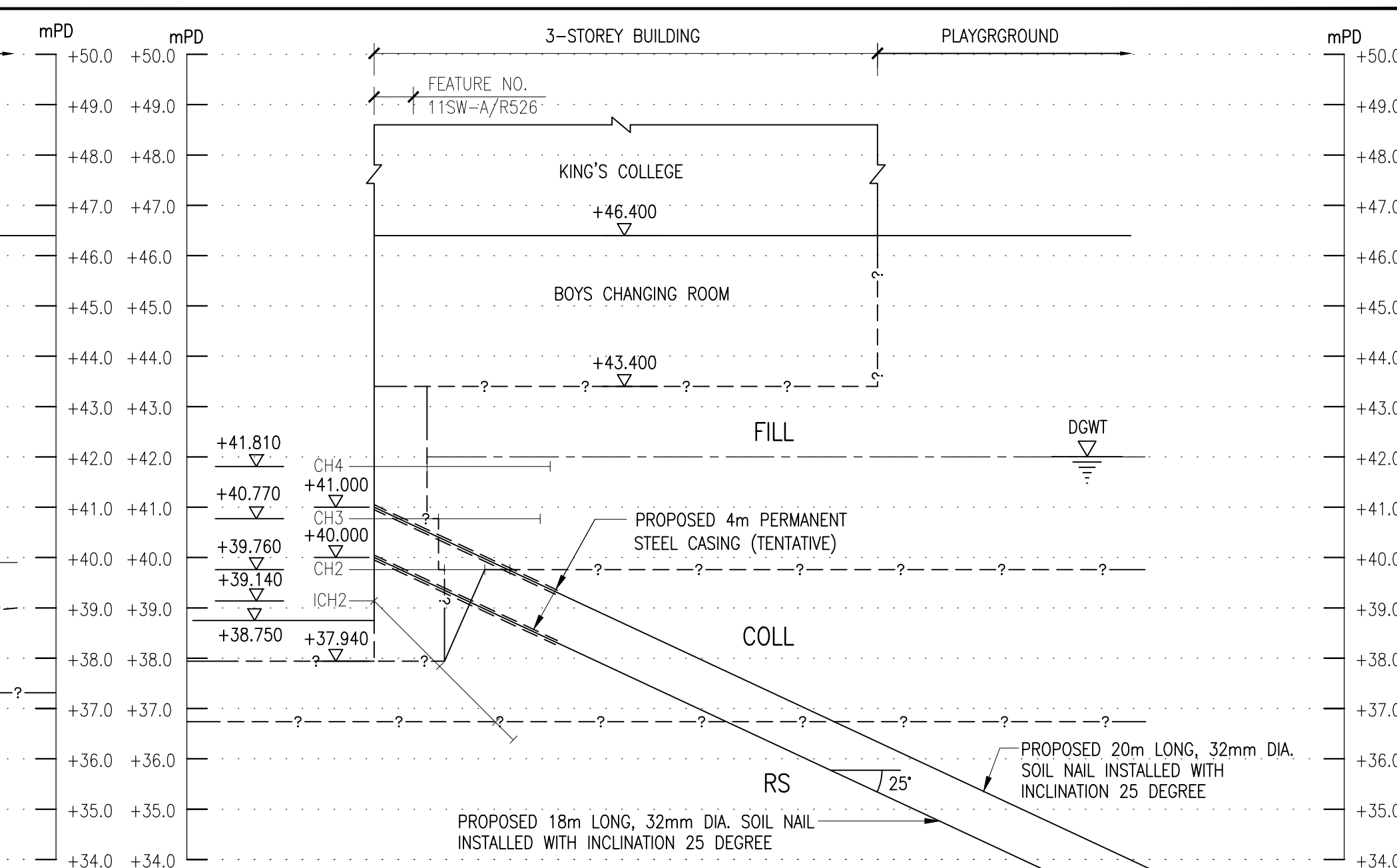
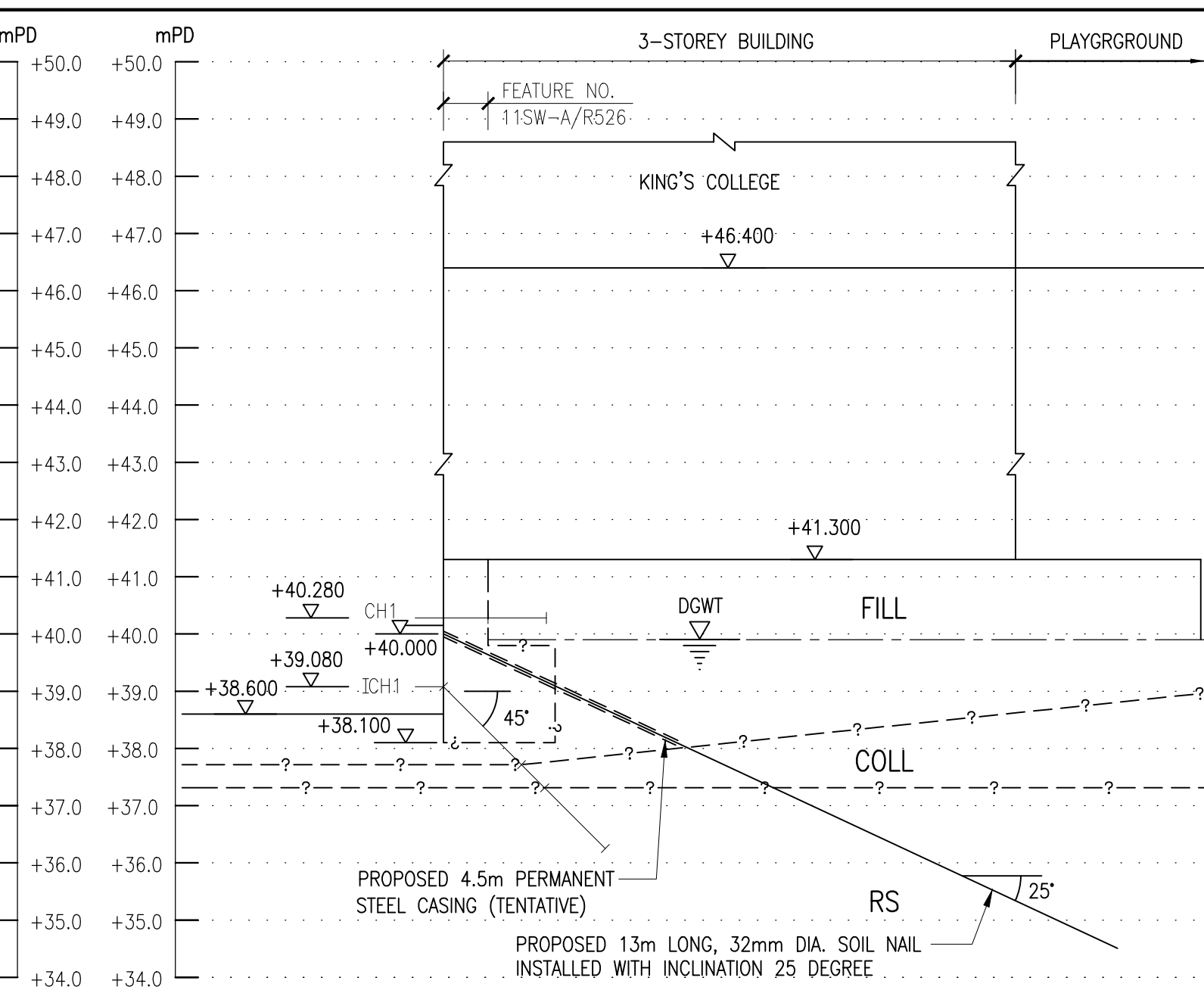
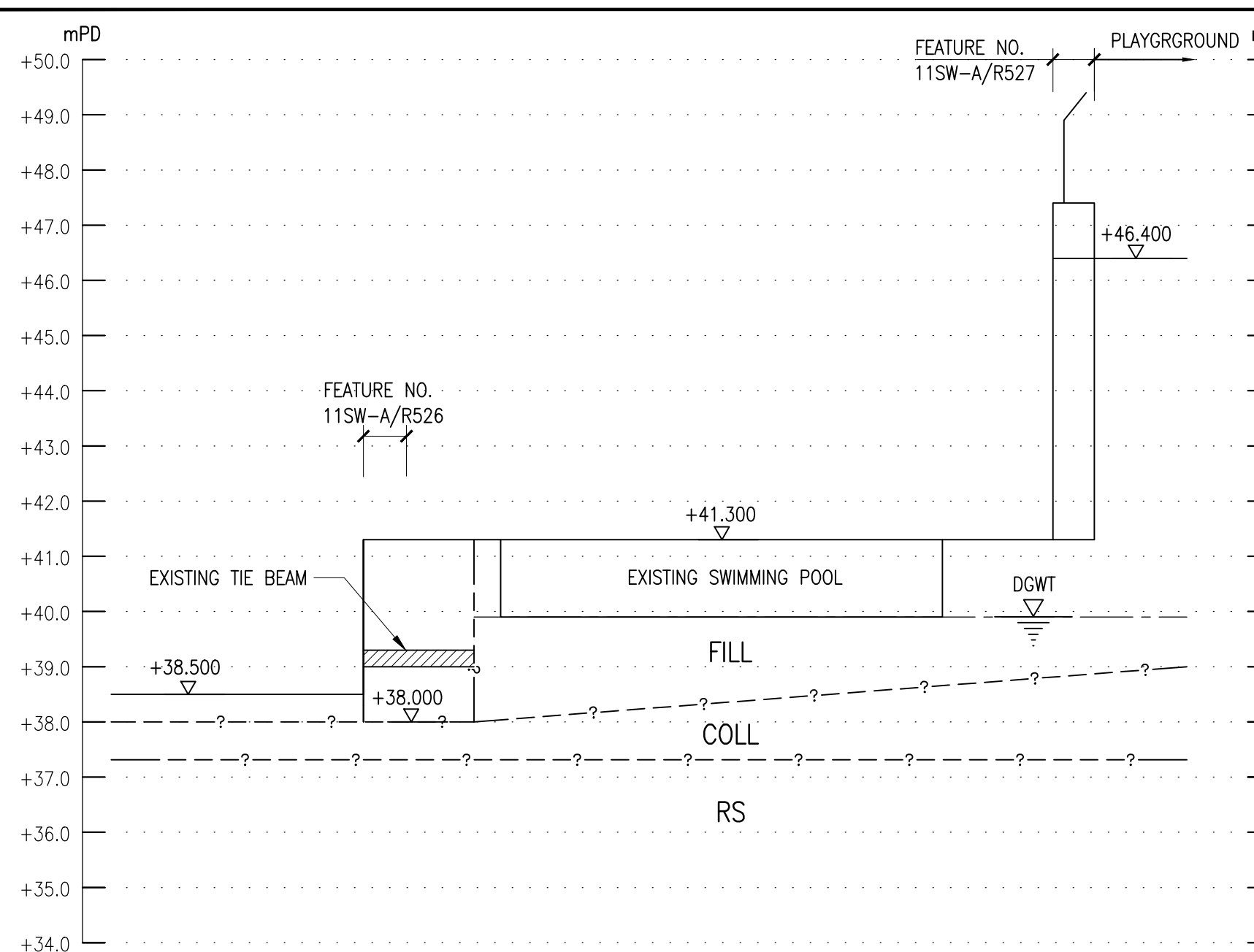
APPROVED: *[Signature]* DATE: 05/2015

CLIENT

Architectural Services Department

[Logo]

Plot Time : 12/04/2018
File Path : \\24168\Arup\GEO\1000427_King's College\24168_AR526-GE03E.dwg



NOTES
DO NOT SCALE DRAWING.
ALL DIMENSIONS SHOULD BE CHECKED ON SITE.
THE OWNERSHIP OF THE COPYRIGHT IN THIS DRAWING IS RETAINED BY THE ARCHITECT WHOSE CONSENT MUST BE OBTAINED BEFORE ANY USE OR REPRODUCTION OF THE DRAWING OR ANY PART THEREOF CAN BE MADE.

D	TENDER DRAWING	03/18	F NG
C	GEO COMMENT	01/16	F NG
B	SOIL NAIL REARRANGEMENT	05/15	F NG
A	GEO SUBMISSION	02/11	E CHN
REV	DESCRIPTION	DATE	CHECKED BY

ARCHITECT
19/FLOOR
EAST WARWICK HOUSE
TAKOOL PLACE
979 KING'S ROAD
HONG KONG
TEL: 2899 9000
FAX: 2806 0343

CONSULTANT
ARUP Ove Arup & Partners
Hong Kong Limited
Project Managers, Consulting Civil,
Structural & Building Services Engineers
M&E Consultant
LEVEL 5, FESTIVAL WALK, 80 TAT CHEE AVENUE
KOWLOON TONG, KOWLOON, H.K.
Tel: (852) 2528 3031
Fax: (852) 2865 6493

NAME	SIGNED	DATE
DESIGNED	K RENN	06/2008
DRAWN	K RENN	06/2008
CHECKED	E CHAN	06/2008
APPROVED	A HO	06/2008

ENDORSED BY: /L&O
CONTRACT NO.:
FILE NO.:

PROJECT NO.:
24168
CONTRACT
9AN03R
Term Consultancy for Minor Works
to Government Properties
P1000427 FEATURE NO. 11SW-A/R526
KING'S COLLEGE

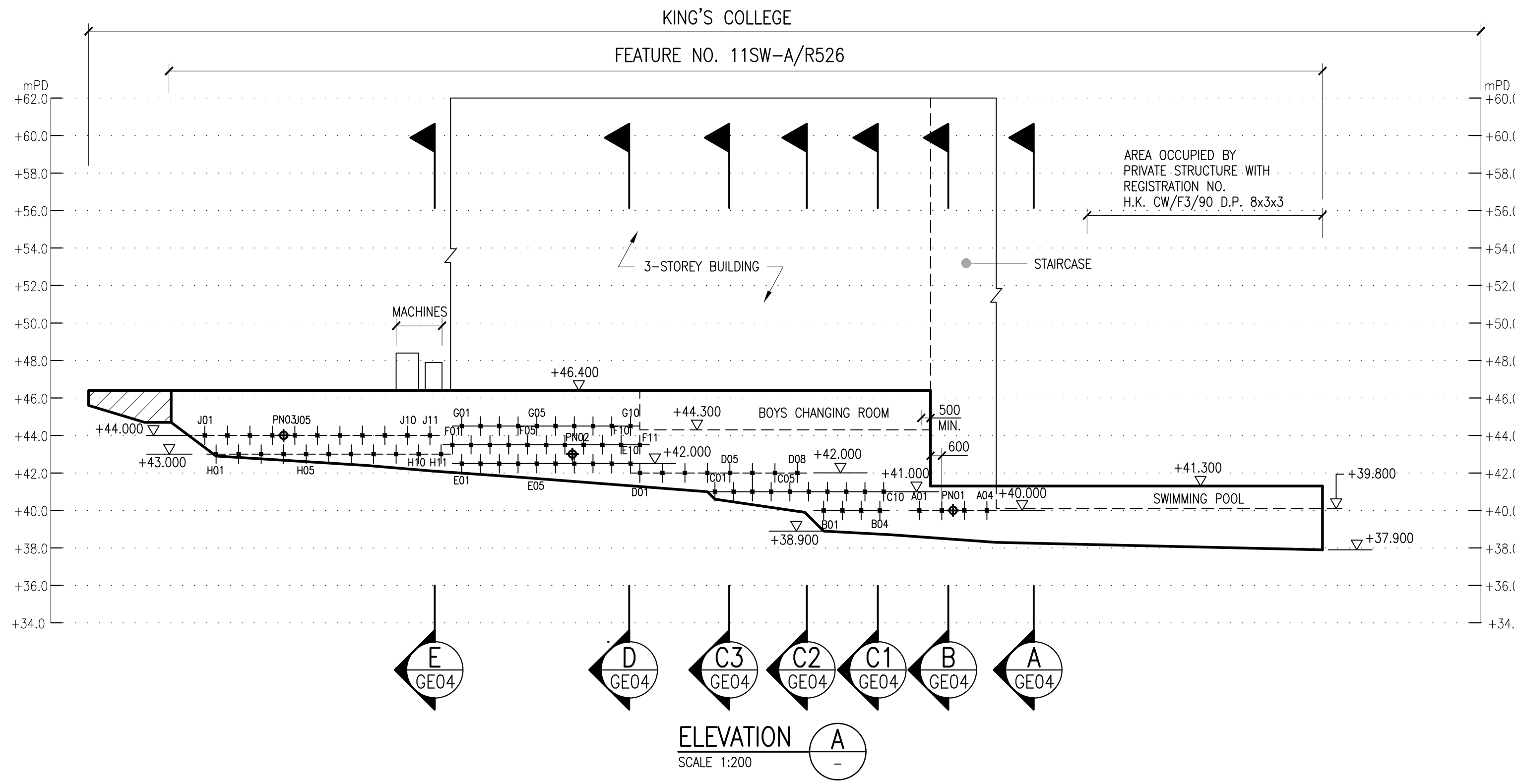
DRAWING TITLE
FEATURE NO. 11SW-A/R526
SECTIONS

DRAWING NO. 9AN03R/11SW-AR526/GE/04D	SCALE 1:100
APPROVED:	SIGNED:
DATE: 05/2015	

CLIENT



P04 Time : 28/03/2018
 File Path : \\24168\pup\GEO\11000427_King's College\24168_AR526-GE04D.dwg



SOIL NAIL SCHEDULE

SOIL NAIL NO.	HEAD LEVEL (mPD)	BAR SIZE (mm)	BAR LENGTH (m)	HORIZONTAL SPACING (m)	DIPPING ANGLE TO HORIZONTAL (DEG)	BEARING ANGLE (DEG)	GROUT HOLE DIAMETER (mm)	TENTATIVE LENGTH OF STEEL CASING (m)
A01-A04	+40.0	32	13.0	1.2	25	NTWF	200	4.5
B01-B04	+40.0	32	20.0	1.0	25	NTWF	200	4
C01-C10	+41.0	32	20.0	1.0	25	NTWF	200	4
D01-D08	+42.0	32	18.0	1.2	25	NTWF	200	6
E01-E10	+42.5	32	20.0	1.0	25	NTWF	200	5
F01-F11	+43.5	32	20.0	1.0	25	NTWF	200	8
G01-G10	+44.5	32	20.0	1.0	25	NTWF	200	11
H01-H11	+43.0	32	18.0	1.2	25	NTWF	200	6
J01-J11	+44.0	32	18.0	1.2	25	NTWF	200	8

- * NTWF = NORMAL TO WALL FACE
- * SOIL NAILS D05, D15, B10 AND A04 ARE SELECTED AS TRAIL SOIL NAILS
- * CONCENTRIC DRILLING FOR INSTALLATION OF PERMANENT CASING AT THE FILL LAYER IS ADOPTED.
- * AIR-FOAM AS THE FLUSHING MEDIUM IS ADOPTED FOR INSTALLATION OF PERMANENT CASING.

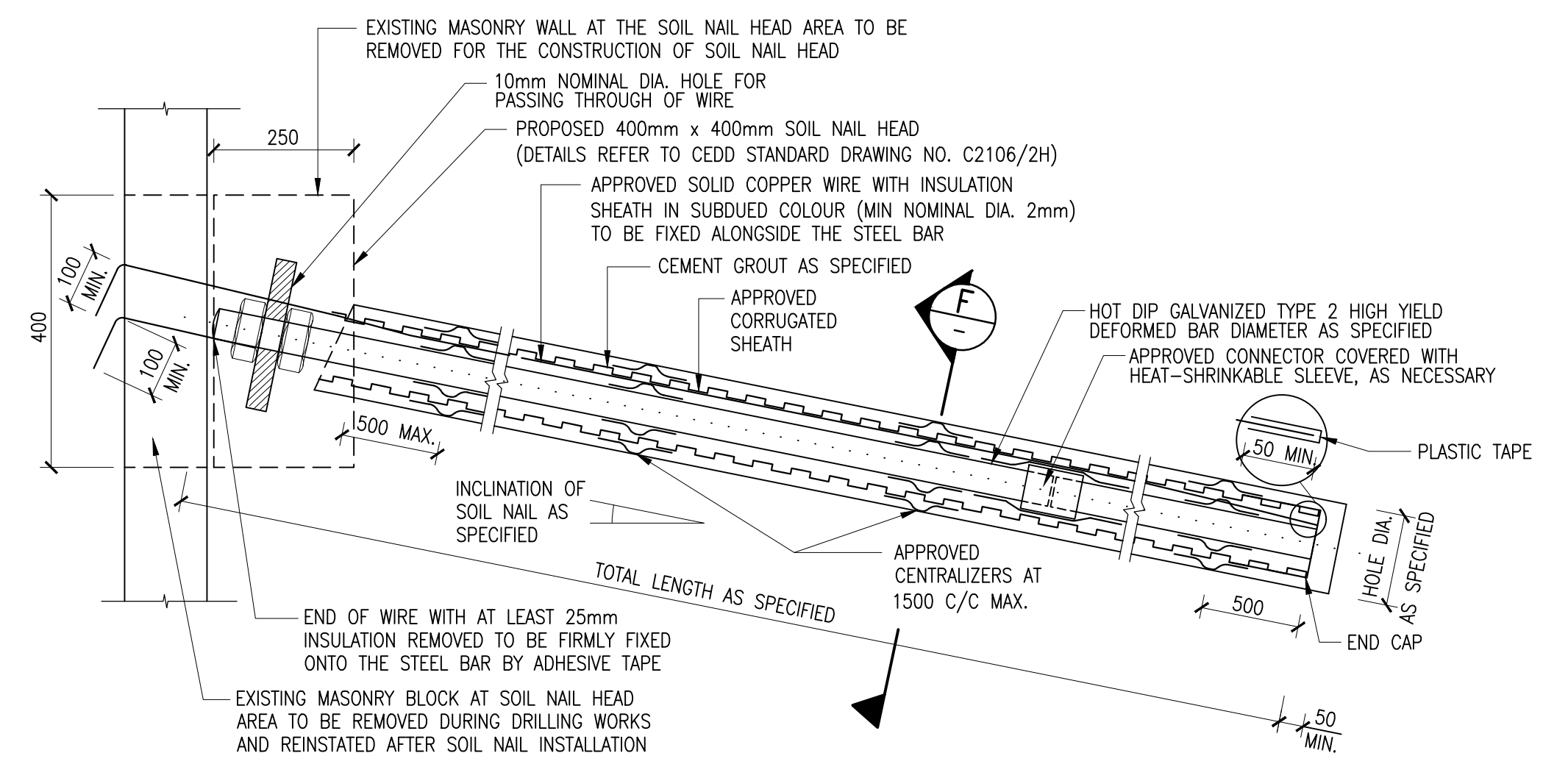
PULL-OUT TEST NAIL SCHEDULE

TEST NAIL NO.	HEAD LEVEL (mPD)	BAR SIZE (mm)	BAR LENGTH (m)	GROUT LENGTH (m)	TENTATIVE LENGTH OF PERMANENT STEEL CASING (m)	DIPPING ANGLE TO HORIZONTAL (DEG)	P ₀ (kN)	TDL1 (kN)	TDL2 (kN)	T _p (kN)
PN01	+40.0	32	13.0	2	4.5	25	15	15	20	360
PN02	+42.5	32	20.0	2	8	25	18	25	45	360
PN03	+44.0	32	18.0	2	11	25	18	20	35	360

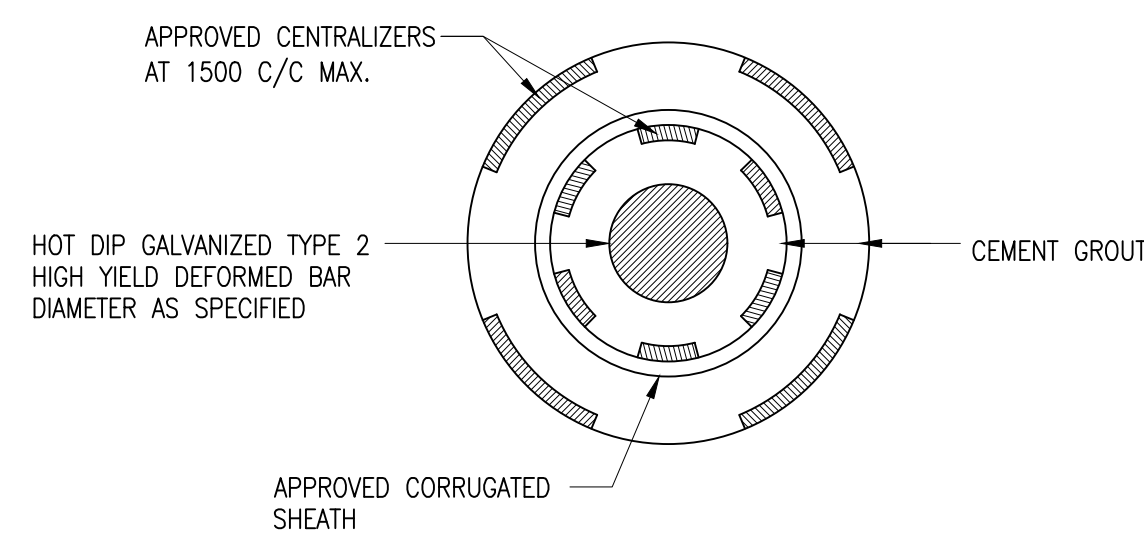
NOTES
DO NOT SCALE DRAWING.
ALL DIMENSIONS SHOULD BE CHECKED ON SITE.
THE OWNERSHIP OF THE COPYRIGHT IN THIS DRAWING IS RETAINED BY THE ARCHITECT WHOSE CONSENT MUST BE OBTAINED BEFORE ANY USE OR REPRODUCTION OF THE DRAWING OR ANY PART THEREOF CAN BE MADE.

LEGEND

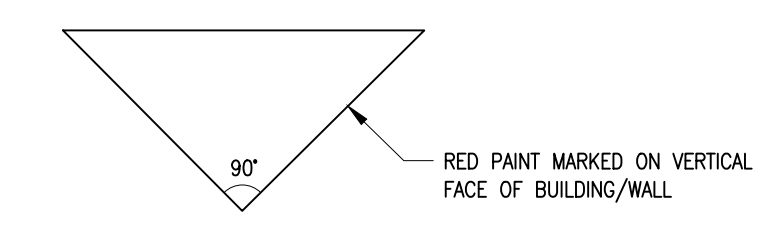
- + A01 PROPOSED SOIL NAIL
- + PN01 PROPOSED PULL-OUT TEST NAIL



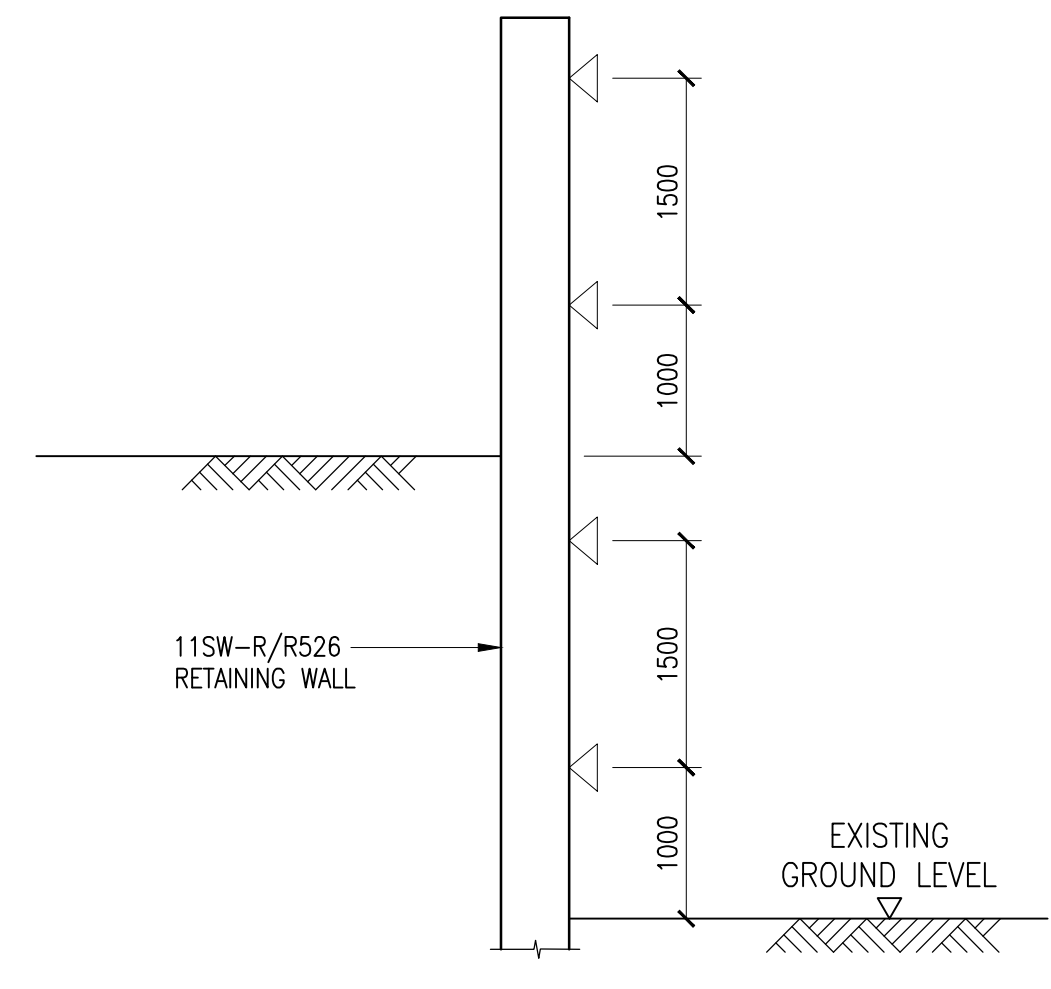
TYPICAL DETAILS OF SOIL NAIL
N.T.S.



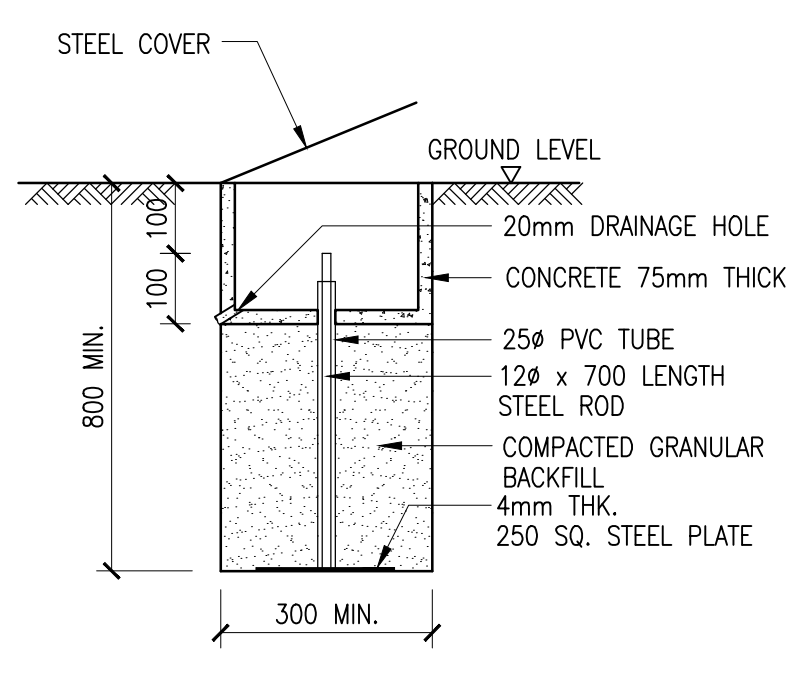
SECTION F
SCALE N.T.S.



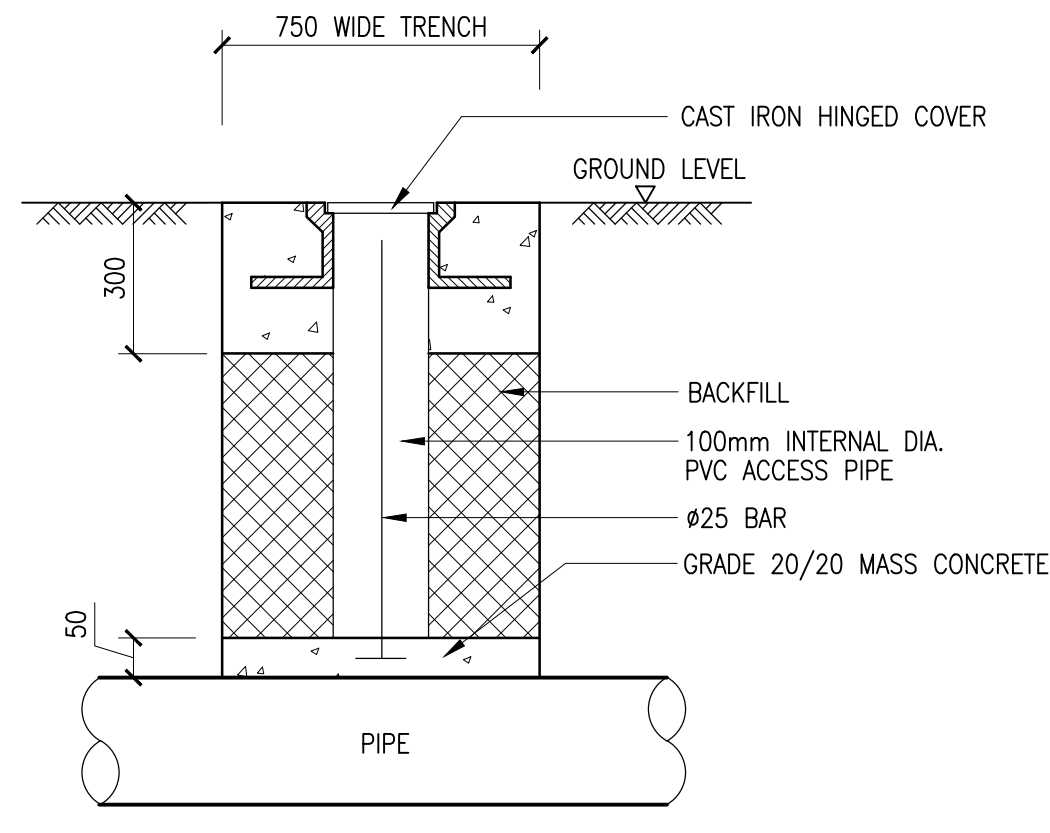
TYPICAL DETAILS OF BUILDING SETTLEMENT MARKER
N.T.S.



BUILDING TILTING MARKER
N.T.S.



TYPICAL DETAILS OF GROUND SETTLEMENT POINT
N.T.S.



TYPICAL DETAILS OF UTILITY SETTLEMENT MONITORING POINT
N.T.S.

REV	DESCRIPTION	DATE	CHECKED BY
F	TENDER DRAWING	03/18	F NG
E	EPD COMMENT	12/17	F NG
D	GEO COMMENT	01/16	F NG
C	GEO COMMENT	08/15	F NG
B	GEO COMMENT	08/15	F NG
A	SOIL NAIL REARRANGEMENT	05/15	F NG

ARCHITECT: 19/FLOOR EAST WARWICK HOUSE, TAIKOO PLACE, 979 KING'S ROAD, HONG KONG. TEL: 2899 9000, FAX: 2806 0343

ARUP Ove Arup & Partners Hong Kong Limited
Project Managers, Consulting Civil, Structural & Building Services Engineers
M&E CONSULTANTS
LEVEL 5, FESTIVAL WALK, 80 TAT CHEE AVENUE, KOWLOON TONG, KOWLOON, H.K.
Tel: (852) 2528 3031 Fax: (852) 2865 6493

NAME	SIGNED	DATE
DESIGNED	K RENN	06/2008
DRAWN	K RENN	06/2008
CHECKED	E CHAN	06/2008
APPROVED	A HO	06/2008

FILE NO.:
PROJECT NO.: **24168**
CONTRACT: 9AN03R
Term Consultancy for Minor Works to Government Properties
P1000427 FEATURE NO. 11SW-A/R526 KING'S COLLEGE

FEATURE NO. 11SW-A/R526
ELEVATION, SCHEDULES AND TYPICAL DETAILS

DRAWING NO.	SCALE
9AN03R/11SW-A/R526/GE/05F	AS SHOWN
APPROVED:	DATE: 05/2015

CLIENT: **Architectural Services Department**

P&I Date: 28/03/2015
File Path: \\A:\24168\pup\GE01\1000427_King's College\24168_AR526-GE05F.dwg

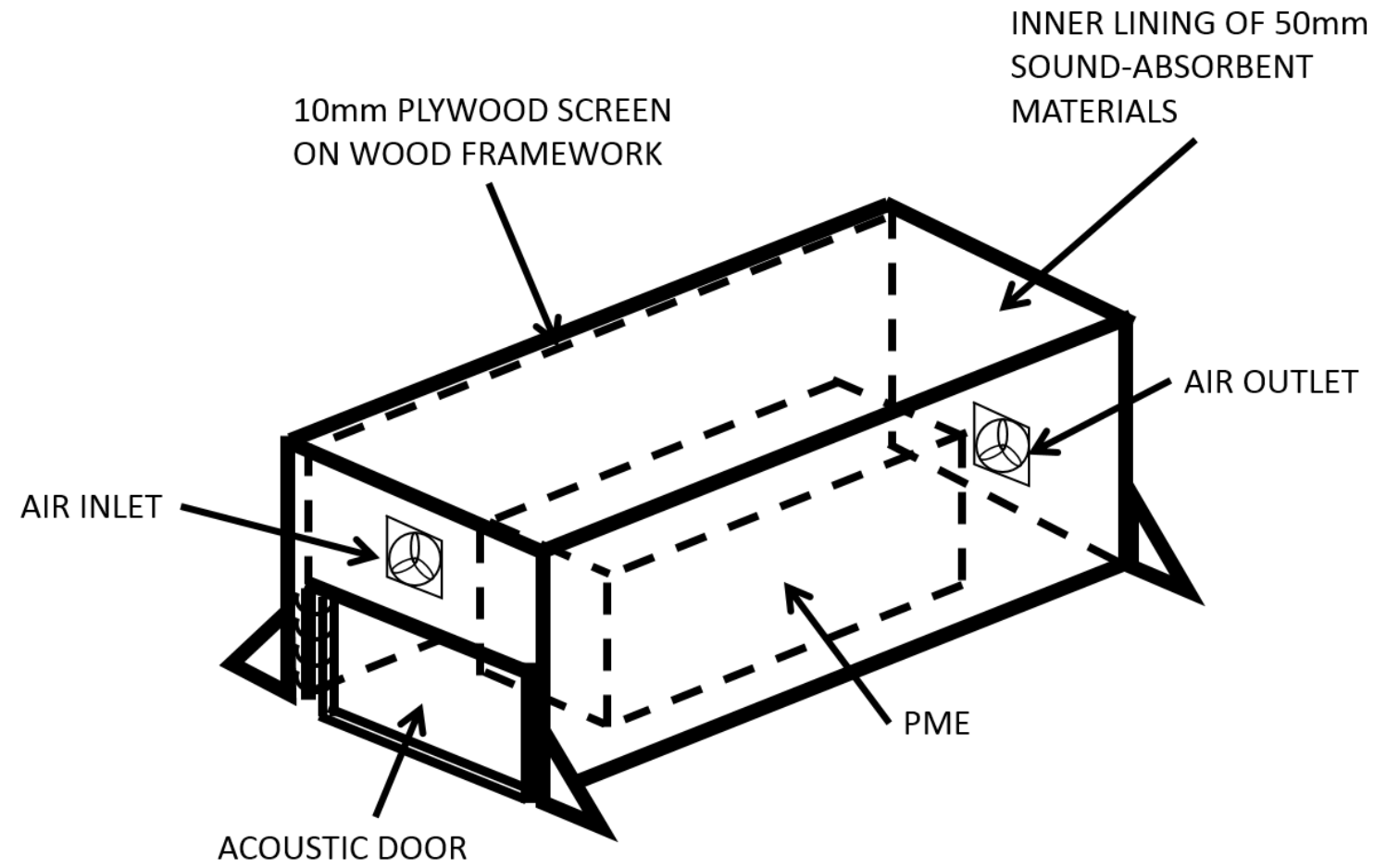
APPENDIX B

**Construction Noise
Assessment**

Appendix B

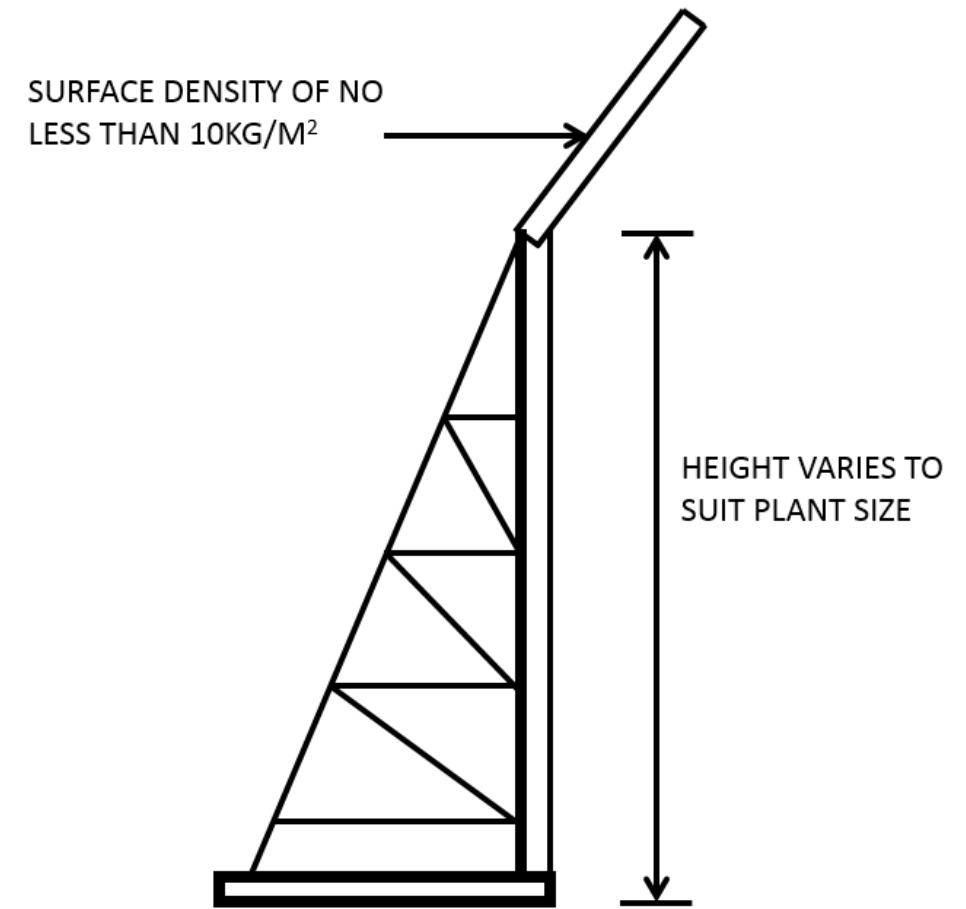
Indicative design of typical noise enclosure, cantilevered movable noise

barrier and top-enclosed noise barrier



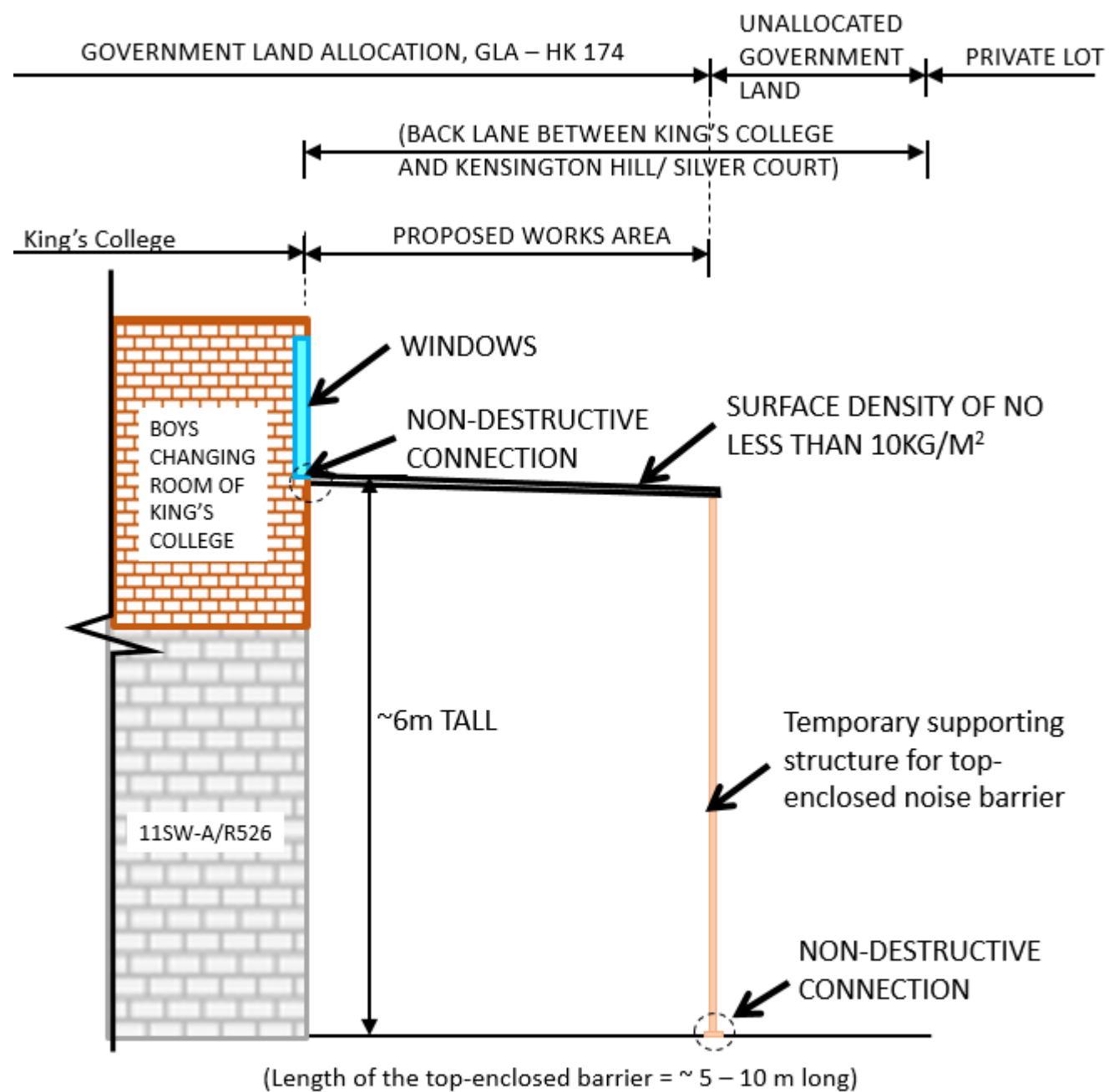
**TYPICAL NOISE ENCLOSURE FOR STATIC PLANT
 (E.G. CORING MACHINE, GROUT MIXER, GROUT PUMP, ETC)**

