

**Construction of Covered Walkway
in the Courtyard of the
Former Kowloon British School,
Tsim Sha Tsui**

- Project Profile -



Leisure and Cultural Services Department

August 2008

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1. BASIC INFORMATION

1.1 Project Title

Construction of Covered Walkway in the Courtyard of the Former Kowloon British School.

1.2 Purpose and Nature of the Project

1.2.1 The purpose of the project is to construct a Covered Walkway in the courtyard of the Former Kowloon British School (“the School”) (working boundary showing the project area is at Appendix I). The School was declared a monument under the Antiquities and Monuments Ordinance (Cap. 53) (“the Ordinance”) in 1991.

1.2.2 The School is composed of two buildings separated by an open courtyard. There is no covered walkway connecting the main building and the annex block, causing inconvenience to the users and visitors, particularly during the wet seasons. As the Antiquities and Monuments Office (AMO) has the aim of improving the facilities of Hong Kong’s declared monuments while ensuring its heritage value for the enjoyment of the public, the construction of a covered walkway in the courtyard of the School is proposed and funded by the AMO.

1.2.3 A study for the proposed construction works has been conducted by the AMO, so as to ensure the cultural significance of the School will be retained. Detail scope and drawings of the construction works have been prepared by the Architectural Services Department (ArchSD) and vetted and agreed by the AMO. The construction mainly consists of the following items:

- (i) Removal of the existing stand-alone wooden screens and posts beside the annex block.
- (ii) Construction of a new covered walkway, including bolting of the bases of new steel posts to the base plates, fixing the new glass sheet cover to steel frame and painting of the new steel posts.

1.2.4 Detail drawings of the proposed covered walkway are attached at Appendix II.

1.3 Name of Project Proponent

Antiquities and Monuments Office (AMO), Leisure and Cultural Services Department.

1.4 Location of Project

Former Kowloon British School, 136 Nathan Road, Tsim Sha Tsui, Kowloon.

1.5 History of the Former Kowloon British School

1.5.1 Situated at Tsim Sha Tsui, the Former Kowloon British School was the oldest surviving school building constructed for foreign residents living in Hong Kong. In 1900, Mr. Ho Tung (later Sir Robert) donated \$15,000 to the Government to build a school in Kowloon. The building was officially opened on 19 April 1902.

1.5.2 The School is a typical Victorian structure, but was modified to adapt to local climatic conditions by adding wide verandas, high ceilings and pitched roofs.

1.5.3 The School was declared a monument on 19 July 1991. The property is owned by the Government. After proper restoration, it houses the AMO.

1.6 Number and Type of Designated Project to be Covered by the Project Profile

1.6.1 The proposed work is a designated project under Section Q.1 of Schedule 2, of the Environmental Impact Assessment (EIA) Ordinance because the project will involve building works wholly in an existing site of cultural heritage (namely a Declared Monument).

1.7 Contact Person(s)

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1.8 Estimated Cost

The total cost for this project is estimated at HK\$ 420,000.

2. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Responsibilities of Parties

2.1.1 For this project, AMO is the Project Proponent and Client Department which is responsible for funding the project and will also act as the building conservation adviser. AMO has engaged ArchSD as their works agent which will be responsible for project management, contract preparation and site supervision.

2.2 Site Survey

2.2.1 Construction study and detail drawings of the project have been completed. Specification for the proposed scope of works has been prepared by ArchSD and agreed with AMO to ensure the conservation works comply with international conservation principles and standards. Any further environmental requirements specified in the environmental permit would be incorporated into the final specification.

2.3 Method of Construction

2.3.1 As the work involves a declared monument, extra care will be taken at all phases of the work.

2.3.2 The bases of the steel posts will be bolted to the base plates so as to be easily removal in future, in order to fully maintain reversibility of the structure.

2.3.3 The new steel posts will be painted to match the existing timber posts to the Annex Block and the new roof glazing should be tinted to harmonise with the existing roof.

2.4 Implementation Programme

2.4.1 The proposed construction works are tentatively scheduled to be carried out from October 2008 to January 2009.

3. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

- 3.1 There are another two historic buildings in the area, the nearest declared monument is The Hong Kong Observatory which is more than 120 metres away from the works site. A grade II historic building, namely St. Andrew's church compound, is located about 35 metres to the north-east of the School.
- 3.2 The surrounding area is mainly the central business district with the above-mentioned historic buildings, commercial buildings and community facilities, the nearest cluster of buildings (i.e. Tsim Sha Tsui District Kaifong Welfare Association) being approximately 2 metres to the east of the School. These blocks are considered to be sensitive receivers.
- 3.3 The School is about 6 metres from the main road, Nathan Road. There is a feeder road to the School, the daily traffic usage of the feeder road is very low.

4. POSSIBLE IMPACTS ON THE ENVIRONMENT

4.1 Cultural Heritage

- 4.1.1 In this project, special care and attention will be paid for maintaining the historic values of the School; therefore all building and painting works are to be carried out in a careful and skilled manner which will be subject to a high level supervision by staff of AMO and ArchSD to ensure that the works are of the highest standard and the materials are exactly as required.
- 4.1.2 The nearest historic building is located about 35 metres away from the project site. No direct physical impact is expected during the works. The Contractor will be required to take special cares in the construction works. The works are restricted to use of hand-held tools and equipment in order to avoid any physical vibration to the building.
- 4.1.3 A visual image of the proposed covered walkway for assessing the possible visual impact on the School is attached at Appendix III.

