

Restoration to
Chik Kwai Study Hall
Sheung Tsuen, Pat Heung, Yuen Long

- Project Profile -



Leisure and Cultural Services Department

The Government of the Hong Kong Special Administrative Region

October 2007

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1. BASIC INFORMATION

1.1 Project Title

Restoration to Chik Kwai Study Hall, Lai Uk Tsuen, Sheung Tsuen, Pat Heung, Yuen Long.

1.2 Purpose and Nature of the Project

1.2.1 The purpose of the project is to carry out full restoration to the Chik Kwai Study Hall, Sheung Tsuen, Pat Heung, Yuen Long (hereafter “the Study Hall”) (Location plan showing the project area is at Appendix I). The Study Hall was declared a historical building (a declared monument) under the Antiquities and Monuments Ordinance (hereafter “the Ordinance”) in 2007.

1.2.2 The Study Hall has been in a state of disrepair with the main roof structures being severely weakened by termite infestation. Temporary propping and termite eradication and monitoring measures have been arranged by the Antiquities and Monuments Office (AMO). Also, the green brick walls and decorative features of the Stud Hall have deteriorated (Photos showing the deteriorated components of the Study Hall are at Appendix II). As the AMO has the responsibility to protect and upkeep the Hong Kong’s declared monuments, a full restoration to the Study Hall is proposed and funded by the AMO.

1.2.3 A conservation study and cartographic survey for the restoration of the Study Hall have been conducted by the AMO, so as to ensure the cultural significance of the Study Hall will be retained and enhanced. The scope of restoration works has been prepared by the Architectural Services Department (ArchSD) and vetted and agreed by the AMO. The restoration mainly consists of the following items:

- (i) Dismantle defective roof structure, including roof tiles, purlins and truss system and reconstruct the roofs with termite-proofed timber and new tiling as necessary.
- (ii) Removal of modern paint on walls to expose the original green brick surfaces. Repair and re-point the external and internal walls and “dentist” replacement to individual damaged bricks.

- (iii) Make good and retouch stucco mouldings on ridges and gables.
- (iv) Restoration to timber decorative features, such as bracket system, camel's humps, sparrow brackets and eave boards.
- (v) Conservation treatment to historic murals throughout the building.
- (vi) Repair and re-paint the timber doors, wooden frame and the windows.
- (vii) To block up modern window openings on the exterior with green brick to match existing.
- (viii) To pave the internal flooring of the Study Hall with Canton floor tiles.
- (ix) Demolish the reinforced concrete structure and restore the two side chambers at the courtyard.
- (x) Dismantle, supply and install lightening system, conduits and cables for the Study Hall.

1.2.4 Some measured drawings showing the study hall are attached at Appendix III.

1.3 Name of Project Proponent

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

1.4 Location of Project

Chik Kwai Study Hall at Sheung Tsuen, Pat Heung, Yuen Long.

1.5 History of Chik Kwai Study Hall

1.5.1 Situated at Lai Uk Tsuen, Sheung Tsuen, Pat Heung, Yuen Long the Chik Kwai Study Hall was built before 1899 by Lai Kam Tai who was the significant clan leader of the Lais in Pat Heung. It was originally built for educating the youths in the area. Since the 1930s, it was also used as a venue for ancestor worship and communal functions.

1.5.2 Chik Kwai Study Hall is a typical Chinese building constructed of green bricks in a layout of two halls with a central courtyard in between. The impressive facade of the Study Hall is distinguished by the solemn granite-block wall base and the overhanging roof supported by granite beams and columns with ornamental brackets. The ornate roof ridge of the entrance hall is decorated with polychrome mouldings of

auspicious creatures and plants. Chik Kwai Study Hall was one of the finest examples of traditional study halls in Yuen Long.

- 1.5.3 The Study Hall was declared a historical building (a declared monument) on 4 May 2007. The property is owned by the Lai Tsoi Sin Tong and is still used for worship and celebrations of traditional festivals and ceremonies.