Surface density: no less than 10 kg/m²



TYPICAL CANTILEVERED MOVABLE NOISE BARRIER

Surface density: no less than 10 kg/m²



* The connection of the top-enclosed noise barrier should not cause any irreversible damage to the existing structure, details of the temporary supporting structure and connection details should submit to the Architect for approval prior to the installation

TYPICAL TOP-ENCLOSED NOISE BARRIER

Surface density: no less than 10 kg/m²

Job No.	24168	Sheet No.		Rev.	
Member/Location					
Drg. Ref.					
Made by	MF	Date	Mar-18	Chd.	FN

Job Title Consultancy Agreement No.: 9AN03R

Calculation Feature No. 11SW-A/R526, King's College - Appendix B

Table B1 Representative Noise Sensitive Receivers within 50m

NSR	Description	Distance from Site* (m)	Land Use
N1	King's College (North Wing)	0	Educational Institution
N2	The Summa	19	Residential
N3	Ling Yuen Sin Cannossian Kindergarten	13.5	Educational Institution
N4	Siu Tak Building	6.5	Residential
N5	Tsui Wah Building	13.5	Residential
N6	Silver Court	9	Residential
N7	Kensington Hill	6.5	Residential
N8	King's Hill	12.5	Residential
N9	King's College (East Wing)	9	Educational Institution

Table B2 List of Construction Activities and Tentative Construction Period

Activity Reference	Activities (Anticipated duration)	Year/Month							
		2018							2019
		June	July	August	September	October	November	December	January
Activity 1	Site possession and preparation	✓							
Activity 2	Removal of existing masonry blocks		✓	✓					
Activity 3	Drilling of soil nails		✓	✓	✓	✓	✓		
Activity 4	Installation of soil nails		✓	✓	✓	✓	✓		
Activity 5	Construction of soil nail heads					✓	✓	✓	
Activity 6	Reinstatement of masonry wall face							✓	✓
Activity 7	Construction of raking drain							✓	

Job No.	24168	Sheet No.		Rev.	
Member/Location					
Drg. Ref.					
Made by	MF	Date	Mar-18	Chd.	FN

Job Title Consultancy Agreement No.: 9AN03R

Calculation Feature No. 11SW-A/R526, King's College - Appendix B

Table B3 -1 Predicted Sound Power Levels (SWL) for Each Construction Activity in unmitigated case

Activity Reference	Equipment	CNP Equipment Code	No.	SWL/Item in dB(A)	On-Time %
Activity 1	Welding Set	Note 2	1	78	70
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	20
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	40
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40
Activity 4	Grout mixer	OCNP	1	90	20
	Grout pump	OCNP	1	105	20
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	20
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	5
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15
	Drill rig, rotary type (diesel)	OCNP	1	110	20
Activity 7	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	20
	Air compressor, air flow <= 10m3/min	CNP001	1	100	20

Table B3 -2 Predicted Sound Power Levels (SWL) for Each Construction Activity in mitigated case

Activity Reference	Equipment	CNP Equipment Code	No.	SWL/Item in dB(A)	On-Time %
Activity 1	Welding Set	Note 2	1	78	70
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40
Activity 4	Grout mixer	OCNP	1	90	20
	Grout pump	OCNP	1	105	20
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	20

Note

- CNP = Table 3, Technical Memorandum on Noise from Construction Work Other than Percussive Piling (GW-TM)
- OCNP = Other PME documented by the Noise Control Authority (http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)
- Note 2 = Approved EIA Report of Sheung Shui to Lok Ma Chau Spur Line (AEIAR-052/2002)
- Note 3 = Approved EIA Report of Development of Anderson Road Quarry Site - Road Improvement (AEIAR-195/2016)
- Note 4 = Hilti Diamond Coring Tool DD200 or similar

Job No.	24168	Sheet No.		Rev.	
Member/Location					
Drg. Ref.					
Made by	MF	Date	Mar-18	Chd.	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

Table B4 Predicted Sound Pressure Levels (SPL) for Unmitigated Construction Activities in accordance with Table B1 of Annex 5 of Technical Memorandum under EIAO)

N1 - King's College (North Wing)

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	8	3	71	71							
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	8	3	88	88							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	8	3	93		93	93					
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	8	3	88		88	88					
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	8	3	101		101	101	101	101	101		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	8	3	88		88	88	88	88	88		
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	8	3	91		91	91	91	91	91		
Activity 4	Grout mixer	OCNP	1	90	20	7	8	3	78		78	78	78	78	78		
	Grout pump	OCNP	1	105	20	7	8	3	93		93	93	93	93	93		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	8	3	88		88	88	88	88	88		
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	8	3	97					97	97	97	
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	8	3	83					83	83	83	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	8	3	88					88	88	88	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	8	3	84							84	84
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	8	3	101								101
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	8	3	88								88
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	8	3	91								91
Total SPL, dB(A)									88	102	102	102	102	102	102	102	84
Allowable SPL, dB(A)									70	70	70	70	70	70	70	70	70

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

* No construction activities using PME qill be carried out during examination hours of King's College

N2 - The Summa

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	34	3	45	45							
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	34	3	62	62							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	34	3	67		67	67					
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	34	3	62		62	62					
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	34	3	75		75	75	75	75	75		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	34	3	62		62	62	62	62	62		
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	34	3	65		65	65	65	65	65		
Activity 4	Grout mixer	OCNP	1	90	20	7	34	3	52		52	52	52	52	52		
	Grout pump	OCNP	1	105	20	7	34	3	67		67	67	67	67	67		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	34	3	62		62	62	62	62	62		
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	34	3	71					71	71	71	
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	34	3	57					57	57	57	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	34	3	62					62	62	62	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	34	3	58							58	58
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	34	3	75								75
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	34	3	62								62
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	34	3	65								65
Total SPL, dB(A)									62	76	76	76	76	76	76	76	58
Allowable SPL, dB(A)									75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

Job No.	24168	Sheet No.		Rev.	
Member/Location					
Drg. Ref.					
Made by	MF	Date	Mar-18	Chd.	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N3 - Caritas Ling Yuen Sin Cannossian Kindergarten

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	30	3	49	49							
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66	66							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	30	3	71		71	71					
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66					
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	30	3	79		79	79	79	79	79		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66	66	66	66		
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	30	3	69		69	69	69	69	69		
Activity 4	Grout mixer	OCNP	1	90	20	7	30	3	56		56	56	56	56	56		
	Grout pump	OCNP	1	105	20	7	30	3	71		71	71	71	71	71		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66	66	66	66		
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	30	3	75					75	75	75	
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	30	3	61					61	61	61	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66					66	66	66	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	30	3	62							62	62
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	30	3	79								79
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66								66
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	30	3	69								69
Total SPL, dB(A)									66	80	80	80	80	80	80	80	62
Allowable SPL, dB(A)									65	65	65	65	65	65	65	65	65

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

*As there is no specific examination date and some activities will be conducted at open-air space of the kindergarten, noise standard for Daytime Construction Activities to N3 during the entire construction period is taken be 65 dB(A).

N4 - Siu Tak Building

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	24	3	55	55							
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72	72							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	24	3	77		77	77					
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72		72	72					
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	24	3	85		85	85	85	85	85		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72		72	72	72	72	72		
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	24	3	75		75	75	75	75	75		
Activity 4	Grout mixer	OCNP	1	90	20	7	24	3	62		62	62	62	62	62		
	Grout pump	OCNP	1	105	20	7	24	3	77		77	77	77	77	77		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72		72	72	72	72	72		
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	24	3	81					81	81	81	
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	24	3	67					67	67	67	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72					72	72	72	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	24	3	68							68	68
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	24	3	85								85
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72								72
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	24	3	75								75
Total SPL, dB(A)									72	86	86	86	86	86	86	68	
Allowable SPL, dB(A)									75	75	75	75	75	75	75	75	

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

Job No.	Sheet No.	Rev.
24168		
Member/Location		
Drg. Ref.		
Made by	Date	Chd.
MF	Mar-18	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N5 - Tsui Wah Building

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	30	3	49	49								
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66	66								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	30	3	71		71	71						
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66						
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	30	3	79		79	79	79	79	79			
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66	66	66	66			
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	30	3	69		69	69	69	69	69			
Activity 4	Grout mixer	OCNP	1	90	20	7	30	3	56		56	56	56	56	56			
	Grout pump	OCNP	1	105	20	7	30	3	71		71	71	71	71	71			
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66	66	66	66			
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	30	3	75					75	75	75		
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	30	3	61					61	61	61		
Activity 6	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66					66	66	66		
	Grinder, hand-held (electric)	CNP065	1	98	15	9	30	3	62							62	62	
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	30	3	79								79	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66								66	
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	30	3	69								69	
									Total SPL, dB(A)	66	80	80	80	80	80	80	80	62
									Allowable SPL, dB(A)	75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

N6 - Silver Court

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	27	3	52	52							
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69	69							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	27	3	74		74	74					
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69		69	69					
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	27	3	82		82	82	82	82	82		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69		69	69	69	69	69		
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	27	3	72		72	72	72	72	72		
Activity 4	Grout mixer	OCNP	1	90	20	7	27	3	59		59	59	59	59	59		
	Grout pump	OCNP	1	105	20	7	27	3	74		74	74	74	74	74		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69		69	69	69	69	69		
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	27	4	79					79	79	79	
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	27	3	64					64	64	64	
Activity 6	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69					69	69	69	
	Grinder, hand-held (electric)	CNP065	1	98	15	9	27	3	65							65	65
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	27	3	82								82
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69								69
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	27	3	72								72
									Total SPL, dB(A)	69	83	83	83	83	83	83	65
									Allowable SPL, dB(A)	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

Job No.	Sheet No.		Rev.		
24168					
Member/Location					
Drg. Ref.					
Made by	MF	Date	Mar-18	Chd.	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N7 - Kensington Hill

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	24	3	55	55								
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72	72								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	24	3	77		77	77						
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72		72	72						
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	24	3	85		85	85	85	85	85			
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72		72	72	72	72	72			
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	24	3	75		75	75	75	75	75			
Activity 4	Grout mixer	OCNP	1	90	20	7	24	3	62		62	62	62	62	62			
	Grout pump	OCNP	1	105	20	7	24	3	77		77	77	77	77	77			
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72		72	72	72	72	72			
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	24	3	81					81	81	81		
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	24	3	67					67	67	67		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72					72	72	72		
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	24	3	68							68	68	
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	24	3	85								85	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	24	3	72								72	
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	24	3	75								75	
Total SPL, dB(A)										72	86	86	86	86	86	86	86	68
Allowable SPL, dB(A)										75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

N8 - King's Hill

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	30	3	49	49								
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66	66								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	30	3	71		71	71						
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66						
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	30	3	79		79	79	79	79	79			
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66	66	66	66			
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	30	3	69		69	69	69	69	69			
Activity 4	Grout mixer	OCNP	1	90	20	7	30	3	56		56	56	56	56	56			
	Grout pump	OCNP	1	105	20	7	30	3	71		71	71	71	71	71			
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66		66	66	66	66	66			
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	30	3	75					75	75	75		
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	30	3	61					61	61	61		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66					66	66	66		
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	30	3	62							62	62	
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	30	3	79								79	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	30	3	66								66	
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	30	3	69								69	
Total SPL, dB(A)										66	80	80	80	80	80	80	80	62
Allowable SPL, dB(A)										75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

Job No.	Sheet No.		Rev.		
24168					
Member/Location					
Drg. Ref.					
Made by	MF	Date	Mar-18	Chd.	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N9 - King's College (East Wing)

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	27	3	52	52							
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69	69							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	CNP024	1	108	10	10	27	3	74		74	74					
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69	69	69						
Activity 3	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	27	3	82		82	82	82	82	82		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69	69	69	69	69	69	69		
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	27	3	72		72	72	72	72	72		
Activity 4	Grout mixer	OCNP	1	90	20	7	27	3	59		59	59	59	59	59		
	Grout pump	OCNP	1	105	20	7	27	3	74		74	74	74	74	74		
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69	69	69	69	69	69	69		
Activity 5	Concrete Lorry Mixer	CNP044	1	109	20	7	27	3	78					78	78	78	
	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	27	3	64					64	64	64	
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69					69	69	69	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	27	3	65							65	65
Activity 7	Drill rig, rotary type (diesel)	OCNP	1	110	40	4	27	3	82							82	82
	Generator, super silenced, 70dB(A) at 7m	CNP103	1	95	70	2	27	3	69							69	69
	Air compressor, air flow <= 10m3/min	CNP001	1	100	40	4	27	3	72							72	72
Total SPL, dB(A)									69	83	83	83	83	83	83	83	65
Allowable SPL, dB(A)									70	70	70	70	70	70	70	70	70

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

* No construction activities using PME will be carried out during examination hours of King's College

Table B5 Predicted Sound Pressure Levels (SPL) for Mitigated Construction Activities in accordance with Table B1 of Annex 5 of Technical Memorandum under EIAO

N1 - King's College (North Wing)

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period							
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19
Activity 1	Welding Set	Note 2	1	78	70	2	8	3	71			10	61	61							
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	8	3	85	5		10	70		70	70					
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	8	3	83	5		10	68		68	68	68	68	68		
Activity 4	Grout mixer	OCNP	1	90	20	7	8	3	78		15	10	53		53	53	53	53	53		
	Grout pump	OCNP	1	105	20	7	8	3	93		15	10	68		68	68	68	68	68		
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	8	3	83	5		10	68					68	68	68	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	8	3	84	5		10	69							69	69
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	8	3	83	5		10	68								68
Total SPL, dB(A)													61	70	70	68	68	68	68	69	69
Allowable SPL, dB(A)													70	70	70	70	70	70	70	70	70

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

* No construction activities using PME will be carried out during examination hours of King's College

(1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.

(2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)

(3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

Job No.	Sheet No.	Rev.
24168		
Member/Location		
Dr. Ref.		
Made by	Date	Chd.
MF	Mar-18	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N2 - The Summa

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	34	3	45			10	35	35								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	34	3	59	5		10	44		44	44						
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	34	3	57	5		10	42		42	42	42	42	42	42	42	
Activity 4	Grout mixer	OCNP	1	90	20	7	34	3	52		15	10	27		27	27	27	27	27	27	27	
	Grout pump	OCNP	1	105	20	7	34	3	67		15	10	42		42	42	42	42	42	42	42	
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	34	3	57	5		10	42					42	42	42	42	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	34	3	58	5		10	43								43	43
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	34	3	57	5		10	42								42	42
Total SPL, dB(A)														35	44	44	42	42	42	42	43	43
Allowable SPL, dB(A)														75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

- (1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.
- (2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)
- (3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

N3 - Caritas Ling Yuen Sin Cannossian Kindergarten

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	30	3	49			10	39	39								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	30	3	63	5		10	48		48	48						
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	30	3	61	5		10	46		46	46	46	46	46	46	46	
Activity 4	Grout mixer	OCNP	1	90	20	7	30	3	56		15	10	31		31	31	31	31	31	31	31	
	Grout pump	OCNP	1	105	20	7	30	3	71		15	10	46		46	46	46	46	46	46	46	
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	30	3	61	5		10	46					46	46	46	46	
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	30	3	62	5		10	47								47	47
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	30	3	61	5		10	46								46	46
Total SPL, dB(A)														39	48	48	46	46	46	46	47	47
Allowable SPL, dB(A)														65	65	65	65	65	65	65	65	65

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

*As there is no specific examination date and some activities will be conducted at open-air space of the kindergarten, noise standard for Daytime Construction Activities to N3 during the entire construction period is taken be 65 dB(A).

- (1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.
- (2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)
- (3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

Job No.	Sheet No.	Rev.
24168		
Member/Location		
Drg. Ref.		
Made by	Date	Chd.
MF	Mar-18	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N4 - Siu Tak Building

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period									
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19		
Activity 1	Welding Set	Note 2	1	78	70	2	24	3	55			10	45	45									
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	24	3	69	5		10	54		54	54							
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	24	3	67	5		10	52		52	52	52	52	52	52	52		
Activity 4	Grout mixer	OCNP	1	90	20	7	24	3	62		15	10	37		37	37	37	37	37	37			
	Grout pump	OCNP	1	105	20	7	24	3	77		15	10	52		52	52	52	52	52	52			
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	24	3	67	5		10	52					52	52	52			
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	24	3	68	5		10	53								53	53	
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	24	3	67	5		10	52									52	
Total SPL, dB(A)														45	54	54	52	52	52	53	53		
Allowable SPL, dB(A)														75	75	75	75	75	75	75	75	75	

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.
 (1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.
 (2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)
 (3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

N5 - Tsui Wah Building

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period										
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19			
Activity 1	Welding Set	Note 2	1	78	70	2	30	3	49			10	39	39										
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	30	3	63	5		10	48		48	48								
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	30	3	61	5		10	46		46	46	46	46	46	46	46			
Activity 4	Grout mixer	OCNP	1	90	20	7	30	3	56		15	10	31		31	31	31	31	31	31				
	Grout pump	OCNP	1	105	20	7	30	3	71		15	10	46		46	46	46	46	46	46				
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	30	3	61	5		10	46					46	46	46				
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	30	3	62	5		10	47								47	47		
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	30	3	61	5		10	46									46		
Total SPL, dB(A)														39	48	48	46	46	46	47	47			
Allowable SPL, dB(A)														75	75	75	75	75	75	75	75	75		

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.
 (1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.
 (2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)
 (3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

Job No.	Sheet No.	Rev.
24168		
Member/Location		
Dr. Ref.		
Made by	Date	Chd.
MF	Mar-18	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N6 - Silver Court

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	27	3	52			10	42									
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	27	3	66	5		10	51	51								
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	27	3	64	5		10	49	49	49	49	49	49	49	49		
Activity 4	Grout mixer	OCNP	1	90	20	7	27	3	59		15	10	34	34	34	34	34	34	34			
	Grout pump	OCNP	1	105	20	7	27	3	74		15	10	49	49	49	49	49	49	49			
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	27	3	64	5		10	49					49	49	49		
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	27	3	65	5		10	50								50	50
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	27	3	64	5		10	49									49
Total SPL, dB(A)														42	51	51	49	49	49	49	50	50
Allowable SPL, dB(A)														75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

- (1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.
- (2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)
- (3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

N7 - Kensington Hill

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	24	3	55			10	45	45								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	24	3	69	5		10	54	54	54							
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	24	3	67	5		10	52	52	52	52	52	52	52	52		
Activity 4	Grout mixer	OCNP	1	90	20	7	24	3	62		15	10	37	37	37	37	37	37	37			
	Grout pump	OCNP	1	105	20	7	24	3	77		15	10	52	52	52	52	52	52	52			
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	24	3	67	5		10	52					52	52	52		
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	24	3	68	5		10	53								53	53
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	24	3	67	5		10	52									52
Total SPL, dB(A)														45	54	54	52	52	52	52	53	53
Allowable SPL, dB(A)														75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

- (1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.
- (2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)
- (3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

Job No.	Sheet No.	Rev.
24168		
Member/Location		
Drg. Ref.		
Made by	Date	Chd.
MF	Mar-18	FN

Job Title: Consultancy Agreement No.: 9AN03R
 Calculation: Feature No. 11SW-A/R526, King's College - Appendix B

N8 - King's Hill

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level	Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	30	3	49			10	39	39								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	30	3	63	5		10	48		48	48						
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	30	3	61	5		10	46		46	46	46	46	46	46	46	
Activity 4	Grout mixer	OCNP	1	90	20	7	30	3	56		15	10	31		31	31	31	31	31	31		
	Grout pump	OCNP	1	105	20	7	30	3	71		15	10	46		46	46	46	46	46	46		
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	30	3	61	5		10	46					46	46	46		
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	30	3	62	5		10	47								47	47
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	30	3	61	5		10	46								46	
Total SPL, dB(A)														39	48	48	46	46	46	46	47	47
Allowable SPL, dB(A)														75	75	75	75	75	75	75	75	75

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

(1) Cantilevered movable noise barrier is the proposed mitigation measures for handheld breakers and drill rig. A screening effect of -5dB(A) is therefore assumed.

(2) Noise enclosure is the proposed mitigation measure for grouting machine (mixer, pump, agitator), concrete mixer, Concrete Pump (electric), generator and air compressor with noise reduction of -15db(A)

(3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

N9 - King's College (East Wing)

Activity Ref	Equipment	Equipment Code	No.	SPL calculation (dB(A))						Barrier Attenuation (dB(A))			Mitigation Noise Level (dB(A))	Construction Period								
				SWL	On-Time %	On-Time % Correction	Distance Attenuation	Facade correction	SPL	(1)	(2)	(3)		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	
Activity 1	Welding Set	Note 2	1	78	70	2	27	3	52			10	42	42								
Activity 2	Breaker, Hand-held, mass >10kJ and <20kg	Note 3	1	100	10	10	27	3	66	5		10	51		51	51						
Activity 3	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	27	3	64	5		10	49		49	49	49	49	49	49		
Activity 4	Grout mixer	OCNP	1	90	20	7	27	3	59		15	10	34		34	34	34	34	34	34		
	Grout pump	OCNP	1	105	20	7	27	3	74		15	10	49		49	49	49	49	49	49		
Activity 5	Poker, vibratory, hand-held (electric)	OCNP	1	102	5	14	27	3	64	5		10	49					49	49	49		
Activity 6	Grinder, hand-held (electric)	CNP065	1	98	15	9	27	3	65	5		10	50								50	50
Activity 7	Hilti Diamond Coring Tool DD200 or similar	Note 4	1	92	40	4	27	3	64	5		10	49								49	
Total SPL, dB(A)														42	51	51	49	49	49	49	50	50
Allowable SPL, dB(A)														70	70	70	70	65	65	65	65	70

* All activities will not be carried out simultaneously, only one constructive activity using PME will be carried out at any one time.

* No construction activities using PME will be carried out during examination hours of King's College

(1) Cantilevered movable noise barrier is the proposed mitigation measures for breaker and coring machine. A screening effect of -5dB(A) is therefore assumed.

(2) Noise enclosure is the proposed mitigation measure for grout mixer and grout pump with noise reduction of -15db(A)

(3) Top-enclosed noise barrier is the proposed mitigation measure for entire Works Area with noise reduction of -10dB(A)

APPENDIX C

**Photographs of
Representative Noise/
Air Sensitive Receivers
and Photographs of
King's College and its
surrounding**

Appendix C

Photographs of Representative Noise/ Air Sensitive Receivers



N1/A1 – North Wing of King's College



N2 / A2 – The Summa



N3/A3 – Caritas Ling Yuen Sin Cannossian Kindergarten



N4 / A4 – Siu Tak Building
N5 / A5 – Tsui Wah Building
N6 / A6 – Silver Court



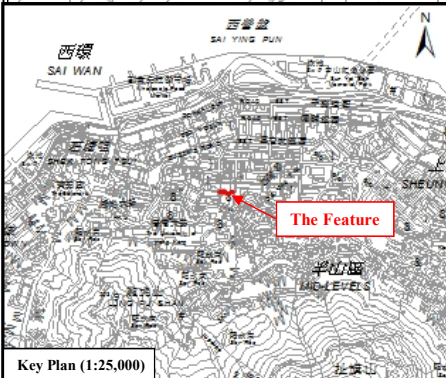
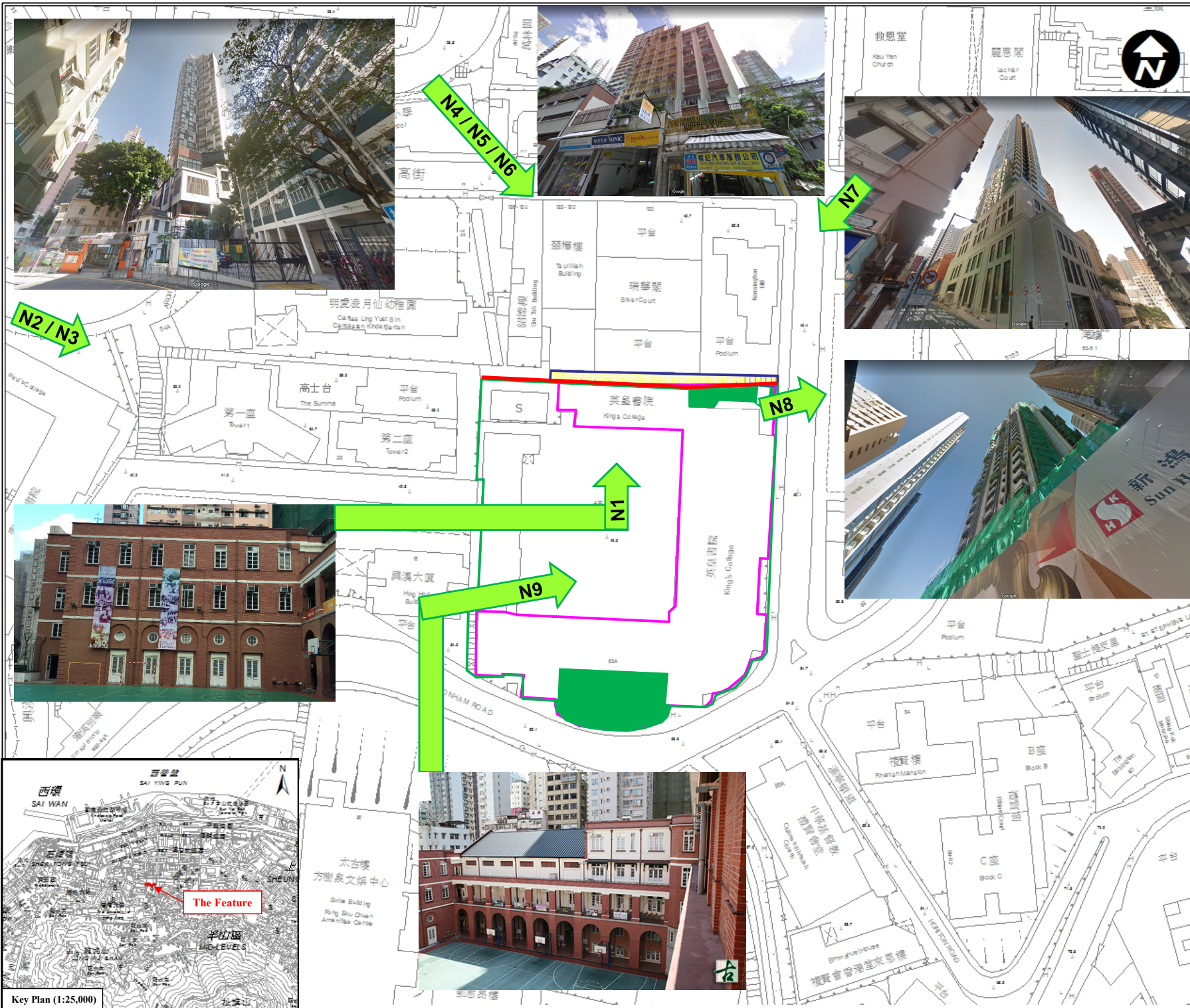
N7 / A7 – Kensington Hill



N8 / A8 – King’s Hill



N9/A9 – East Wing of King’s College



- Legend:**
- Feature boundary
 - Boundary of declared monument (other than the parts coloured green)
 - Part excluded from declared monument
 - Project boundary
 - Proposed Works Site
 - Aboveground structure of King's College
 - ➔ Direction of views to NSR

Rev	Description	By	Date

ARUP

Contract No. and Title:
Consultancy Agreement No.: 9AN03R
Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) is Responsible

Drawing Title:
Location Plan of Slope upgrading works at King's College and adjacent representative NSRs

Figure no.	Figure D1	Rev	
Prepared	Date	Checked	Approved
Scale		Status	PRELIMINARY



Legend:

- Feature boundary
- Boundary of declared monument (other than the parts coloured green)
- Part excluded from declared monument
- Project boundary
- Proposed Works Site
- Aboveground structure of King's College

Rev	Description	By	Date

Consultant
ARUP

Contract No. and Title
Consultancy Agreement No.: 9AN03R
Term Consultancy for Minor Works to Government Properties for which the Architectural Services Department (Property Services Branch) is Responsible

Drawing Title
Location Plan of Slope upgrading works at King's College and Photographs of King's College and its surrounding

Figure no.	Figure D2	Rev	
Prepared	Date	Checked	Approved
Scale		Status	

APPENDIX D

**Defect lists with photos
and locations extracted
from Structural
Condition Survey –
Interim Report**

Leigh & Orange Ltd.

King's College

Structural Condition Survey - Interim
Report

024168/CSR001

Rev. 0 | 3 March 2017

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 024168/21

Ove Arup & Partners Hong Kong Ltd

Level 5 Festival Walk
80 Tat Chee Avenue
Kowloon Tong
Kowloon
Hong Kong
www.arup.com

ARUP

Appendix B

Defect List

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect Abbreviations	Description
HC	Hairline crack, crack width less than 0.3mm
MC	Medium crack, crack width between 0.3mm and 1mm
WC	Wide crack, crack width larger than 1mm
WS	Water stain / damp patches
LCH	Leaching
PP	Paint/Coating peeling off from substrate
PR	Previous repair
VG	Vegetation growth
RS	Rust stain
MR	Minor rusting with scale
JSD	Joint sealant damage or deterioration
SP	Spalling of concrete or brick materials
O	Other defects

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
1	WC	200	-	1	1	North wing, North elevation exterior	retaining wall	A wide crack was observed on retaining wall mortar joint	1001 1002
2	WC	2500	-	1	1	North wing, North elevation exterior	retaining wall	A wide crack was observed on retaining wall	1003 1004
3	O	-	-	-	1	North wing, North elevation exterior	retaining wall	Water seepage through drain holes	1005 1006
4	VG	1500	3000	-	1	North wing, North elevation exterior	retaining wall	A vegetation growth was observed on retaining wall	1007 1008
5	WC	1500	-	1	1	North wing, North elevation exterior	retaining wall	A wide crack was observed on retaining wall mortar joint	1009 1010
6	O	-	-	-	1	North wing, North elevation exterior	retaining wall	Water seepage through granite mortar joint	1011 1012
7	VG	-	-	-	1	North wing, North elevation exterior	retaining wall	A vegetation growth was observed on retaining wall	1013 1014
8	VG	-	-	-	1	North wing, North elevation exterior	retaining wall	A vegetation growth was observed on retaining wall	1015 1016
9	MC	1500	-	0.5	1	North wing, North elevation exterior	retaining wall	A medium crack was observed on retaining wall	1017 1018
10	VG	-	-	-	1	North wing, North elevation exterior	retaining wall	A vegetation growth was observed on retaining wall	1019 1020
11	WC	1000	-	1	2	1/F East wing, Assembly hall	wall	2 wide cracks with apparent damp patch were observed on wall	1021 1022
12	WC	1000	-	1	1	1/F East wing, Corridor	brick column	A wide crack was observed on brick column	1023 1024
13	WC	2000	-	1	1	1/F East wing, Corridor	slab	A wide crack was observed on slab floor tiles	1025 1026
14	WC	2000	-	1	1	1/F East wing, Corridor	slab	A wide crack was observed on slab soffit	1027 1028
15	MC	300	-	1	6	East wing, South elevation entrance	canopy	Medium cracks were observed on canopy	1029 1030
16	WC	500	-	1	1	East wing, South elevation entrance	slab	A wide crack was observed on slab	1031 1032

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
17	WC	500	-	1	1	East wing, South elevation entrance	slab	A wide crack was observed on slab	1033 1034
18	WC	1000	500	1	1	East wing, South elevation entrance	slab	An area of cracks was observed on slab	1035 1036
19	PR	1000	-	-	1	1/F East wing, West elevation	brick wall	A previous repair was observed on brick wall	1037 1038
20	MC	1500	-	0.5	1	1/F East wing, West elevation	brick wall	A medium crack was observed on brick wall	1039 1040
21	PP	100	100	-	1	2/F North wing, Room behind assembly hall stage	slab	Paint delamination was observed on slab soffit	1041 1042
22	MC	100	-	0.5	1	1/F South wing, Corridor	column	A medium crack was observed on column footing	1043 1044
23	WC	500	-	1	1	1/F South wing, Corridor	column	A wide crack was observed on the top plate between 2 columns	1045 1046
24	JSD	1200	-	-	1	1/F South wing, Corridor	parapet	Debonded joint sealant was observed on parapet between the old and new structure	1047 1048
25	VG	1500	-	-	1	South wing, School Garden	parapet wall	A vegetation growth was observed on parapet wall	1049 1050
26	MC	500	-	0.5	10	South wing, School Garden	parapet wall top	Medium cracks were observed on parapet wall top	1051 1052
27	HC	1200	800	0.3	1	South wing, Standalone pump valve structure	concrete plinth	Crazing cracks were observed on the concrete plinth of the standalone pump valve structure	1053 1054
28	MC	500	-	1	2	1/F & 2/F South wing, South elevation	beam	A medium crack was observed on the beams at south elevation	1055 1056
29	PP	10000	400	-	1	2/F East wing, Corridor	parapet	A paint peeling was observed on parapet	1057 1058
30	MC	600	-	0.5	2	2/F East wing, Corridor	parapet	2 medium cracks were observed on parapet finishing	1059 1060
31	MC	1200	-	0.5	1	2/F East wing, Corridor	parapet	A medium crack was observed on parapet finishing	1061 1062
32	WC	1200	-	1	1	2/F East wing, Corridor	parapet	A wide crack was observed on parapet finishing	1063 1064

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
33	WC	600	-	1	2	2/F East wing, Corridor	parapet	2 wide cracks were observed on parapet finishing	1065 1066
34	WC	600	-	1	2	2/F East wing, Corridor	parapet	2 wide cracks were observed on parapet finishing	1067 1068
35	WC	600	-	1	2	2/F East wing, Corridor	parapet	2 wide cracks were observed on parapet finishing	1069 1070
36	MC	600	-	0.5	3	2/F East wing, Corridor	parapet	3 medium cracks were observed on parapet finishing	1071 1072
37	MC	600	-	0.5	1	2/F East wing, Corridor	parapet	A medium crack was observed on parapet finishing	1073 1074
38	WC	600	-	1	2	2/F East wing, Corridor	parapet	2 wide cracks were observed on parapet finishing	1075 1076
39	WC	2000	-	1	1	2/F East wing, Corridor	slab	A wide crack was observed on slab	1077 1078
40	MC	2500	-	0.5	1	2/F East wing, Corridor	slab	A medium crack was observed on slab	1079 1080
41	WC	900	-	1	1	2/F East wing, Corridor	wall	A wide crack was observed on wall	1081 1082
42	WC	1000	-	1	1	2/F East wing, East elevation	column	A wide crack was observed on brick column	1083 1084
43	WC	5000	-	1	1	2/F East wing, East elevation	beam	A wide crack was observed on concrete beam above brick column	1085 1086
44	WC	10000	-	1	1	2/F East wing, East elevation	beam	A wide crack was observed on concrete beam above brick column	1087 1088
45	WC	5000	-	1	1	2/F East wing, East elevation	beam	A wide crack was observed on concrete beam above brick column	1089 1090
46	MC	500	-	0.5	1	2/F East wing, Staff room	wall	A medium crack was observed on wall finishing	1091 1092
47	HC	4000	1000	0.3	1	2/F East wing, Staff room	wall	An area of hairline crack was observed on wall finishing	1093 1094
48	O	50	50	-	1	2/F North wing, East elevation	brick wall	Delaminated previous repair was observed on brick wall	1095 1096
49	WC	50	-	1	1	2/F North wing, East elevation	brick wall	A wide crack was observed on brick	1097 1098

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
50	O	50	50	-	1	2/F North wing, East elevation	brick wall	Delaminated previous repair was observed on brick wall	1099 1100
51	LCH	1500	1000	-	1	2/F South wing, Corridor	brick wall	Minor surface leaching was observed on brick wall	1101 1102
52	LCH	1500	1000	-	1	2/F South wing, Corridor	brick wall	Minor surface leaching leaching was observed on brick wall	1103 1104
53	WC	300	-	1	1	2/F South wing, Corridor	brick wall	A wide crack was observed on the top concrete plate between columns	1105 1106
54	LCH	4000	2000	-	1	2/F South wing, Corridor	brick wall	Minor surface leaching was observed on brick wall	1107 1108
55	LCH	4000	2000	-	1	2/F South wing, Corridor	brick wall	Minor surface leaching was observed on brick wall	1109 1110
56	WC	300	-	1	1	2/F South wing, Corridor	column	A wide crack was observed on column footing plate	1111 1112
57	WC	900	-	1	1	2/F South wing, Corridor	slab	A wide crack was observed on floor tile joint	1113 1114
58	JSD	1200	-	-	1	2/F South wing, Corridor	parapet	Debonded joint sealant was observed on parapet between old and new structure	1115 1116
59	WC	500	-	1	1	2/F South wing, Corridor	slab	A wide crack was observed on slab floor tile finish	1117 1118
60	PP	1000	100	-	1	2/F South wing, East elevation	canopy	A paint peeling was observed on canopy soffit	1119 1120
61	WS	3000	2000	-	1	2/F South wing, Musical instrument store room	slab	Water stain was observed on slab soffit	1121 1122
62	MC	1000	800	0.5	1	2/F South wing, Musical instrument store room	wall	An area of medium crack was observed on wall finishing	1123 1124
63	MC	600	600	0.5	1	2/F South wing, Musical instrument store room	wall	An area of medium crack was observed on wall finishing	1125 1126
64	PP	150	150	-	1	2/F South wing, Musical instrument store room	wall	Chipping off of concrete finishing was observed on wall	1127 1128
65	HC	100	-	0.3	4	2/F South wing, North elevation	canopy	4 hairline cracks were observed on canopy soffit	1129 1130
66	MC	100	-	0.5	3	2/F South wing, North elevation	canopy	3 medium cracks were observed on canopy soffit	1131 1132