4.2 Noise

- 4.2.1 The closest distance between the site and the nearest cluster of buildings is about 2

metres, but the only construction noise to be generated will be that from hand-held power tools and hand-held manual tools, so that only minor impacts are anticipated. No heavy power-operated machinery will be involved in this project. As a result, it is believed that the noise impact on the surrounding sensitive receivers may be considered as minimal.

4.3 Air Quality

4.3.1 The problem of dust emission from the site is expected to be minimal since the demolition of the existing wooden screens and posts is relatively in very small scale and will be carried out by either hand-held power tools or manual tools. The amount of dust generated is expected to be very low and of very short duration. It will be controlled with good site management as well as dust reduction measures.

4.4 Traffic Impacts

4.4.1 Lorries are required to transport construction wastes from site and the construction materials including steel posts, glass sheet covers, wooden screens, etc. to the site. It is expected to be infrequent. Traffic impacts on the Nathan Road and the feeder road to the School are considered to be very insignificant and the project is quite short in duration.

4.5 Solid Waste

4.5.1 During the working period, about 10 cubic metres of construction and demolition waste (C&D waste) may be produced, including cement mortar, wooden screens and posts. Those unwanted C&D waste will be removed off site promptly and transported to the statutory landfill sites. The guidelines concerning temporary storage and proper disposal of C&D waste will be strictly monitored. Therefore, no significant impact due to the generation and disposal of the limited and non-toxic solid waste is expected from the works.

4.5.2 Spent chemicals from any waste termiticide and normal domestic detergent will be handled, stored and disposed of in accordance with the Waste Disposal Ordinance. Where necessary, the hotline (Tel: 2755 3554) for chemical waste control and chemical waste disposal will be contacted for enquiry on technical requirements for handling chemical wastes. Any waste termiticide should be carefully returned to its container and taken back to the Contractor's workshop for filtering and future reuse.

In view of the cost of the termiticide, the waste chemical is not expected to exceed 0.5 litre in total.

4.6 Spoil Water

4.6.1 Spoil water is likely to be generated from washing down the steel posts and the glass cover sheet using a mild detergent and fresh water solution. Such waste water will be no more harmful than normal domestic waste water; however it will be filtered before discharge to remove any pieces of waste materials that may block up the drains. The quantity of waste water generated is not expected to exceed 50 litres per day. Also, all the effluent discharge from the site will be subject to the Water Pollution Control Ordinance.

4.7 Dangerous Goods

4.7.1 No designated dangerous goods are involved in the project.

4.8 Ecological Impact

4.8.1 There are no trees close enough to the project site to be damaged by the intended works. No landscaping issues therefore are expected to arise on this occasion. It is believed that the project would induce little or zero disturbance to the surrounding wildlife.

5. ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN

5.1 Measures to Minimize Environmental Impacts

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

5.2 Cultural Heritage

5.2.1 Antiquities and Monuments Ordinance

- 5.2.1.1 According to Section 6 of the Antiquities and Monuments Ordinance (Cap. 53), no person shall demolish, remove, conduct, deface or interfere with a monument, unless a permit is granted by the Antiquities Authority. As the School is a declared monument, the required permit will be obtained from the Antiquities Authority before any work may commence on-site. Any person who contravenes Section 6(1) shall be guilty of an offence and shall be liable on conviction to a fine of \$100,000 and imprisonment for 1 year.
- 5.2.1.2 A permit under Section 6 will be applied from the Antiquities Authority in the usual way and the contractor and all parties involved should comply with any requirements made under the terms of the permit.
- 5.2.2 Standard of Workmanship
- 5.2.2.1 According to Article 22 of Burra Charter (a well-recognized international charter for heritage conservation), new work to the historic place may be acceptable where it does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation. But, imitation should be avoided and the new work should be readily identified as such. Therefore, design of the new covered walkway shall be sympathetic to the adjoining historic buildings, in terms of its sitting, bulk, scale and form. Building materials and construction method to be adopted for the new structure are differentiated from but compatible with the adjoining historic buildings.
- 5.2.2.2 All new constructions shall be carried out in a reversible way, i.e. they can be removed from the monument site in future (if required) without causing any damage to the historic fabric of the monument.
- 5.2.2.3 On completion of the works, the new building works and paintworks should not appear too obvious and for this reason all colours for painting and all materials employed must be approved by the ArchSD and AMO before use.
- 5.2.2.4 The Contractor is required to employ experienced workmen to ensure that no damage is made to the existing buildings when carrying out the

construction work.

5.2.2.5 The Contractor is required to keep a record of methods and materials adopted in this project while the format of the record should be accepted by the ArchSD and AMO. A copy of the record will be given to AMO for future maintenance purposes.

5.3 Noise

5.3.1 The construction work of a new covered walkway by hand-held power tools will cause slight amount of noise nuisance for a very short period during the initial stage of the project. In view of the close distance between the site and the sensitive receivers (approx. 2m to 20m away from the project site) and that no heavy power-operated machinery will be involved, it is believed that the anticipated noise level will be very low.

5.3.2 For further reducing the noise disturbance, appropriate mitigation measures will be implemented to control noise level within an acceptable limit as stipulated under Noise Control Ordinance, EIAO and other relevant regulations during the construction, such as the use of quieter tools, proper maintenance of plant and good working practices.