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\$ 4,500,000

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 who are responsible for funding the project and will also act as the building conservation adviser. AMO has engaged ArchSD as their works agent who will be responsible for project management, contract preparation and site supervision. The Lai Tsoi Sin Tong who are the owners of the Study Hall, will be consulted at all stages of the project.

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

2.2 Site Survey

2.2.1 A cartographic survey and conservation study of the Study Hall have been carried out to assess the heritage significance, to identify intervened areas and to recommend necessary conservation measures. Specification for the proposed scope of works has been prepared by ArchSD and agreed with AMO to ensure the conservation works are to comply with international conservation principles and standards. Any further environmental requirements specified in the environmental permit would be incorporated into the final specification and tender documents prior to tender action.

2.3 Method of Construction

2.3.1 As the work involves a historic building, extra care will be taken at all phases of the work. In particular, the temporary scaffolding will be provided to a high standard to ensure that all sections of the roof will be easily accessible for dismantling and no undue stress will be placed on any damaged materials.

2.4 Restoration of side halls

- 2.4.1 The side halls of the Study Hall, which is believed to be originally built with timber and brick, were altered considerably into two two-storey reinforced concrete structures. The two concrete side halls will be restored to its original design and building materials, in accordance with the findings of the conservation study.
- 2.4.2 Extra care and monitoring will be taken during demolition of the concrete side halls to facilitate further investigation on the original layout of the structures. The original granite columns, green brick and murals will be retained and protected for future incorporation into the restored side halls.

2.5 Repair of the Chinese Tiled Roof

- 2.5.1 Most of the timber members of the roof have been seriously infested by termite and replacement of defective timbers are required. The ridges should be supported with a jackable scaffold with sufficient lateral support to correct the rotation of the ridges. This scaffold should take the form of jackable steel scaffolding towers offered up to the soffit of the roof timber structure to hold the ridge in position whilst work on the roof takes place; this system will support the ridge whilst the ridge purlin is removed and a new one re-inserted. All the propping should be in place prior to the commencement of any internal or external works. Care must be taken not to damage the internal elements during the erection; this should include covering the floor with plywood sheeting and the provision of sole plates as necessary. Once the internal jackable scaffold is in position openings should be formed in the tiles about 1 meter on each side of the ridge, the scaffold should then be extended up through the openings to encompass the ridge.
- 2.5.2 Existing roofing tiles are to be carefully removed and stacked for reuse. New tiles and sound old tiles will then be reused for the retiling of the roof. New tiles will be of matching size, quality and colour to original. Sample of tiles is to be approved before ordering.
- 2.5.3 All new timber is to be the best of its kind, free from worm holes or other defects such as cracks and will be pre-treated with anti-termite solution before fixing in the roof structure.
- 2.5.4 During taking down of rotten or broken timber for replacement or repair, grave care is required to take out the built-in section so as not to damage the adjoining plaster work.

The Contractor may be required to cut the exposed part of the timber away first and carefully break down the built-in section into pieces by drilling (using only hand-held powered tools) before taking the section out.

- 2.5.5 All new timber is pre-treated by the timber-suppliers in their own workshops with approved preservative. Termiticide will be sprayed on the existing and salvaged timber to prevent termite infestation. The works will be conducted by a specialist termite contractor with great cares to avoid negative environmental impacts.
- 2.5.6 For replacing defected timber members with decorative carvings or restoring missing parts, only if considered necessary, a wood carver of profound skill in wood carvings should be sourced for producing the replacement components.

2.6 Replacement of Deteriorated Bricks

2.6.1 Deteriorated bricks include those cracked, broken bricks, and bricks with the hard surface skin worn away. Areas of missing or deteriorated bricks to be replaced by new or salvaged bricks shall be indicated on site to the Contractor by ArchSD and AMO.