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
67	WC	300	-	1	1	2/F South wing, North elevation	canopy	2 wide cracks were observed on canopy soffit	1133 1134
68	HC	100	-	0.3	1	3/F East wing, RM302 SALC room	step	A hairline crack was observed on step	1135 1136
69	HC	100	-	0.3	1	3/F East wing, RM302 SALC room	step	A hairline crack was observed on step	1137 1138
70	MC	800	100	-	1	3/F East wing, RM303 classroom	door jamb	A crack was observed on door jamb	1139 1140
71	WC	100	-	1	3	3/F East wing, RM303 classroom	step	Wide cracks were observed on step	1141 1142
72	O	100	10	-	1	3/F South wing, Corridor	brick wall	Minor chipped off of joint mortar was observed on brick wall	1143 1144
73	MC	300	-	0.5	1	3/F South wing, Corridor	brick wall	A medium crack was observed on brick wall	1145 1146
74	JSD	1200	-	-	1	3/F South wing, Corridor	parapet	Debonded joint sealant was observed on parapet between new and old structure	1147 1148
75	JSD	1200	-	-	1	3/F South wing, Corridor	parapet	Debonded joint sealant was observed on parapet between new and old structure	1149 1150
76	WS	1500	1000	-	1	3/F South wing, Corridor	slab	A damp patch was observed on slab soffit	1151 1152
77	HC	1500	1500	0.3	1	3/F South wing, Corridor	slab	An area of hairline crack was observed on floor slab	1153 1154
78	HC	1000	-	0.3	1	3/F South wing, Corridor	wall	A hairline crack was observed on wall finishing	1155 1156
79	HC	1000	-	0.3	1	3/F South wing, Corridor	wall	A hairline crack was observed on wall finishing	1157 1158
80	HC	500	-	0.3	1	3/F South wing, Corridor	wall	A hairline crack was observed on wall finishing	1159 1160
81	WC	600	100	-	1	3/F South wing, RM304 classroom	door jamb	A crack was observed on door jamb	1161 1162
82	WC	700	-	1	2	B/F North wing, Changing room	wall	2 wide cracks were observed on wall tile	1163 1164
83	MC	2000	-	0.5	1	East wing, Main entrance	parapet	A medium crack was observed on parapet wall	1165 1166
84	WC	600	-	1	1	East wing, Main entrance	parapet	A wide crack was observed on parapet wall	1167 1168

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
85	O	1000	1000	-	1	G/F East wing, Social worker room	wall	Deteriorated surface finishing was observed on wall	1169 1170
86	WC	2000	-	1	1	G/F East wing, Social worker room	door jamb	A wide crack was observed on door jamb	1171 1172
87	PP	4000	2000	-	2	G/F East wing, Switchgear room	wall	Paint peeling was observed on wall	1173 1174
88	WC	1000	-	1	1	G/F East wing, Switchgear room	wall	A wide crack was observed on wall finishing	1175 1176
89	MC	800	600	-	1	G/F East wing, UG08 classroom	window sill	An area of medium crack was observed on soffit finishing	1177 1178
90	WC	400	-	1	2	G/F East wing, West elevation	granite wall	2 wide cracks were observed on granite wall	1179 1180
91	WC	3500	1500	1	1	G/F South wing, Bonham road store room	wall	An area of wide crack was observed on wall finishing	1181 1182
92	MC	1000	1000	0.5	1	G/F South wing, Bonham road store room	wall	An area of medium crack was observed on wall finishing	1183 1184
93	WC	3500	1500	1	1	G/F South wing, Bonham road store room	wall	An area of wide crack was observed on wall finishing	1185 1186
94	WC	2000	1000	1	1	G/F South wing, Bonham road store room	wall	An area of wide crack was observed on wall finishing	1187 1188
95	MC	1000	-	0.5	1	G/F South wing, Corridor	brick column	A medium crack was observed on brick column	1189 1190
96	VG	-	-	-	1	G/F South wing, Corridor	brick column	A vegetation growth was observed on brick column	1191 1192
97	MC	1000	-	0.5	1	G/F South wing, Corridor	brick wall	A medium crack was observed on brick wall	1193 1194
98	HC	600	-	0.3	1	G/F South wing, Corridor	door lintel	A hairline crack was observed on door lintel	1195 1196
99	JSD	1200	-	-	1	G/F South wing, Corridor	parapet	Debonded joint sealant was observed on parapet between new and old structure	1197 1198
100	MC	600	600	0.5	1	G/F South wing, School Garden	retaining wall	An area of medium crack was observed on concrete surface of retaining wall	1199 1200
101	LCH	600	600	-	1	G/F South wing, School Garden	retaining wall	A leaching with seepage was observed on concrete surface of retaining wall	1201 1202

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
102	HC	1200	300	0.3	1	G/F South wing, School Garden	retaining wall	An area of hairline crack was observed on concrete surface of retaining wall	1203 1204
103	WC	4000	2000	1	1	G/F South wing, School Garden	column	An area of wide cracks was observed on the finishing of column	1205 1206
104	MC	2000	1000	0.5	1	G/F South wing, School Garden	column	An area of medium crack with leaching was observed on column finishing	1207 1208
105	MC	3000	1500	0.5	1	G/F South wing, School Garden	column	An area of medium crack with leaching was observed on column finishing	1209 1210
106	MC	2000	1500	0.5	1	G/F South wing, School Garden	column	An area of medium crack with leaching was observed on column finishing	1211 1212
107	MC	1000	1000	0.5	1	G/F South wing, School Garden	column	An area of medium crack was observed on column finishing	1213 1214
108	MC	2000	1000	0.5	1	G/F South wing, School Garden	column	An area of medium crack with leaching was observed on column finishing	1215 1216
109	MC	1500	1000	0.5	1	G/F South wing, School Garden	column	An area of medium crack was observed on column finishing	1217 1218
110	WC	4000	2000	1	1	G/F South wing, School Garden	column	An area of wide crack was observed on column finishing	1219 1220
111	HC	1000	-	0.3	1	G/F South wing, School Garden	column	A hairline crack with yellow stain was observed on column	1221 1222
112	MC	2000	1500	0.5	1	G/F South wing, School Garden	mass block	An area of medium crack was observed on mass block	1223 1224
113	WC	200	50	-	1	G/F South wing, School Garden	mass block	A wide crack was observed on the mass block	1225 1226
114	WC	18000	200	1	1	G/F South wing, School Garden	upstand curb	An area of cracks was observed on upstand curb	1227 1228
115	WC	20000	200	1	1	G/F South wing, School Garden	upstand curb	An area of cracks was observed on upstand curb	1229 1230
116	WC	18000	200	1	1	G/F South wing, School Garden	upstand curb	An area of cracks was observed on upstand curb	1231 1232

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
117	MC	500	-	0.5	1	G/F South wing, Medical inspection room	door lintel	A medium crack was observed on door lintel	1233 1234
118	O	700	-	10	1	G/F South wing, Medical inspection room	door jamb	A gap was observed between the wall and door jamb	1235 1236
119	HC	1000	-	0.3	1	G/F South wing, Medical inspection room	wall	A hairline crack was observed on wall finishing	1237 1238
120	MC	600	-	0.5	1	G/F South wing, Medical inspection room	wall	A medium crack was observed on wall finishing	1239 1240
121	SP	200	100	-	1	G/F South wing, north elevation	canopy bracing	A canopy bracing was found chipped off	1241 1242
122	MC	100	-	0.5	1	G/F South wing, north elevation	canopy bracing	A medium crack was observed on finishing of canopy bracing	1243 1244
123	HC	2000	-	0.3	1	G/F-1/F North wing, NW staircase	wall	A hairline crack was observed on wall finishing	1245 1246
124	HC	1000	-	0.3	1	G/F-1/F North wing, NW staircase	wall	A hairline crack was observed on wall finishing	1247 1248
125	HC	1200	-	0.3	1	G/F-1/F North wing, NW staircase	wall	A hairline crack was observed on wall finishing	1249 1250
126	HC	1000	-	0.3	1	G/F-1/F North wing, NW staircase	wall	A hairline crack was observed on wall finishing	1251 1252
127	MC	300	-	0.5	1	G/F-1/F North wing, NW staircase	wall	A medium crack was observed on wall finishing	1253 1254
128	PP	600	-	0.5	1	LG/F North wing, NW staircase	wall	Paint peeling was observed on wall	1255 1256
129	MC	1000	-	0.5	1	LG/F North wing, NW staircase	wall	A medium crack was observed on wall finishing	1257 1258
130	MC	300	-	0.5	1	LG/F North wing, NW staircase	wall	A medium crack was observed on wall finishing	1259 1260

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
131	PP	30000	800	-	4	G/F-R/F South wing, North elevation	canopy	Paint deterioration was observed on the top face of canopies	1261 1262
132	MC	1000	-	0.5	1	R/F South wing, North elevation	canopy	A medium crack was observed on canopy soffit finishing	1263 1264
133	MR	-	-	-	2	G/F-R/F South wing, North elevation	canopy	Minor damp patches were observed on canopy soffit	1265 1266
134	O	-	-	-	2	LB/F Swimming pool	brick wall	Loose bricks were observed on parapet brick wall	1267 1268
135	WC	1000	-	1	1	LB/F Swimming pool	brick wall	A wide crack was observed on parapet brick wall mortar joint	1269 1270
136	WC	600	-	1	1	LB/F Swimming pool	brick wall	A wide crack was observed on brick wall mortar joint	1271 1272
137	O	1500	1500	-	1	LB/F Swimming pool	brick wall	Spalled bricks were observed on brick wall	1273 1274
138	WC	1000	-	10	1	LB/F Swimming pool	brick wall	Wide crack with loose bricks on brick wall	1275 1276
139	O	500	500	-	1	LB/F Swimming pool	brick wall	Spalled bricks were observed on brick wall	1277 1278
140	VG	-	-	-	1	LB/F Swimming pool	brick wall	A large tree was grown on top of the brick wall	1279 1280
141	VG	-	-	-	1	LB/F Swimming pool	granite portal	A vegetation growth was observed on granite portal	1281 1282
142	LCH	15000	1000	-	1	LB/F Swimming pool	parapet	Patches of leaching were observed on parapet	1283 1284
143	VG	-	-	-	1	LB/F Swimming pool	retaining wall	A vegetation growth was observed on retaining wall	1285 1286
144	VG	-	-	-	1	LB/F Swimming pool	retaining wall	A vegetation growth was observed on retaining wall	1287 1288
145	LCH	800	100	-	1	LB/F Swimming pool	retaining wall	A leaching was observed on retaining wall	1289 1290
146	VG	-	-	-	2	LB/F Swimming pool	retaining wall	Vegetation growths were observed on retaining wall	1291 1292
147	VG	-	-	-	1	LB/F Swimming pool	retaining wall	A vegetation growth was observed on retaining wall	1293 1294
148	MC	1000	-	0.5	1	LB/F Swimming pool	slab	A medium crack was observed on tiled slab	1295 1296
149	LCH	8000	2500	-	1	LB/F Swimming pool	wall	Patches of leaching were observed on wall	1297 1298
150	MC	800	-	0.5	1	LB/F Swimming pool	wall	A medium crack was observed on wall tile finishing	1299 1300

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
151	VG	1000	500	-	1	LB/F Swimming pool	wall	A vegetation growth was observed on wall with leaching	1301 1302
152	MC	800	-	0.5	1	LB/F Swimming pool	wall	A medium crack was observed on wall tile finishing	1303 1304
153	LCH	800	300	-	1	LB/F Swimming pool	wall	Areas of leaching were observed on wall	1305 1306
154	HC	500	-	0.3	1	LB/F Swimming pool	wall	A hairline crack was observed on wall tile finishing	1307 1308
155	LCH	800	300	-	1	LB/F Swimming pool	wall	A leaching was observed on wall	1309 1310
156	LCH	2000	1000	-	1	LB/F Swimming pool	wall	An area of leaching was observed on wall	1311 1312
157	PP	1500	800	-	1	LB/F Swimming pool	wall	Paint peeling was observed on wall	1313 1314
158	PP	500	500	-	2	LB/F Swimming pool	wall	Paint peeling was observed on wall	1315 1316
159	WC	2000	-	1	1	LG/F Parapet wall behind new extension	brick parapet	A wide crack was observed on mortar joint of brick parapet	1317 1318
160	SP	300	200	-	1	LG/F Parapet wall behind new extension	brick parapet	Delaminated bricks were observed on parapet	1319 1320
161	SP	600	300	-	1	LG/F Parapet wall behind new extension	brick parapet	Delaminated bricks were observed on parapet	1321 1322
162	WC	1200	-	1	1	LG/F Parapet wall behind new extension	brick parapet	A wide crack was observed on brick parapet mortar joint	1323 1324
163	MR	1000	100	-	1	LG/F Playground	fence post	A minor rusting was observed on fence post	1325 1326
164	VG	-	-	-	1	LG/F Playground	parapet	A vegetation growth was observed on parapet	1327 1328
165	RS	1000	2000	-	1	LG/F Playground	parapet	Rust stain was observed on parapet	1329 1330
166	WC	1100	-	1	1	LG/F Playground	parapet	A wide crack was observed on parapet finishing	1331 1332
167	VG	-	-	-	1	LG/F Playground	parapet	A vegetation growth was observed on parapet	1333 1334
168	WC	1100	-	1	1	LG/F Playground	parapet	A wide crack was observed on parapet finishing	1335 1336
169	WC	30000	-	3	1	LG/F Playground	pavement	A wide crack was observed on playground pavement	1337 1338

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
170	WC	3000	-	1	1	LG/F East wing, Canteen	brick column	A wide crack through bricks was observed on brick column	1339 1340
171	WC	2500	1000	-	1	LG/F East wing, Canteen	brick wall	A crack was observed between previous repair and old bricks on wall	1341 1342
172	SP	600	200	-	1	LG/F East wing, Canteen	brick wall	Area of delaminated bricks was observed on the brick wall	1343 1344
173	PR	1600	-	-	1	LG/F East wing, Canteen	brick wall	A previous repair mark was observed on brick wall	1345 1346
174	O	2000	-	-	1	LG/F East wing, Canteen	brick wall	A scratch mark was observed on brick wall	1347 1348
175	O	3000	-	-	1	LG/F East wing, Canteen	brick wall	A scratch mark was observed on brick wall	1349 1350
176	WC	1000	-	1	1	LG/F East wing, Canteen	wall	A wide crack was observed on wall finishing	1351 1352
177	WC	1000	-	1	1	LG/F East wing, Canteen	wall	A wide crack was observed on wall finishing	1353 1354
178	WC	900	-	1	1	LG/F East wing, Corridor	brick column	A wide crack was observed on brick column	1355 1356
179	HC	900	-	0.3	1	LG/F East wing, Corridor	brick wall	A hairline crack was observed on brick wall	1357 1358
180	WC	300	300	1	1	LG/F East wing, Corridor	brick column	An area of wide crack was observed on brick column	1359 1360
181	WC	300	-	1	1	LG/F East wing, Corridor	brick column	A wide crack was observed on brick column	1361 1362
182	HC	400	-	0.3	1	LG/F East wing, Corridor	brick wall	A hairline crack was observed on brick wall	1363 1364
183	WC	600	-	1	1	LG/F East wing, Corridor	brick column	A wide crack was observed on brick column	1365 1366
184	MC	400	-	0.5	1	LG/F East wing, Corridor	brick column	A medium crack with sign of previous repair was observed on brick column	1367 1368
185	HC	600	-	1	1	LG/F East wing, Corridor	brick column	A hairline crack was observed on brick column	1369 1370
186	WC	1000	-	1	1	LG/F East wing, Corridor	brick column	A wide crack was observed on brick column	1371 1372
187	WC	2000	-	1	1	LG/F East wing, Corridor	brick column	A wide crack was observed on brick column	1373 1374
188	LCH	600	300	-	1	LG/F East wing, Corridor	brick column	Leaching stain was observed on brick column	1375 1376
189	WC	2000	-	1	1	LG/F East wing, Corridor	brick column	A diagonal wide crack was observed on brick column	1377 1378
190	WC	1000	500	1	1	LG/F East wing, Corridor	brick column	A wide crack was observed on brick column	1379 1380

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
191	WC	1000	-	1	1	LG/F East wing, Corridor	slab	A wide crack was observed on slab soffit finishing	1381 1382
192	WC	1500	-	1	1	LG/F East wing, East elevation exterior	brick wall	A wide crack was observed on brick wall along mortar joint	1383 1384
193	WC	800	-	1	2	LG/F East wing, East elevation exterior	granite block	2 wide cracks were observed on exterior granite block	1385 1386
194	WC	800	-	1	2	LG/F East wing, East elevation exterior	granite block	2 wide cracks were observed on granite block mortar joint	1387 1388
195	WC	800	-	1	1	LG/F East wing, East elevation exterior	granite block	A wide crack was observed on granite block mortar joint	1389 1390
196	WC	1000	-	1	1	LG/F East wing, East elevation exterior	granite block	A wide crack was observed on granite block	1391 1392
197	WC	1000	-	1	1	LG/F East wing, East elevation exterior	granite block	A wide crack was observed on granite block	1393 1394
198	WC	500	-	1	1	LG/F East wing, East elevation exterior	granite block	A wide crack was observed on granite block	1395 1396
199	WC	800	-	1	2	LG/F East wing, East elevation exterior	granite block	2 wide cracks were observed on granite block	1397 1398
200	MC	1500	-	0.5	1	LG/F East wing, IT room	wall	A medium crack was observed on wall finishing	1399 1400
201	MC	500	-	0.5	1	LG/F East wing, IT room	wall	A medium crack was observed on wall finishing	1401 1402
202	WS	300	300	-	1	LG/F East wing, IT room	wall	A damp patch with delaminated finishes was observed on wall	1403 1404
203	PP	1500	1000	-	1	LG/F East wing, IT room	wall	A paint peeling was observed on wall	1405 1406
204	MC	4000	-	0.5	1	G/F East wing, Main entrance retaining wall	wall	A diagonal medium crack was observed on wall	1407 1408

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
205	HC	1000	-	0.3	1	G/F East wing, Main entrance retaining wall	wall	Area of hairline cracks was observed on wall	1409 1410
206	MC	2000	-	0.5	1	G/F East wing, Main entrance retaining wall	wall	A medium crack was observed on parapet wall	1411 1412
207	WC	1000	-	2	1	G/F East wing, Main entrance retaining wall	slab	A wide crack was observed on floor slab	1413 1414
208	PR	2200	-	-	1	G/F East wing, Main entrance retaining wall	wall	A previous repair was observed on wall	1415 1416
209	MC	3000	-	0.5	1	G/F East wing, Main entrance retaining wall	wall	A medium crack was observed on wall	1417 1418
210	WC	1000	-	1	1	G/F East wing, Main entrance retaining wall	wall	A wide crack was observed on wall	1419 1420
211	WC	4000	-	1	1	LG/F East wing, West elevation	granite wall	A wide crack was observed on granite wall	1421 1422
212	WC	500	-	1	2	North wing, East elevation exterior	brick wall	2 wide cracks were observed on brick wall mortar joint	1423 1424
213	WC	2000	-	1	1	LG/F North wing, Gymnasium room	door jamb	A wide crack was observed on joint of wall and door jamb	1425 1426
214	WC	2000	-	1	1	LG/F North wing, Gymnasium room	door jamb	A wide crack was observed on joint of wall and door jamb	1427 1428
215	MC	2000	-	1	1	LG/F North wing, Gymnasium room	door jamb	A medium crack was observed on joint of wall and door jamb	1429 1430
216	HC	2000	-	1	1	LG/F North wing, Gymnasium room	door jamb	A hairline crack was observed on joint of wall and door jamb	1431 1432
217	MC	1000	-	0.5	1	LG/F North wing, Gymnasium room	wall	A medium crack was observed on wall finishing	1433 1434

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
218	PR	2000	-	-	1	LG/F North wing, Gymnasium room	wall	A previous repair was observed on wall finishing	1435 1436
219	HC	800	-	0.3	1	LG/F North wing, Gymnasium room	wall	A hairline crack was observed on wall finishing	1437 1438
220	WC	400	-	1	1	LG/F North wing, Gymnasium room	window sill	A wide crack was observed on window sill finishing	1439 1440
221	HC	500	-	0.3	2	LG/F North wing, Gymnasium room	window sill	2 hairline cracks were observed on window sill finishing	1441 1442
222	WC	2000	-	1	1	North wing, North elevation exterior	brick wall	A wide crack was observed on brick wall mortar joint	1443 1444
223	WC	3000	-	1	1	North wing, North elevation exterior	brick wall	A wide crack was observed on brick wall mortar joint	1445 1446
224	O	-	-	-	3	North wing, North elevation exterior	brick wall	3 nos. of missing bricks were observed on the wall	1447 1448
225	JSD	2000	-	1	1	North wing, North elevation exterior	brick wall	Debonded joint sealant between brick walls	1449 1450
226	WC	500	-	2	1	LG/F North wing, Staff quarter	brick wall	A mortar joint wide crack with vegetation was observed on brick wall	1451 1452
227	WC	800	-	2	1	LG/F North wing, Staff quarter	brick wall	A crack was observed on brick wall	1453 1454
228	MC	1600	-	0.5	1	LG/F North wing, Staff quarter	brick wall	A mortar joint medium crack was observed on brick wall	1455 1456
229	MC	500	-	0.5	1	LG/F North wing, Staff quarter	brick wall	A mortar joint medium crack was observed on brick wall	1457 1458
230	WC	2000	-	2	1	LG/F North wing, Staff quarter	brick wall	A mortar joint wide crack was observed on brick wall	1459 1460
231	WC	50	-	1	1	LG/F North wing, Staff quarter	brick wall	A wide crack through brick was observed on brick arch	1461 1462

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
232	WC	500	-	1	1	LG/F North wing, Staff quarter	brick wall	A mortar joint wide crack was observed on brick wall	1463 1464
233	SP	1000	50	-	1	LG/F North wing, Staff quarter	brick wall	Delaminated bricks were observed on brick wall	1465 1466
234	WC	2000	-	2	1	LG/F North wing, Staff quarter	brick wall	A wide crack was observed on brick wall mortar joint	1467 1468
235	MC	100	-	0.5	1	LG/F North wing, Staff quarter	brick wall	A medium crack through brick was observed on brick wall	1469 1470
236	MC	200	-	0.5	1	LG/F North wing, Staff quarter	brick wall	A mortar joint medium crack was observed on brick wall	1471 1472
237	WC	600	-	3	1	LG/F North wing, Staff quarter	brick wall	A wide crack was observed on brick wall	1473 1474
238	WC	1000	-	1	1	LG/F North wing, Staff quarter	slab	A wide crack was observed on slab	1475 1476
239	MC	1500	-	0.5	1	LG/F North wing, Staff quarter	slab	A medium crack was observed on slab	1477 1478
240	MC	1000	-	0.5	1	LG/F North wing, Staff quarter	slab	A medium crack was observed on slab	1479 1480
241	MC	1000	-	0.5	1	LG/F North wing, Staff quarter	slab	A medium crack was observed on slab	1481 1482
242	MC	1000	-	0.5	1	LG/F North wing, Staff quarter	slab	A medium crack was observed on slab	1483 1484
243	WC	1000	-	1	2	LG/F North wing, Staff quarter	slab	2 wide cracks were observed on slab	1485 1486
244	WC	3000	2000	2	1	LG/F North wing, Staff quarter	slab	An area of wide crack was observed on slab	1487 1488
245	WC	1000	1000	2	1	LG/F North wing, Staff quarter	slab	An area of wide crack was observed on slab	1489 1490
246	SP	200	100	-	2	LG/F North wing, Staff quarter	stair	Chipping at the stair edges were observed	1491 1492

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
247	MC	1500	-	0.5	1	LG/F North wing, Staff quarter	wall	A medium crack was observed on wall finishing	1493 1494
248	WC	800	-	1	1	LG/F North wing, Staff quarter	wall	A wide crack was observed on wall finishing	1495 1496
249	WC	5000	3000	1	1	LG/F North wing, Staff quarter	wall	An area of wide cracks was observed on wall finishing	1497 1498
250	WC	1000	3000	1	1	LG/F North wing, Staff quarter	wall	An area of wide cracks was observed on wall finishing	1499 1500
251	WC	5000	3000	1	1	LG/F North wing, Staff quarter	wall	An area of wide cracks was observed on wall finishing	1501 1502
252	MC	3000	700	0.5	1	LG/F North wing, Staff quarter	wall	An area of medium cracks was observed on wall finishing	1503 1504
253	WC	1000	-	1	1	LG/F North wing, Staff quarter	wall	A wide crack was observed on wall finishing	1505 1506
254	WC	600	-	1	2	LG/F North wing, Staff quarter	wall	2 wide cracks were observed on wall finishing	1507 1508
255	WC	2000	-	2	1	LG/F North wing, Staff quarter	wall	A wide crack was observed on wall finishing	1509 1510
256	WC	800	-	1	1	LG/F North wing, Staff quarter	wall	A wide crack was observed on wall finishing	1511 1512
257	MC	700	-	1	2	LG/F North wing, Staff quarter	wall	2 medium cracks were observed on wall finishing	1513 1514
258	O	500	-	1	2	LG/F North wing, Staff quarter	wall	2 areas of slightly misaligned bricks were observed on the wall	1515 1516
259	MC	1500	1000	0.5	1	LG/F North wing, Store room under stairs	wall	An area of medium cracks was observed on wall finishing	1517 1518
260	MC	2000	-	0.5	1	LG/F North wing, Store room under stairs	wall	A medium crack was observed on wall finishing	1519 1520
261	WC	7000	-	1	1	LG/F South wing, Corridor	slab	A wide crack was observed on slab	1521 1522

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
262	WC	5000	-	1	1	LG/F South wing, Corridor	slab	A wide crack was observed on slab	1523 1524
263	WC	1500	-	1	1	LG/F South wing, Corridor	slab	A wide crack was observed on slab	1525 1526
264	WC	500	-	1	1	LG/F South wing, Retaining wall under building	retaining wall	A wide crack on joint mortar was observed on retaining wall	1527 1528
265	WC	1500	-	1	1	LG/F South wing, Retaining wall under building	retaining wall	A wide crack on joint mortar was observed on retaining wall	1529 1530
266	WC	2000	-	1	1	LG/F South wing, Retaining wall under building	retaining wall	A wide crack on joint mortar with vegetation growth was observed on retaining wall	1531 1532
267	WC	2000	-	1	1	LG/F South wing, Retaining wall under building	retaining wall	A wide crack was observed on mortar joint of retaining wall with sign of previous repair	1533 1534
268	WC	2000	-	1	1	LG/F South wing, Retaining wall under building	retaining wall	A wide crack was observed on mortar joint of retaining wall with sign of previous repair	1535 1536
269	WC	1000	-	1	1	LG/F South wing, Retaining wall under building	retaining wall	A wide crack was observed on retaining wall mortar joint	1537 1538
270	PP	100	50	-	1	LG/F South wing, Scout room	beam	Minor chipped edge of beam finishing	1539 1540
271	PP	2000	1000	-	1	LG/F South wing, Scout room	slab	A paint peeling was observed on slab soffit	1541 1542
272	PP	100	100	-	1	LG/F South wing, Scout room	wall	Stain mark was observed on beam finishing	1543 1544
273	VG	-	-	-	1	R/F East wing, Assembly hall's roof	brick wall	A vegetation growth was observed on brick wall	1545 1546
274	VG	-	-	-	1	R/F East wing, Assembly hall's roof	brick wall	A vegetation growth was observed on brick wall	1547 1548
275	HC	1500	-	-	1	R/F East wing, Assembly hall's roof	brick wall	Fine crack on mortar joint with sign of previous repair on brick wall	1549 1550

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
276	VG	-	-	-	1	R/F East wing, Assembly hall's roof	brick wall	A vegetation growth was observed on brick wall	1551 1552
277	WC	13000	500	1	1	R/F East wing, Roof	capping	An area of wide crack was observed on capping	1553 1554
278	WC	3000	500	1	1	R/F East wing, Roof	capping	An area of wide crack was observed on capping	1555 1556
279	PP	12000	800	-	2	R/F East wing, West elevation	canopy	Deteriorated paint was observed on top face of canopies	1557 1558
280	SP	800	250	-	1	R/F North wing, Roof	beam	The edge of the beam was found missing	1559 1560
281	SP	300	100	-	1	R/F North wing, Roof	brick wall	A delaminated brick was observed on the wall	1561 1562
282	WC	70000	600	1	1	R/F North wing, Roof	parapet	Transverse cracks were observed on parapet top capping across the whole roof	1563 1564
283	WC	2000	-	1	1	R/F North wing, Roof	parapet	A wide crack was observed on the finishing of the skirting	1565 1566
284	MR	-	-	-	1	R/F South wing and east wing's Roof	parapet	A rusted anchor was observed on parapet	1567 1568
285	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	A crack was observed at the joint sealant	1569 1570
286	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	A crack was observed at the joint sealant	1571 1572
287	JSD	600	-	-	2	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1573 1574
288	JSD	600	-	-	2	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1575 1576
289	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	A crack was observed at the joint sealant	1577 1578
290	JSD	600	-	-	2	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1579 1580
291	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	A crack was observed at the joint sealant	1581 1582

Subject King's College – Defect List

Date 1 March 2017

Job No/Ref 24168-21

Defect No.	Defect Abb.	L (mm)	W (mm)	Crack width (mm)	Qty	Location	Component	Description	Photo No.
292	JSD	600	-	-	2	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1583 1584
293	JSD	600	-	-	2	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1585 1586
294	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1587 1588
295	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1589 1590
296	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1591 1592
297	MR	-	-	-	1	R/F South wing and east wing's Roof	parapet	Rusted anchor was observed on parapet	1593 1594
298	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1595 1596
299	JSD	600	-	-	1	R/F South wing and east wing's Roof	parapet	Deteriorated joint sealants were observed on parapet	1597 1598
300	PP	-	-	-	1	R/F South wing and east wing's Roof	parapet	Paint peeling was generally observed on external side of south and east wings' parapet	1599 1600
301	WC	-	-	1	1	R/F South wing, South wing and east wing's Roof	parapet	Transverse cracks were observed on parapet top capping across the whole roof at 0.5-1m interval	1601 1602

Appendix C

Photographic Record

C1 Photographic Record – General Views

Photo No. 0001



General View No. GV1 **Description** General view of main entrance of King's college

Photo No. 0002



General View No. GV2 **Description** General view of east wing, south elevation

Photo No. 0003



General View No. GV3 **Description** General view of east wing, east elevation

Photo No. 0004



General View No. GV4 **Description** General view of east wing, east elevation

Photo No. 0005



General View No. GV5 **Description** General view of east wing, east elevation

Photo No. 0006



General View No. GV6 **Description** General view of east wing, assembly hall

Photo No. 0007



General View No. GV7 **Description** General view of east wing, west elevation

Photo No. 0008



General View No. GV8 **Description** General view of east wing, canteen

Photo No. 0009



General View No. GV9 **Description** General view of east wing, retaining wall inside canteen

Photo No. 0010



General View No. GV10 **Description** General view of north retaining wall and adjacent back lane, viewed from east

Photo No. 0011



General View No. GV11

Description

General view of north retaining wall and a steel clad structure attaching

Photo No. 0012



General View No. GV12

Description

General view of north retaining wall viewed from west

Photo No. 0013



General View No. GV13 **Description** General view of north retaining wall

Photo No. 0014



General View No. GV14 **Description** General view of tell-tale crack gauge on north retaining wall

Photo No. 0015



General View No. GV15 **Description** General view of tell-tale crack gauge on north retaining wall

Photo No. 0016



General View No. GV16 **Description** General view of water tank on top of north retaining wall inside staff quarter area

Photo No. 0017



General View No. GV17

Description

General view of steel structure on top of north retaining wall inside staff quarter area

Photo No. 0018



General View No. GV18

Description

General view of small building on top of north retaining wall inside staff quarter area

Photo No. 0019



General View No. GV19 **Description** General view of north wing, north elevation

Photo No. 0020



General View No. GV20 **Description** General view of north wing, south elevation

Photo No. 0021



General View No. GV21 **Description** General view of north wing's roof

Photo No. 0022



General View No. GV22 **Description** General view of survey mark on fence wall at northeast corner

Photo No. 0023



General View No. GV23 **Description** General view of survey mark on fence wall at northeast corner

Photo No. 0024



General View No. GV24 **Description** General view of swimming pool and small north retaining wall under west wing

Photo No. 0025



General View No. GV25

Description

General view of swimming pool and small north retaining wall under west wing

Photo No. 0026



General View No. GV26

Description

General view of fence wall of swimming pool

Photo No. 0027



General View No. GV27

Description

General view of north wing, roof of northeast corner staircase; east wing, assembly hall pitch roof

Photo No. 0028



General View No. GV28

Description

General view of east wing, cavity under pitch roof above assembly hall ceiling

Photo No. 0029



General View No. GV29

Description

General view of retaining wall at southeast corner of school under main entrance

Photo No. 0030



General View No. GV30

Description

General view of retaining wall at southeast corner of school under main entrance

Photo No. 0031



General View No. GV31

Description

General view of retaining wall at southeast corner of school under main entrance with steel members linking wall toe and east wing

Photo No. 0032



General View No. GV32

Description

General view of retaining wall at southeast corner of school under main entrance with steel members linking wall crest and east wing

Photo No. 0033



General View No. GV33 **Description** General view of south wing, south elevation

Photo No. 0034



General View No. GV34 **Description** General view of south wing, north elevation

Photo No. 0035



General View No. GV35 **Description** General view of south wing, west elevation viewed from south
Photo No. 0036



General View No. GV36 **Description** General view of south wing, west elevation viewed from north

Photo No. 0037



General View No. GV37 **Description** General view of south wing, west elevation back lane

Photo No. 0038



General View No. GV38 **Description** General view of School Garden, south retaining wall and arcade

Photo No. 0039



General View No. GV39

Description

General view of cavity between south retaining wall and arcade

Photo No. 0040



General View No. GV40

Description

General view of tell-tale crack gauge on south retaining wall arcade

Photo No. 0041



General View No. GV41

Description

General view of tell-tale crack guage on south retaining wall arcade

Photo No. 0042



General View No. GV42

Description

General view of west retaining wall under west wing

Photo No. 0043



General View No. GV43 **Description** General view of west retaining wall under west wing

Photo No. 0044



General View No. GV44 **Description** General view of typical corridor

Photo No. 0045



General View No. GV45 **Description** General view of typical classroom

Photo No. 0046



General View No. GV46 **Description** General view of east retaining wall and east wing east elevation

Photo No. 0047



General View No. GV47 **Description** General view of north wing, north elevation

Photo No. 0048



General View No. GV48 **Description** General view of parapet wall, east wing

Photo No. 0049



General View No. GV49 **Description** General view of parapet wall, south elevation

Photo No. 0050



General View No. GV50 **Description** General view of west wing, west elevation

Photo No. 0051



General View No. GV51 **Description** General view of retaining wall, west elevation

Photo No. 0052



General View No. GV52 **Description** General view of brickwall of south wing, west elevation

Photo No. 0053



General View No. GV53

Description General view of south wing, south elevation

C2 Photographic Record - Defects

Photo No. 1001



Defect No.	1	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A wide crack was observed on retaining wall mortar joint

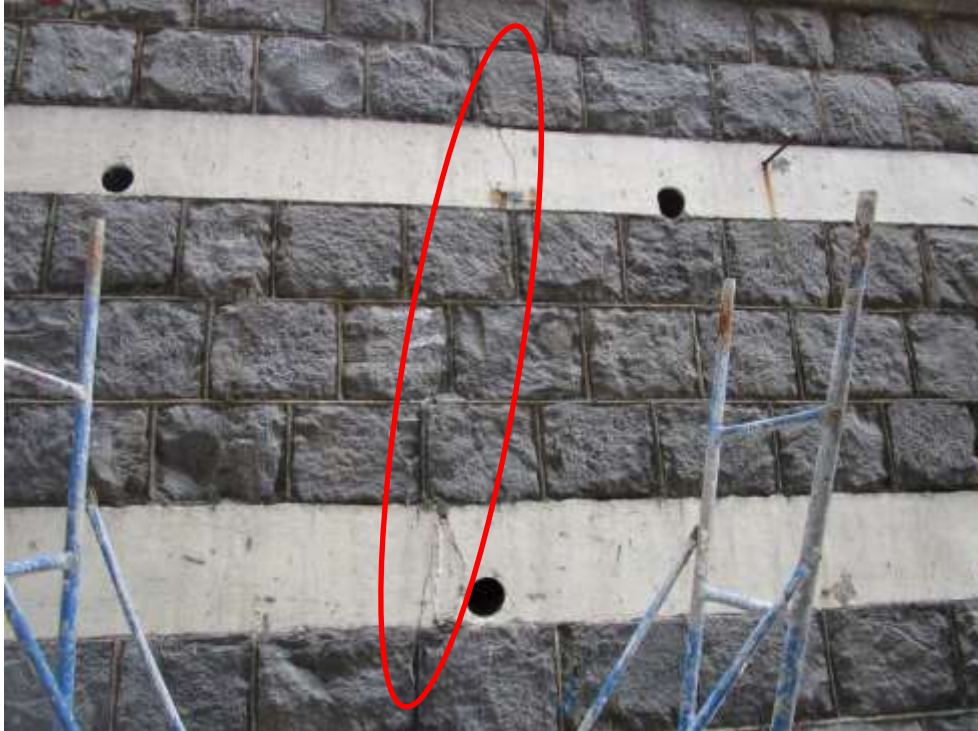
Photo No. 1002



Defect No.	1	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A wide crack was observed on retaining wall mortar joint

Photo No. 1003



Defect No.	2	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A wide crack was observed on retaining wall

Photo No. 1004



Defect No.	2	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A wide crack was observed on retaining wall

Photo No. 1005



Defect No.	3	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description	Water seepage through drain holes
--------------------	-----------------------------------

Photo No. 1006



Defect No.	3	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description	Water seepage through drain holes
--------------------	-----------------------------------

Photo No. 1007



Defect No.	4	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A vegetation growth was observed on retaining wall

Photo No. 1008



Defect No.	4	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A vegetation growth was observed on retaining wall

Photo No. 1009



Defect No. 5	Location North wing, North elevation exterior	Component retaining wall
---------------------	------------------------------------------------------	---------------------------------

Description A wide crack was observed on retaining wall mortar joint

Photo No. 1010



Defect No. 5	Location North wing, North elevation exterior	Component retaining wall
---------------------	------------------------------------------------------	---------------------------------

Description A wide crack was observed on retaining wall mortar joint

Photo No. 1011



Defect No.	6	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description Water seepage through granite mortar joint

Photo No. 1012



Defect No.	6	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description Water seepage through granite mortar joint

Photo No. 1013



Defect No. 7	Location North wing, North elevation exterior	Component retaining wall
---------------------	------------------------------------------------------	---------------------------------

Description A vegetation growth was observed on retaining wall

Photo No. 1014



Defect No. 7	Location North wing, North elevation exterior	Component retaining wall
---------------------	------------------------------------------------------	---------------------------------

Description A vegetation growth was observed on retaining wall

Photo No. 1015



Defect No.	8	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A vegetation growth was observed on retaining wall

Photo No. 1016



Defect No.	8	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A vegetation growth was observed on retaining wall

Photo No. 1017



Defect No.	9	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A medium crack was observed on retaining wall

Photo No. 1018



Defect No.	9	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	---	-----------------	--------------------------------------	------------------	----------------

Description A medium crack was observed on retaining wall

Photo No. 1019



Defect No.	10	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	----	-----------------	--------------------------------------	------------------	----------------

Description A vegetation growth was observed on retaining wall

Photo No. 1020



Defect No.	10	Location	North wing, North elevation exterior	Component	retaining wall
-------------------	----	-----------------	--------------------------------------	------------------	----------------

Description A vegetation growth was observed on retaining wall

Photo No. 1021



Defect No.	11	Location	1/F East wing, Assembly hall	Component	wall
-------------------	----	-----------------	------------------------------	------------------	------

Description	2 wide cracks with apparent damp patch were observed on wall				
--------------------	--------------------------------------------------------------	--	--	--	--

Photo No. 1022



Defect No.	11	Location	1/F East wing, Assembly hall	Component	wall
-------------------	----	-----------------	------------------------------	------------------	------

Description	2 wide cracks with apparent damp patch were observed on wall				
--------------------	--------------------------------------------------------------	--	--	--	--

Photo No. 1023



Defect No.	12	Location	1/F East wing, Corridor	Component	brick column
-------------------	----	-----------------	-------------------------	------------------	--------------

Description	A wide crack was observed on brick column				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1024



Defect No.	12	Location	1/F East wing, Corridor	Component	brick column
-------------------	----	-----------------	-------------------------	------------------	--------------

Description	A wide crack was observed on brick column				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1025



Defect No.	13	Location	1/F East wing, Corridor	Component	slab
-------------------	----	-----------------	-------------------------	------------------	------

Description	A wide crack was observed on slab floor tiles				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1026



Defect No.	13	Location	1/F East wing, Corridor	Component	slab
-------------------	----	-----------------	-------------------------	------------------	------

Description	A wide crack was observed on slab floor tiles				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1027



Defect No.	14	Location	1/F East wing, Corridor	Component	slab
-------------------	----	-----------------	-------------------------	------------------	------

Description	A wide crack was observed on slab soffit				
--------------------	------------------------------------------	--	--	--	--

Photo No. 1028



Defect No.	14	Location	1/F East wing, Corridor	Component	slab
-------------------	----	-----------------	-------------------------	------------------	------

Description	A wide crack was observed on slab soffit				
--------------------	------------------------------------------	--	--	--	--

Photo No. 1029



Defect No. 15	Location East wing, South elevation entrance	Component canopy
----------------------	-----------------------------------------------------	-------------------------

Description Medium cracks were observed on canopy (2/F)

Photo No. 1030



Defect No. 15	Location East wing, South elevation entrance	Component canopy
----------------------	-----------------------------------------------------	-------------------------

Description Medium cracks were observed on canopy (2/F)

Photo No. 1031



Defect No.	16	Location	East wing, South elevation entrance	Component	slab
-------------------	----	-----------------	-------------------------------------	------------------	------

Description A wide crack was observed on slab

Photo No. 1032



Defect No.	16	Location	East wing, South elevation entrance	Component	slab
-------------------	----	-----------------	-------------------------------------	------------------	------

Description A wide crack was observed on slab

Photo No. 1033



Defect No. 17	Location East wing, South elevation entrance	Component slab
----------------------	-----------------------------------------------------	-----------------------

Description A wide crack was observed on slab

Photo No. 1034



Defect No. 17	Location East wing, South elevation entrance	Component slab
----------------------	-----------------------------------------------------	-----------------------

Description A wide crack was observed on slab

Photo No. 1035



Defect No. 18	Location East wing, South elevation entrance	Component slab
----------------------	-----------------------------------------------------	-----------------------

Description An area of cracks was observed on slab

Photo No. 1036



Defect No. 18	Location East wing, South elevation entrance	Component slab
----------------------	-----------------------------------------------------	-----------------------

Description An area of cracks was observed on slab

Photo No. 1037



Defect No.	19	Location	1/F East wing, West elevation	Component	brick wall
-------------------	----	-----------------	-------------------------------	------------------	------------