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

5.4 Air Quality

5.4.1 Air pollution will not be allowed to cause a major impact, as only a small amount of dust will arise from the construction work. In addition, the Air Pollution Control (Construction Dust) Regulation will be strictly followed and monitored. The debris will be sprayed with clean water so that it remains damp before it is carted away. In addition, water will be continuously sprayed on the surface where any drilling, cutting or other small-scale breaking operation is carried out by using hand-held power tools.

5.5 Solid Waste

5.5.1 About 10 cubic metres of C&D waste would be produced from the demolition or site clearance (i.e. cement mortar, wooden screens and posts, etc.). After sorting out those that can be re-used, all the unwanted C&D waste will be removed from the site to the statutory landfill sites. Moreover, all the C&D waste will be handled and disposed of in accordance with the Waste Disposal Ordinance; as a result, the environmental impact from waste disposal is minimal.

5.6 Water Quality

5.6.1 When cleaning the steel posts and the glass cover sheet, spoil water would be produced. Such spoil water will be filtered before discharge into drains. Also, the Water Pollution Control Ordinance would be strictly monitored for discharging such waste water from the site. Moreover, there are no water sources in the vicinity of the site that would be impacted or affected by the project.

5.7 Further Environmental Implications

Severity, Distribution and Duration of Environmental Effects

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

| Impact | Effects | Severity and duration | Distribution | Duration |
|-------------------|--|--------------------------------------|---------------------|-----------------|
| Cultural Heritage | Improve the facilities of the monument | Beneficial and long term enhancement | Project Site only | Long-term |
| Noise | Noise nuisance from demolition, construction and clearance | Minimal and short | Project Site only | About 2 months |
| Air Quality | Dust generated from demolition works and construction activities | Minimal and short | Project Site only | About 2 months |

| | | | | |
|---------------|---|------------------------|-------------------|----------------|
| Solid Waste | Handling and disposal of about 10 cubic metres of demolished material | Minimal and short | Project Site only | About 2 months |
| Water Quality | Discharging approx. 50 litres of spoil water into drains with appropriate filtering process | Minimal and short | Project Site only | About 2 months |
| Traffic | Lorries to and from work site | Minimal and infrequent | Nathan Road | About 2 months |

5.8 Public Consultation

5.8.1 Public comments on the new covered walkway are welcomed during the public inspection period under the EIAO Process as well as the construction and operation stages of the project. Regular progress meeting will be held in the construction stage among the managers of ArchSD, AMO and the Contractor. As the School is one of the important spot for heritage tourism at Tsim Sha Tsui, the Contractor will be urged to complete the project on time.

5.9 Monitoring

5.9.1 Monitoring procedures are proposed to be adopted and the following parties will be responsible for monitoring operations:

ArchSD as Project-Architect:

- to ensure that the general aspects of environmental quality will comply with the project requirements;
- supervise the Contractor to ensure that the requirements in the Project Profile are fully complied with;
- instruct the Contractor when action is required to reduce or prevent any impacts;
- bring to the attention of AMO any complaints received with regard to any environmental aspects of the project; and
- on completion of the project to prepare a summary of the environmental

performance of the Contractor.

AMO as Conservation Authority:

- to ensure the quality of the conservation aspects of the project are carried out to the highest possible standard, with the co-operation of the Project Architect; and
- to effectively and speedily deal with any complaints on environmental performance referred by the Project Architect.

5.10 History of Similar Projects

5.10.1 There is no similar small scale project in declared monument under the EIAO in the past.

6. USE OF PREVIOUSLY APPROVED EIA REPORTS

6.1 There are no previously approved EIA reports concerning this building or other declared monument that can be referred to. Other approved projects such as “Major Repair to Tang Ancestral Hall, Ping Shan (Environmental Permit No. EP-193/2004)”, “Major Repair to Tin Hau Temple at Lung Yeuk Tau (Environmental Permit No. EP-214/2005)” and “Restoration to Chik Kwai Study Hall, Sheung Tsuen, Pat Heung, Yuen Long (Environmental Permit No. EP-305/2008)” involve a much larger scale and total different kind of works to declared monuments.