2.6.2 Replacement of bricks shall be done by “piece-in” method as follows:

- (i) Areas identified to be replaced including deteriorated bricks, mortar/cement fillings or plaster should be completely taken out without affecting the neighbouring sound bricks.
- (ii) All existing mortar joint and pointing to be carefully removed to leave a tidy position to receive the piece-in bricks.
- (iii) Header and tie bricks adhered to both the inner and outer leave of the walls should be completely taken out even though only one side of it may be deteriorated or missing.
- (iv) The final surface over the replaced area should be flat in relation to the existing surface of the wall.
- (v) Bricks used for piece-in repair should be in one complete piece with similar colour and dimensions as the existing neighboring bricks and should be laid in the same pattern as the existing.

2.7 Implementation Programme

The tentative implementation programme is as follows:

- ◆ Pre-contract preparations
(i.e. Design, Tender Documents, EIAO, etc) Aug 2007 to Dec 2007
- ◆ Award of tender and handover of site to main contractor Feb 2008
- ◆ On-site works Period Mar 2008 to Oct 2008

3. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

- 3.1 There are no other declared monuments in the area, the nearest declared monument in Pat Heung area is Leung Ancestral Hall which is more than 500 meters away from the works site. A grade III historic building, namely Lai mansion, is located about 18 metres to the west of the Study Hall.
- 3.2 The surrounding area is mainly the abandoned agricultural fields and scattered with low-rise residential village houses, the nearest cluster being approximately 2m to the north of and a few numbers about 10 meters to the south-west of the Study Hall. These blocks are considered to be sensitive receivers.
- 3.3 The Study hall is about 150 metres from the main road, Kam Sheung Road. There is a feeder road serving the Lai Uk Tsuen to the Kam Sheung Road, the daily traffic usage of the feeder road is very low.

4. POSSIBLE IMPACTS DURING CONSTRUCTION PHASE

4.1 Cultural Heritage

- 4.1.1 In this project, the damaged portions of the roofs of the Study Hall will be carefully taken down and replaced by compatible materials. Special care and attention will be paid for maintaining the historic values of the Study Hall; therefore all building and painting works are to be carried out in a careful and skilled manner by a specialized contractor, which will be subject to a high level supervision by 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 18 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 demolition of later interventions to the Study Hall. The works is restricted to use of hand-held tools and equipment in order to avoid any physical vibration to the building. Conditions have been included in the Specification regarding the proposed method of removing the old roof tiles and timber to prevent damage to persons or property on the site.

4.2 Noise

4.2.1 The closest distance between the site and the nearest cluster of residential blocks is about 3m, 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 construction work is expected to be minimal since the demolition of the side chambers and brickwork repairs is relatively in small scale and will be carried out by either hand-held power tools or hand-held manual tools. The amount of dust generated is expected to be low and in very short duration. It will be controlled with good site management as well as dust reduction measures that are incorporated in the specification.

4.4 Traffic Impacts

4.4.1 Lorries are required to transport construction wastes from site and the construction materials including timber, bricks, building waste, etc. to the site. It is expected to be infrequent. Traffic impacts on the Kam Sheung Road and the feeder road to the Study Hall 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 40 cubic metres of construction and demolition waste (C&D waste) may be produced, including cement mortar, roof timbers, roof tiles and wall plaster. Any sound roof tiles and roof timbers should be retained on-site for reuse after inspection by experts from ArchSD and AMO. 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 1 litre in total.

4.6 Spoil Water

- 4.6.1 Spoil water is likely to be generated from washing down the brick walls, granite columns and the floors 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 100 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 either within the project site or close enough to the 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 Chik Kwai Study Hall 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 All works to be carried out shall match the original design and care has to be taken to trace from the existing building what the original construction should be or should have been, including materials, dimensions and colours etc.
- 5.2.2.2 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 Arch S D and AMO before use.
- 5.2.2.3 The Contractor is required to employ experienced craftsmen and artists to reconstruct missing or damaged or deteriorated elements of the building where no similar elements can be found.
- 5.2.2.4 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.
- 5.2.2.5 The record shall contain the types of materials used (including common names and technical names), area of application, mix proportion, method of mix, method of application etc., to allow future maintenance with the same materials and methods.