Description	A previous repair was observed on brick wall				
--------------------	----------------------------------------------	--	--	--	--

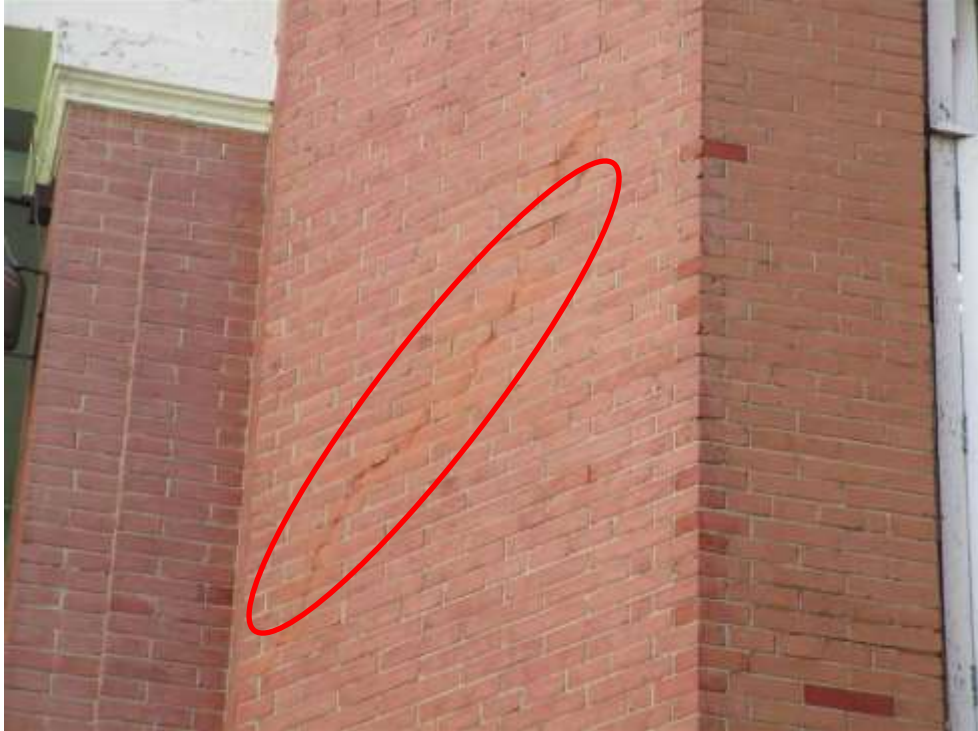
Photo No. 1038



Defect No.	19	Location	1/F East wing, West elevation	Component	brick wall
-------------------	----	-----------------	-------------------------------	------------------	------------

Description	A previous repair was observed on brick wall				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1039



Defect No.	20	Location	1/F East wing, West elevation	Component	brick wall
-------------------	----	-----------------	-------------------------------	------------------	------------

Description	A medium crack was observed on brick wall				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1040



Defect No.	20	Location	1/F East wing, West elevation	Component	brick wall
-------------------	----	-----------------	-------------------------------	------------------	------------

Description	A medium crack was observed on brick wall				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1041



Defect No.	21	Location	2/F North wing, Room behind assembly hall stage	Component	slab
-------------------	----	-----------------	-------------------------------------------------	------------------	------

Description Paint delamination was observed on slab soffit

Photo No. 1042



Defect No.	21	Location	2/F North wing, Room behind assembly hall stage	Component	slab
-------------------	----	-----------------	-------------------------------------------------	------------------	------

Description Paint delamination was observed on slab soffit

Photo No. 1043



Defect No.	22	Location	1/F South wing, Corridor	Component	column
-------------------	----	-----------------	--------------------------	------------------	--------

Description	A medium crack was observed on column footing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1044



Defect No.	22	Location	1/F South wing, Corridor	Component	column
-------------------	----	-----------------	--------------------------	------------------	--------

Description	A medium crack was observed on column footing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1045



Defect No.	23	Location	1/F South wing, Corridor	Component	column
-------------------	----	-----------------	--------------------------	------------------	--------

Description	A wide crack was observed on the top plate between 2 column				
--------------------	-------------------------------------------------------------	--	--	--	--

Photo No. 1046



Defect No.	23	Location	1/F South wing, Corridor	Component	column
-------------------	----	-----------------	--------------------------	------------------	--------

Description	A wide crack was observed on the top plate between 2 column				
--------------------	-------------------------------------------------------------	--	--	--	--

Photo No. 1047



Defect No. 24 **Location** 1/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between the old and new structure

Photo No. 1048



Defect No. 24 **Location** 1/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between the old and new structure

Photo No. 1049



Defect No. 25 **Location** South wing, School Garden **Component** parapet wall

Description A vegetation growth was observed on parapet wall

Photo No. 1050



Defect No. 25 **Location** South wing, School Garden **Component** parapet wall

Description A vegetation growth was observed on parapet wall

Photo No. 1051



Defect No. 26 **Location** South wing, School Garden **Component** parapet wall top

Description Medium cracks were observed on parapet wall top

Photo No. 1052



Defect No. 26 **Location** South wing, School Garden **Component** parapet wall top

Description Medium cracks were observed on parapet wall top

Photo No. 1053



Defect No.	27	Location	South wing, Standalone pump valve structure	Component	concrete plinth
-------------------	----	-----------------	---------------------------------------------	------------------	-----------------

Description	Crazing cracks were observed on the concrete plinth of the standalone pump valve structure				
--------------------	--------------------------------------------------------------------------------------------	--	--	--	--

Photo No. 1054



Defect No.	27	Location	South wing, Standalone pump valve structure	Component	concrete plinth
-------------------	----	-----------------	---------------------------------------------	------------------	-----------------

Description	Crazing cracks were observed on the concrete plinth of the standalone pump valve structure				
--------------------	--------------------------------------------------------------------------------------------	--	--	--	--

Photo No. 1055



Defect No.	28	Location	1/F & 2/F South wing, South elevation	Component	beam
-------------------	----	-----------------	---------------------------------------	------------------	------

Description A medium crack was observed on the beams at south elevation

Photo No. 1056



Defect No.	28	Location	1/F & 2/F South wing, South elevation	Component	beam
-------------------	----	-----------------	---------------------------------------	------------------	------

Description A medium crack was observed on the beams at south elevation

Photo No. 1057



Defect No. 29	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description A paint peeling was observed on parapet

Photo No. 1058



Defect No. 29	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description A paint peeling was observed on parapet

Photo No. 1059



Defect No. 30 **Location** 2/F East wing, Corridor **Component** parapet

Description 2 medium cracks were observed on parapet finishing

Photo No. 1060



Defect No. 30 **Location** 2/F East wing, Corridor **Component** parapet

Description 2 medium cracks were observed on parapet finishing

Photo No. 1061



Defect No.	31	Location	2/F East wing, Corridor	Component	parapet
-------------------	----	-----------------	-------------------------	------------------	---------

Description	A medium crack was observed on parapet finishing				
--------------------	--------------------------------------------------	--	--	--	--

Photo No. 1062



Defect No.	31	Location	2/F East wing, Corridor	Component	parapet
-------------------	----	-----------------	-------------------------	------------------	---------

Description	A medium crack was observed on parapet finishing				
--------------------	--------------------------------------------------	--	--	--	--

Photo No. 1063



Defect No. 32	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description A wide crack was observed on parapet finishing

Photo No. 1064



Defect No. 32	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description A wide crack was observed on parapet finishing

Photo No. 1065



Defect No. 33	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description 2 wide cracks were observed on parapet finishing

Photo No. 1066



Defect No. 33	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description 2 wide cracks were observed on parapet finishing

Photo No. 1067



Defect No. 34	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description 2 wide cracks were observed on parapet finishing

Photo No. 1068



Defect No. 34	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description 2 wide cracks were observed on parapet finishing

Photo No. 1069



Defect No.	35	Location	2/F East wing, Corridor	Component	parapet
-------------------	----	-----------------	-------------------------	------------------	---------

Description	2 wide cracks were observed on parapet finishing				
--------------------	--------------------------------------------------	--	--	--	--

Photo No. 1070



Defect No.	35	Location	2/F East wing, Corridor	Component	parapet
-------------------	----	-----------------	-------------------------	------------------	---------

Description	2 wide cracks were observed on parapet finishing				
--------------------	--------------------------------------------------	--	--	--	--

Photo No. 1071



Defect No.	36	Location	2/F East wing, Corridor	Component	parapet
-------------------	----	-----------------	-------------------------	------------------	---------

Description	3 medium cracks were observed on parapet finishing				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1072



Defect No.	36	Location	2/F East wing, Corridor	Component	parapet
-------------------	----	-----------------	-------------------------	------------------	---------

Description	3 medium cracks were observed on parapet finishing				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1073



Defect No. 37	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description A medium crack was observed on parapet finishing

Photo No. 1074



Defect No. 37	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description A medium crack was observed on parapet finishing

Photo No. 1075



Defect No. 38	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description 2 wide cracks were observed on parapet finishing

Photo No. 1076



Defect No. 38	Location 2/F East wing, Corridor	Component parapet
----------------------	-----------------------------------------	--------------------------

Description 2 wide cracks were observed on parapet finishing

Photo No. 1077



Defect No. 39	Location 2/F East wing, Corridor	Component slab
----------------------	-----------------------------------------	-----------------------

Description A wide crack was observed on slab

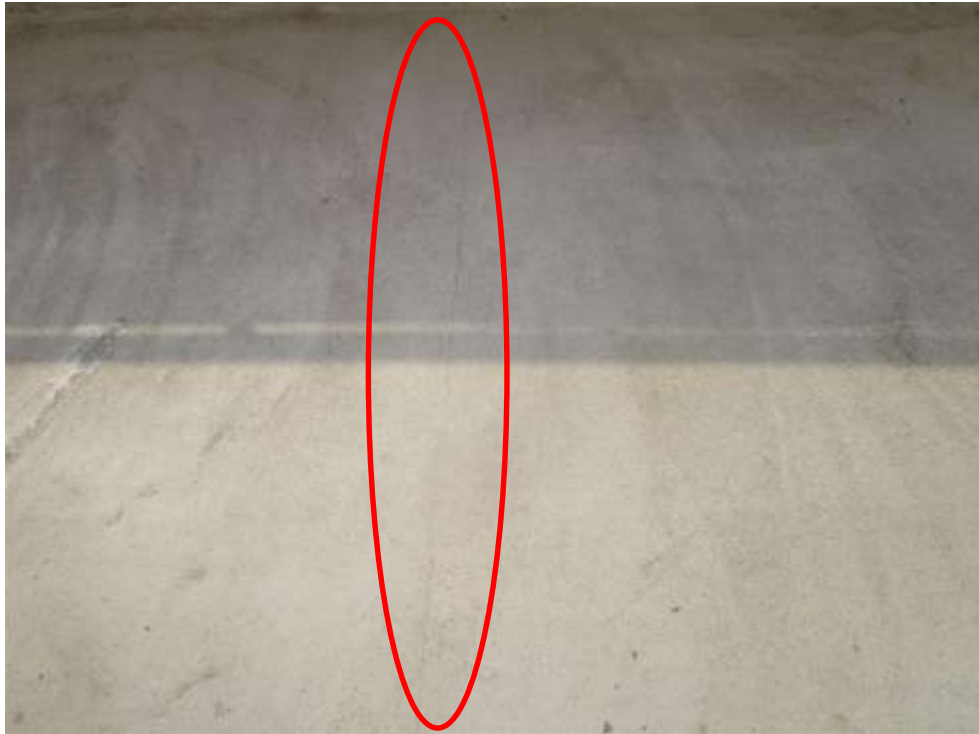
Photo No. 1078



Defect No. 39	Location 2/F East wing, Corridor	Component slab
----------------------	-----------------------------------------	-----------------------

Description A wide crack was observed on slab

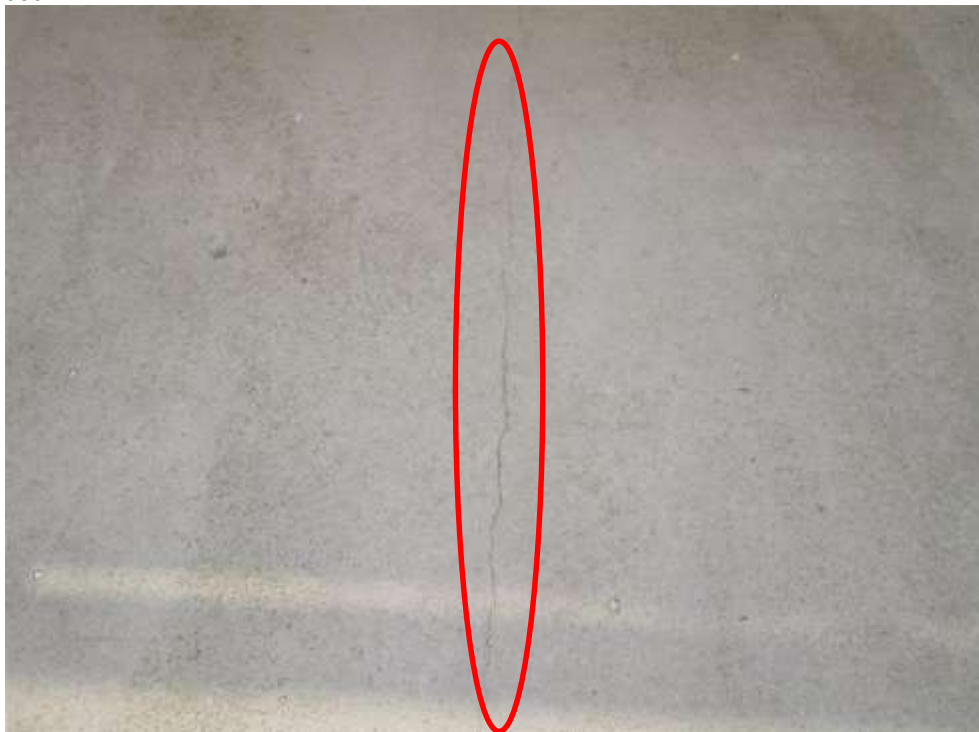
Photo No. 1079



Defect No.	40	Location	2/F East wing, Corridor	Component	slab
-------------------	----	-----------------	-------------------------	------------------	------

Description	A medium crack was observed on slab				
--------------------	-------------------------------------	--	--	--	--

Photo No. 1080



Defect No.	40	Location	2/F East wing, Corridor	Component	slab
-------------------	----	-----------------	-------------------------	------------------	------

Description	A medium crack was observed on slab				
--------------------	-------------------------------------	--	--	--	--

Photo No. 1081



Defect No. 41	Location 2/F East wing, Corridor	Component wall
----------------------	-----------------------------------------	-----------------------

Description A wide crack was observed on wall

Photo No. 1082



Defect No. 41	Location 2/F East wing, Corridor	Component wall
----------------------	-----------------------------------------	-----------------------

Description A wide crack was observed on wall

Photo No. 1083



Defect No.	42	Location	2/F East wing, East elevation	Component	beam
-------------------	----	-----------------	-------------------------------	------------------	------

Description	A wide crack was observed on brick column				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1084



Defect No.	42	Location	2/F East wing, East elevation	Component	beam
-------------------	----	-----------------	-------------------------------	------------------	------

Description	A wide crack was observed on brick column				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1085



Defect No. 43 **Location** 2/F East wing, East elevation **Component** beam

Description A wide crack was observed on concrete beam above brick column

Photo No. 1086



Defect No. 43 **Location** 2/F East wing, East elevation **Component** beam

Description A wide crack was observed on concrete beam above brick column

Photo No. 1087



Defect No.	44	Location	2/F East wing, East elevation	Component	beam
-------------------	----	-----------------	-------------------------------	------------------	------

Description	A wide crack was observed on concrete beam above brick column				
--------------------	---------------------------------------------------------------	--	--	--	--

Photo No. 1088



Defect No.	44	Location	2/F East wing, East elevation	Component	beam
-------------------	----	-----------------	-------------------------------	------------------	------

Description	A wide crack was observed on concrete beam above brick column				
--------------------	---------------------------------------------------------------	--	--	--	--

Photo No. 1089



Defect No. 45 **Location** 2/F East wing, East elevation **Component** beam

Description A wide crack was observed on concrete beam above brick column

Photo No. 1090



Defect No. 45 **Location** 2/F East wing, East elevation **Component** beam

Description A wide crack was observed on concrete beam above brick column

Photo No. 1091



Defect No. 46	Location 2/F East wing, Staff room	Component wall
----------------------	-------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1092



Defect No. 46	Location 2/F East wing, Staff room	Component wall
----------------------	-------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1093



Defect No.	47	Location	2/F East wing, Staff room	Component	wall
-------------------	----	-----------------	---------------------------	------------------	------

Description	An area of hairline crack was observed on wall finishing				
--------------------	----------------------------------------------------------	--	--	--	--

Photo No. 1094



Defect No.	47	Location	2/F East wing, Staff room	Component	wall
-------------------	----	-----------------	---------------------------	------------------	------

Description	An area of hairline crack was observed on wall finishing				
--------------------	----------------------------------------------------------	--	--	--	--

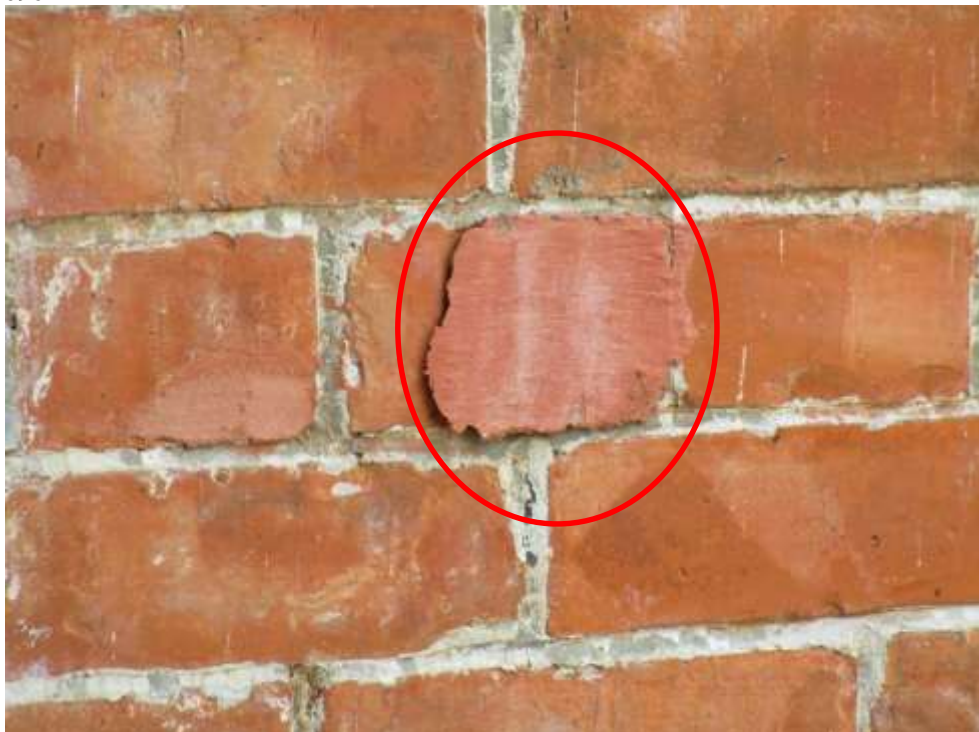
Photo No. 1095



Defect No.	48	Location	2/F North wing, East elevation	Component	brick wall
-------------------	----	-----------------	--------------------------------	------------------	------------

Description	Delaminated previous repair was observed on brick wall				
--------------------	--------------------------------------------------------	--	--	--	--

Photo No. 1096



Defect No.	48	Location	2/F North wing, East elevation	Component	brick wall
-------------------	----	-----------------	--------------------------------	------------------	------------

Description	Delaminated previous repair was observed on brick wall				
--------------------	--------------------------------------------------------	--	--	--	--

Photo No. 1097



Defect No. 49	Location 2/F North wing, East elevation	Component brick wall
----------------------	------------------------------------------------	-----------------------------

Description A wide crack was observed on brick

Photo No. 1098



Defect No. 49	Location 2/F North wing, East elevation	Component brick wall
----------------------	------------------------------------------------	-----------------------------

Description A wide crack was observed on brick

Photo No. 1099



Defect No. 50 **Location** 2/F North wing, East elevation **Component** brick wall

Description Spalling of probable previous repair was observed on brick wall

Photo No. 1100



Defect No. 50 **Location** 2/F North wing, East elevation **Component** brick wall

Description Spalling of probable previous repair was observed on brick wall

Photo No. 1101



Defect No. 51	Location 2/F South wing, Corridor	Component brick wall
----------------------	------------------------------------------	-----------------------------

Description Minor surface leaching was observed on brick wall

Photo No. 1102



Defect No. 51	Location 2/F South wing, Corridor	Component brick wall
----------------------	------------------------------------------	-----------------------------

Description Minor surface leaching was observed on brick wall

Photo No. 1103



Defect No. 52 **Location** 2/F South wing, Corridor **Component** brick wall

Description Minor surface leaching was observed on brick wall

Photo No. 1104



Defect No. 52 **Location** 2/F South wing, Corridor **Component** brick wall

Description Minor surface leaching was observed on brick wall

Photo No. 1105



Defect No. 53 **Location** 2/F South wing, Corridor **Component** brick wall

Description A wide crack was observed on the top concrete plate between columns

Photo No. 1106



Defect No. 53 **Location** 2/F South wing, Corridor **Component** brick wall

Description A wide crack was observed on the top concrete plate between columns

Photo No. 1107



Defect No. 54 **Location** 2/F South wing, Corridor **Component** brick wall

Description Minor surface leaching was observed on brick wall

Photo No. 1108



Defect No. 54 **Location** 2/F South wing, Corridor **Component** brick wall

Description Minor surface leaching was observed on brick wall

Photo No. 1109



Defect No. 55 **Location** 2/F South wing, Corridor **Component** brick wall

Description Minor surface leaching was observed on brick wall

Photo No. 1110



Defect No. 55 **Location** 2/F South wing, Corridor **Component** brick wall

Description Minor surface leaching was observed on brick wall

Photo No. 1111



Defect No. 56	Location 2/F South wing, Corridor	Component column
----------------------	------------------------------------------	-------------------------

Description A wide crack was observed on column footing plate

Photo No. 1112



Defect No. 56	Location 2/F South wing, Corridor	Component column
----------------------	------------------------------------------	-------------------------

Description A wide crack was observed on column footing plate

Photo No. 1113



Defect No. 57 **Location** 2/F South wing, Corridor **Component** slab

Description A wide crack was observed on floor tile joint

Photo No. 1114



Defect No. 57 **Location** 2/F South wing, Corridor **Component** slab

Description A wide crack was observed on floor tile joint

Photo No. 1115



Defect No. 58 **Location** 2/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between old and new structure

Photo No. 1116



Defect No. 58 **Location** 2/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between old and new structure

Photo No. 1117



Defect No. 59	Location 2/F South wing, Corridor	Component slab
----------------------	------------------------------------------	-----------------------

Description A wide crack was observed on slab floor tile finish

Photo No. 1118



Defect No. 59	Location 2/F South wing, Corridor	Component slab
----------------------	------------------------------------------	-----------------------

Description A wide crack was observed on slab floor tile finish

Photo No. 1119



Defect No. 60 **Location** 2/F South wing, East elevation **Component** canopy

Description A paint peeling was observed on canopy soffit

Photo No. 1120



Defect No. 60 **Location** 2/F South wing, East elevation **Component** canopy

Description A paint peeling was observed on canopy soffit

Photo No. 1121



Defect No. 61	Location 2/F South wing, Musical instrument store room	Component slab
----------------------	---------------------------------------------------------------	-----------------------

Description Water stain was observed on slab soffit

Photo No. 1122



Defect No. 61	Location 2/F South wing, Musical instrument store room	Component slab
----------------------	---------------------------------------------------------------	-----------------------

Description Water stain was observed on slab soffit

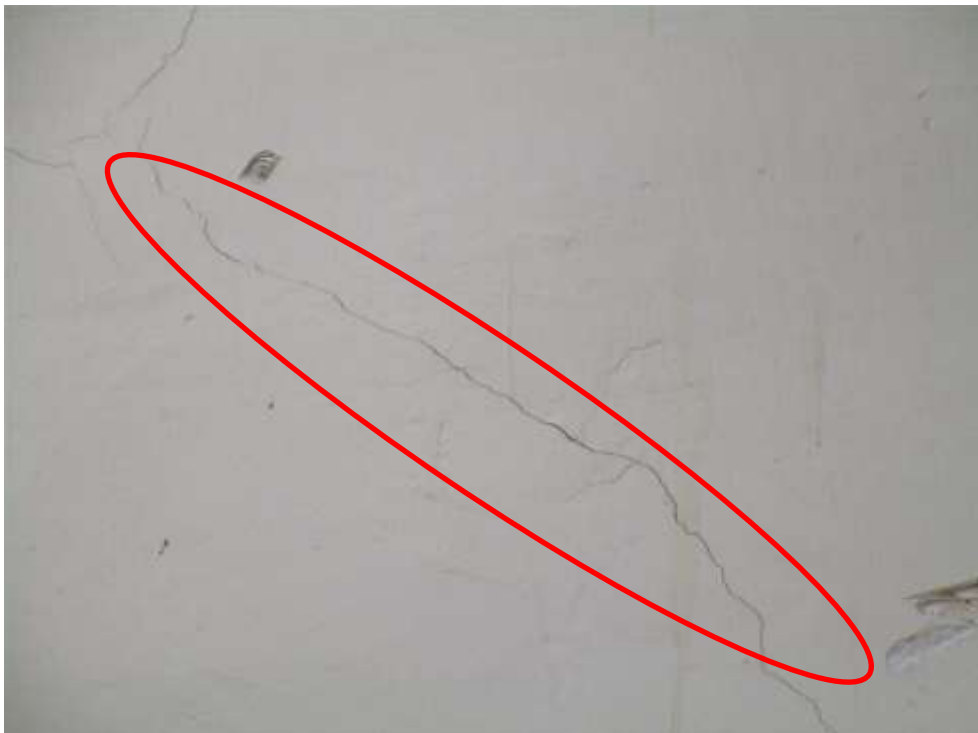
Photo No. 1123



Defect No. 62	Location 2/F South wing, Musical instrument store room	Component wall
----------------------	---------------------------------------------------------------	-----------------------

Description An area of medium crack was observed on wall finishing

Photo No. 1124



Defect No. 62	Location 2/F South wing, Musical instrument store room	Component wall
----------------------	---------------------------------------------------------------	-----------------------

Description An area of medium crack was observed on wall finishing

Photo No. 1125



Defect No. 63	Location 2/F South wing, Musical instrument store room	Component wall
----------------------	---------------------------------------------------------------	-----------------------

Description An area of medium crack was observed on wall finishing

Photo No. 1126



Defect No. 63	Location 2/F South wing, Musical instrument store room	Component wall
----------------------	---------------------------------------------------------------	-----------------------

Description An area of medium crack was observed on wall finishing

Photo No. 1127



Defect No. 64	Location 2/F South wing, Musical instrument store room	Component wall
----------------------	---------------------------------------------------------------	-----------------------

Description Chipping off of concrete finishing was observed on wall

Photo No. 1128



Defect No. 64	Location 2/F South wing, Musical instrument store room	Component wall
----------------------	---------------------------------------------------------------	-----------------------

Description Chipping off of concrete finishing was observed on wall

Photo No. 1129



Defect No. 65 **Location** 2/F South wing, North elevation **Component** canopy

Description 4 hairline cracks were observed on canopy soffit

Photo No. 1130



Defect No. 65 **Location** 2/F South wing, North elevation **Component** canopy

Description 4 hairline cracks were observed on canopy soffit

Photo No. 1131



Defect No. 66 **Location** 2/F South wing, North elevation **Component** canopy

Description 3 medium cracks were observed on canopy soffit

Photo No. 1132



Defect No. 66 **Location** 2/F South wing, North elevation **Component** canopy

Description 3 medium cracks were observed on canopy soffit

Photo No. 1133



Defect No. 67 **Location** 2/F South wing, North elevation **Component** canopy

Description 2 wide cracks were observed on canopy soffit

Photo No. 1134



Defect No. 67 **Location** 2/F South wing, North elevation **Component** canopy

Description 2 wide crack were observed on canopy soffit

Photo No. 1135



Defect No. 68	Location 3/F East wing, RM302 SALC room	Component step
----------------------	------------------------------------------------	-----------------------

Description A hairline crack was observed on step

Photo No. 1136



Defect No. 68	Location 3/F East wing, RM302 SALC room	Component step
----------------------	------------------------------------------------	-----------------------

Description A hairline crack was observed on step

Photo No. 1137



Defect No. 69	Location 3/F East wing, RM302 SALC room	Component step
----------------------	------------------------------------------------	-----------------------

Description A hairline crack was observed on step

Photo No. 1138



Defect No. 69	Location 3/F East wing, RM302 SALC room	Component step
----------------------	------------------------------------------------	-----------------------

Description A hairline crack was observed on step

Photo No. 1139



Defect No. 70 **Location** 3/F East wing, RM303 classroom **Component** door jamb

Description A crack was observed on door jamb

Photo No. 1140



Defect No. 70 **Location** 3/F East wing, RM303 classroom **Component** door jamb

Description A crack was observed on door jamb

Photo No. 1141



Defect No. 71 **Location** 3/F East wing, RM303 classroom **Component** step

Description Wide cracks were observed on step

Photo No. 1142



Defect No. 71 **Location** 3/F East wing, RM303 classroom **Component** step

Description Wide cracks were observed on step

Photo No. 1143



Defect No.	72	Location	3/F South wing, Corridor	Component	brick wall
-------------------	----	-----------------	--------------------------	------------------	------------

Description	Minor chipped off of joint mortar was observed on brick wall				
--------------------	--------------------------------------------------------------	--	--	--	--

Photo No. 1144



Defect No.	72	Location	3/F South wing, Corridor	Component	brick wall
-------------------	----	-----------------	--------------------------	------------------	------------

Description	Minor chipped off of joint mortar was observed on brick wall				
--------------------	--------------------------------------------------------------	--	--	--	--

Photo No. 1145



Defect No. 73	Location 3/F South wing, Corridor	Component brick wall
----------------------	------------------------------------------	-----------------------------

Description A medium crack was observed on brick wall

Photo No. 1146



Defect No. 73	Location 3/F South wing, Corridor	Component brick wall
----------------------	------------------------------------------	-----------------------------

Description A medium crack was observed on brick wall

Photo No. 1147



Defect No. 74 **Location** 3/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between new and old structure

Photo No. 1148



Defect No. 74 **Location** 3/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between new and old structure

Photo No. 1149



Defect No. 75 **Location** 3/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between new and old structure

Photo No. 1150



Defect No. 75 **Location** 3/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between new and old structure

Photo No. 1151



Defect No.	76	Location	3/F South wing, Corridor	Component	slab
-------------------	----	-----------------	--------------------------	------------------	------

Description	A damp patch was observed on slab soffit				
--------------------	------------------------------------------	--	--	--	--

Photo No. 1152



Defect No.	76	Location	3/F South wing, Corridor	Component	slab
-------------------	----	-----------------	--------------------------	------------------	------

Description	A damp patch was observed on slab soffit				
--------------------	------------------------------------------	--	--	--	--

Photo No. 1153



Defect No. 77	Location 3/F South wing, Corridor	Component slab
----------------------	------------------------------------------	-----------------------

Description An area of hairline crack was observed on floor slab

Photo No. 1154



Defect No. 77	Location 3/F South wing, Corridor	Component slab
----------------------	------------------------------------------	-----------------------

Description An area of hairline crack was observed on floor slab

Photo No. 1155



Defect No.	78	Location	3/F South wing, Corridor	Component	wall
-------------------	----	-----------------	--------------------------	------------------	------

Description	A hairline crack was observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1156



Defect No.	78	Location	3/F South wing, Corridor	Component	wall
-------------------	----	-----------------	--------------------------	------------------	------

Description	A hairline crack was observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1157



Defect No.	79	Location	3/F South wing, Corridor	Component	wall
-------------------	----	-----------------	--------------------------	------------------	------

Description	A hairline crack was observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1158



Defect No.	79	Location	3/F South wing, Corridor	Component	wall
-------------------	----	-----------------	--------------------------	------------------	------

Description	A hairline crack was observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1159



Defect No.	80	Location	3/F South wing, Corridor	Component	wall
-------------------	----	-----------------	--------------------------	------------------	------

Description	A hairline crack was observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1160



Defect No.	80	Location	3/F South wing, Corridor	Component	wall
-------------------	----	-----------------	--------------------------	------------------	------

Description	A hairline crack was observed on wall				
--------------------	---------------------------------------	--	--	--	--

Photo No. 1161



Defect No.	81	Location	3/F South wing, RM304 classroom	Component	door jamb
-------------------	----	-----------------	------------------------------------	------------------	-----------

Description A crack was observed on door jamb

Photo No. 1162



Defect No.	81	Location	3/F South wing, RM304 classroom	Component	door jamb
-------------------	----	-----------------	------------------------------------	------------------	-----------

Description A crack was observed on door jamb

Photo No. 1163



Defect No. 82 **Location** B/F North wing, Changing room **Component** wall

Description 2 wide cracks were observed on wall tile

Photo No. 1164



Defect No. 82 **Location** B/F North wing, Changing room **Component** wall

Description 2 wide cracks were observed on wall tile

Photo No. 1165



Defect No.	83	Location	G/F East wing, Main entrance	Component	parapet
-------------------	----	-----------------	------------------------------	------------------	---------

Description	A medium crack was observed on parapet wall				
--------------------	---------------------------------------------	--	--	--	--

Photo No. 1166



Defect No.	83	Location	G/F East wing, Main entrance	Component	parapet
-------------------	----	-----------------	------------------------------	------------------	---------

Description	A medium crack was observed on parapet wall				
--------------------	---------------------------------------------	--	--	--	--

Photo No. 1167



Defect No. 84 **Location** G/F East wing, Main entrance **Component** parapet

Description A wide crack was observed on parapet wall

Photo No. 1168



Defect No. 84 **Location** G/F East wing, Main entrance **Component** parapet

Description A wide crack was observed on parapet wall

Photo No. 1169



Defect No.	85	Location	G/F East wing, Social worker room	Component	wall
-------------------	----	-----------------	-----------------------------------	------------------	------

Description Deteriorated surface finishing was observed on wall

Photo No. 1170



Defect No.	85	Location	G/F East wing, Social worker room	Component	wall
-------------------	----	-----------------	-----------------------------------	------------------	------

Description Deteriorated surface finishing was observed on wall

Photo No. 1171



Defect No. 86	Location G/F East wing, Social worker room	Component wall
----------------------	---------------------------------------------------	-----------------------

Description A wide crack was observed on door jamb

Photo No. 1172



Defect No. 86	Location G/F East wing, Social worker room	Component wall
----------------------	---------------------------------------------------	-----------------------

Description A wide crack was observed on door jamb

Photo No. 1173



Defect No. 87 **Location** G/F East wing, Switchgear room **Component** wall

Description Paint peeling was observed on wall

Photo No. 1174



Defect No. 87 **Location** G/F East wing, Switchgear room **Component** wall

Description Paint peeling was observed on wall

Photo No. 1175



Defect No. 88 **Location** G/F East wing, Switchgear room **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1176



Defect No. 88 **Location** G/F East wing, Switchgear room **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1177



Defect No. 89 **Location** G/F East wing, UG08 classroom **Component** window sill

Description An area of medium crack was observed on soffit finishing

Photo No. 1178



Defect No. 89 **Location** G/F East wing, UG08 classroom **Component** window sill

Description An area of medium crack was observed on soffit finishing

Photo No. 1179



Defect No. 90 **Location** G/F East wing, West elevation **Component** granite wall

Description 2 wide cracks were observed on granite wall

Photo No. 1180



Defect No. 90 **Location** G/F East wing, West elevation **Component** granite wall

Description 2 wide cracks were observed on granite wall

Photo No. 1181



Defect No. 91	Location G/F South wing, Bonham road store room	Component wall
----------------------	--------------------------------------------------------	-----------------------

Description An area of wide crack was observed on wall finishing

Photo No. 1182



Defect No. 91	Location G/F South wing, Bonham road store room	Component wall
----------------------	--------------------------------------------------------	-----------------------

Description An area of wide crack was observed on wall finishing

Photo No. 1183



Defect No.	92	Location	G/F South wing, Bonham road store room	Component	wall
-------------------	----	-----------------	----------------------------------------	------------------	------

Description An area of medium crack was observed on wall finishing

Photo No. 1184



Defect No.	92	Location	G/F South wing, Bonham road store room	Component	wall
-------------------	----	-----------------	----------------------------------------	------------------	------

Description An area of medium crack was observed on wall finishing

Photo No. 1185



Defect No. 93	Location G/F South wing, Bonham road store room	Component wall
----------------------	--------------------------------------------------------	-----------------------

Description An area of wide crack was observed on wall finishing

Photo No. 1186



Defect No. 93	Location G/F South wing, Bonham road store room	Component wall
----------------------	--------------------------------------------------------	-----------------------

Description An area of wide crack was observed on wall

Photo No. 1187



Defect No. 94	Location G/F South wing, Bonham road store room	Component wall
----------------------	--------------------------------------------------------	-----------------------

Description An area of wide crack was observed on wall finishing

Photo No. 1188



Defect No. 94	Location G/F South wing, Bonham road store room	Component wall
----------------------	--------------------------------------------------------	-----------------------

Description An area of wide crack was observed on wall finishing

Photo No. 1189



Defect No. 95 **Location** G/F South wing, Corridor **Component** brick column

Description A medium crack was observed on brick column

Photo No. 1190



Defect No. 95 **Location** G/F South wing, Corridor **Component** brick column

Description A medium crack was observed on brick column

Photo No. 1191



Defect No.	96	Location	G/F South wing, Corridor	Component	brick column
-------------------	----	-----------------	--------------------------	------------------	--------------

Description	A vegetation growth was observed on brick column				
--------------------	--------------------------------------------------	--	--	--	--

Photo No. 1192



Defect No.	96	Location	G/F South wing, Corridor	Component	brick column
-------------------	----	-----------------	--------------------------	------------------	--------------

Description	A vegetation growth was observed on brick column				
--------------------	--------------------------------------------------	--	--	--	--

Photo No. 1193



Defect No.	97	Location	G/F South wing, Corridor	Component	brick wall
-------------------	----	-----------------	--------------------------	------------------	------------

Description	A medium crack was observed on brick wall				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1194



Defect No.	97	Location	G/F South wing, Corridor	Component	brick wall
-------------------	----	-----------------	--------------------------	------------------	------------

Description	A medium crack was observed on brick wall				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1195



Defect No.	98	Location	G/F South wing, Corridor	Component	door lintel
-------------------	----	-----------------	--------------------------	------------------	-------------

Description	A hairline crack was observed on door lintel				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1196



Defect No.	98	Location	G/F South wing, Corridor	Component	door lintel
-------------------	----	-----------------	--------------------------	------------------	-------------

Description	A hairline crack was observed on door lintel				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1197



Defect No. 99 **Location** G/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between new and old structure

Photo No. 1198



Defect No. 99 **Location** G/F South wing, Corridor **Component** parapet

Description Debonded joint sealant was observed on parapet between new and old structure

Photo No. 1199



Defect No. 100 **Location** G/F South wing, School Garden **Component** retaining wall

Description An area of medium crack was observed on concrete surface of retaining wall

Photo No. 1200



Defect No. 100 **Location** G/F South wing, School Garden **Component** retaining wall

Description An area of medium crack was observed on concrete surface of retaining wall

Photo No. 1201



Defect No. 101 **Location** G/F South wing, School Garden **Component** retaining wall

Description A leaching with seepage was observed on concrete surface of retaining wall

Photo No. 1202



Defect No. 101 **Location** G/F South wing, School Garden **Component** retaining wall

Description A leaching with seepage was observed on concrete surface of retaining wall

Photo No. 1203



Defect No.	102	Location	G/F South wing, School Garden	Component	retaining wall
Description	An area of hairline crack was observed on concrete surface of retaining wall				

Photo No. 1204



Defect No.	102	Location	G/F South wing, School Garden	Component	retaining wall
Description	An area of hairline crack was observed on concrete surface of retaining wall				

Photo No. 1205



Defect No. 103 **Location** G/F South wing, School Garden **Component** column

Description An area of wide cracks was observed on the finishing of column

Photo No. 1206



Defect No. 103 **Location** G/F South wing, School Garden **Component** column

Description An area of wide cracks was observed on the finishing of column

Photo No. 1207



Defect No. 104 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1208



Defect No. 104 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1209



Defect No. 105 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1210



Defect No. 105 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1211



Defect No. 106 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1212



Defect No. 106 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1213



Defect No. 107 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack was observed on column finishing

Photo No. 1214



Defect No. 107 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack was observed on column finishing

Photo No. 1215



Defect No. 108 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1216



Defect No. 108 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack with leaching was observed on column finishing

Photo No. 1217



Defect No. 109 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack was observed on column finishing

Photo No. 1218



Defect No. 109 **Location** G/F South wing, School Garden **Component** column

Description An area of medium crack was observed on column finishing

Photo No. 1219



Defect No. 110 **Location** G/F South wing, School Garden **Component** column

Description An area of wide crack was observed on column finishing

Photo No. 1220



Defect No. 110 **Location** G/F South wing, School Garden **Component** column

Description An area of wide crack was observed on column finishing

Photo No. 1221



Defect No. 111 **Location** G/F South wing, School Garden **Component** column

Description A hairline crack with yellow stain was observed on column

Photo No. 1222



Defect No. 111 **Location** G/F South wing, School Garden **Component** column

Description A hairline crack with yellow stain was observed on column

Photo No. 1223



Defect No.	112	Location	G/F South wing, School Garden	Component	mass block
-------------------	-----	-----------------	-------------------------------	------------------	------------

Description	An area of medium crack was observed on mass block				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1224



Defect No.	112	Location	G/F South wing, School Garden	Component	mass block
-------------------	-----	-----------------	-------------------------------	------------------	------------

Description	An area of medium crack was observed on mass block				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1225



Defect No. 113 **Location** G/F South wing, School Garden **Component** mass block

Description A wide crack was observed on the mass block

Photo No. 1226



Defect No. 113 **Location** G/F South wing, School Garden **Component** mass block

Description A wide crack was observed on the mass block

Photo No. 1227



Defect No. 114 **Location** G/F South wing, School Garden **Component** upstand curb