7. CONCLUSIONS

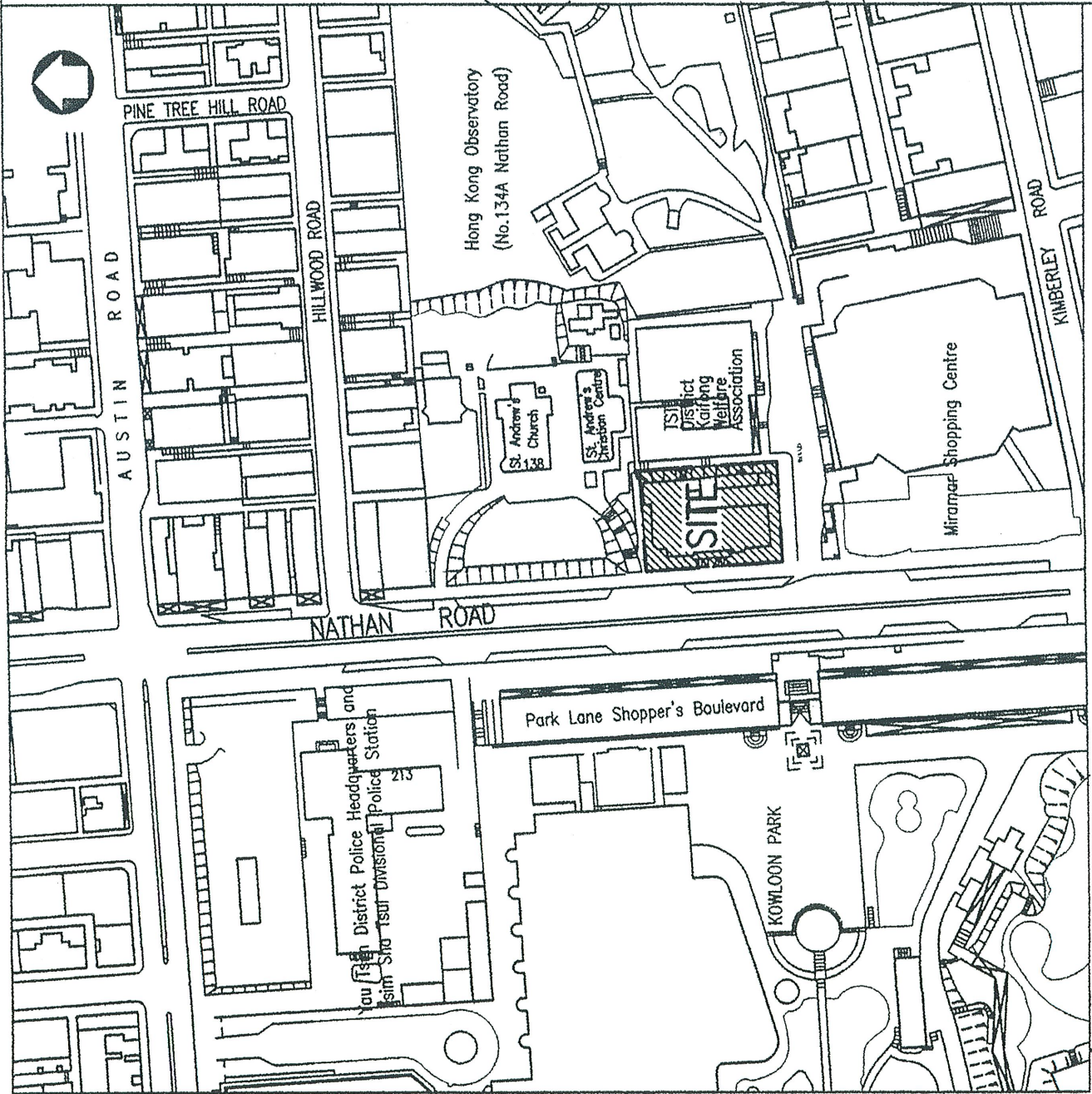
7.1 Water quality, noise, dust, traffic and solid waste impacts will be minimal during the construction phase. Moreover, by adopting appropriate mitigation measures, no adverse impacts are anticipated and the sensitive receivers will be protected from impacts. (The mitigation measures are summarized in Appendix IV).

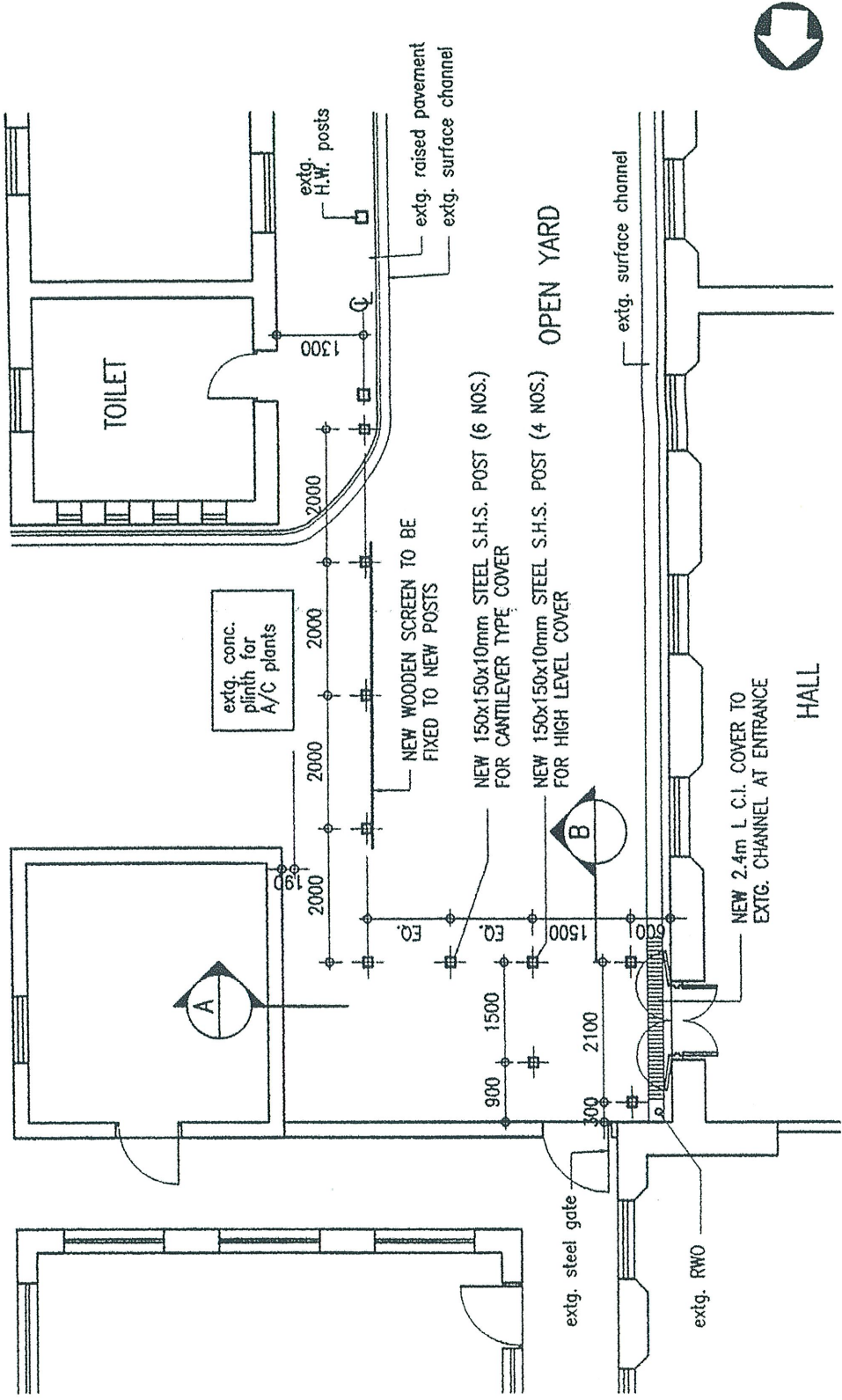
7.2 The project aims to improve the facilities of the School. The contractor will strictly comply with the requirements specified in the permit issued under Section 6 of the Antiquities and Monuments Ordinance by the Antiquities Authority. All the construction works will be carried out by experienced craftsmen and workers. Experts from AMO as well as from ArchSD will monitor and supervise the works in order to ensure the historic value and architectural features of the building would be kept intact.