Description An area of cracks was observed on upstand curb

Photo No. 1228



Defect No. 114 **Location** G/F South wing, School Garden **Component** upstand curb

Description An area of cracks was observed on upstand curb

Photo No. 1229



Defect No. 115 **Location** G/F South wing, School Garden **Component** upstand curb

Description An area of cracks was observed on upstand curb

Photo No. 1230



Defect No. 115 **Location** G/F South wing, School Garden **Component** upstand curb

Description An area of cracks was observed on upstand curb

Photo No. 1231



Defect No. 116 **Location** G/F South wing, School Garden **Component** upstand curb

Description An area of cracks was observed on upstand curb

Photo No. 1232



Defect No. 116 **Location** G/F South wing, School Garden **Component** upstand curb

Description An area of cracks was observed on upstand curb

Photo No. 1233



Defect No. 117	Location G/F South wing, Medical inspection room	Component door lintel
-----------------------	---------------------------------------------------------	------------------------------

Description A medium crack was observed on door lintel

Photo No. 1234



Defect No. 117	Location G/F South wing, Medical inspection room	Component door lintel
-----------------------	---------------------------------------------------------	------------------------------

Description A medium crack was observed on door lintel

Photo No. 1235



Defect No. 118	Location G/F South wing, Medical inspection room	Component door jamb
-----------------------	---------------------------------------------------------	----------------------------

Description A gap was observed between the wall and door jamb

Photo No. 1236



Defect No. 118	Location G/F South wing, Medical inspection room	Component door jamb
-----------------------	---------------------------------------------------------	----------------------------

Description A gap was observed between the wall and door jamb

Photo No. 1237



Defect No.	119	Location	G/F South wing, Medical inspection room	Component	wall
-------------------	-----	-----------------	-----------------------------------------	------------------	------

Description A hairline crack was observed on wall finishing

Photo No. 1238



Defect No.	119	Location	G/F South wing, Medical inspection room	Component	wall
-------------------	-----	-----------------	-----------------------------------------	------------------	------

Description A hairline crack was observed on wall finishing

Photo No. 1239



Defect No. 120	Location G/F South wing, Medical inspection room	Component wall
-----------------------	---------------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1240



Defect No. 120	Location G/F South wing, Medical inspection room	Component wall
-----------------------	---------------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1241



Defect No.	121	Location	G/F South wing, north elevation	Component	canopy bracing
Description	A canopy bracing was found chipped off				

Photo No. 1242



Defect No.	121	Location	G/F South wing, north elevation	Component	canopy bracing
Description	A canopy bracing was found chipped off				

Photo No. 1243



Defect No. 122 **Location** G/F South wing, north elevation **Component** canopy bracing

Description A medium crack was observed on finishing of canopy bracing

Photo No. 1244



Defect No. 122 **Location** G/F South wing, north elevation **Component** canopy bracing

Description A medium crack was observed on finishing of canopy bracing

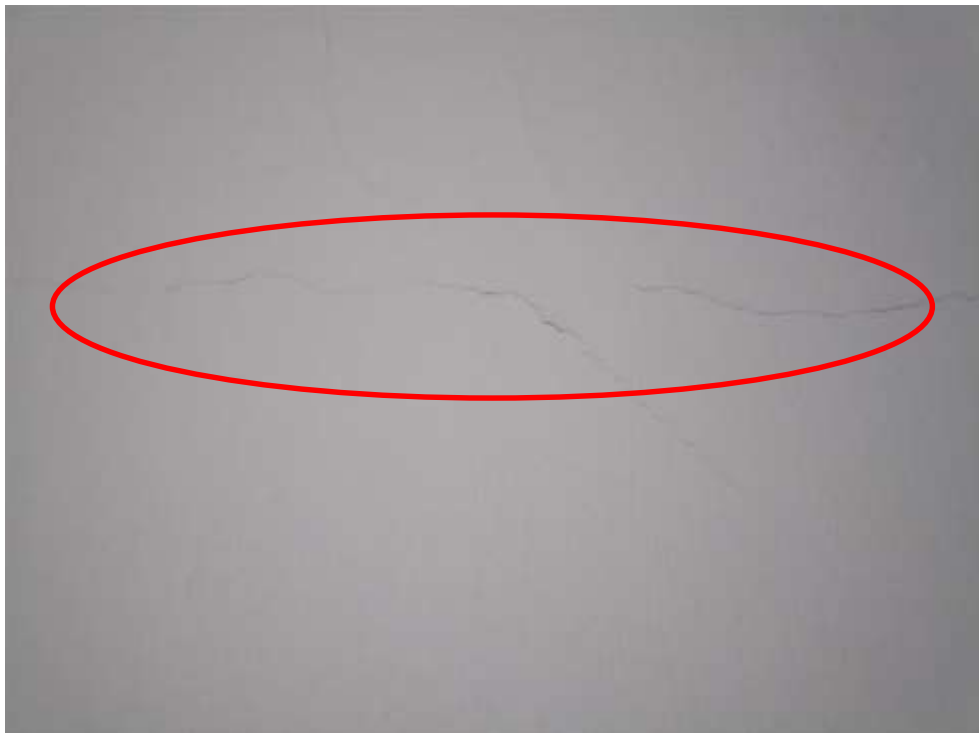
Photo No. 1245



Defect No.	123	Location	G/F-1/F North wing, NW staircase	Component	wall
-------------------	-----	-----------------	----------------------------------	------------------	------

Description A hairline crack was observed on wall finishing

Photo No. 1246



Defect No.	123	Location	G/F-1/F North wing, NW staircase	Component	wall
-------------------	-----	-----------------	----------------------------------	------------------	------

Description A hairline crack was observed on wall finishing

Photo No. 1247



Defect No. 124	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A hairline crack was observed on wall finishing

Photo No. 1248



Defect No. 124	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A hairline crack was observed on wall finishing

Photo No. 1249



Defect No. 125	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A hairline crack was observed on wall finishing

Photo No. 1250



Defect No. 125	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A hairline crack was observed on wall finishing

Photo No. 1251



Defect No. 126	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A hairline crack was observed on wall finishing

Photo No. 1252



Defect No. 126	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A hairline crack was observed on wall finishing

Photo No. 1253



Defect No. 127	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1254



Defect No. 127	Location G/F-1/F North wing, NW staircase	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1255



Defect No. 128 **Location** LG/F North wing, NW staircase **Component** wall

Description Paint peeling was observed on wall

Photo No. 1256



Defect No. 128 **Location** LG/F North wing, NW staircase **Component** wall

Description Paint peeling was observed on wall

Photo No. 1257



Defect No.	129	Location	LG/F North wing, NW staircase	Component	wall
-------------------	-----	-----------------	-------------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1258



Defect No.	129	Location	LG/F North wing, NW staircase	Component	wall
-------------------	-----	-----------------	-------------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1259



Defect No.	130	Location	LG/F North wing, NW staircase	Component	wall
-------------------	-----	-----------------	-------------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1260



Defect No.	130	Location	LG/F North wing, NW staircase	Component	wall
-------------------	-----	-----------------	-------------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1261



Defect No. 131	Location G/F-R/F South wing, North elevation	Component canopy
-----------------------	-----------------------------------------------------	-------------------------

Description Paint deterioration was observed on the top face of canopies

Photo No. 1262



Defect No. 131	Location G/F-R/F South wing, North elevation	Component canopy
-----------------------	-----------------------------------------------------	-------------------------

Description Paint deterioration was observed on the top face of canopies

Photo No. 1263



Defect No. 132 **Location** R/F South wing, North elevation **Component** canopy

Description A medium crack was observed on canopy soffit finishing

Photo No. 1264



Defect No. 132 **Location** R/F South wing, North elevation **Component** canopy

Description A medium crack was observed on canopy soffit finishing

Photo No. 1265



Defect No. 133	Location G/F-R/F South wing, North elevation	Component canopy
-----------------------	-----------------------------------------------------	-------------------------

Description Minor damp patches were observed on canopy soffit

Photo No. 1266



Defect No. 133	Location G/F-R/F South wing, North elevation	Component canopy
-----------------------	-----------------------------------------------------	-------------------------

Description Minor damp patches were observed on canopy soffit

Photo No. 1267



Defect No. 134	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description Loose bricks were observed on parapet brick wall

Photo No. 1268



Defect No. 134	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description Loose bricks were observed on parapet brick wall

Photo No. 1269



Defect No. 135 **Location** LB/F Swimming pool **Component** brick wall

Description A wide crack was observed on parapet brick wall mortar joint

Photo No. 1270



Defect No. 135 **Location** LB/F Swimming pool **Component** brick wall

Description A wide crack was observed on parapet brick wall mortar joint

Photo No. 1271



Defect No. 136	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

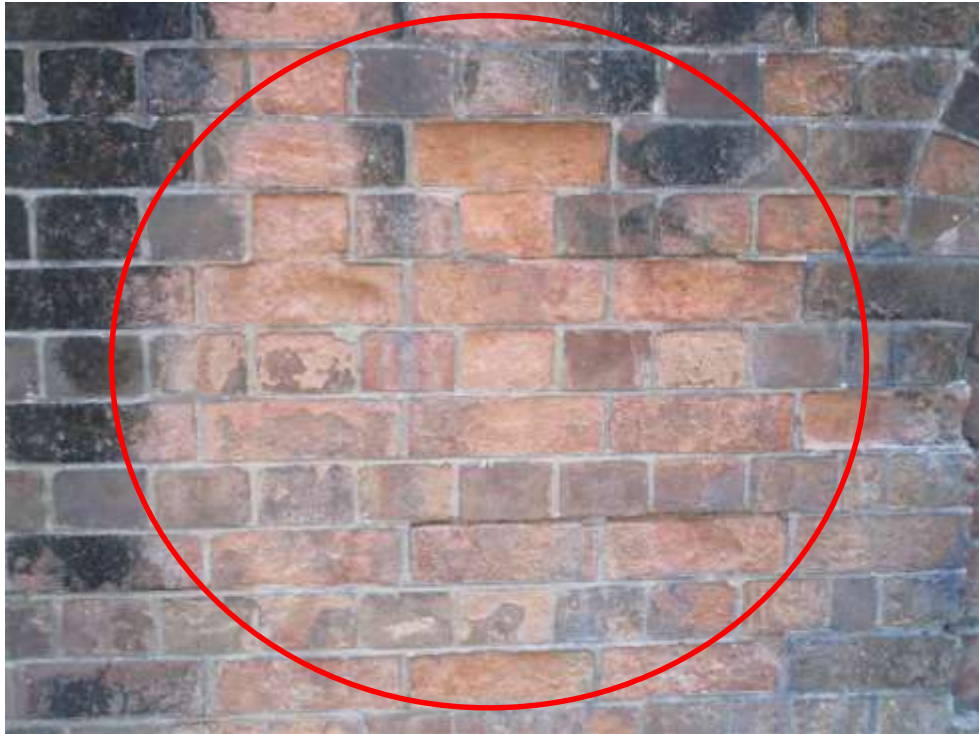
Photo No. 1272



Defect No. 136	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1273



Defect No. 137	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description Spalled bricks were observed on brick wall

Photo No. 1274



Defect No. 137	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description Spalled bricks were observed on brick wall

Photo No. 1275



Defect No.	138	Location	LB/F Swimming pool	Component	brick wall
-------------------	-----	-----------------	--------------------	------------------	------------

Description	Wide crack with loose bricks on brick wall				
--------------------	--------------------------------------------	--	--	--	--

Photo No. 1276



Defect No.	138	Location	LB/F Swimming pool	Component	brick wall
-------------------	-----	-----------------	--------------------	------------------	------------

Description	Wide crack with loose bricks on brick wall				
--------------------	--------------------------------------------	--	--	--	--

Photo No. 1277



Defect No. 139	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description Spalled bricks were observed on brick wall

Photo No. 1278



Defect No. 139	Location LB/F Swimming pool	Component brick wall
-----------------------	------------------------------------	-----------------------------

Description Spalled bricks were observed on brick wall

Photo No. 1279



Defect No.	140	Location	LB/F Swimming pool	Component	brick wall
-------------------	-----	-----------------	--------------------	------------------	------------

Description	A large tree was grown on top of the brick wall				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1280



Defect No.	140	Location	LB/F Swimming pool	Component	brick wall
-------------------	-----	-----------------	--------------------	------------------	------------

Description	A large tree was grown on top of the brick wall				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1281



Defect No.	141	Location	LB/F Swimming pool	Component	granite portal
-------------------	-----	-----------------	--------------------	------------------	----------------

Description	A vegetation growth was observed on granite portal				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1282



Defect No.	141	Location	LB/F Swimming pool	Component	granite portal
-------------------	-----	-----------------	--------------------	------------------	----------------

Description	A vegetation growth was observed on granite portal				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1283



Defect No.	142	Location	LB/F Swimming pool	Component	parapet
-------------------	-----	-----------------	--------------------	------------------	---------

Description	Patches of leaching were observed on parapet				
--------------------	----------------------------------------------	--	--	--	--

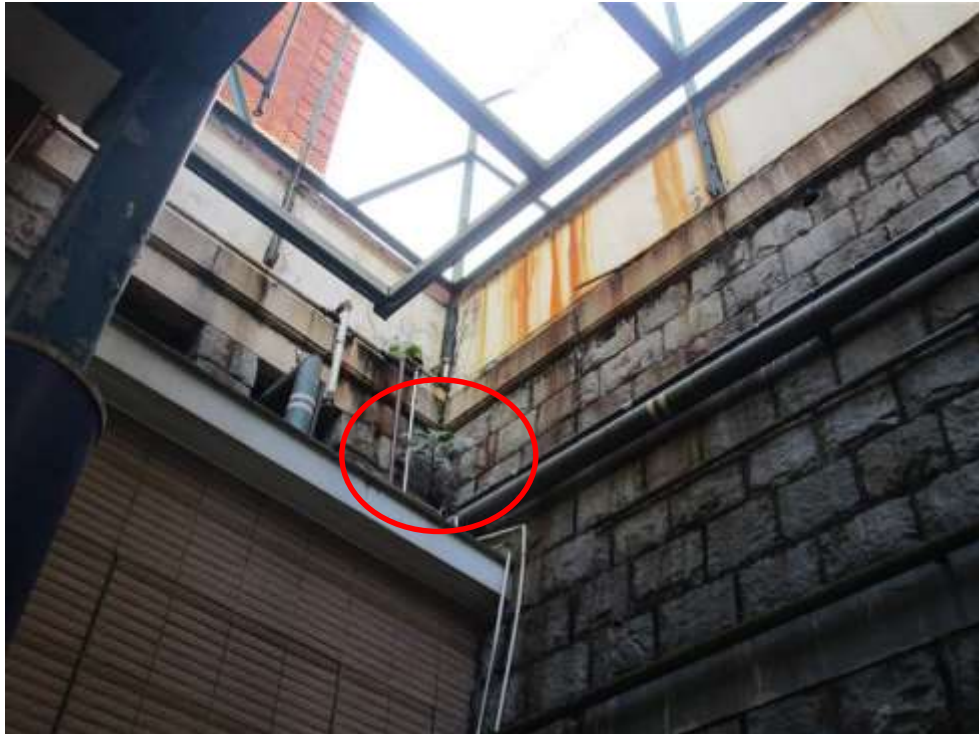
Photo No. 1284



Defect No.	142	Location	LB/F Swimming pool	Component	parapet
-------------------	-----	-----------------	--------------------	------------------	---------

Description	Patches of leaching were observed on parapet				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1285



Defect No. 143 **Location** LB/F Swimming pool **Component** retaining wall

Description A vegetation growth was observed on stone retaining wall

Photo No. 1286



Defect No. 143 **Location** LB/F Swimming pool **Component** retaining wall

Description A vegetation growth was observed on stone retaining wall

Photo No. 1287



Defect No. 144 **Location** LB/F Swimming pool **Component** retaining wall

Description A vegetation growth was observed on retaining wall

Photo No. 1288



Defect No. 144 **Location** LB/F Swimming pool **Component** retaining wall

Description A vegetation growth was observed on retaining wall

Photo No. 1289



Defect No. 145 **Location** LB/F Swimming pool **Component** retaining wall

Description A leaching was observed on retaining wall

Photo No. 1290



Defect No. 145 **Location** LB/F Swimming pool **Component** retaining wall

Description A leaching was observed on retaining wall

Photo No. 1291



Defect No. 146 **Location** LB/F Swimming pool **Component** retaining wall

Description Vegetation growths were observed on retaining wall

Photo No. 1292



Defect No. 146 **Location** LB/F Swimming pool **Component** retaining wall

Description Vegetation growths were observed on retaining wall

Photo No. 1293



Defect No. 147 **Location** LB/F Swimming pool **Component** retaining wall

Description A vegetation growth was observed on retaining wall

Photo No. 1294



Defect No. 147 **Location** LB/F Swimming pool **Component** retaining wall

Description A vegetation growth was observed on retaining wall

Photo No. 1295



Defect No. 148	Location LB/F Swimming pool	Component slab
-----------------------	------------------------------------	-----------------------

Description A medium crack was observed on tiled slab

Photo No. 1296



Defect No. 148	Location LB/F Swimming pool	Component slab
-----------------------	------------------------------------	-----------------------

Description A medium crack was observed on tiled slab

Photo No. 1297



Defect No. 149	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description Patches of leaching were observed on wall

Photo No. 1298



Defect No. 149	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description Patches of leaching were observed on wall

Photo No. 1299



Defect No. 150	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description A medium crack was observed on wall tile finishing

Photo No. 1300



Defect No. 150	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description A medium crack was observed on wall tile finishing

Photo No. 1301



Defect No. 151 **Location** LB/F Swimming pool **Component** wall

Description A vegetation growth was observed on wall with leaching

Photo No. 1302



Defect No. 151 **Location** LB/F Swimming pool **Component** wall

Description A vegetation growth was observed on wall with leaching

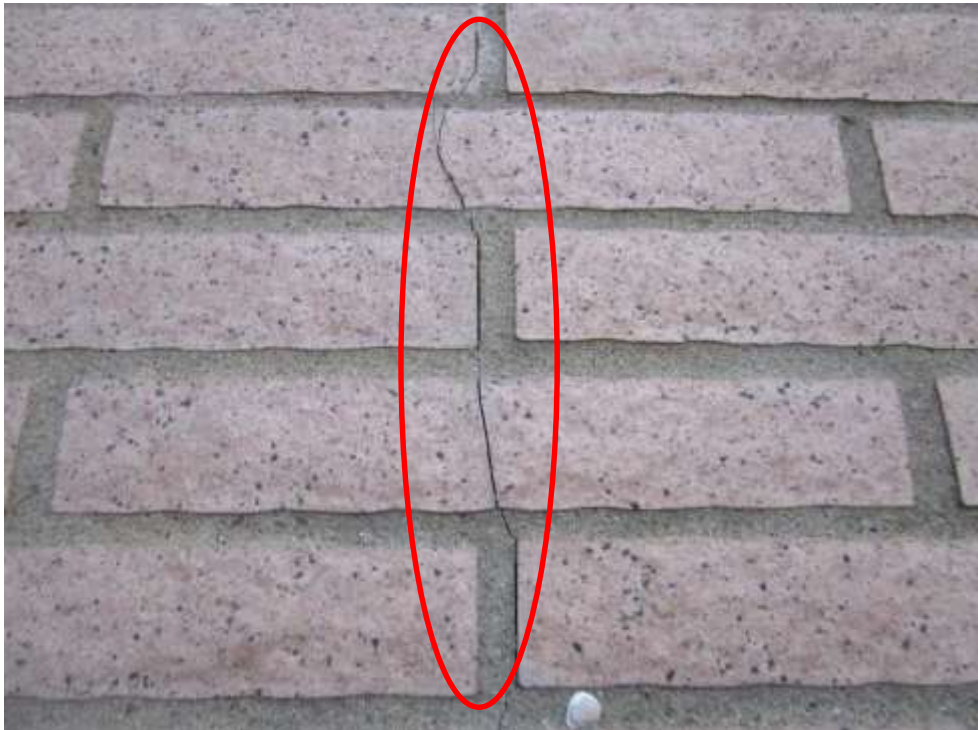
Photo No. 1303



Defect No. 152	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description A medium crack was observed on wall tile finishing

Photo No. 1304



Defect No. 152	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description A medium crack was observed on wall tile finishing

Photo No. 1305



Defect No.	153	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	Areas of leaching were observed on wall				
--------------------	-----------------------------------------	--	--	--	--

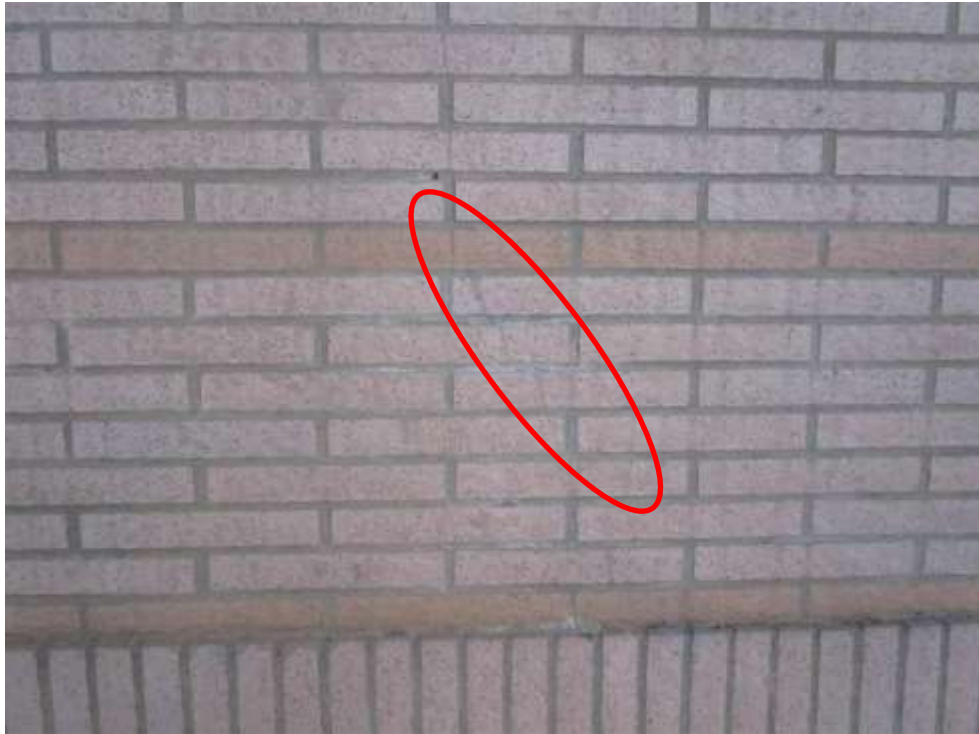
Photo No. 1306



Defect No.	153	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	Areas of leaching were observed on wall				
--------------------	-----------------------------------------	--	--	--	--

Photo No. 1307



Defect No.	154	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	A hairline crack was observed on wall tile finishing				
--------------------	------------------------------------------------------	--	--	--	--

Photo No. 1308



Defect No.	154	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	A hairline crack was observed on wall tile finishing				
--------------------	------------------------------------------------------	--	--	--	--

Photo No. 1309



Defect No. 155	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description A leaching was observed on wall

Photo No. 1310



Defect No. 155	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description A leaching was observed on wall

Photo No. 1311



Defect No.	156	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	An area of leaching was observed on wall				
--------------------	------------------------------------------	--	--	--	--

Photo No. 1312



Defect No.	156	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	An area of leaching was observed on wall				
--------------------	------------------------------------------	--	--	--	--

Photo No. 1313



Defect No.	157	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	Paint peeling was observed on wall				
--------------------	------------------------------------	--	--	--	--

Photo No. 1314



Defect No.	157	Location	LB/F Swimming pool	Component	wall
-------------------	-----	-----------------	--------------------	------------------	------

Description	Paint peeling was observed on wall				
--------------------	------------------------------------	--	--	--	--

Photo No. 1315



Defect No. 158	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description Paint peeling was observed on wall

Photo No. 1316



Defect No. 158	Location LB/F Swimming pool	Component wall
-----------------------	------------------------------------	-----------------------

Description Paint peeling was observed on wall

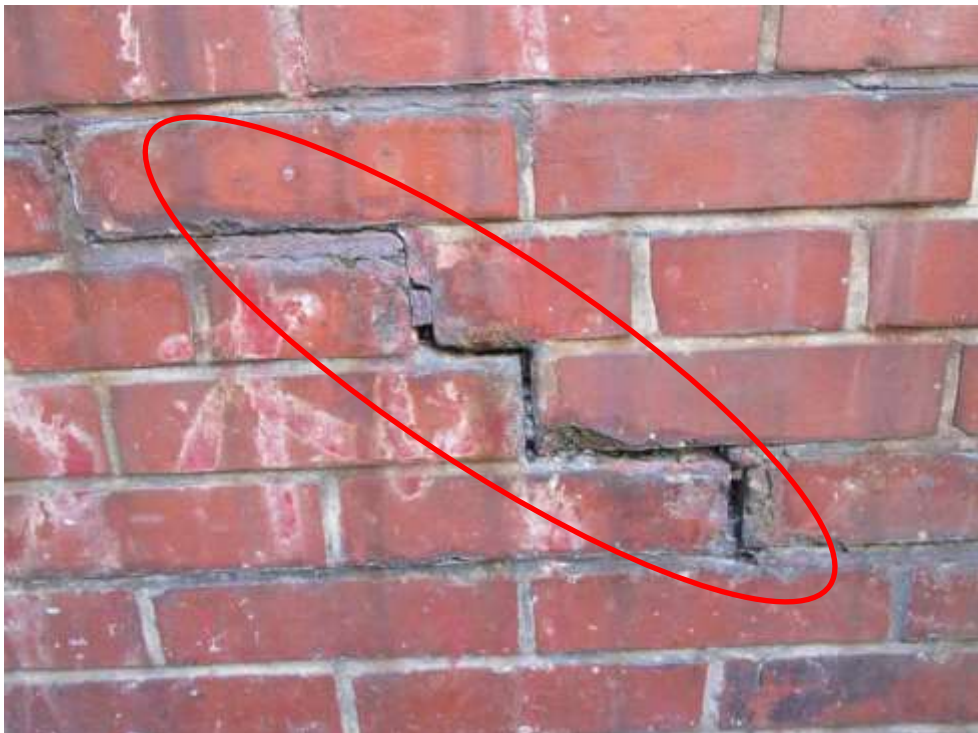
Photo No. 1317



Defect No.	159	Location	LG/F Parapet wall behind new extension	Component	brick parapet
-------------------	-----	-----------------	----------------------------------------	------------------	---------------

Description A wide crack was observed on mortar joint of brick parapet

Photo No. 1318



Defect No.	159	Location	LG/F Parapet wall behind new extension	Component	brick parapet
-------------------	-----	-----------------	----------------------------------------	------------------	---------------

Description A wide crack was observed on mortar joint of brick parapet

Photo No. 1319



Defect No. 160	Location LG/F Parapet wall behind new extension	Component brick parapet
-----------------------	--------------------------------------------------------	--------------------------------

Description Delaminated bricks were observed on parapet

Photo No. 1320



Defect No. 160	Location LG/F Parapet wall behind new extension	Component brick parapet
-----------------------	--------------------------------------------------------	--------------------------------

Description Delaminated bricks were observed on parapet

Photo No. 1321



Defect No. 161	Location LG/F Parapet wall behind new extension	Component brick parapet
-----------------------	--------------------------------------------------------	--------------------------------

Description Delaminated bricks were observed on parapet

Photo No. 1322



Defect No. 161	Location LG/F Parapet wall behind new extension	Component brick parapet
-----------------------	--------------------------------------------------------	--------------------------------

Description Delaminated bricks were observed on parapet

Photo No. 1323



Defect No. 162	Location LG/F Parapet wall behind new extension	Component brick parapet
-----------------------	--------------------------------------------------------	--------------------------------

Description A wide crack was observed on brick parapet mortar joint

Photo No. 1324



Defect No. 162	Location LG/F Parapet wall behind new extension	Component brick parapet
-----------------------	--------------------------------------------------------	--------------------------------

Description A wide crack was observed on brick parapet mortar joint

Photo No. 1325



Defect No. 163	Location LG/F Playground	Component fence post
-----------------------	---------------------------------	-----------------------------

Description A minor rusting was observed on fence post

Photo No. 1326



Defect No. 163	Location LG/F Playground	Component fence post
-----------------------	---------------------------------	-----------------------------

Description A minor rusting was observed on fence post

Photo No. 1327



Defect No. 164 **Location** LG/F Playground **Component** parapet

Description A vegetation growth was observed on parapet

Photo No. 1328



Defect No. 164 **Location** LG/F Playground **Component** parapet

Description A vegetation growth was observed on parapet

Photo No. 1329



Defect No. 165 **Location** LG/F Playground **Component** parapet

Description Rust stain was observed on parapet

Photo No. 1330



Defect No. 165 **Location** LG/F Playground **Component** parapet

Description Rust stain was observed on parapet

Photo No. 1331



Defect No. 166	Location LG/F Playground	Component parapet
-----------------------	---------------------------------	--------------------------

Description A wide crack was observed on parapet finishing

Photo No. 1332



Defect No. 166	Location LG/F Playground	Component parapet
-----------------------	---------------------------------	--------------------------

Description A wide crack was observed on parapet finishing

Photo No. 1333



Defect No. 167	Location LG/F Playground	Component parapet
-----------------------	---------------------------------	--------------------------

Description A vegetation growth was observed on parapet

Photo No. 1334



Defect No. 167	Location LG/F Playground	Component parapet
-----------------------	---------------------------------	--------------------------

Description A vegetation growth was observed on parapet

Photo No. 1335



Defect No. 168 **Location** LG/F Playground **Component** parapet

Description A wide crack was observed on parapet finishing

Photo No. 1336



Defect No. 168 **Location** LG/F Playground **Component** parapet

Description A wide crack was observed on parapet finishing

Photo No. 1337



Defect No. 169	Location LG/F Playground	Component pavement
-----------------------	---------------------------------	---------------------------

Description A wide crack was observed on playground pavement

Photo No. 1338



Defect No. 169	Location LG/F Playground	Component pavement
-----------------------	---------------------------------	---------------------------

Description A wide crack was observed on playground pavement

Photo No. 1339



Defect No.	170	Location	LG/F East wing, Canteen	Component	brick column
-------------------	-----	-----------------	-------------------------	------------------	--------------

Description	A wide crack through bricks was observed on brick column				
--------------------	----------------------------------------------------------	--	--	--	--

Photo No. 1340



Defect No.	170	Location	LG/F East wing, Canteen	Component	brick column
-------------------	-----	-----------------	-------------------------	------------------	--------------

Description	A wide crack through bricks was observed on brick column				
--------------------	----------------------------------------------------------	--	--	--	--

Photo No. 1341



Defect No.	171	Location	LG/F East wing, Canteen	Component	brick wall
-------------------	-----	-----------------	-------------------------	------------------	------------

Description	A crack was observed between previous repair and old bricks on wall				
--------------------	---------------------------------------------------------------------	--	--	--	--

Photo No. 1342



Defect No.	171	Location	LG/F East wing, Canteen	Component	brick wall
-------------------	-----	-----------------	-------------------------	------------------	------------

Description	A crack was observed between previous repair and old bricks on wall				
--------------------	---------------------------------------------------------------------	--	--	--	--

Photo No. 1343



Defect No.	172	Location	LG/F East wing, Canteen	Component	brick wall
-------------------	-----	-----------------	-------------------------	------------------	------------

Description	Area of delaminated bricks was observed on the brick wall				
--------------------	-----------------------------------------------------------	--	--	--	--

Photo No. 1344



Defect No.	172	Location	LG/F East wing, Canteen	Component	brick wall
-------------------	-----	-----------------	-------------------------	------------------	------------

Description	Area of delaminated bricks was observed on the brick wall				
--------------------	-----------------------------------------------------------	--	--	--	--

Photo No. 1345



Defect No. 173	Location LG/F East wing, Canteen	Component brick wall
-----------------------	-----------------------------------------	-----------------------------

Description A previous repair mark was observed on brick wall

Photo No. 1346



Defect No. 173	Location LG/F East wing, Canteen	Component brick wall
-----------------------	-----------------------------------------	-----------------------------

Description A previous repair mark was observed on brick wall

Photo No. 1347



Defect No. 174	Location LG/F East wing, Canteen	Component brick wall
-----------------------	-----------------------------------------	-----------------------------

Description A scratch mark was observed on brick wall

Photo No. 1348



Defect No. 174	Location LG/F East wing, Canteen	Component brick wall
-----------------------	-----------------------------------------	-----------------------------

Description A scratch mark was observed on brick wall

Photo No. 1349



Defect No. 175	Location LG/F East wing, Canteen	Component brick wall
-----------------------	-----------------------------------------	-----------------------------

Description A scratch mark was observed on brick wall

Photo No. 1350



Defect No. 175	Location LG/F East wing, Canteen	Component brick wall
-----------------------	-----------------------------------------	-----------------------------

Description A scratch mark was observed on brick wall

Photo No. 1351



Defect No.	176	Location	LG/F East wing, Canteen	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A wide crack was observed on wall finishing				
--------------------	---------------------------------------------	--	--	--	--

Photo No. 1352



Defect No.	176	Location	LG/F East wing, Canteen	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A wide crack was observed on wall finishing				
--------------------	---------------------------------------------	--	--	--	--

Photo No. 1353



Defect No. 177	Location LG/F East wing, Canteen	Component wall
-----------------------	-----------------------------------------	-----------------------

Description A wide crack was observed on wall finishing

Photo No. 1354



Defect No. 177	Location LG/F East wing, Canteen	Component wall
-----------------------	-----------------------------------------	-----------------------

Description A wide crack was observed on wall finishing

Photo No. 1355



Defect No. 178	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1356



Defect No. 178	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1357



Defect No. 179	Location LG/F East wing, Corridor	Component brick wall
-----------------------	------------------------------------------	-----------------------------

Description A hairline crack was observed on brick wall

Photo No. 1358



Defect No. 179	Location LG/F East wing, Corridor	Component brick wall
-----------------------	------------------------------------------	-----------------------------

Description A hairline crack was observed on brick wall

Photo No. 1359



Defect No. 180 **Location** LG/F East wing, Corridor **Component** brick column

Description An area of wide crack was observed on brick column

Photo No. 1360



Defect No. 180 **Location** LG/F East wing, Corridor **Component** brick column

Description An area of wide crack was observed on brick column

Photo No. 1361



Defect No. 181	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1362



Defect No. 181	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

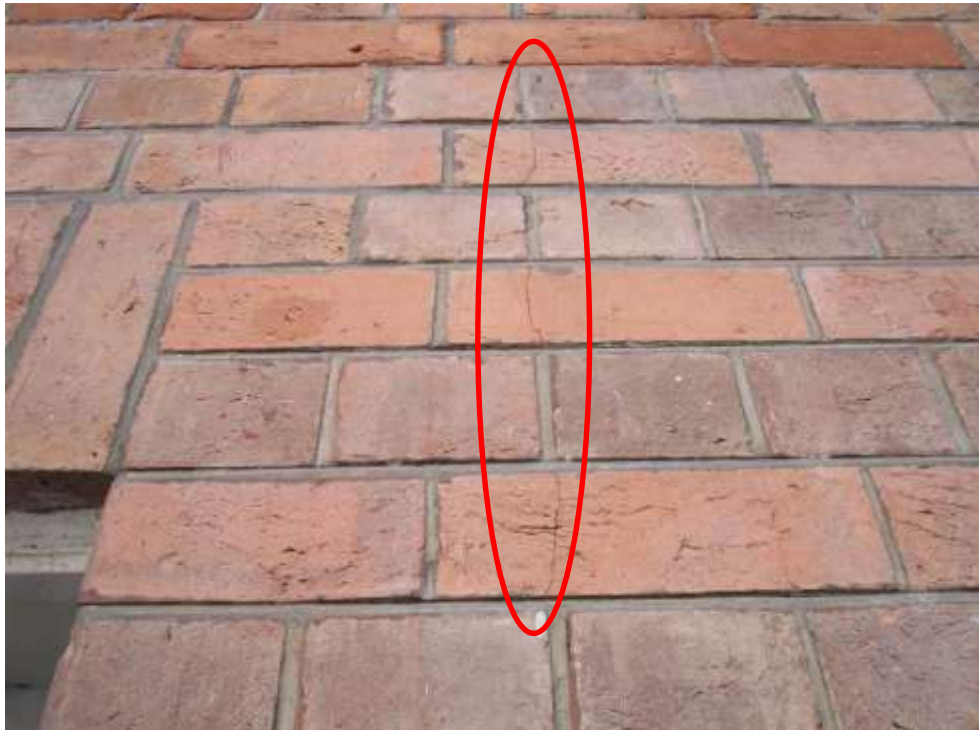
Photo No. 1363



Defect No.	182	Location	LG/F East wing, Corridor	Component	brick wall
-------------------	-----	-----------------	--------------------------	------------------	------------

Description	A hairline crack was observed on brick wall				
--------------------	---------------------------------------------	--	--	--	--

Photo No. 1364



Defect No.	182	Location	LG/F East wing, Corridor	Component	brick wall
-------------------	-----	-----------------	--------------------------	------------------	------------

Description	A hairline crack was observed on brick wall				
--------------------	---------------------------------------------	--	--	--	--

Photo No. 1365



Defect No. 183	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1366



Defect No. 183	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1367



Defect No.	184	Location	LG/F East wing, Corridor	Component	brick column
-------------------	-----	-----------------	--------------------------	------------------	--------------

Description	A medium crack with sign of previous repair was observed on brick column				
--------------------	--------------------------------------------------------------------------	--	--	--	--

Photo No. 1368



Defect No.	184	Location	LG/F East wing, Corridor	Component	brick column
-------------------	-----	-----------------	--------------------------	------------------	--------------

Description	A medium crack with sign of previous repair was observed on brick column				
--------------------	--------------------------------------------------------------------------	--	--	--	--

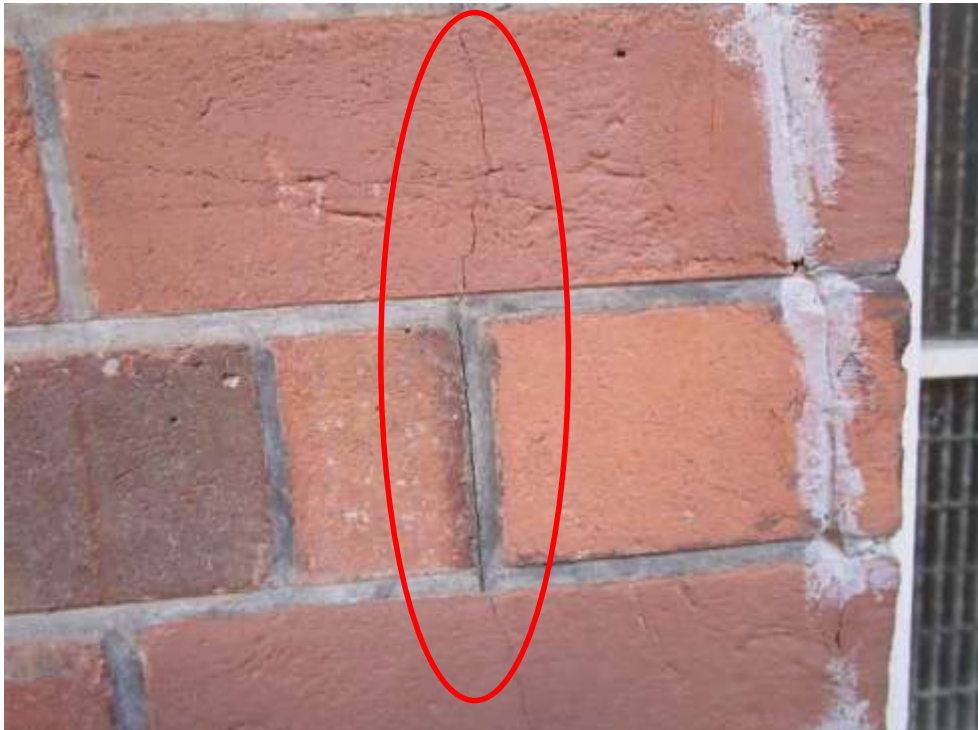
Photo No. 1369



Defect No.	185	Location	LG/F East wing, Corridor	Component	brick column
-------------------	-----	-----------------	--------------------------	------------------	--------------

Description	A hairline crack was observed on brick column				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1370



Defect No.	185	Location	LG/F East wing, Corridor	Component	brick column
-------------------	-----	-----------------	--------------------------	------------------	--------------

Description	A hairline crack was observed on brick column				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1371



Defect No. 186	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1372



Defect No. 186	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1373



Defect No. 187	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1374



Defect No. 187	Location LG/F East wing, Corridor	Component brick column
-----------------------	------------------------------------------	-------------------------------

Description A wide crack was observed on brick column

Photo No. 1375



Defect No. 188	Location LG/F East wing, Corridor	Component brick column
Description Leaching stain was observed on brick column		

Photo No. 1376



Defect No. 188	Location LG/F East wing, Corridor	Component brick column
Description Leaching stain was observed on brick column		

Photo No. 1377



Defect No.	189	Location	LG/F East wing, Corridor	Component	brick column
-------------------	-----	-----------------	--------------------------	------------------	--------------

Description	A diagonal wide crack was observed on brick column				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1378



Defect No.	189	Location	LG/F East wing, Corridor	Component	brick column
-------------------	-----	-----------------	--------------------------	------------------	--------------

Description	A diagonal wide crack was observed on brick column				
--------------------	----------------------------------------------------	--	--	--	--

Photo No. 1379



Defect No. 190 **Location** LG/F East wing, Corridor **Component** brick column

Description A wide crack was observed on brick column

Photo No. 1380



Defect No. 190 **Location** LG/F East wing, Corridor **Component** brick column

Description A wide crack was observed on brick column

Photo No. 1381



Defect No. 191 **Location** LG/F East wing, Corridor **Component** slab

Description A wide crack was observed on slab soffit finishing

Photo No. 1382



Defect No. 191 **Location** LG/F East wing, Corridor **Component** slab

Description A wide crack was observed on slab soffit finishing

Photo No. 1383



Defect No. 192	Location LG/F East wing, East elevation exterior	Component brick wall
-----------------------	---------------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall along mortar joint

Photo No. 1384



Defect No. 192	Location LG/F East wing, East elevation exterior	Component brick wall
-----------------------	---------------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall along mortar joint

Photo No. 1385



Defect No. 193	Location LG/F East wing, East elevation exterior	Component granite block
-----------------------	---------------------------------------------------------	--------------------------------

Description 2 wide cracks were observed on exterior granite block

Photo No. 1386



Defect No. 193	Location LG/F East wing, East elevation exterior	Component granite block
-----------------------	---------------------------------------------------------	--------------------------------

Description 2 wide cracks were observed on exterior granite block

Photo No. 1387



Defect No.	194	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description 2 wide cracks were observed on granite block mortar joint

Photo No. 1388



Defect No.	194	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description 2 wide cracks were observed on granite block mortar joint

Photo No. 1389



Defect No.	195	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block mortar joint

Photo No. 1390



Defect No.	195	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block mortar joint

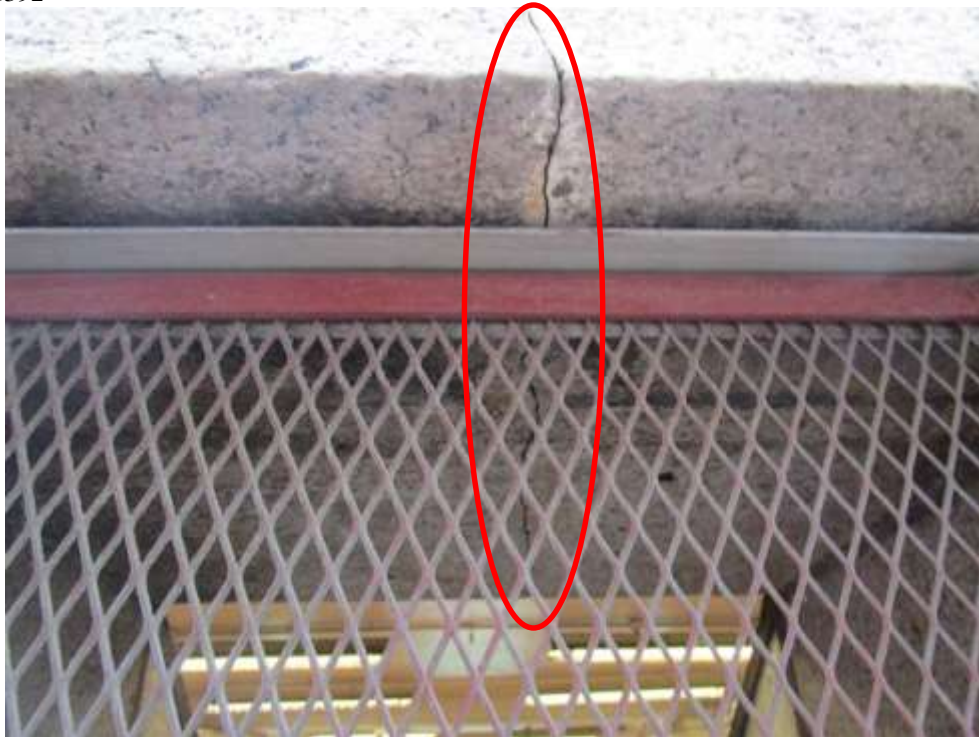
Photo No. 1391



Defect No.	196	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block

Photo No. 1392



Defect No.	196	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block

Photo No. 1393



Defect No.	197	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block

Photo No. 1394



Defect No.	197	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block

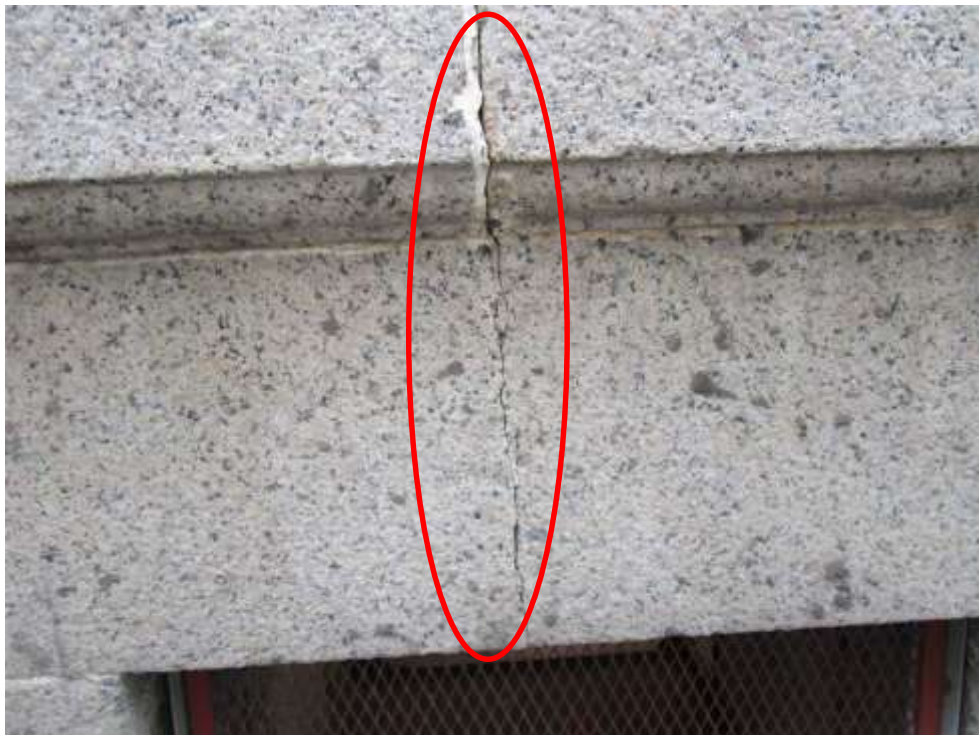
Photo No. 1395



Defect No.	198	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block

Photo No. 1396



Defect No.	198	Location	LG/F East wing, East elevation exterior	Component	granite block
-------------------	-----	-----------------	-----------------------------------------	------------------	---------------

Description A wide crack was observed on granite block

Photo No. 1397



Defect No. 199	Location LG/F East wing, East elevation exterior	Component granite block
-----------------------	---------------------------------------------------------	--------------------------------

Description 2 wide cracks were observed on granite block

Photo No. 1398



Defect No. 199	Location LG/F East wing, East elevation exterior	Component granite block
-----------------------	---------------------------------------------------------	--------------------------------

Description 2 wide cracks were observed on granite block

Photo No. 1399



Defect No.	200	Location	LG/F East wing, IT room	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1400



Defect No.	200	Location	LG/F East wing, IT room	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1401



Defect No.	201	Location	LG/F East wing, IT room	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1402



Defect No.	201	Location	LG/F East wing, IT room	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1403



Defect No.	202	Location	LG/F East wing, IT room	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A damp patch with delaminated finishes was observed on wall				
--------------------	-------------------------------------------------------------	--	--	--	--

Photo No. 1404



Defect No.	202	Location	LG/F East wing, IT room	Component	wall
-------------------	-----	-----------------	-------------------------	------------------	------

Description	A damp patch with delaminated finishes was observed on wall				
--------------------	-------------------------------------------------------------	--	--	--	--

Photo No. 1405



Defect No. 203 **Location** LG/F East wing, IT room **Component** wall

Description A paint peeling was observed on wall

Photo No. 1406



Defect No. 203 **Location** LG/F East wing, IT room **Component** wall

Description A paint peeling was observed on wall

Photo No. 1407



Defect No. 204	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A diagonal medium crack was observed on wall

Photo No. 1408



Defect No. 204	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A diagonal medium crack was observed on wall

Photo No. 1409



Defect No.	205	Location	G/F East wing, Main entrance retaining wall	Component	wall
-------------------	-----	-----------------	---------------------------------------------	------------------	------

Description	Area of hairline cracks was observed on wall				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1410



Defect No.	205	Location	G/F East wing, Main entrance retaining wall	Component	wall
-------------------	-----	-----------------	---------------------------------------------	------------------	------

Description	Area of hairline cracks was observed on wall				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1411



Defect No.	206	Location	G/F East wing, Main entrance retaining wall	Component	parapet wall
-------------------	-----	-----------------	---------------------------------------------	------------------	--------------

Description A medium crack was observed on parapet wall

Photo No. 1412



Defect No.	206	Location	G/F East wing, Main entrance retaining wall	Component	parapet wall
-------------------	-----	-----------------	---------------------------------------------	------------------	--------------

Description A medium crack was observed on parapet wall

Photo No. 1413



Defect No. 207	Location G/F East wing, Main entrance retaining wall	Component slab
-----------------------	-------------------------------------------------------------	-----------------------

Description A wide crack was observed on floor slab

Photo No. 1414



Defect No. 207	Location G/F East wing, Main entrance retaining wall	Component slab
-----------------------	-------------------------------------------------------------	-----------------------

Description A wide crack was observed on floor slab

Photo No. 1415



Defect No. 208	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A previous repair was observed on wall

Photo No. 1416



Defect No. 208	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A previous repair was observed on wall

Photo No. 1417



Defect No. 209	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A medium crack was observed on wall

Photo No. 1418



Defect No. 209	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A medium crack was observed on wall

Photo No. 1419



Defect No. 210	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A wide crack was observed on wall

Photo No. 1420



Defect No. 210	Location G/F East wing, Main entrance retaining wall	Component wall
-----------------------	-------------------------------------------------------------	-----------------------

Description A wide crack was observed on wall

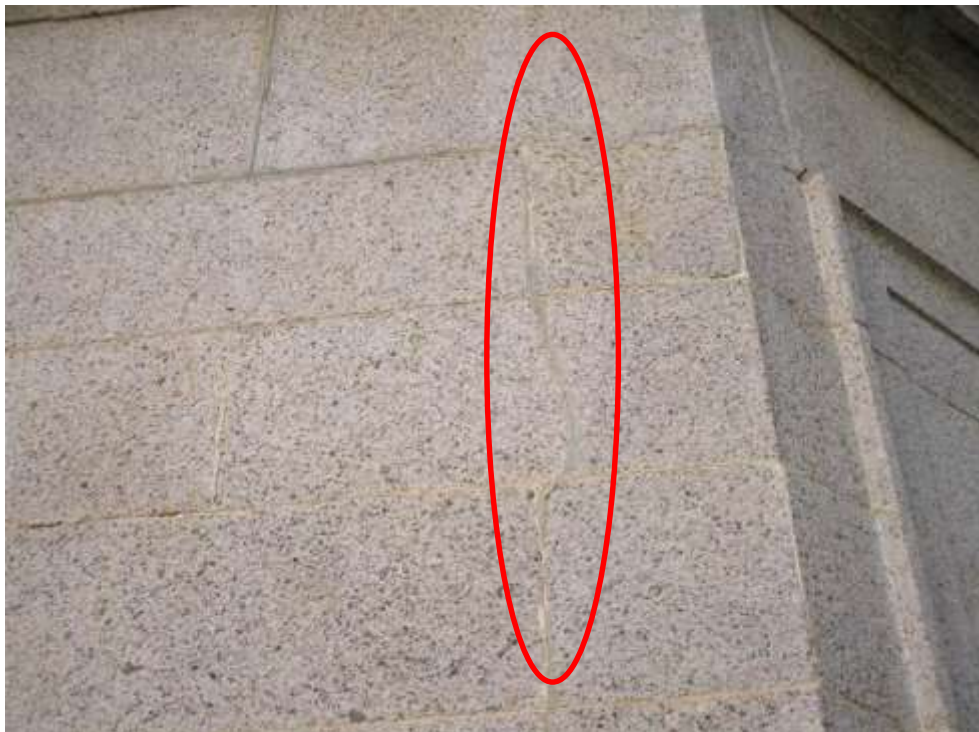
Photo No. 1421



Defect No. 211 **Location** LG/F East wing, West elevation **Component** granite wall

Description A wide crack was observed on granite wall

Photo No. 1422



Defect No. 211 **Location** LG/F East wing, West elevation **Component** granite wall

Description A wide crack was observed on granite wall

Photo No. 1423



Defect No. 212	Location North wing, East elevation exterior	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description 2 wide cracks were observed on brick wall mortar joint

Photo No. 1424



Defect No. 212	Location North wing, East elevation exterior	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description 2 wide cracks were observed on brick wall mortar joint

Photo No. 1425



Defect No. 213	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A wide crack was observed on joint of wall and door jamb

Photo No. 1426



Defect No. 213	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A wide crack was observed on joint of wall and door jamb

Photo No. 1427



Defect No. 214	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A wide crack was observed on joint of wall and door jamb

Photo No. 1428



Defect No. 214	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A wide crack was observed on joint of wall and door jamb

Photo No. 1429



Defect No. 215	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A medium crack was observed on joint of wall and door jamb

Photo No. 1430



Defect No. 215	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A medium crack was observed on joint of wall and door jamb

Photo No. 1431



Defect No. 216	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A hairline crack was observed on joint of wall and door jamb

Photo No. 1432



Defect No. 216	Location LG/F North wing, Gymnaesium room	Component door jamb
-----------------------	--------------------------------------------------	----------------------------

Description A hairline crack was observed on joint of wall and door jamb

Photo No. 1433



Defect No. 217	Location LG/F North wing, Gymnaesium room	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1434



Defect No. 217	Location LG/F North wing, Gymnaesium room	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1435



Defect No. 218	Location LG/F North wing, Gymnaesium room	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A previous repair was observed on wall finishing

Photo No. 1436



Defect No. 218	Location LG/F North wing, Gymnaesium room	Component wall
-----------------------	--------------------------------------------------	-----------------------

Description A previous repair was observed on wall finishing

Photo No. 1437



Defect No.	219	Location	LG/F North wing, Gymnaesium room	Component	wall
-------------------	-----	-----------------	----------------------------------	------------------	------

Description A hairline crack was observed on wall finishing

Photo No. 1438



Defect No.	219	Location	LG/F North wing, Gymnaesium room	Component	wall
-------------------	-----	-----------------	----------------------------------	------------------	------

Description A hairline crack was observed on wall finishing

Photo No. 1439



Defect No. 220	Location LG/F North wing, Gymnaesium room	Component window sill
-----------------------	--------------------------------------------------	------------------------------

Description A wide crack was observed on window sill finishing

Photo No. 1440



Defect No. 220	Location LG/F North wing, Gymnaesium room	Component window sill
-----------------------	--------------------------------------------------	------------------------------

Description A wide crack was observed on window sill finishing

Photo No. 1441



Defect No.	221	Location	LG/F North wing, Gymnaesium room	Component	window sill
-------------------	-----	-----------------	----------------------------------	------------------	-------------

Description 2 hairline cracks were observed on window sill finishing

Photo No. 1442



Defect No.	221	Location	LG/F North wing, Gymnaesium room	Component	window sill
-------------------	-----	-----------------	----------------------------------	------------------	-------------

Description 2 hairline cracks were observed on window sill finishing

Photo No. 1443



Defect No. 222	Location North wing, North elevation exterior	Component brick wall
-----------------------	------------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1444



Defect No. 222	Location North wing, North elevation exterior	Component brick wall
-----------------------	------------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1445



Defect No. 223	Location North wing, North elevation exterior	Component brick wall
-----------------------	------------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1446



Defect No. 223	Location North wing, North elevation exterior	Component brick wall
-----------------------	------------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1447



Defect No. 224	Location North wing, North elevation exterior	Component brick wall
-----------------------	------------------------------------------------------	-----------------------------

Description 3 nos. of missing bricks were observed on the wall

Photo No. 1448



Defect No. 224	Location North wing, North elevation exterior	Component brick wall
-----------------------	------------------------------------------------------	-----------------------------

Description 3 nos. of missing bricks were observed on the wall

Photo No. 1449



Defect No.	225	Location	North wing, North elevation exterior	Component	brick wall
-------------------	-----	-----------------	--------------------------------------	------------------	------------

Description Debonded joint sealant between brick walls

Photo No. 1450



Defect No.	225	Location	North wing, North elevation exterior	Component	brick wall
-------------------	-----	-----------------	--------------------------------------	------------------	------------

Description Debonded joint sealant between brick walls

Photo No. 1451



Defect No. 226 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A mortar joint wide crack with vegetation was observed on brick wall

Photo No. 1452



Defect No. 226 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A mortar joint wide crack with vegetation was observed on brick wall

Photo No. 1453



Defect No. 227	Location LG/F North wing, Staff quarter	Component brick wall
-----------------------	------------------------------------------------	-----------------------------

Description A crack was observed on brick wall

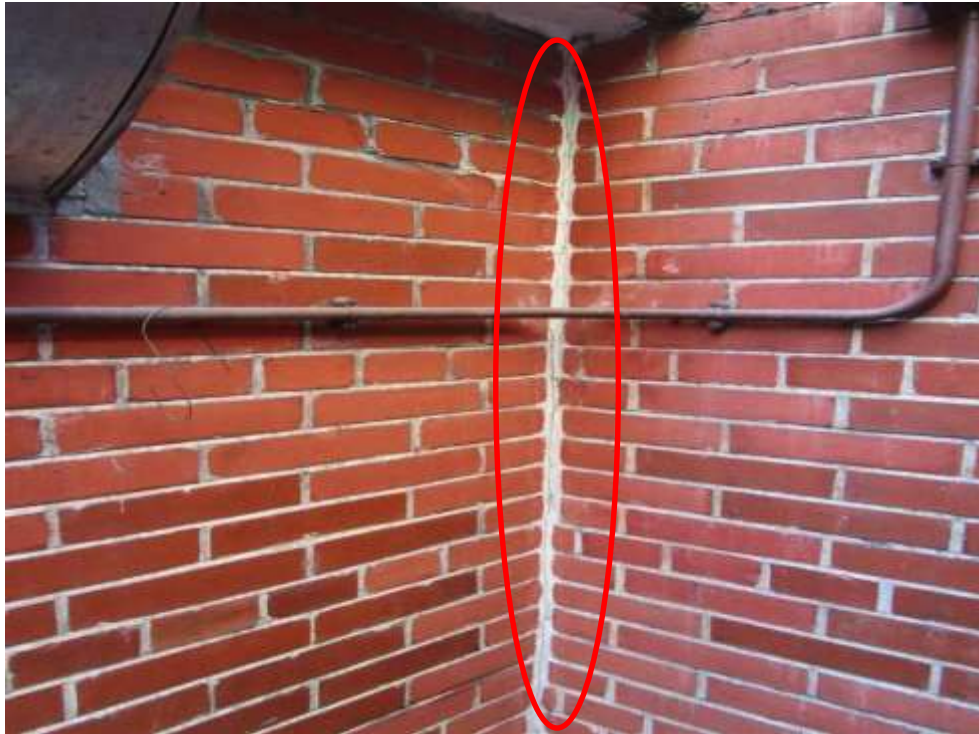
Photo No. 1454



Defect No. 227	Location LG/F North wing, Staff quarter	Component brick wall
-----------------------	------------------------------------------------	-----------------------------

Description A crack was observed on brick wall

Photo No. 1455



Defect No. 228 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A mortar joint medium crack was observed on brick wall

Photo No. 1456



Defect No. 228 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A mortar joint medium crack was observed on brick wall

Photo No. 1457



Defect No.	229	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A mortar joint medium crack was observed on brick wall				
--------------------	--------------------------------------------------------	--	--	--	--

Photo No. 1458



Defect No.	229	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A mortar joint medium crack was observed on brick wall				
--------------------	--------------------------------------------------------	--	--	--	--

Photo No. 1459



Defect No.	230	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A mortar joint wide crack was observed on brick wall				
--------------------	------------------------------------------------------	--	--	--	--

Photo No. 1460



Defect No.	230	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A mortar joint wide crack was observed on brick wall				
--------------------	------------------------------------------------------	--	--	--	--

Photo No. 1461



Defect No. 231 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A wide crack through brick was observed on brick arch

Photo No. 1462



Defect No. 231 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A wide crack through brick was observed on brick arch

Photo No. 1463



Defect No. 232 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A mortar joint wide crack was observed on brick wall

Photo No. 1464



Defect No. 232 **Location** LG/F North wing, Staff quarter **Component** brick wall

Description A mortar joint wide crack was observed on brick wall

Photo No. 1465



Defect No.	233	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	Delaminated bricks were observed on brick wall				
--------------------	------------------------------------------------	--	--	--	--

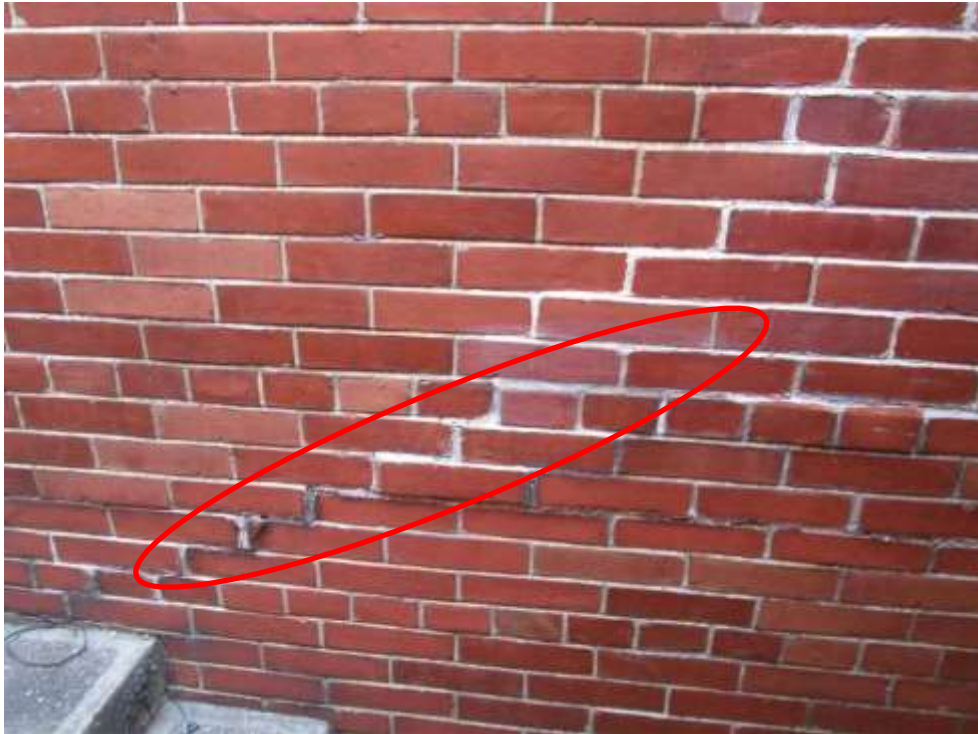
Photo No. 1466



Defect No.	233	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	Delaminated bricks were observed on brick wall				
--------------------	------------------------------------------------	--	--	--	--

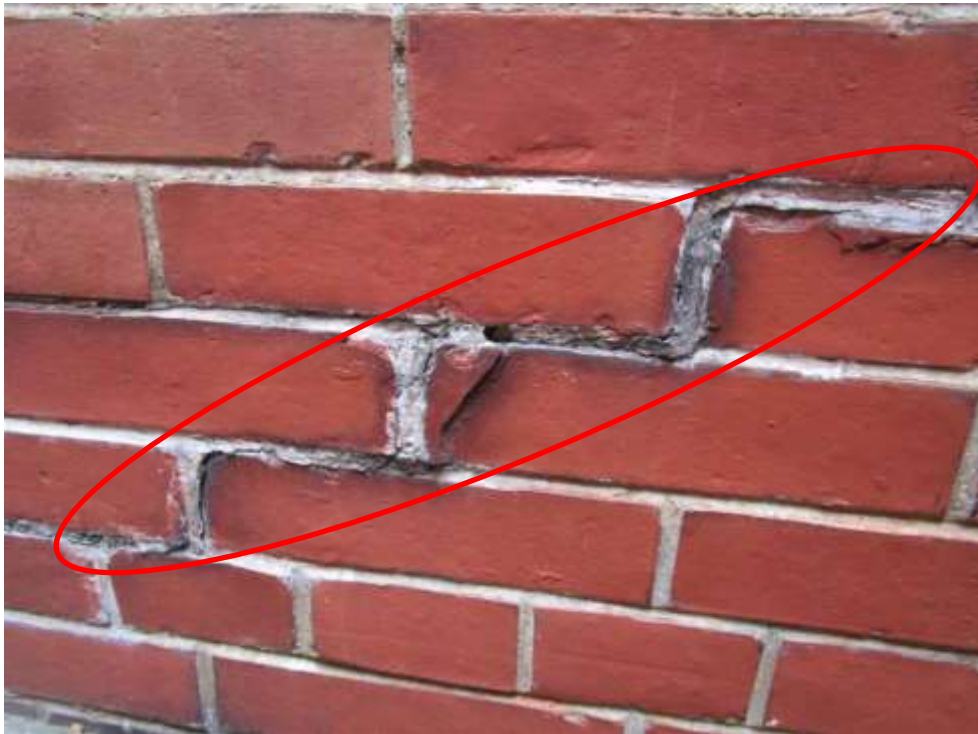
Photo No. 1467



Defect No. 234	Location LG/F North wing, Staff quarter	Component brick wall
-----------------------	------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1468



Defect No. 234	Location LG/F North wing, Staff quarter	Component brick wall
-----------------------	------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall mortar joint

Photo No. 1469



Defect No.	235	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A medium crack through brick was observed on brick wall				
--------------------	---------------------------------------------------------	--	--	--	--

Photo No. 1470



Defect No.	235	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A medium crack through brick was observed on brick wall				
--------------------	---------------------------------------------------------	--	--	--	--

Photo No. 1471



Defect No.	236	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A mortar joint medium crack was observed on brick wall				
--------------------	--------------------------------------------------------	--	--	--	--

Photo No. 1472



Defect No.	236	Location	LG/F North wing, Staff quarter	Component	brick wall
-------------------	-----	-----------------	--------------------------------	------------------	------------

Description	A mortar joint medium crack was observed on brick wall				
--------------------	--------------------------------------------------------	--	--	--	--

Photo No. 1473



Defect No. 237	Location LG/F North wing, Staff quarter	Component brick wall
-----------------------	------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall

Photo No. 1474



Defect No. 237	Location LG/F North wing, Staff quarter	Component brick wall
-----------------------	------------------------------------------------	-----------------------------

Description A wide crack was observed on brick wall

Photo No. 1475



Defect No.	238	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A wide crack was observed on slab				
--------------------	-----------------------------------	--	--	--	--

Photo No. 1476



Defect No.	238	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A wide crack was observed on slab				
--------------------	-----------------------------------	--	--	--	--

Photo No. 1477



Defect No. 239	Location LG/F North wing, Staff quarter	Component slab
-----------------------	------------------------------------------------	-----------------------

Description A medium crack was observed on slab

Photo No. 1478



Defect No. 239	Location LG/F North wing, Staff quarter	Component slab
-----------------------	------------------------------------------------	-----------------------

Description A medium crack was observed on slab

Photo No. 1479



Defect No. 240	Location LG/F North wing, Staff quarter	Component slab
-----------------------	------------------------------------------------	-----------------------

Description A medium crack was observed on slab

Photo No. 1480



Defect No. 240	Location LG/F North wing, Staff quarter	Component slab
-----------------------	------------------------------------------------	-----------------------

Description A medium crack was observed on slab

Photo No. 1481



Defect No.	241	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A medium crack was observed on slab				
--------------------	-------------------------------------	--	--	--	--

Photo No. 1482



Defect No.	241	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A medium crack was observed on slab				
--------------------	-------------------------------------	--	--	--	--

Photo No. 1483



Defect No.	242	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A medium crack was observed on slab				
--------------------	-------------------------------------	--	--	--	--

Photo No. 1484



Defect No.	242	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A medium crack was observed on slab				
--------------------	-------------------------------------	--	--	--	--

Photo No. 1485



Defect No. 243	Location LG/F North wing, Staff quarter	Component slab
-----------------------	------------------------------------------------	-----------------------

Description 2 wide cracks were observed on slab

Photo No. 1486



Defect No. 243	Location LG/F North wing, Staff quarter	Component slab
-----------------------	------------------------------------------------	-----------------------

Description 2 wide cracks were observed on slab

Photo No. 1487



Defect No. 244 **Location** LG/F North wing, Staff quarter **Component** slab

Description An area of wide crack was observed on slab

Photo No. 1488



Defect No. 244 **Location** LG/F North wing, Staff quarter **Component** slab

Description An area of wide crack was observed on slab

Photo No. 1489



Defect No.	245	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	An area of wide crack was observed on slab				
--------------------	--------------------------------------------	--	--	--	--

Photo No. 1490



Defect No.	245	Location	LG/F North wing, Staff quarter	Component	slab
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	An area of wide crack was observed on slab				
--------------------	--------------------------------------------	--	--	--	--

Photo No. 1491



Defect No.	246	Location	LG/F North wing, Staff quarter	Component	stair
-------------------	-----	-----------------	--------------------------------	------------------	-------

Description	Chipping at the stair edges were observed				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1492



Defect No.	246	Location	LG/F North wing, Staff quarter	Component	stair
-------------------	-----	-----------------	--------------------------------	------------------	-------

Description	Chipping at the stair edges were observed				
--------------------	-------------------------------------------	--	--	--	--

Photo No. 1493



Defect No.	247	Location	LG/F North wing, Staff quarter	Component	wall
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1494



Defect No.	247	Location	LG/F North wing, Staff quarter	Component	wall
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	A medium crack was observed on wall finishing				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1495



Defect No. 248 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1496



Defect No. 248 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1497



Defect No. 249 **Location** LG/F North wing, Staff quarter **Component** wall

Description An area of wide cracks was observed on wall finishing

Photo No. 1498



Defect No. 249 **Location** LG/F North wing, Staff quarter **Component** wall

Description An area of wide cracks was observed on wall finishing

Photo No. 1499



Defect No. 250 **Location** LG/F North wing, Staff quarter **Component** wall

Description An area of wide cracks was observed on wall finishing

Photo No. 1500



Defect No. 250 **Location** LG/F North wing, Staff quarter **Component** wall

Description An area of wide cracks was observed on wall finishing

Photo No. 1501



Defect No.	251	Location	LG/F North wing, Staff quarter	Component	wall
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	An area of wide cracks was observed on wall finishing				
--------------------	-------------------------------------------------------	--	--	--	--

Photo No. 1502



Defect No.	251	Location	LG/F North wing, Staff quarter	Component	wall
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	An area of wide cracks was observed on wall finishing				
--------------------	-------------------------------------------------------	--	--	--	--

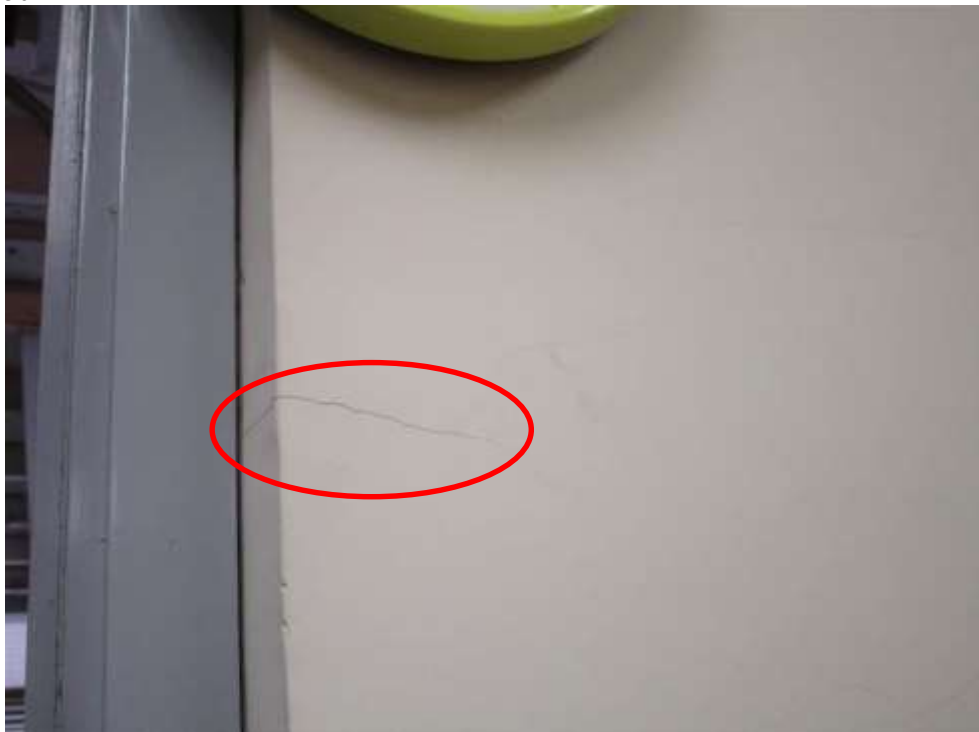
Photo No. 1503



Defect No. 252 **Location** LG/F North wing, Staff quarter **Component** wall

Description An area of medium cracks was observed on wall finishing

Photo No. 1504



Defect No. 252 **Location** LG/F North wing, Staff quarter **Component** wall

Description An area of medium cracks was observed on wall finishing

Photo No. 1505



Defect No. 253 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1506



Defect No. 253 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1507



Defect No. 254 **Location** LG/F North wing, Staff quarter **Component** wall

Description 2 wide cracks were observed on wall finishing

Photo No. 1508



Defect No. 254 **Location** LG/F North wing, Staff quarter **Component** wall

Description 2 wide cracks were observed on wall finishing

Photo No. 1509



Defect No. 255 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1510



Defect No. 255 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1511



Defect No. 256 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1512



Defect No. 256 **Location** LG/F North wing, Staff quarter **Component** wall

Description A wide crack was observed on wall finishing

Photo No. 1513



Defect No.	257	Location	LG/F North wing, Staff quarter	Component	wall
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	2 medium cracks were observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1514



Defect No.	257	Location	LG/F North wing, Staff quarter	Component	wall
-------------------	-----	-----------------	--------------------------------	------------------	------

Description	2 medium cracks were observed on wall finishing				
--------------------	-------------------------------------------------	--	--	--	--

Photo No. 1515



Defect No. 258 **Location** LG/F North wing, Staff quarter **Component** wall

Description 2 areas of slightly misaligned bricks were observed on the wall

Photo No. 1516



Defect No. 258 **Location** LG/F North wing, Staff quarter **Component** wall

Description 2 areas of slightly misaligned bricks were observed on the wall

Photo No. 1517



Defect No. 259	Location LG/F North wing, Store room under stairs	Component wall
-----------------------	----------------------------------------------------------	-----------------------

Description An area of medium cracks was observed on wall finishing

Photo No. 1518



Defect No. 259	Location LG/F North wing, Store room under stairs	Component wall
-----------------------	----------------------------------------------------------	-----------------------

Description An area of medium cracks was observed on wall finishing

Photo No. 1519



Defect No. 260	Location LG/F North wing, Store room under stairs	Component wall
-----------------------	----------------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1520



Defect No. 260	Location LG/F North wing, Store room under stairs	Component wall
-----------------------	----------------------------------------------------------	-----------------------

Description A medium crack was observed on wall finishing

Photo No. 1521



Defect No.	261	Location	LG/F South wing, Corridor	Component	slab
-------------------	-----	-----------------	---------------------------	------------------	------

Description	A wide crack was observed on slab				
--------------------	-----------------------------------	--	--	--	--

Photo No. 1522



Defect No.	261	Location	LG/F South wing, Corridor	Component	slab
-------------------	-----	-----------------	---------------------------	------------------	------

Description	A wide crack was observed on slab				
--------------------	-----------------------------------	--	--	--	--

Photo No. 1523



Defect No.	262	Location	LG/F South wing, Corridor	Component	slab
-------------------	-----	-----------------	---------------------------	------------------	------

Description	A wide crack was observed on slab				
--------------------	-----------------------------------	--	--	--	--

Photo No. 1524



Defect No.	262	Location	LG/F South wing, Corridor	Component	slab
-------------------	-----	-----------------	---------------------------	------------------	------

Description	A wide crack was observed on slab				
--------------------	-----------------------------------	--	--	--	--

Photo No. 1525



Defect No. 263	Location LG/F South wing, Corridor	Component slab
-----------------------	-------------------------------------------	-----------------------

Description A wide crack was observed on slab

Photo No. 1526



Defect No. 263	Location LG/F South wing, Corridor	Component slab
-----------------------	-------------------------------------------	-----------------------

Description A wide crack was observed on slab

Photo No. 1527



Defect No. 264	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack on joint mortar was observed on retaining wall

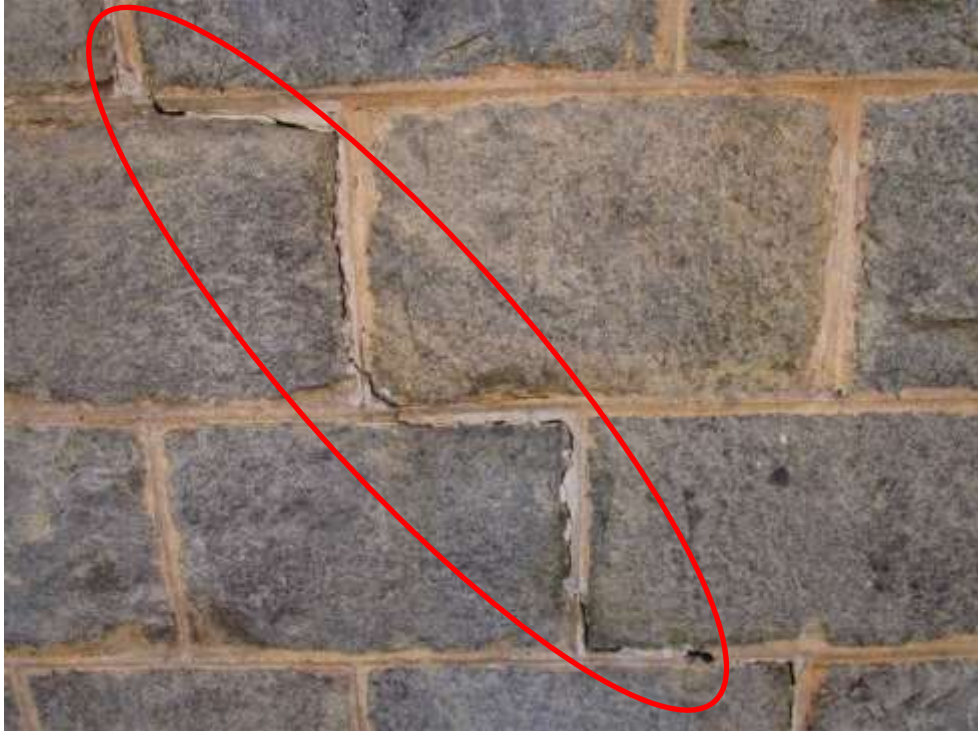
Photo No. 1528



Defect No. 264	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack on joint mortar was observed on retaining wall

Photo No. 1529



Defect No. 265	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack on joint mortar was observed on retaining wall

Photo No. 1530



Defect No. 265	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack on joint mortar was observed on retaining wall

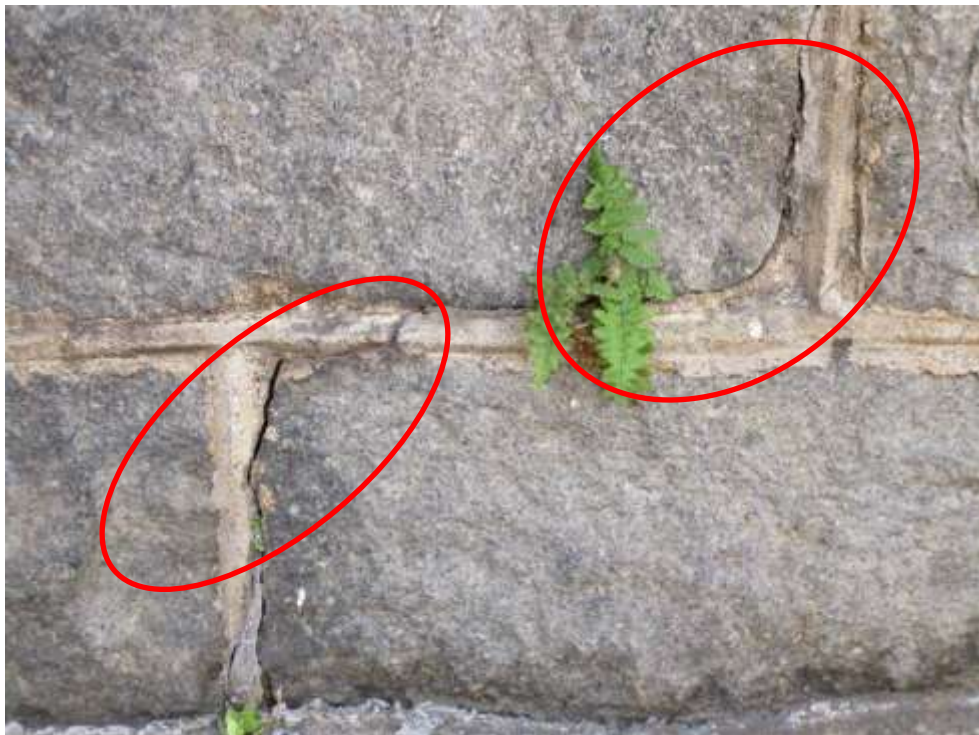
Photo No. 1531



Defect No. 266	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack on joint mortar with vegetation growth was observed on retaining wall

Photo No. 1532



Defect No. 266	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack on joint mortar with vegetation growth was observed on retaining wall

Photo No. 1533



Defect No. 267	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack was observed on mortar joint of retaining wall with sign of previous repair

Photo No. 1534



Defect No. 267	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack was observed on mortar joint of retaining wall with sign of previous repair

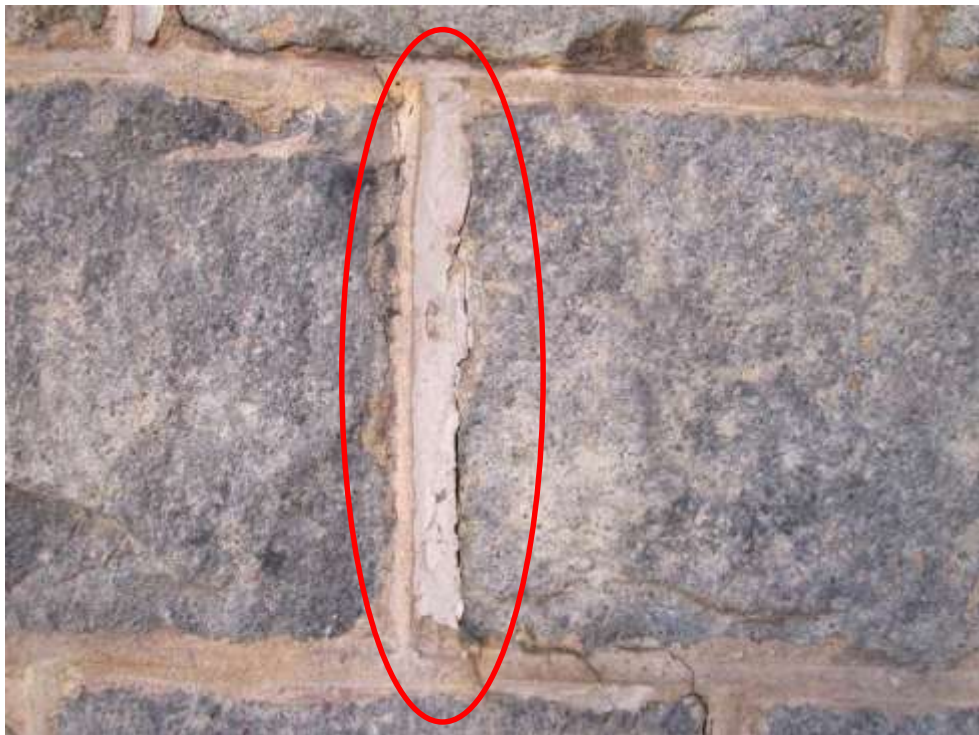
Photo No. 1535



Defect No.	268	Location	LG/F South wing, Retaining wall under building	Component	retaining wall
-------------------	-----	-----------------	------------------------------------------------	------------------	----------------