- 7.3 This project is intended to put the School into good condition for the convenience of the users and visitors.
- 7.4 In view of the fact that the construction works will bring along long-term benefits to the monument and its environmental impact is minimal, this office is writing to apply for permission to apply directly for environmental permit under EIA Ordinance.

GENERAL NOTES:-

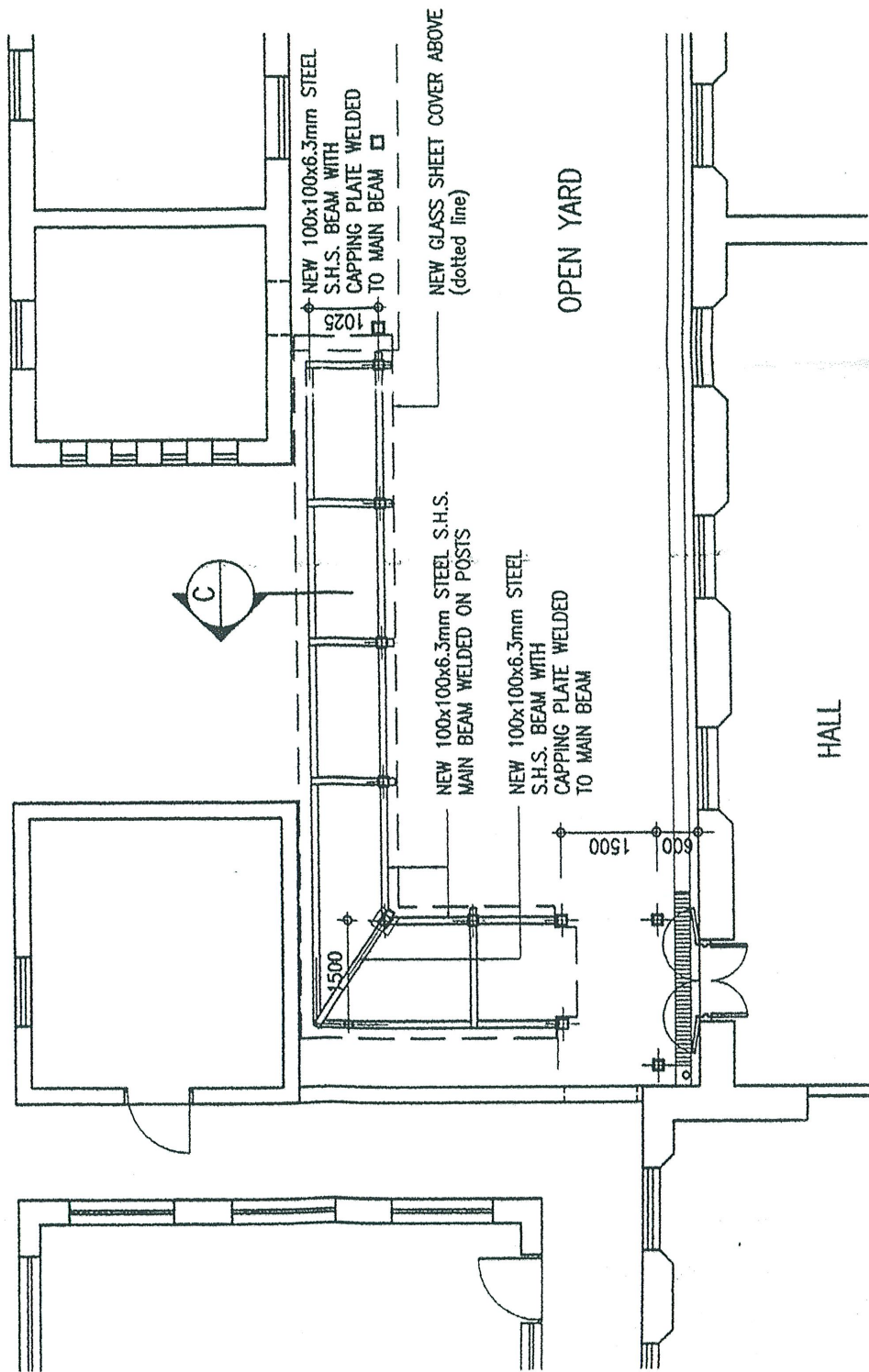
1. ALL DIMENSIONS ARE IN mm.
2. EXACT DIMENSIONS, LEVELS AND LOCATIONS SHOULD BE CHECKED & VERIFIED ON SITE BY CONTRACTOR.
3. ALL STEELWORKS SHALL BE HOT-DIPPED OR SPRAYED GALVANIZED, AND FINISHED WITH SYNTHETIC PAINT (ONE COAT RECOMMENDED PRIMER, TWO UNDERCOATS AND ONE FINISHING COAT) IN ACCORDANCE WITH SECT. 21 OF GENERAL SPECIFICATION FOR BUILDING, 2003.
4. DETAILS OF FABRICATION & INSTALLATION OF STRUCTURAL STEEL FRAMES SHALL BE REFERRED TO RELEVANT STRUCTURAL DRAWINGS.
5. SHOP DRAWINGS AND SAMPLE OF SAFETY LAMINATED SHEET GLASS SHOULD BE SUBMITTED TO PSM FOR APPROVAL.