Description A wide crack was observed on mortar joint of retaining wall with sign of previous repair

Photo No. 1536



Defect No.	268	Location	LG/F South wing, Retaining wall under building	Component	retaining wall
-------------------	-----	-----------------	------------------------------------------------	------------------	----------------

Description A wide crack was observed on mortar joint of retaining wall with sign of previous repair

Photo No. 1537



Defect No. 269	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack was observed on retaining wall mortar joint

Photo No. 1538



Defect No. 269	Location LG/F South wing, Retaining wall under building	Component retaining wall
-----------------------	----------------------------------------------------------------	---------------------------------

Description A wide crack was observed on retaining wall mortar joint

Photo No. 1539



Defect No.	270	Location	LG/F South wing, Scout room	Component	beam
-------------------	-----	-----------------	-----------------------------	------------------	------

Description	Minor chipped edge of beam finishing				
--------------------	--------------------------------------	--	--	--	--

Photo No. 1540



Defect No.	270	Location	LG/F South wing, Scout room	Component	beam
-------------------	-----	-----------------	-----------------------------	------------------	------

Description	Minor chipped edge of beam finishing				
--------------------	--------------------------------------	--	--	--	--

Photo No. 1541



Defect No. 271	Location LG/F South wing, Scout room	Component slab
-----------------------	---------------------------------------------	-----------------------

Description A paint peeling was observed on slab soffit

Photo No. 1542



Defect No. 271	Location LG/F South wing, Scout room	Component slab
-----------------------	---------------------------------------------	-----------------------

Description A paint peeling was observed on slab soffit

Photo No. 1543



Defect No. 272 **Location** LG/F South wing, Scout room **Component** wall

Description Stain mark was observed on beam finishing

Photo No. 1544



Defect No. 272 **Location** LG/F South wing, Scout room **Component** wall

Description Stain mark was observed on beam finishing

Photo No. 1545



Defect No. 273	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description A vegetation growth was observed on brick wall

Photo No. 1546



Defect No. 273	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description A vegetation growth was observed on brick wall

Photo No. 1547



Defect No. 274	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description A vegetation growth was observed on brick wall

Photo No. 1548



Defect No. 274	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description A vegetation growth was observed on brick wall

Photo No. 1549



Defect No. 275	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description Fine crack on mortar joint with sign of previous repair on brick wall

Photo No. 1550



Defect No. 275	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description Fine crack on mortar joint with sign of previous repair on brick wall

Photo No. 1551



Defect No. 276	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description A vegetation growth was observed on brick wall

Photo No. 1552



Defect No. 276	Location R/F East wing, Assembly hall's roof	Component brick wall
-----------------------	-----------------------------------------------------	-----------------------------

Description A vegetation growth was observed on brick wall

Photo No. 1553



Defect No. 277 **Location** R/F East wing, Roof **Component** capping

Description An area of wide crack was observed on capping

Photo No. 1554



Defect No. 277 **Location** R/F East wing, Roof **Component** capping

Description An area of wide crack was observed on capping

Photo No. 1555



Defect No.	278	Location	R/F East wing, Roof	Component	capping
-------------------	-----	-----------------	---------------------	------------------	---------

Description	An area of wide crack was observed on capping				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1556



Defect No.	278	Location	R/F East wing, Roof	Component	capping
-------------------	-----	-----------------	---------------------	------------------	---------

Description	An area of wide crack was observed on capping				
--------------------	-----------------------------------------------	--	--	--	--

Photo No. 1557



Defect No. 279 **Location** R/F East wing, West elevation **Component** canopy

Description Deteriorated paint was observed on top face of canopies

Photo No. 1558



Defect No. 279 **Location** R/F East wing, West elevation **Component** canopy

Description Deteriorated paint was observed on top face of canopies

Photo No. 1559



Defect No.	280	Location	R/F North wing, Roof	Component	beam
-------------------	-----	-----------------	----------------------	------------------	------

Description	The edge of the beam was found missing				
--------------------	----------------------------------------	--	--	--	--

Photo No. 1560



Defect No.	280	Location	R/F North wing, Roof	Component	beam
-------------------	-----	-----------------	----------------------	------------------	------

Description	The edge of the beam was found missing				
--------------------	----------------------------------------	--	--	--	--

Photo No. 1561



Defect No.	281	Location	R/F North wing, Roof	Component	brick wall
-------------------	-----	-----------------	----------------------	------------------	------------

Description	A delaminated brick was observed on the wall				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1562



Defect No.	281	Location	R/F North wing, Roof	Component	brick wall
-------------------	-----	-----------------	----------------------	------------------	------------

Description	A delaminated brick was observed on the wall				
--------------------	----------------------------------------------	--	--	--	--

Photo No. 1563



Defect No.	282	Location	R/F North wing, Roof	Component	parapet
Description	Transverse cracks were observed on parapet top capping across the whole roof				

Photo No. 1564



Defect No.	282	Location	R/F North wing, Roof	Component	parapet
Description	Transverse cracks were observed on parapet top capping across the whole roof				

Photo No. 1565



Defect No. 283	Location R/F North wing, Roof	Component parapet
-----------------------	--------------------------------------	--------------------------

Description A wide crack was observed on the finishing of the skirting

Photo No. 1566



Defect No. 283	Location R/F North wing, Roof	Component parapet
-----------------------	--------------------------------------	--------------------------

Description A wide crack was observed on the finishing of the skirting

Photo No. 1567



Defect No. 284	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A rusted anchor was observed on parapet

Photo No. 1568



Defect No. 284	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A rusted anchor was observed on parapet

Photo No. 1569



Defect No.	285	Location	R/F South wing and east wing's Roof	Component	parapet
-------------------	-----	-----------------	-------------------------------------	------------------	---------

Description A crack was observed at the joint sealant

Photo No. 1570



Defect No.	285	Location	R/F South wing and east wing's Roof	Component	parapet
-------------------	-----	-----------------	-------------------------------------	------------------	---------

Description A crack was observed at the joint sealant

Photo No. 1571



Defect No. 286	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A crack was observed at the joint sealant

Photo No. 1572



Defect No. 286	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A crack was observed at the joint sealant

Photo No. 1573



Defect No. 287	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1574



Defect No. 287	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1575



Defect No.	288	Location	R/F South wing and east wing's Roof	Component	parapet
-------------------	-----	-----------------	-------------------------------------	------------------	---------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1576



Defect No.	288	Location	R/F South wing and east wing's Roof	Component	parapet
-------------------	-----	-----------------	-------------------------------------	------------------	---------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1577



Defect No. 289	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A crack was observed at the joint sealant

Photo No. 1578



Defect No. 289	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A crack was observed at the joint sealant

Photo No. 1579



Defect No. 290	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1580



Defect No. 290	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

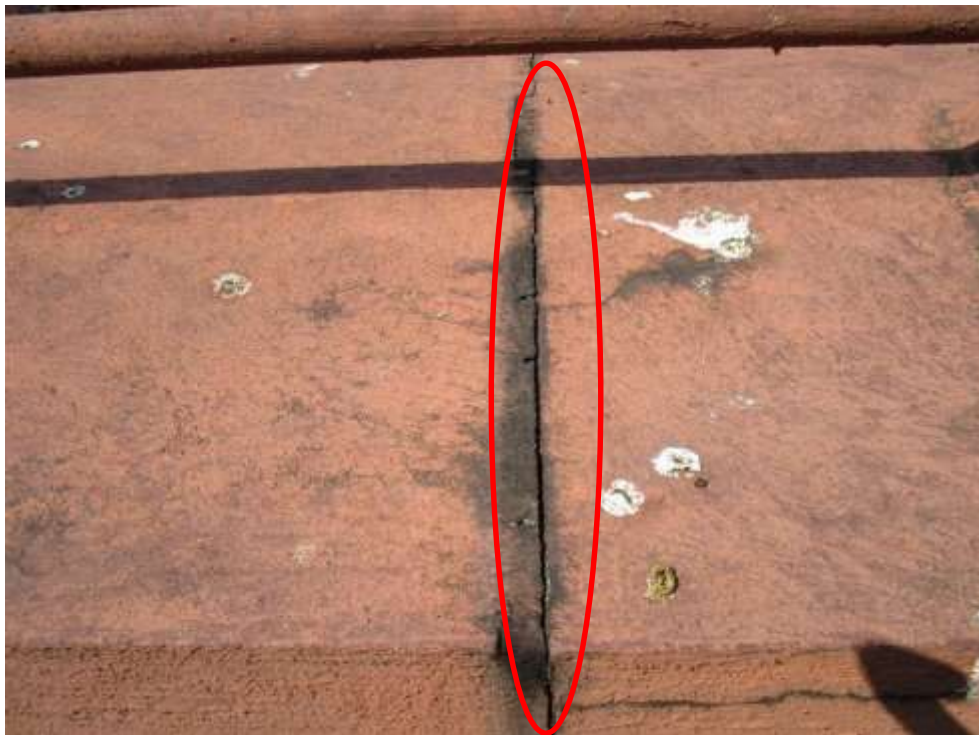
Photo No. 1581



Defect No. 291	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A crack was observed at the joint sealant

Photo No. 1582



Defect No. 291	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description A crack was observed at the joint sealant

Photo No. 1583



Defect No. 292	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1584



Defect No. 292	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1585



Defect No. 293	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1586



Defect No. 293	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1587



Defect No. 294	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1588



Defect No. 294	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1589



Defect No.	295	Location	R/F South wing and east wing's Roof	Component	parapet
-------------------	-----	-----------------	-------------------------------------	------------------	---------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1590



Defect No.	295	Location	R/F South wing and east wing's Roof	Component	parapet
-------------------	-----	-----------------	-------------------------------------	------------------	---------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1591



Defect No. 296	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1592



Defect No. 296	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1593



Defect No. 297	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Rusted anchor was observed on parapet

Photo No. 1594



Defect No. 297	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Rusted anchor was observed on parapet

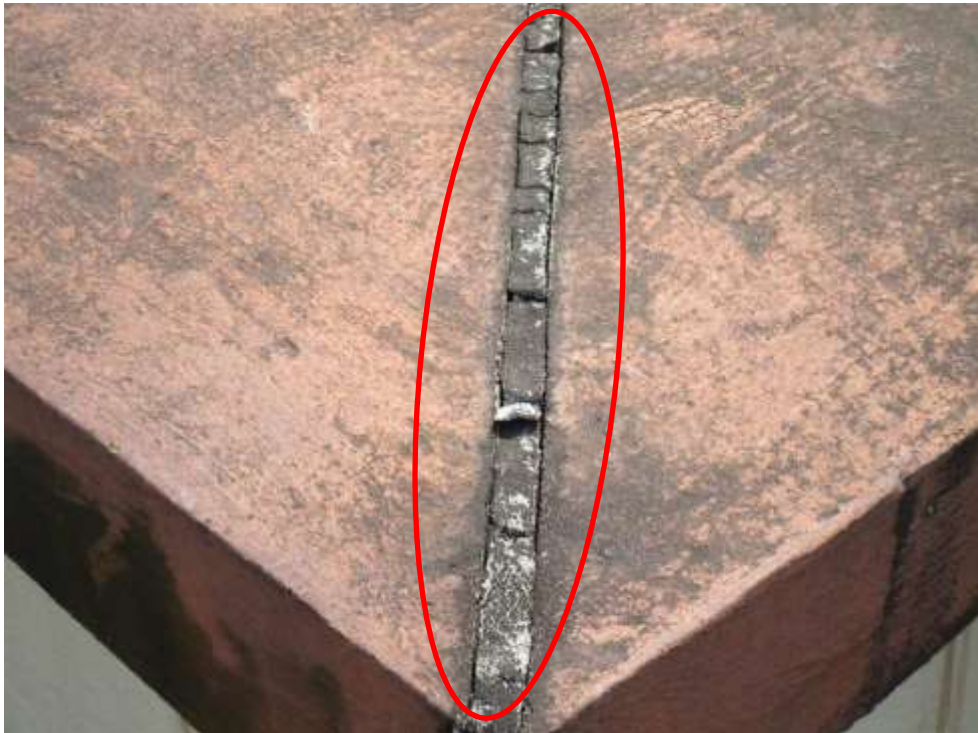
Photo No. 1595



Defect No. 298	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1596



Defect No. 298	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1597



Defect No. 299	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1598



Defect No. 299	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Deteriorated joint sealants were observed on parapet

Photo No. 1599



Defect No. 300	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Paint peeling was generally observed on external side of south and east wings' parapet

Photo No. 1600



Defect No. 300	Location R/F South wing and east wing's Roof	Component parapet
-----------------------	-----------------------------------------------------	--------------------------

Description Paint peeling was generally observed on external side of south and east wings' parapet

Photo No. 1601



Defect No.	301	Location	R/F South wing, South wing and east wing's Roof	Component	parapet
Description	Transverse cracks were observed on parapet top capping across the whole roof at 0.5-1m interval				

Photo No. 1602



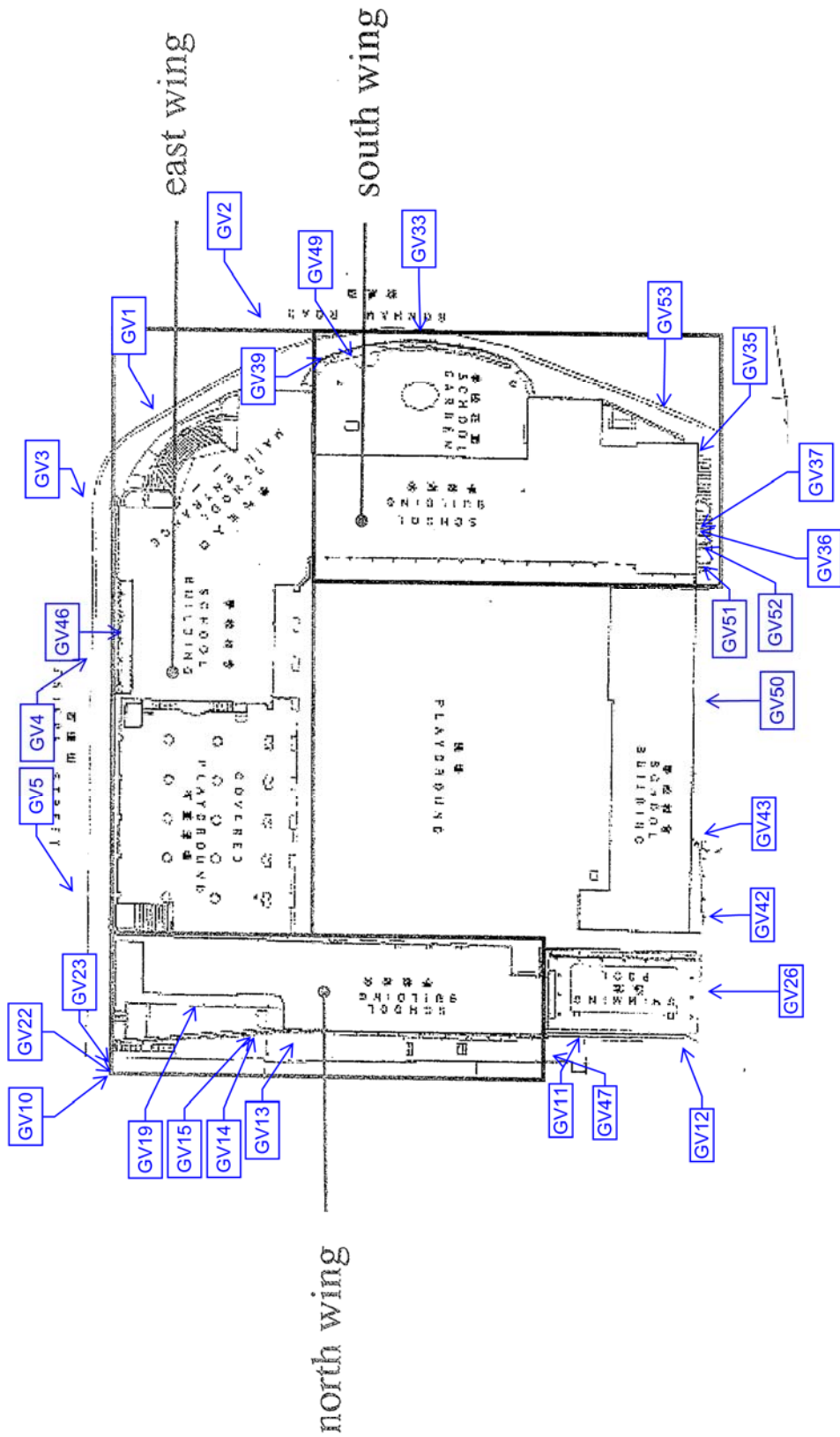
Defect No.	301	Location	R/F South wing, South wing and east wing's Roof	Component	parapet
Description	Transverse cracks were observed on parapet top capping across the whole roof at 0.5-1m interval				

Appendix D

Location Plan

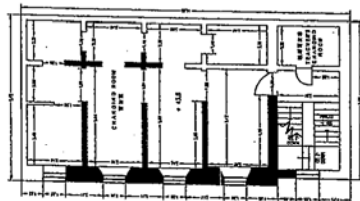
D1 General View Location Plan

The north, east and west wings of King's College

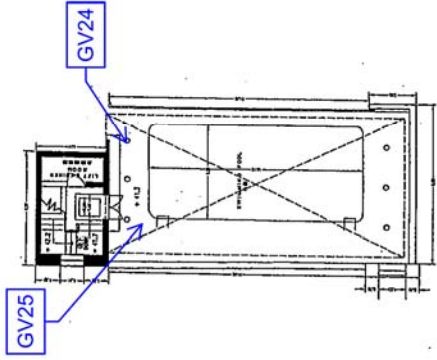


GROUND PLAN (FOR GENERAL VIEWS ON EXTERNAL ELEVATIONS)

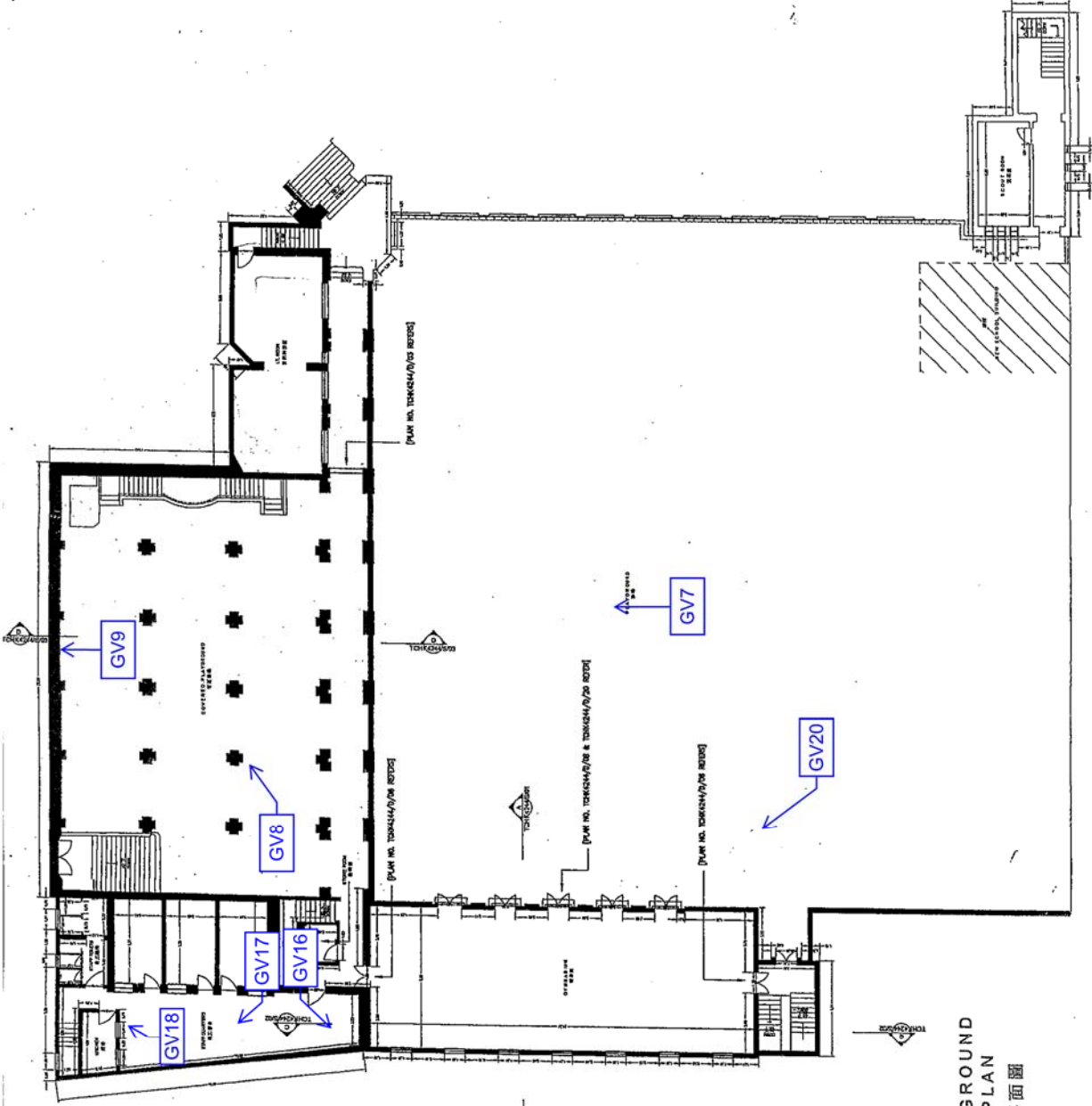
Z ←



BASEMENT FLOOR PLAN
地下室平面圖



LOWER BASEMENT FLOOR PLAN
低層地下室平面圖



LOWER GROUND FLOOR PLAN
 低層地下平面圖



PLUM NO. TDRKCHM/70A B0702

PLUM NO. TDRKCHM/70A & TDRKCHM/70A B0702

PLUM NO. TDRKCHM/70A B0702

PLUM NO. TDRKCHM/70A B0702

GV9

GV8

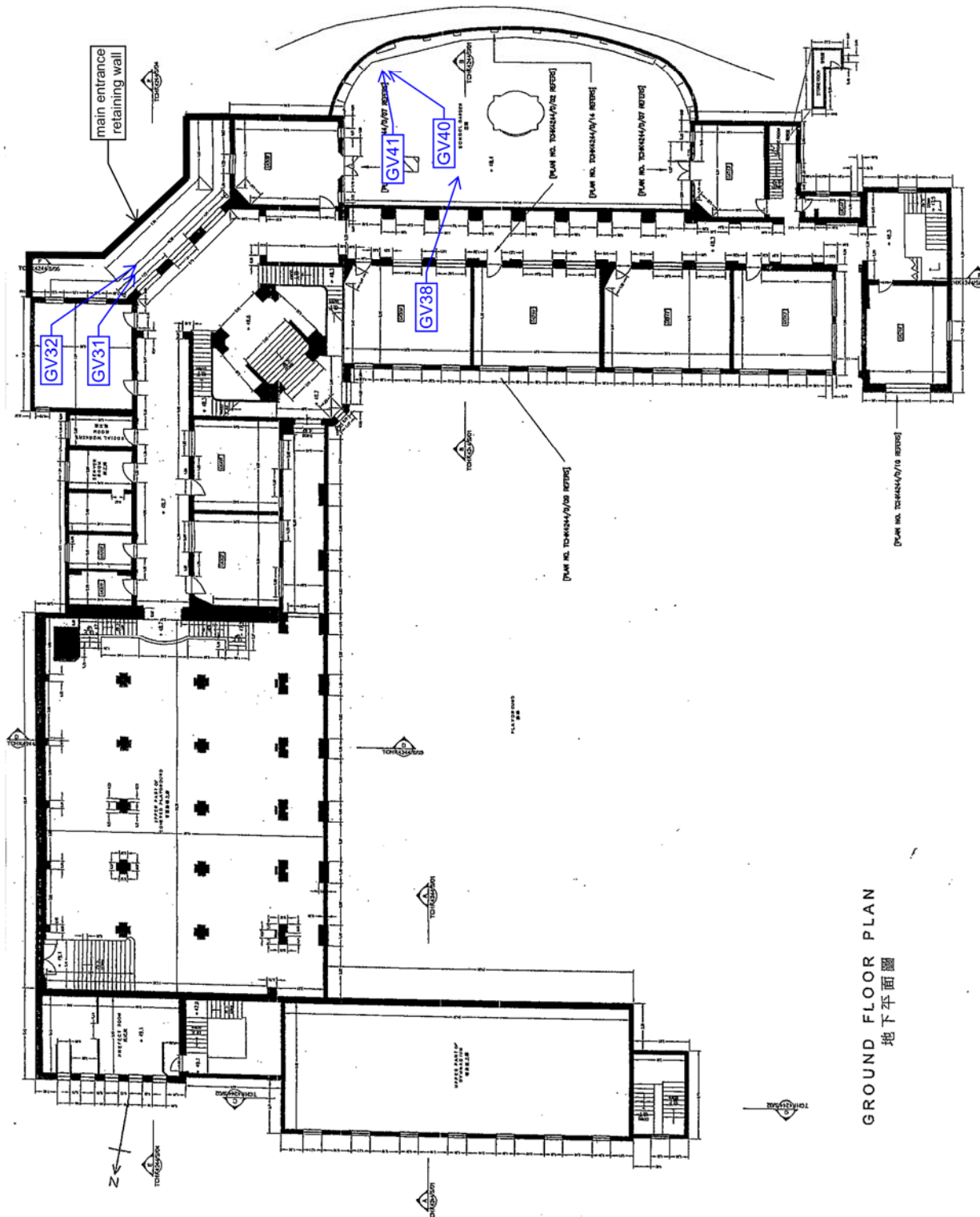
GV17

GV16

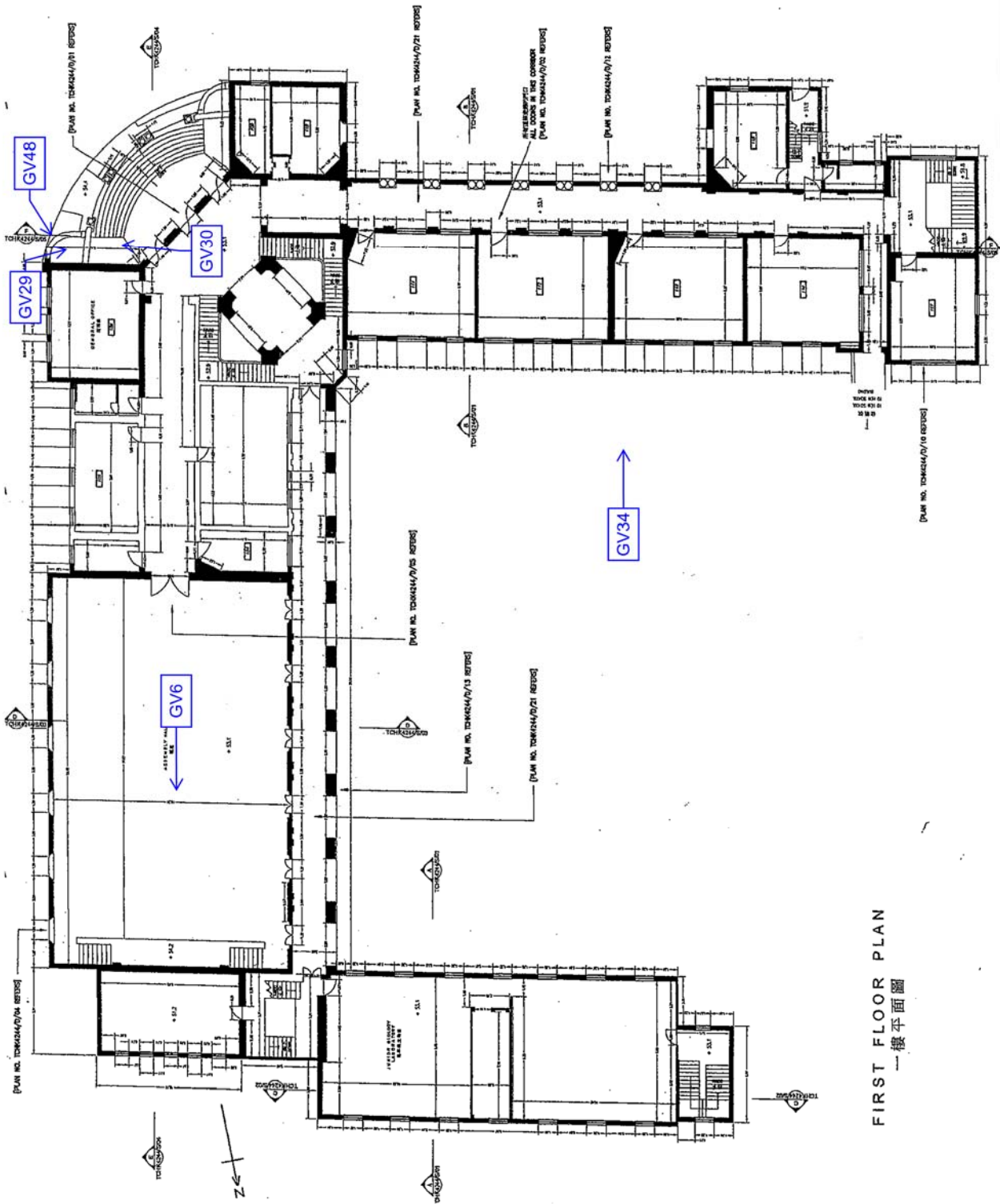
GV18

GV7

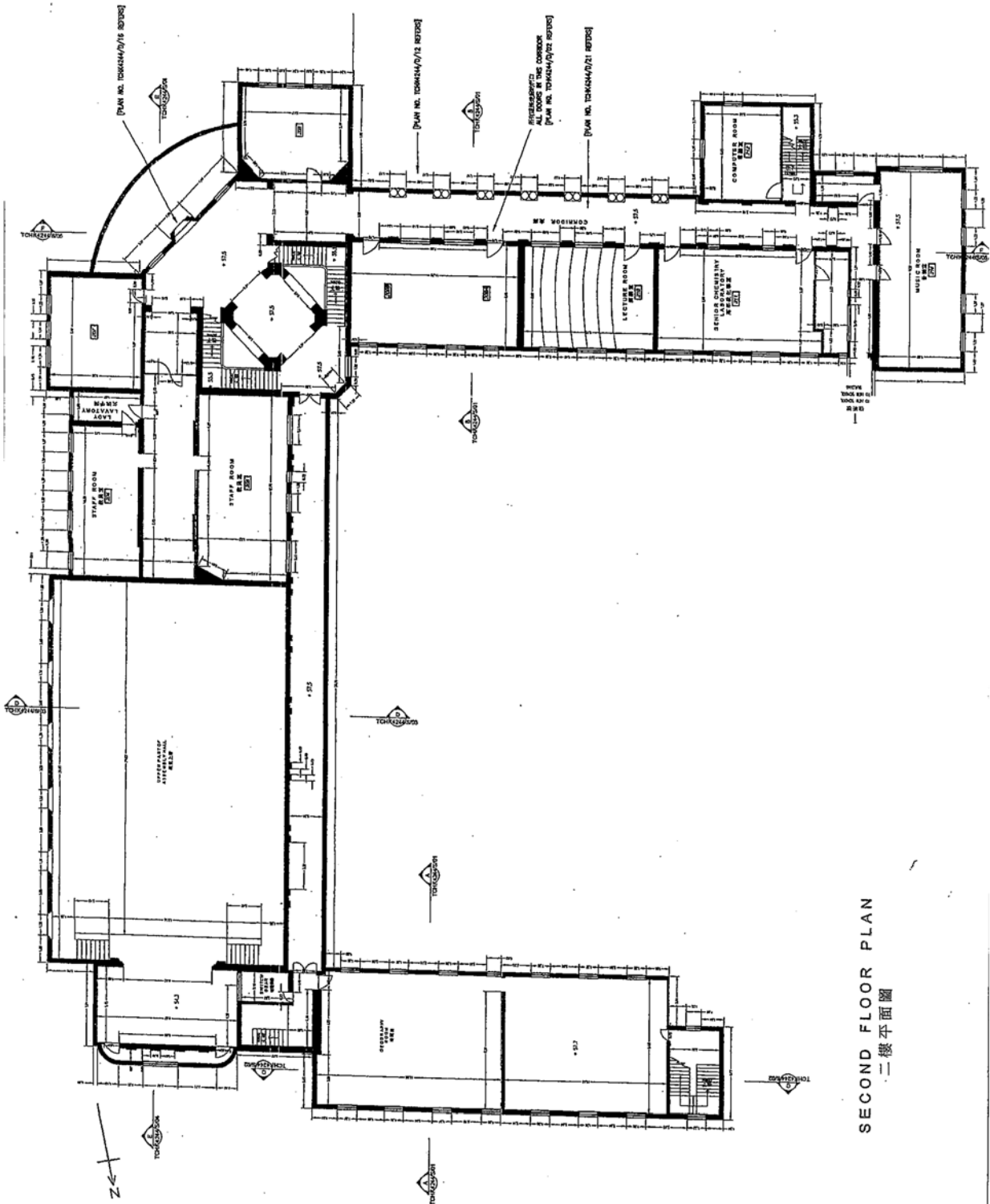
GV20



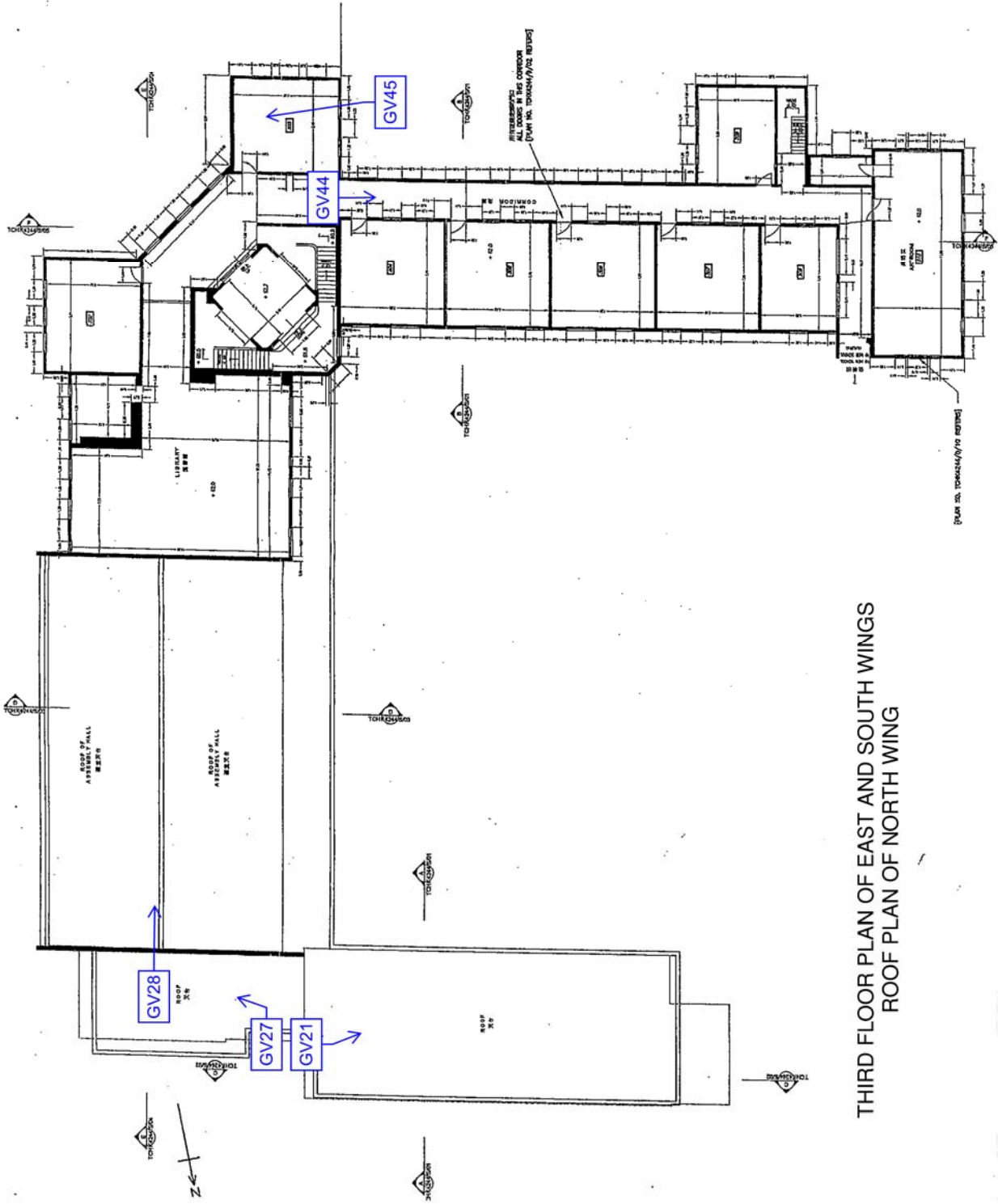
GROUND FLOOR PLAN
地下平面圖



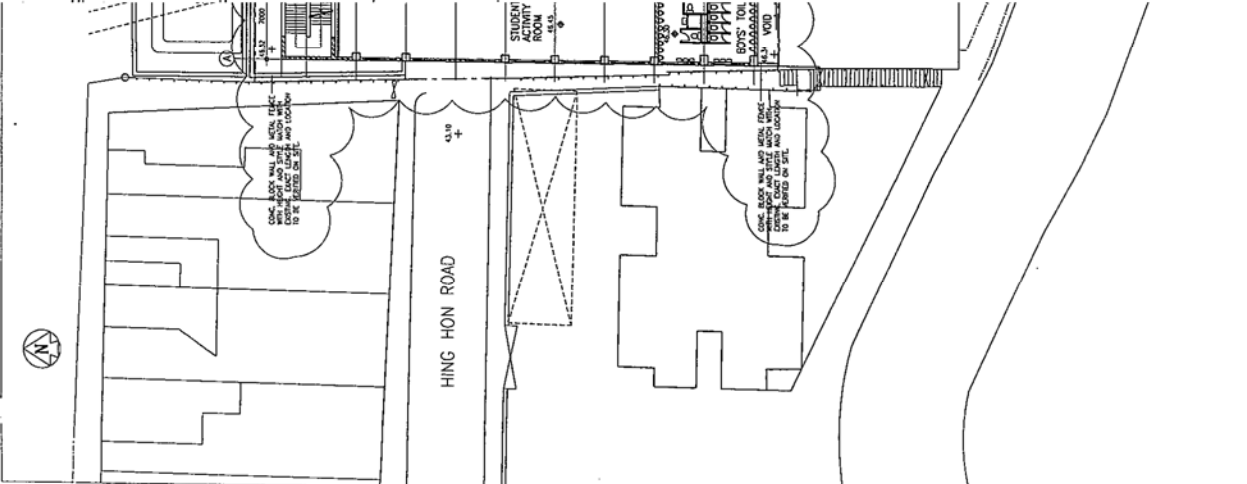
FIRST FLOOR PLAN
一樓平面圖



SECOND FLOOR PLAN
二樓平面圖



THIRD FLOOR PLAN OF EAST AND SOUTH WINGS
 ROOF PLAN OF NORTH WING



HING HON ROAD

STUDENT RECREATIONAL FACILITY

BOYS' TOILET

VOID

CONC. BLOCK WALL AND CONC. FRAMES

STAIRS

MECHANICAL ROOM

EXIST. WALL AND DOOR



ION PLAN (1:1000)

FIRE SERVICES NOTES AND LEGENDS:

1. AUTOMATIC SPRINKLER SYSTEM
 - (S) AUTOMATIC SPRINKLER SYSTEMS CONNECTED TO WATER MAINS TO BE PROVIDED FOR ALL AREAS DESIGNATED AS SUCH.
 - (M) MECHANICAL ROOMS TO BE PROVIDED AS REQUIRED.
 - (A) FIRE ALARMS TO BE PROVIDED AS REQUIRED.
 - (P) PORTABLE APPROVED APPLIANCES TO BE PROVIDED AS REQUIRED.
 - (D) FIRE DETECTION SYSTEMS TO BE PROVIDED AS REQUIRED.
 - (E) FIRE EXTINGUISHERS TO BE PROVIDED AS REQUIRED.
 - (R) FIRE RESISTANT WALLS TO BE PROVIDED AS REQUIRED.
 - (F) FIRE FIGHTING LADDERS TO BE PROVIDED AS REQUIRED.
 - (L) FIRE LADDERS TO BE PROVIDED AS REQUIRED.
 - (C) FIRE COMPARTMENTS TO BE PROVIDED AS REQUIRED.
 - (V) FIRE VENTILATION TO BE PROVIDED AS REQUIRED.
 - (I) FIRE INSULATION TO BE PROVIDED AS REQUIRED.
 - (P) FIRE PROTECTION TO BE PROVIDED AS REQUIRED.
 - (S) FIRE SERVICES TO BE PROVIDED AS REQUIRED.
2. FIRE DETECTION SYSTEM
3. FIRE ALARMS SYSTEM
4. FIRE EXTINGUISHERS
5. FIRE FIGHTING LADDERS
6. FIRE RESISTANT WALLS
7. FIRE VENTILATION
8. FIRE INSULATION
9. FIRE PROTECTION
10. FIRE SERVICES

NOTE:

1. ALL DIMENSIONS IN M
2. THE LOCATIONS OF ALL SERVICES TO BE PROVIDED AS SHOWN ON THE ION PLAN.
3. STRUCTURE (S.A.)
4. SITE BOUNDARY LINE