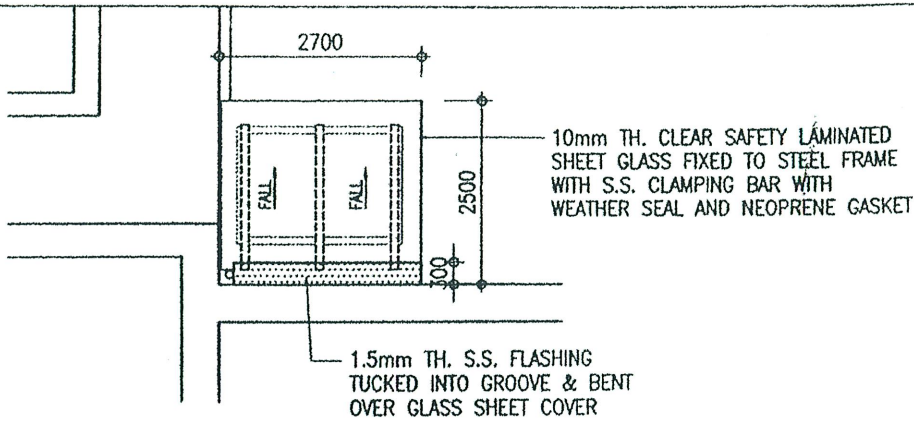
PROPOSED GROUND FLOOR LAYOUT PLAN FOR COVERED WALKWAY

1 : 100



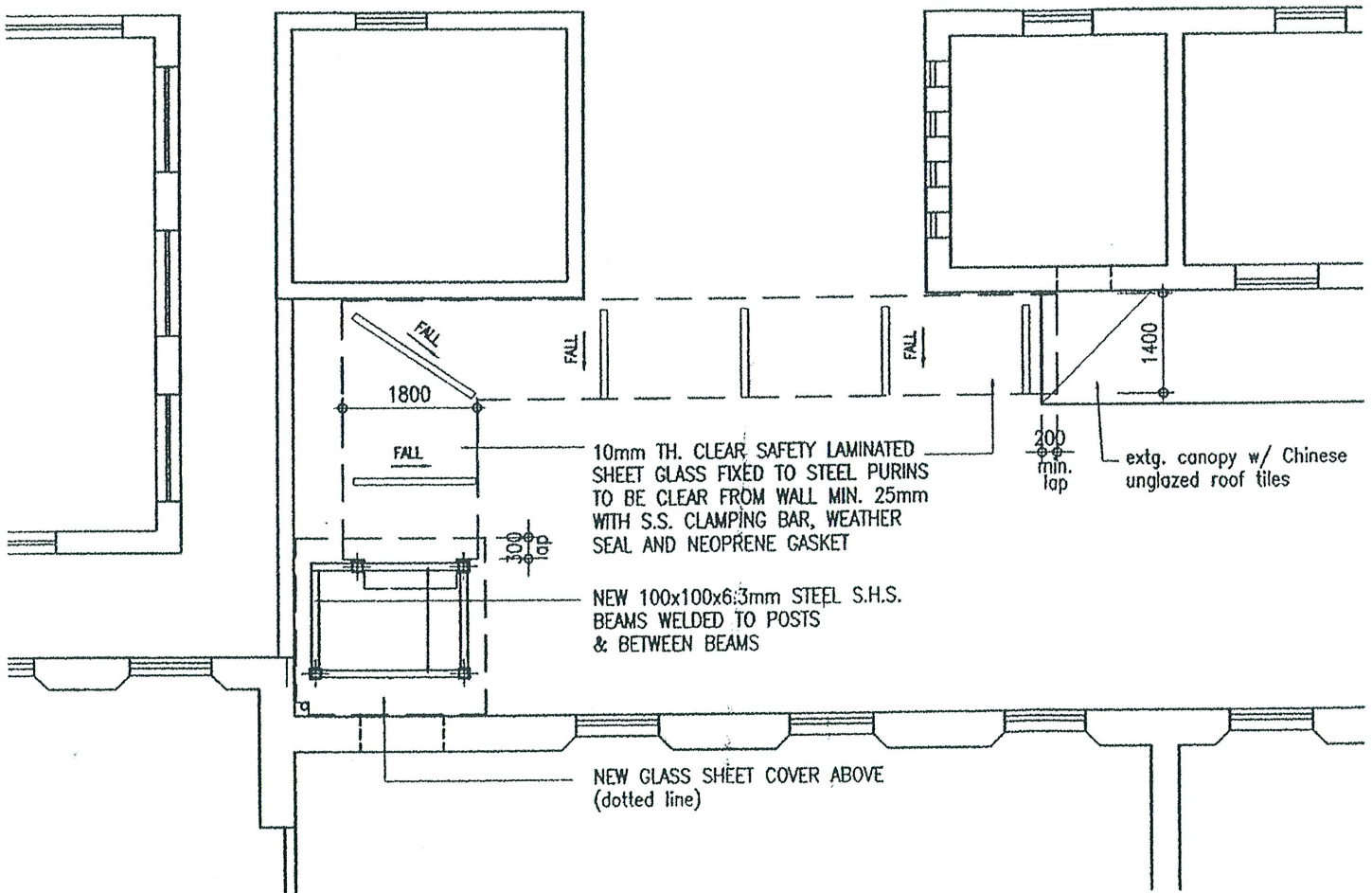
PROPOSED FLOOR LAYOUT PLAN (VIEW AT 2.5m H)