NO.	DESCRIPTION	QTY	UNIT
1	17/175 (SPRINKLER) TUBING		M
2	17/175 (SPRINKLER) HEADS		PCS
3	17/175 (SPRINKLER) VALVES		PCS
4	17/175 (SPRINKLER) DRIP DEVICES		PCS
5	17/175 (SPRINKLER) CONNECTIONS		PCS
6	17/175 (SPRINKLER) FITTINGS		PCS
7	17/175 (SPRINKLER) BRACKETS		PCS
8	17/175 (SPRINKLER) HOSES		M
9	17/175 (SPRINKLER) TUBING		M
10	17/175 (SPRINKLER) HEADS		PCS
11	17/175 (SPRINKLER) VALVES		PCS
12	17/175 (SPRINKLER) DRIP DEVICES		PCS
13	17/175 (SPRINKLER) CONNECTIONS		PCS
14	17/175 (SPRINKLER) FITTINGS		PCS
15	17/175 (SPRINKLER) BRACKETS		PCS
16	17/175 (SPRINKLER) HOSES		M
17	17/175 (SPRINKLER) TUBING		M
18	17/175 (SPRINKLER) HEADS		PCS
19	17/175 (SPRINKLER) VALVES		PCS
20	17/175 (SPRINKLER) DRIP DEVICES		PCS
21	17/175 (SPRINKLER) CONNECTIONS		PCS
22	17/175 (SPRINKLER) FITTINGS		PCS
23	17/175 (SPRINKLER) BRACKETS		PCS
24	17/175 (SPRINKLER) HOSES		M
25	17/175 (SPRINKLER) TUBING		M
26	17/175 (SPRINKLER) HEADS		PCS
27	17/175 (SPRINKLER) VALVES		PCS
28	17/175 (SPRINKLER) DRIP DEVICES		PCS
29	17/175 (SPRINKLER) CONNECTIONS		PCS
30	17/175 (SPRINKLER) FITTINGS		PCS
31	17/175 (SPRINKLER) BRACKETS		PCS
32	17/175 (SPRINKLER) HOSES		M
33	17/175 (SPRINKLER) TUBING		M
34	17/175 (SPRINKLER) HEADS		PCS
35	17/175 (SPRINKLER) VALVES		PCS
36	17/175 (SPRINKLER) DRIP DEVICES		PCS
37	17/175 (SPRINKLER) CONNECTIONS		PCS
38	17/175 (SPRINKLER) FITTINGS		PCS
39	17/175 (SPRINKLER) BRACKETS		PCS
40	17/175 (SPRINKLER) HOSES		M
41	17/175 (SPRINKLER) TUBING		M
42	17/175 (SPRINKLER) HEADS		PCS
43	17/175 (SPRINKLER) VALVES		PCS
44	17/175 (SPRINKLER) DRIP DEVICES		PCS
45	17/175 (SPRINKLER) CONNECTIONS		PCS
46	17/175 (SPRINKLER) FITTINGS		PCS
47	17/175 (SPRINKLER) BRACKETS		PCS
48	17/175 (SPRINKLER) HOSES		M
49	17/175 (SPRINKLER) TUBING		M
50	17/175 (SPRINKLER) HEADS		PCS
51	17/175 (SPRINKLER) VALVES		PCS
52	17/175 (SPRINKLER) DRIP DEVICES		PCS
53	17/175 (SPRINKLER) CONNECTIONS		PCS
54	17/175 (SPRINKLER) FITTINGS		PCS
55	17/175 (SPRINKLER) BRACKETS		PCS
56	17/175 (SPRINKLER) HOSES		M
57	17/175 (SPRINKLER) TUBING		M
58	17/175 (SPRINKLER) HEADS		PCS
59	17/175 (SPRINKLER) VALVES		PCS
60	17/175 (SPRINKLER) DRIP DEVICES		PCS
61	17/175 (SPRINKLER) CONNECTIONS		PCS
62	17/175 (SPRINKLER) FITTINGS		PCS
63	17/175 (SPRINKLER) BRACKETS		PCS
64	17/175 (SPRINKLER) HOSES		M
65	17/175 (SPRINKLER) TUBING		M
66	17/175 (SPRINKLER) HEADS		PCS
67	17/175 (SPRINKLER) VALVES		PCS
68	17/175 (SPRINKLER) DRIP DEVICES		PCS
69	17/175 (SPRINKLER) CONNECTIONS		PCS
70	17/175 (SPRINKLER) FITTINGS		PCS
71	17/175 (SPRINKLER) BRACKETS		PCS
72	17/175 (SPRINKLER) HOSES		M
73	17/175 (SPRINKLER) TUBING		M
74	17/175 (SPRINKLER) HEADS		PCS
75	17/175 (SPRINKLER) VALVES		PCS
76	17/175 (SPRINKLER) DRIP DEVICES		PCS
77	17/175 (SPRINKLER) CONNECTIONS		PCS
78	17/175 (SPRINKLER) FITTINGS		PCS
79	17/175 (SPRINKLER) BRACKETS		PCS
80	17/175 (SPRINKLER) HOSES		M
81	17/175 (SPRINKLER) TUBING		M
82	17/175 (SPRINKLER) HEADS		PCS
83	17/175 (SPRINKLER) VALVES		PCS
84	17/175 (SPRINKLER) DRIP DEVICES		PCS
85	17/175 (SPRINKLER) CONNECTIONS		PCS
86	17/175 (SPRINKLER) FITTINGS		PCS
87	17/175 (SPRINKLER) BRACKETS		PCS
88	17/175 (SPRINKLER) HOSES		M
89	17/175 (SPRINKLER) TUBING		M
90	17/175 (SPRINKLER) HEADS		PCS
91	17/175 (SPRINKLER) VALVES		PCS
92	17/175 (SPRINKLER) DRIP DEVICES		PCS
93	17/175 (SPRINKLER) CONNECTIONS		PCS
94	17/175 (SPRINKLER) FITTINGS		PCS
95	17/175 (SPRINKLER) BRACKETS		PCS
96	17/175 (SPRINKLER) HOSES		M
97	17/175 (SPRINKLER) TUBING		M
98	17/175 (SPRINKLER) HEADS		PCS
99	17/175 (SPRINKLER) VALVES		PCS
100	17/175 (SPRINKLER) DRIP DEVICES		PCS

SITE LAYOUT PLAN

1:200

ROOF PLAN

PROPOSED EXTENSION OF
KING'S COLLEGE
63A BONHAM ROAD
HONG KONG

CONTRACT NO. 40-01-001-003

PROJECT NO. 40-01-001-003

DATE 10/20/2010

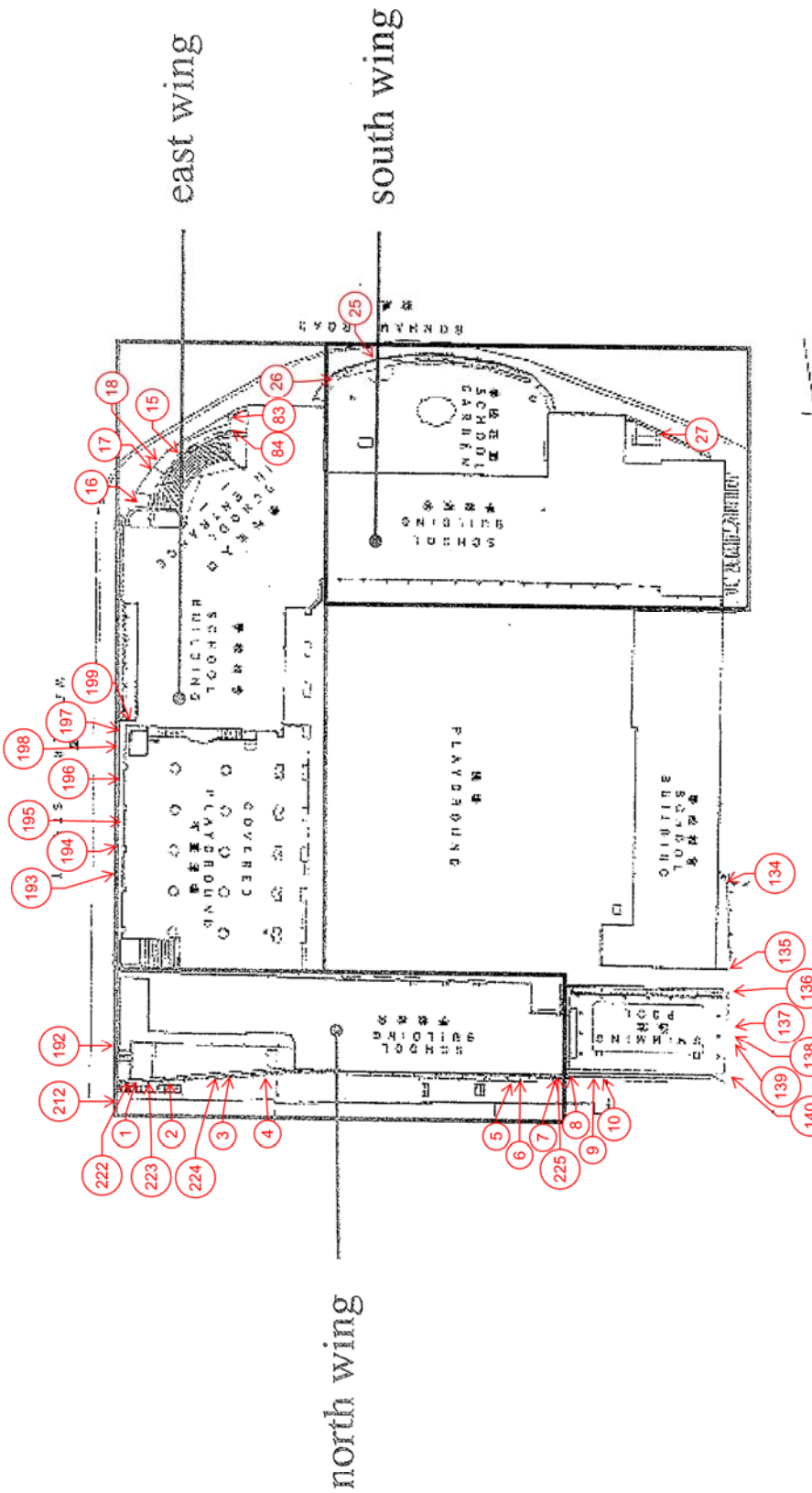
SCALE AS SHOWN

PROPERTY SERVICES BRANCH
ARCHITECTURAL SERVICES DEPARTMENT

10. VISUAL FIRE ESCAPE
11. VENTILATION
12. FIRE EXTINGUISHERS
13. FIRE RESISTANT WALLS
14. FIRE FIGHTING LADDERS
15. FIRE SERVICES
16. FIRE DETECTION SYSTEMS
17. FIRE ALARMS SYSTEMS
18. AUTOMATIC SPRINKLER SYSTEMS

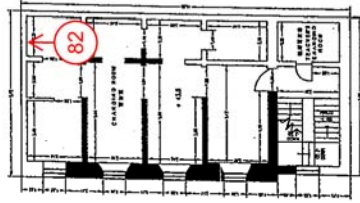
D2 Defect Location Plan

The north, east and west wings of King's College

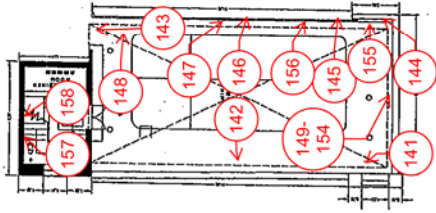


GROUND PLAN (FOR DEFECTS ON EXTERNAL ELEVATIONS)

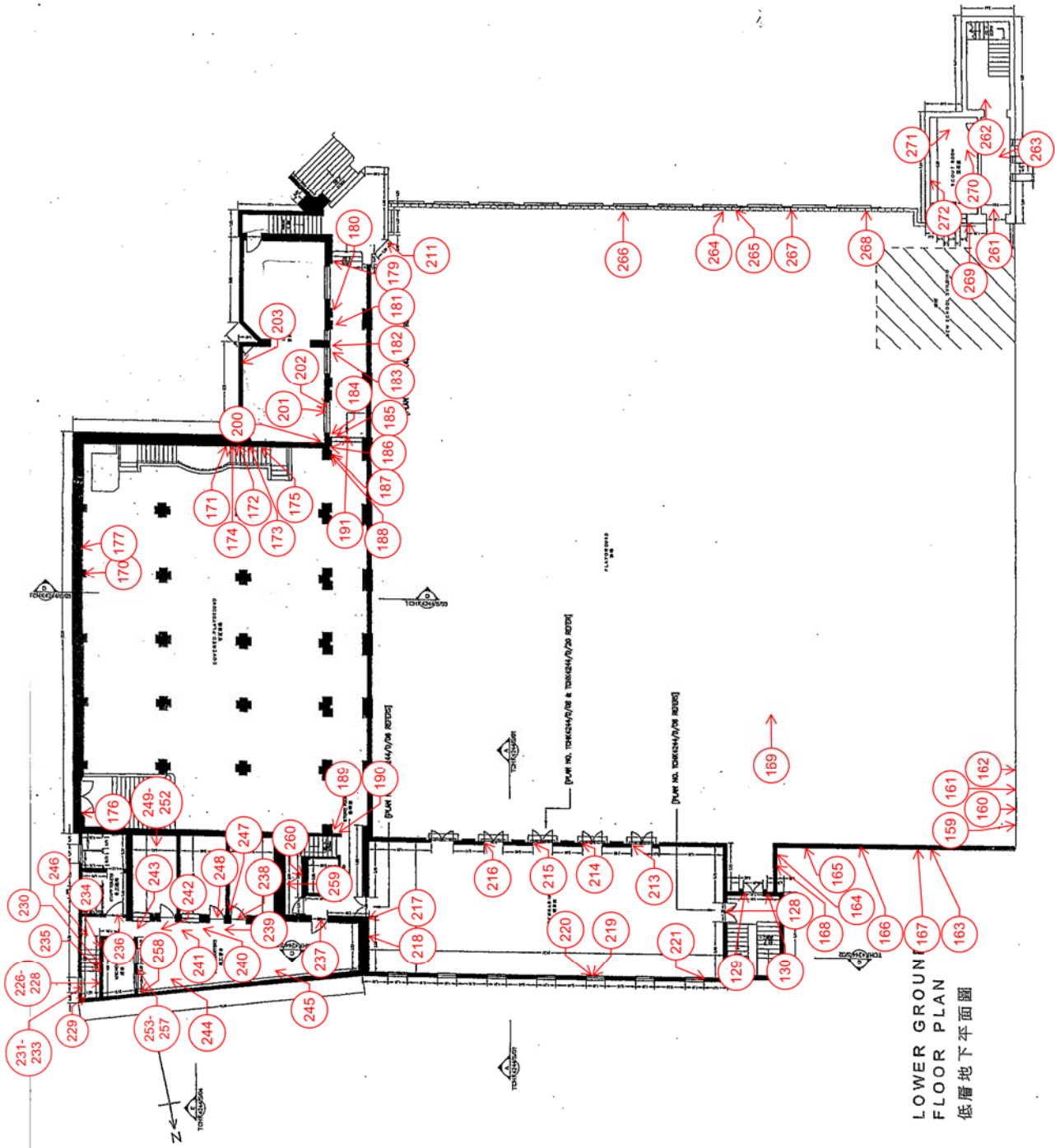
Z ←



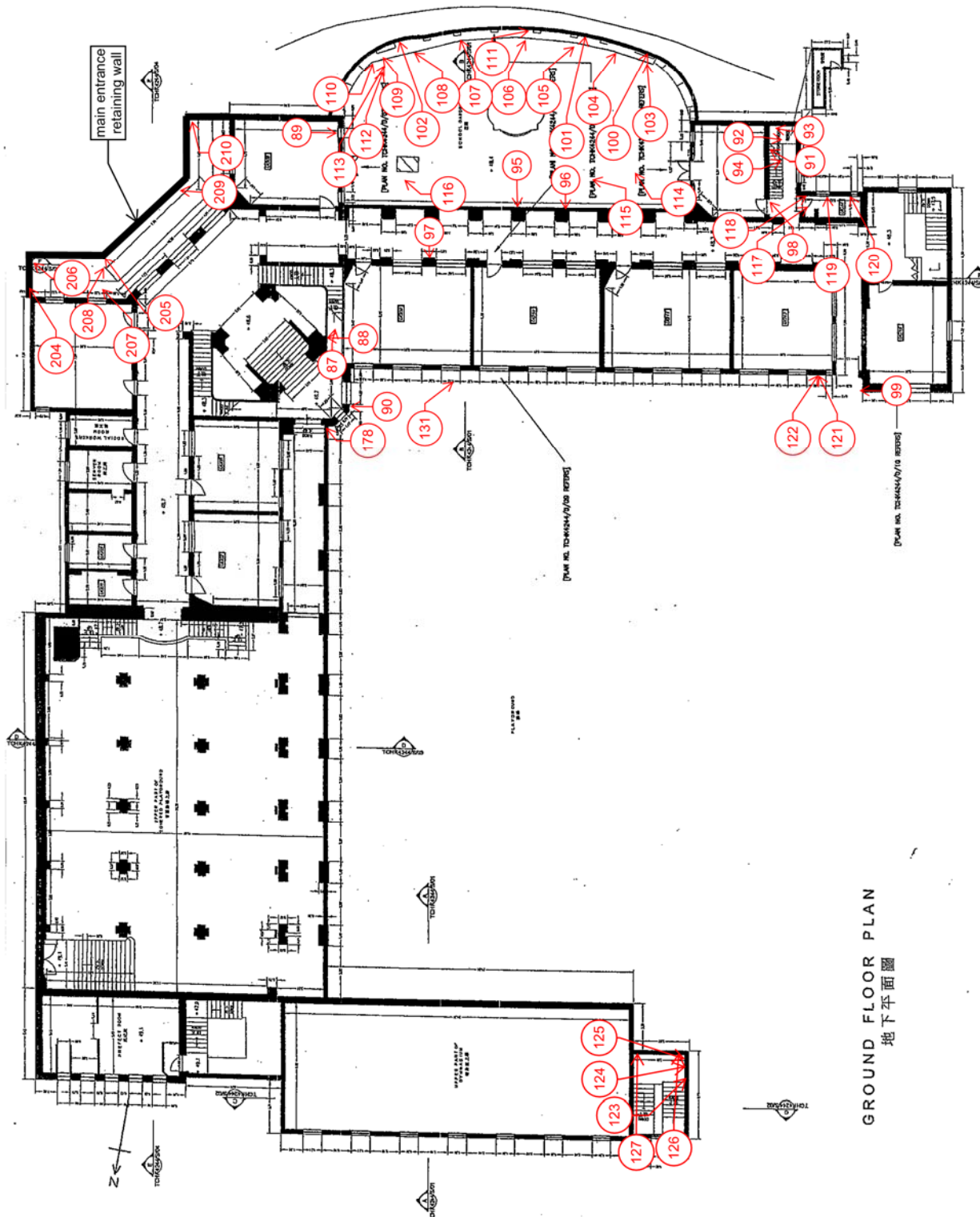
BASEMENT FLOOR PLAN
地下室平面圖



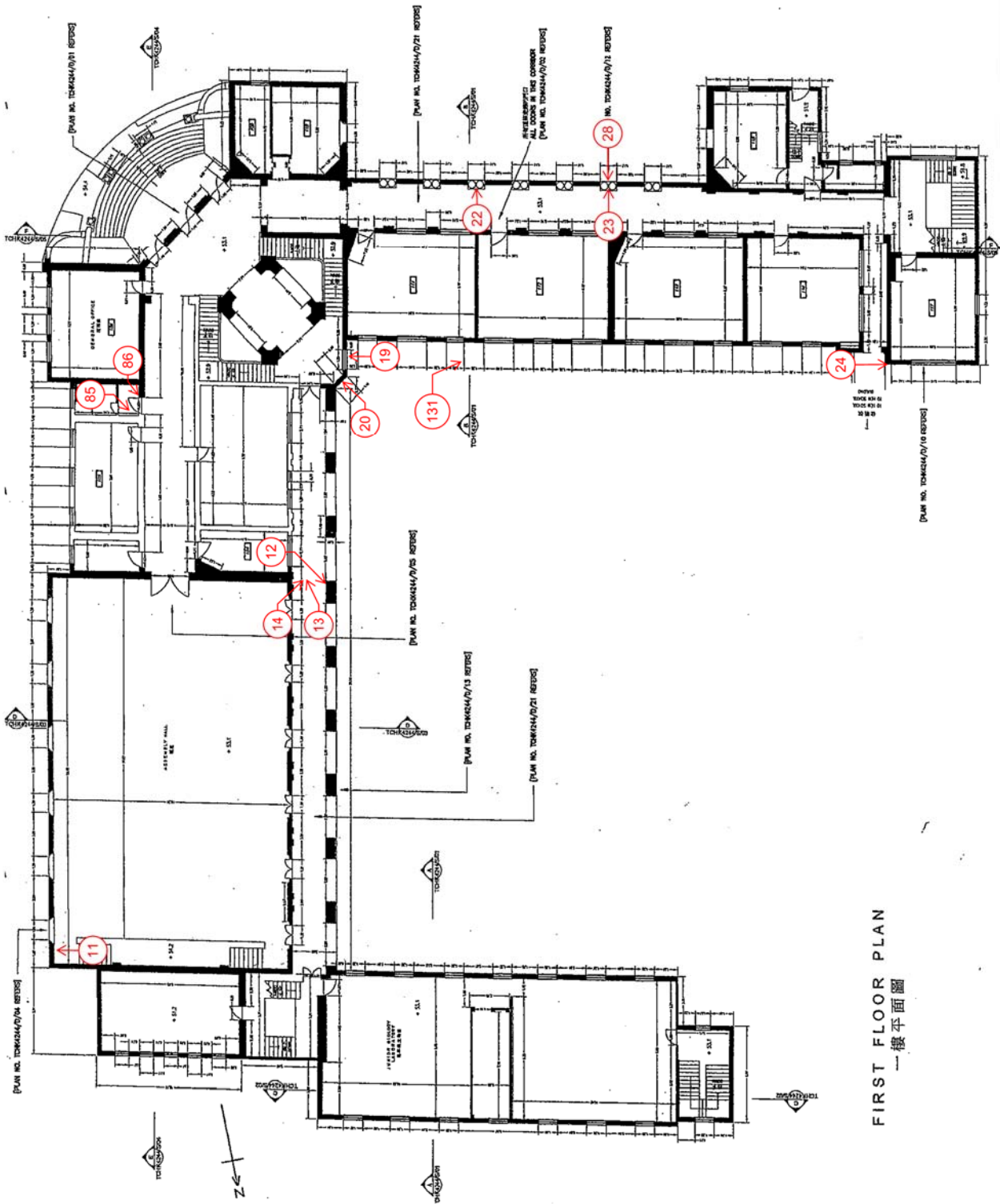
LOWER BASEMENT FLOOR PLAN
低層地下室平面圖



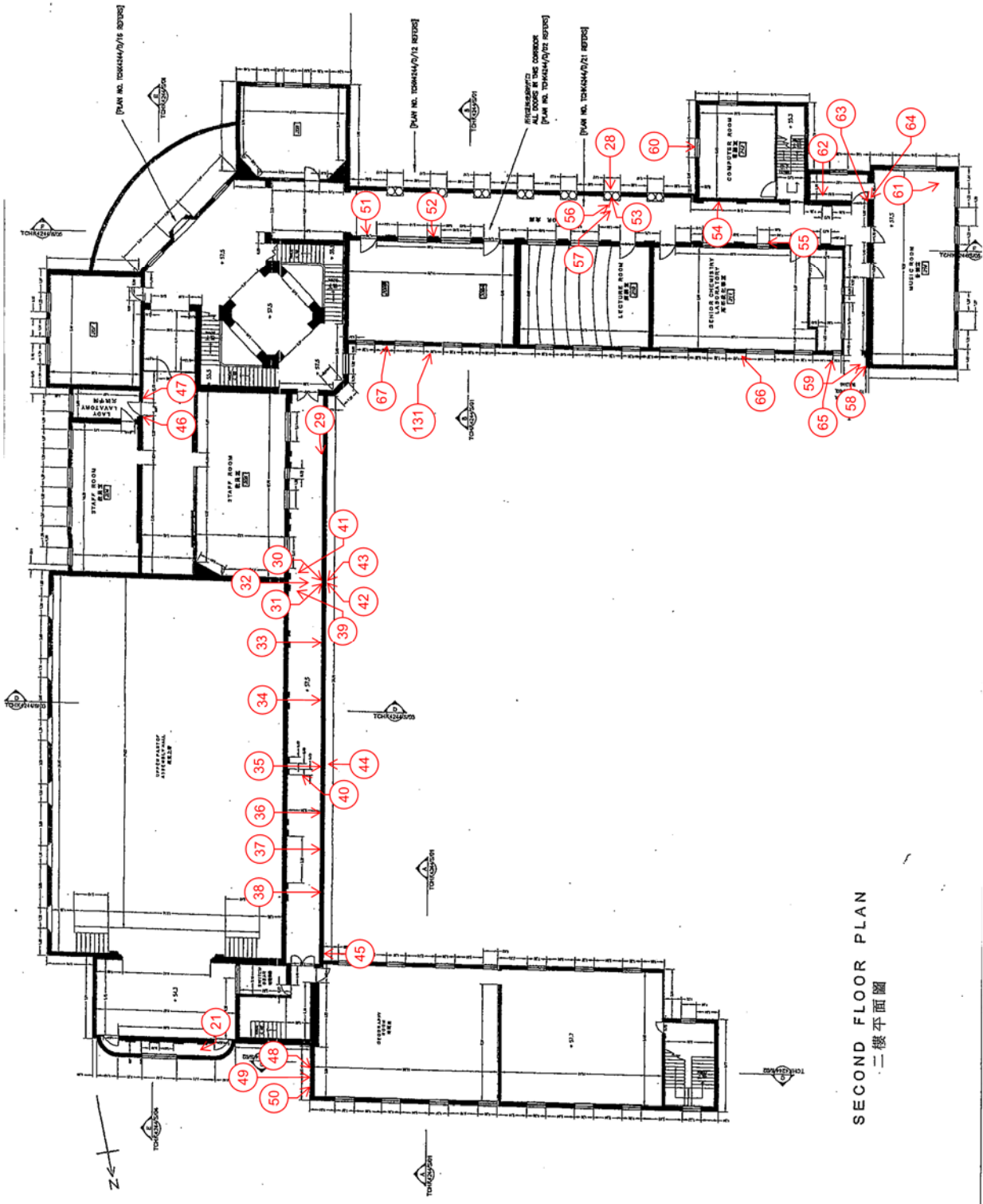
LOWER GROUND FLOOR PLAN
低層地下平面圖



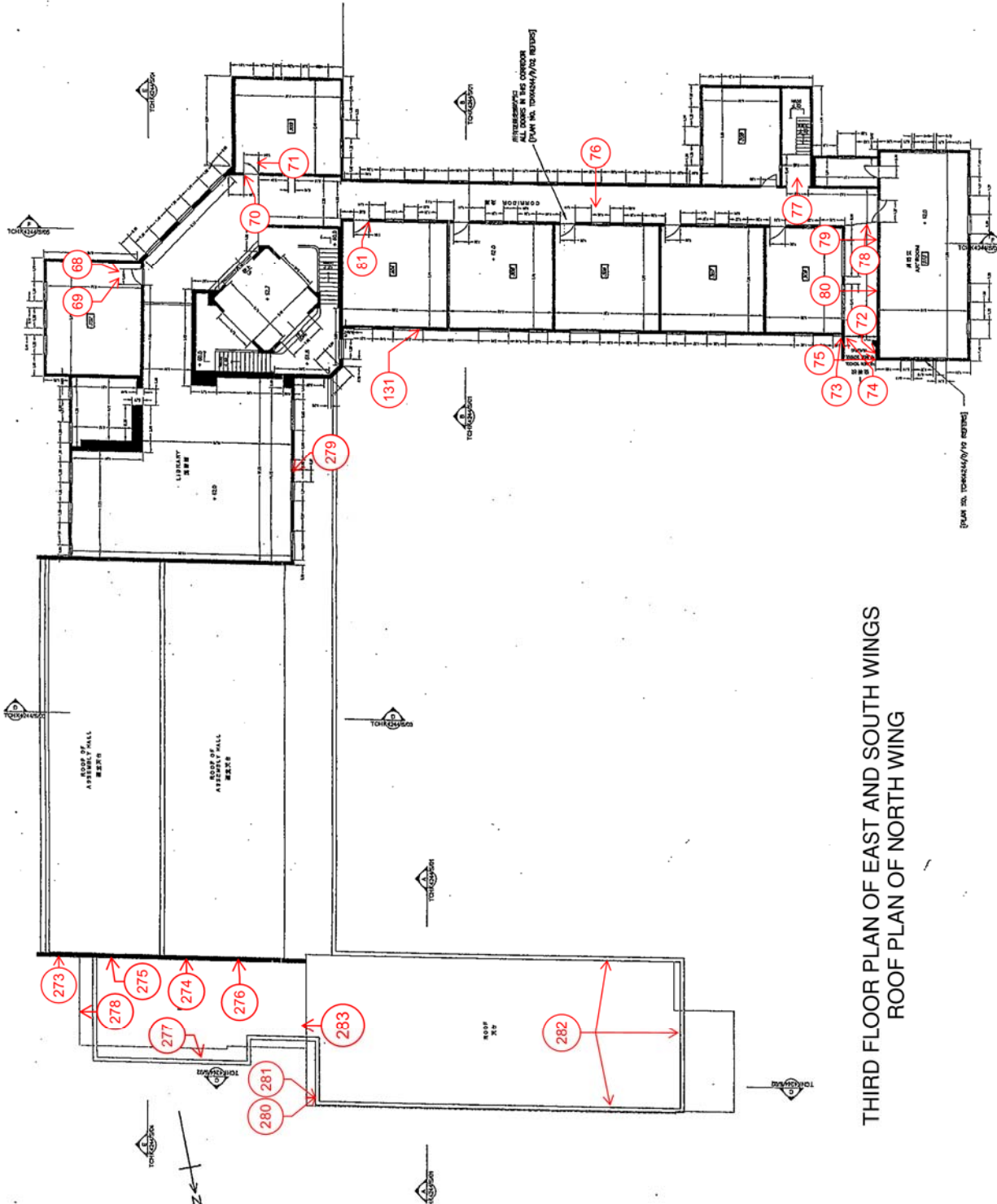
GROUND FLOOR PLAN
地下平面圖



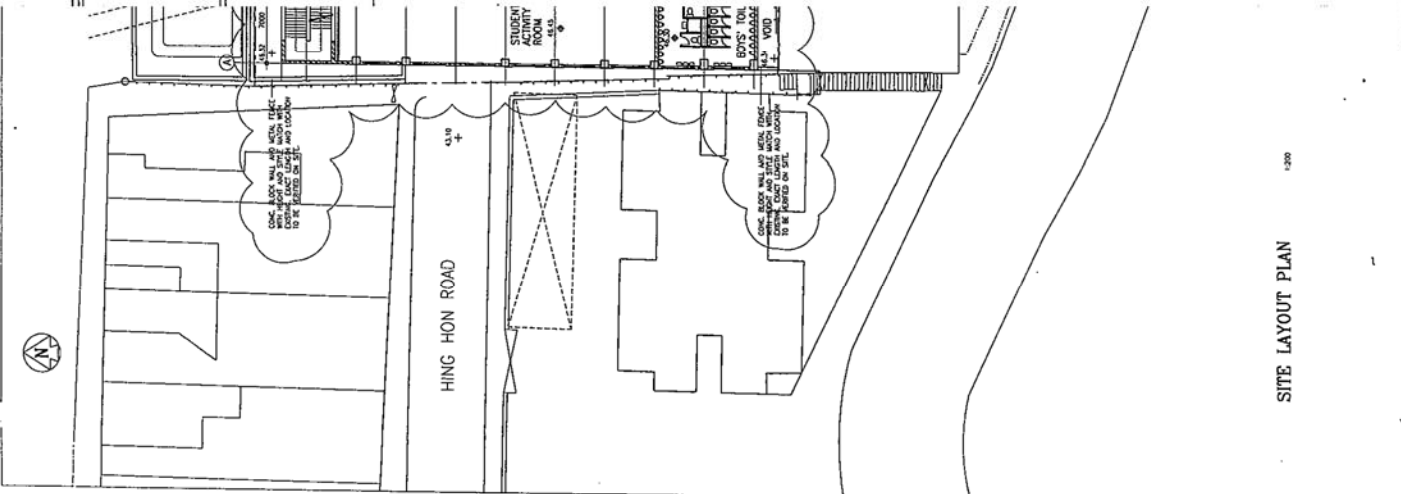
FIRST FLOOR PLAN
一樓平面圖



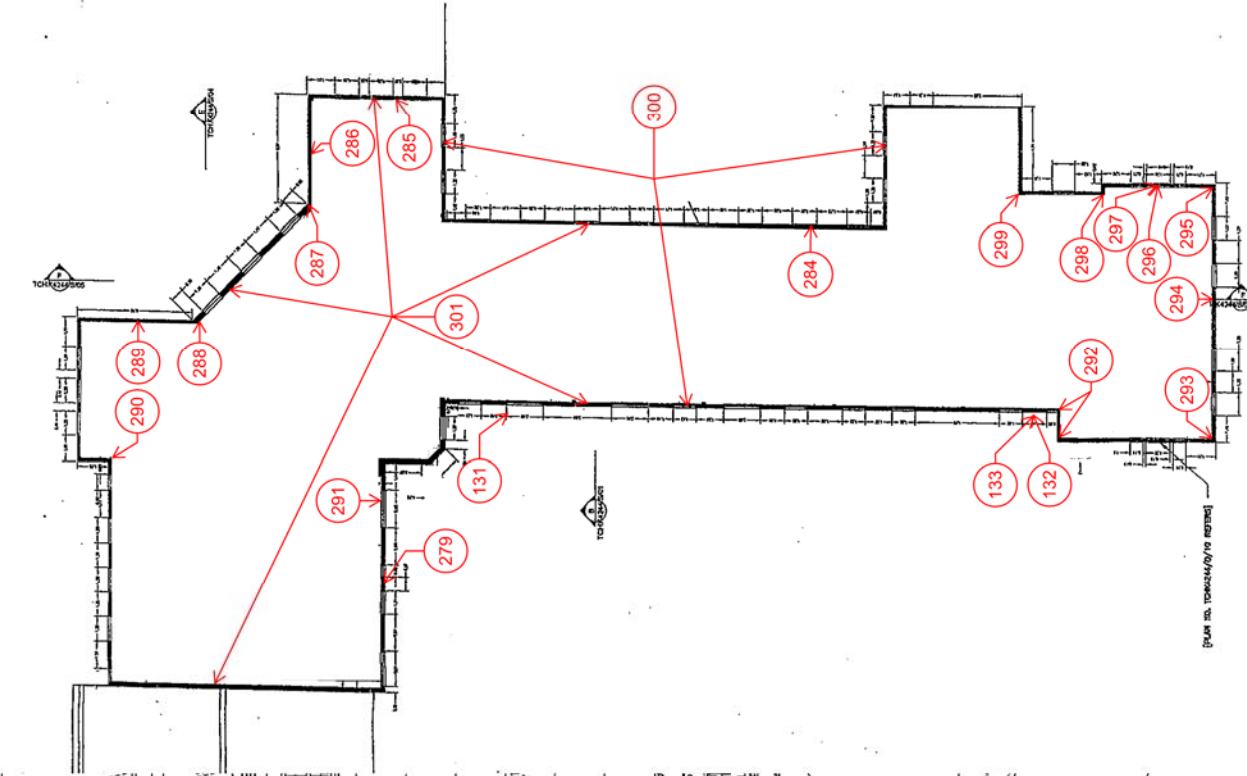
SECOND FLOOR PLAN
二樓平面圖



THIRD FLOOR PLAN OF EAST AND SOUTH WINGS
 ROOF PLAN OF NORTH WING



SITE LAYOUT PLAN
SCALE 1:300



ROOF PLAN
SCALE 1:300



ION PLAN (1:150-78 & 79)
SCALE 1:1000

FIRE SERVICES NOTES AND LEGENDS:

1. AUTOMATIC SPRINKLER SYSTEM
 AUTOMATIC SPRINKLER SYSTEMS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
2. FIRE DETECTION SYSTEM
 FIRE DETECTION SYSTEMS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
3. FIRE ALARM SYSTEM
 FIRE ALARM SYSTEMS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
4. FIRE EXTINGUISHER SYSTEM
 FIRE EXTINGUISHERS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
5. FIRE HOSE REEL SYSTEM
 FIRE HOSE REELS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
6. FIRE HYDRANT SYSTEM
 FIRE HYDRANTS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
7. FIRE SERVICE METER
 FIRE SERVICE METERS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
8. FIRE SERVICE NETWORK
 FIRE SERVICE NETWORKS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
9. FIRE SERVICE PIPING
 FIRE SERVICE PIPING IS TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
10. FIRE SERVICE VALVES
 FIRE SERVICE VALVES ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.
11. FIRE SERVICE CONNECTIONS
 FIRE SERVICE CONNECTIONS ARE TO BE PROVIDED TO SERVE ALL RISKED OCCUPANCY AREAS TO BE PROVIDED FOR ALL AREAS EXCEPT VEHICULAR AREAS. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE. THE SYSTEMS ARE TO BE PROVIDED AS PER THE REQUIREMENTS OF THE FIRE SERVICE.

PROPOSED EXTENSION OF KING'S COLLEGE
63A BONHAM ROAD
HONG KONG

LOCATION PLAN, SITE LAYOUT PLAN AND FIRE SERVICES NOTES

PROJECT NO	PH/A/87904/96058/CP0024
AS DRAWN	AS SHOWN
PROPERTY SERVICES BRANCH	
ARCHITECTURAL SERVICES DEPARTMENT	

- NOTES:**
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 2. ALL DIMENSIONS TO THE CENTRE LINE UNLESS OTHERWISE SPECIFIED.
- + EXISTING LEVEL
 ⊕ STRUCTURE (U/L)
 ⊖ SITE BOUNDARY LINE

SYMBOL	DESCRIPTION
(Circle with 'A')	Automatic Sprinkler
(Circle with 'B')	Fire Alarm
(Circle with 'C')	Fire Detection
(Circle with 'D')	Fire Hose Reel
(Circle with 'E')	Fire Hydrant
(Circle with 'F')	Fire Extinguisher
(Circle with 'G')	Fire Service Meter
(Circle with 'H')	Fire Service Network
(Circle with 'I')	Fire Service Piping
(Circle with 'J')	Fire Service Valve
(Circle with 'K')	Fire Service Connection

APPENDIX E

**IEC Site Audit
Checklist**

IEC Site Audit Checklist

Project:	_____	Inspected by	
	_____	Client:	_____
Inspection Date:	_____	ER:	_____
Time:	_____	IEC:	_____
Inspection Area:	_____	ET:	_____
	_____	Contractor:	_____

PART A: GENERAL INFORMATION

Weather: Sunny Fine Cloudy Rainy

Temperature: °C

Humidity: High Moderate Low

Wind: Strong Breezy Light Calm

PART B: SITE AUDIT

Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
----------	-----	----	-----------	-----	---------------

Section 1: Water Quality

1.01	Obtained an effluent discharge license.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.02	Provision of sedimentation tank.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.03	Channels, sandbags or bunds should be provided to direct surface run-off to sedimentation tanks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.04	Open stockpiles of construction materials on site should be covered with tarpaulin or similar fabric as necessary during rainstorms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.05	Good site practices should be adopted to remove rubbish and litter from construction site so as to prevent the rubbish and litter from spreading the site area. And, it is would be cleaned the construction sites on a regular basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.06	Manholes are adequately covered and temporarily sealed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
1.07	Some procedures and equipment for rainstorm protection are provided.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

IEC Site Audit Checklist

Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
----------	-----	----	-----------	-----	---------------

1.08 Measures to prevent leaked oil from entering the drainage system are provided.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--

1.09 Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

Section 2: Air Quality

2.01 Use of regular watering/ tarpaulin, with coverage to reduce dust emissions from exposed site surfaces, particularly during dry weather.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--

2.02 Use of frequent water from particularly dusty static construction area.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.03 Dusty materials transported on trucks with tarpaulin covering to and from the site.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.04 Hoarding are not less than 2.4m tall provided at areas with public access.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.05 Public road around the site entrance should be kept clean and free from dust.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.06 Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.07 Mechanical covers of all dump trucks entering or leaving the site are in good services conditions.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.08 Dark smoke emission from plant/ equipment should be avoided.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

2.09 De-bagging, batching and mixing processes are carried out in sheltered areas during the use of bagged cement.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

Section 3: Noise

3.01 All plants are well maintained and in good operating condition.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--

3.02 All the plants should be serviced regularly during the construction program.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	-------

IEC Site Audit Checklist

		Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
3.03	PME used on site are recorded in daily basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.04	Operating hours of each PME are recorded in daily basis.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.05	Use of noise enclosure for static PME.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.06	Use movable noise barrier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.07	Use of noise insulating fabric for certain PME.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.08	Idle equipment should be turned off or throttled down.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3.09	Where possible, quieter PME should be used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Section 4: Waste/ Chemical Management

4.01	Training of site personnel in site cleanliness and proper waste management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.02	Provision of sufficient waste disposal point and regular collection of waste.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.03	Regular cleaning and maintenance for drainage systems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.04	Proper storage and site practices to minimize the potential for damage or contamination of construction materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.05	Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycle.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.06	Waste should be handled and stores well to ensure secure containment, thus minimizing the potential of pollution.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.07	Storage area should be provided with covers and, if necessary, water spraying system to prevent materials for wind-blown or being washed away.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.08	The construction waste generated on-site would be transported to the designated disposal facilities managed by EPD or CEDD.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.09	On-site sorting of all C&D materials to inert or non-inert.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4.10	The panels have hold legible red English words and Chinese characters "CHEMICAL WASTE" "化學廢料" note less than 60mm high on a while background.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

IEC Site Audit Checklist

Not Obs.	Yes	No	Follow up	N/A	Photo/Remarks
----------	-----	----	-----------	-----	---------------

Section 5: Landscape & Visual

5.01 Temporary hoarding would be erected along the boundary of the works site to provide some screening effect to the surrounding sensitive receivers.

Section 6: Culture Heritage

6.01 Install ground settlement markers, building settlement markers, utility settlement markers, tilting monitor makers, vibration monitoring points and tell-tales during the active construction period and obtain readings at a daily interval.

6.02 Operate drilling process manually under full-time supervision of experienced works supervisor.

Section 7: Others

7.01 Are relevant Environmental Permits posted at all vehicle site entrances/ exits or at a convenient location for public's information at all times?

Remarks

Follow-up Observation (s)