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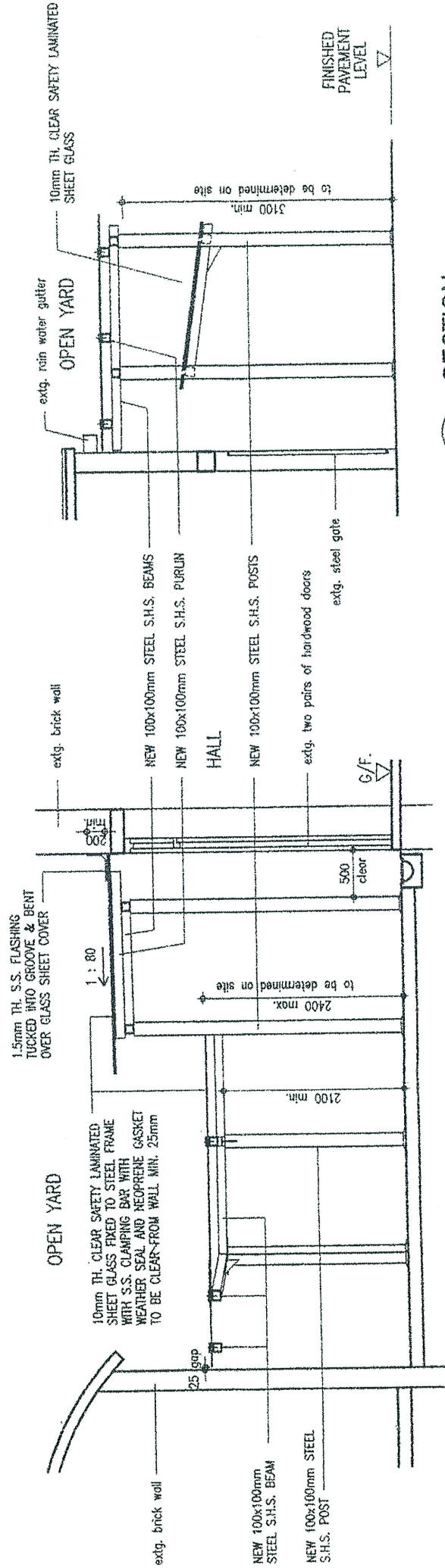
PROPOSED ROOF PLAN

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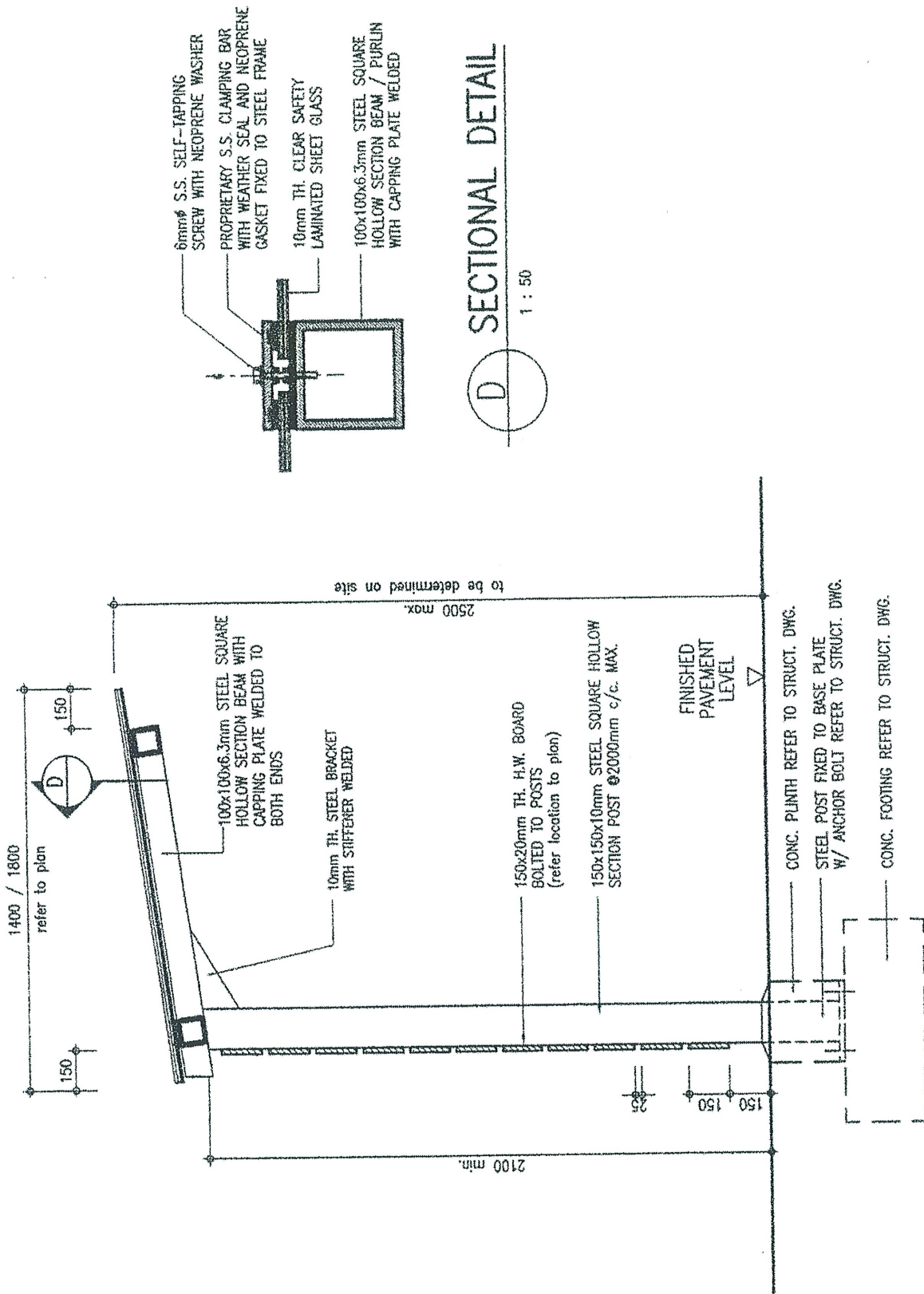
PROPOSED FLOOR LAYOUT PLAN (VIEW AT 3.5m H)

1 : 100



B SECTION
1 : 50

A SECTION
1 : 50



Visual image of the proposed covered walkway



Summary of Mitigation Measures

| Project Profile Sections | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the Measure(s) | Location of the Measure | When to implement the Measures? | What requirements or standards of ordinance/ guidelines for the measure to achieve? |
|---------------------------------|---|---|--|--|--|--|
| 5.2.1.1 | Apply the Section 6 Permit of the Antiquities and Monuments Ordinance (Cap.53) | As the Former Kowloon British School is a declared monument, permit will be obtained from the Antiquities Authority before any works may commence on-site | ArchSD and AMO | Former Kowloon British School at Tsim Sha Tsui | Before the commencement of the project | Antiquities and Monuments Ordinance (Cap.53) |
| 5.2.2.1 | Design of the new covered walkway shall be sympathetic to the adjoining historic buildings, in terms of its sitting, bulk, scale and form. Building materials and construction method to be adopted for the new structure are differentiated from but compatible with the adjoining historic buildings. | To avoid distortion or obscuration of the cultural significance of the monument, or detraction from its interpretation and appreciation. | ArchSD and Contractor | Site area | Design and construction stages | ---- |
| 5.2.2.2 | All new constructions shall be carried out in a reversible way, i.e. they can be removed from the monument site in future (if required) without causing any damage to the historic fabric of the monument. | To ensure the reversibility of the new structure | Contractor | Site area | Construction Stage | ---- |
| 5.2.2.3 | All colours for painting and materials employed must be approved by the ArchSD and AMO | To ensure the sympathetic and compatible design of the new structure | ArchSD and AMO | Site area | During the construction period | ---- |
| 5.2.2.4 | Employ experienced workmen | To preserve the historical and architectural significance of the School | Contractor | Site area | During the construction period | ---- |
| 5.2.2.5 | Keep record of material and means adopted in the project | For future maintenance purpose | Contractor and AMO | Site area | During the construction period | ---- |

| | | | | | | |
|-------|---|--|------------|-----------|--------------------------------|---|
| 5.3.2 | Implement noise mitigation measures (e.g. use quieter tools, proper maintenance of plant, good working practices) | To minimize noise impact due to construction | Contractor | Site area | During the construction period | Noise Control Ordinance |
| 5.3.3 | No works will be carried out during 7 p.m. to 7 am. and any time on Sundays and General Holidays | To minimize the noise impacts at sensitive hours | Contractor | Site area | During the construction period | Noise Control Ordinance |
| 5.4.1 | Water spray | To minimize the dust problem caused by the demolishing works, drilling, cutting polishing or other small-scaled mechanical breaking. | Contractor | Site area | During the construction period | Air Pollution Control (Construction Dust) Regulations |
| 5.5.1 | Construction and demolition waste would transport to the landfill site | To minimize the impacts from waste disposal | Contractor | Site area | During the construction period | Waste Disposal Ordinance |
| 5.6.1 | Waste water would be filtered before discharge into drains | To minimize the impacts of waste water | Contractor | Site area | During the construction period | Water Pollution Control Ordinance |