5.3 Noise

- 5.3.1 Demolition of the existing roof and side chambers 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. 3m 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 demolition works during the taking down of the roof and side chambers and during brick wall repairs. In addition, the Air Pollution Control (Construction Dust) Regulation will be strictly followed and monitored. The following mitigation measures will be carried out:

- (i) Avoid free falling of debris while roof material is being removed and dismantled. Baskets or similar containers shall be used to carry such material from the roof to ground level for proper disposal.
- (ii) Regularly dampen the floor with clean water to avoid spread of dust during the hacking-up and removing of the existing floor finishing.
- (iii) Spray the debris with clean water so that it remains damp before it is carted away. In addition, water will be continuously sprayed on the surface where any drilling, cutting or other small-scale breaking operation is carried out by using hand-held power tools.

5.5 Solid Waste

- 5.5.1 About 40 cubic metres of C&D waste would be produced from the demolition or site clearance (i.e. broken clay tiles, roof timber, old clay bricks, cement mortar, plaster, 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 brick walls, columns and the floor as well as carrying out small scale brickwork repair, 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	Enhance the physical condition and heritage value of the Study Hall	Beneficial and long term enhancement	Project Site only	Long-term
Noise	Noise nuisance from demolition, repair and clearance works	Minimal and short	Project Site only	About 6 months
Air Quality	Dust generated from demolition works and construction activities	Minimal and short	Project Site only	About 6 months
Solid Waste	Handling and disposal of about 40m ³ of demolished building material	Minimal and short	Project Site only	About 6 months
Water Quality	Discharging approx. 100 litres of spoil water into drains with appropriate filtering process	Minimal and short	Project Site only	About 6 months
Traffic	Lorries to and from work site	Minimal and infrequent	Kam Sheung Road	About 6 months

5.8 Public Consultation

- 5.8.1 Regular progress meeting will be held among the managers of Lai Choi Sin Tong, the villagers of Lai Uk Tsuen, ArchSD, AMO and the Contractor. As the Study Hall will become one of the important spot for heritage tourism at Pat Heung, the Contractor will be urged to complete the project on time.
- 5.8.2 The local villagers have long urged the government to undertake this project and therefore strongly support its urgent completion. It is also understood that they are willing to tolerate reasonable disturbance during the construction period providing the level is minimal and appropriate mitigation measures will be adopted.
- 5.8.3 The Antiquities Advisory Board have been informed of the proposed project.

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 In 2006 and 2007, similar projects were carried out for the Tang Chung Ling Ancestral Hall and the Tin Hau Temple at Lung Yeuk Tau, Fanling, and the Tang Ancestral Hall in Ping Shan.

6 USE OF PREVIOUSLY APPROVED EIA REPORTS

- 6.1 There are no previously approved EIA reports concerning this building that can be referred to. Yet, the Project Profiles, namely “Major repair to Tang Chung Ling Ancestral Hall, Lung Yeuk Tau, Fanling (Environmental Permit No. EP-199/2004)”, “Major Repair to Tang Ancestral Hall, Ping Shan (Environmental Permit No. EP-193/2004)” and “Major Repair to Tin Hau Temple at Lung Yeuk Tau (Environmental Permit No. EP-214/2005)” were approved and we were allowed to apply for an environmental permit directly. As the above-mentioned projects involve similar repair and restoration works to traditional Chinese Declared Monuments, the previously approved documentations were referred to in preparing this Project Profile.

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 repair and restore the Study Hall, while preserving the historic relics and enhancing its cultural significance. 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 repair 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 Study Hall back into good maintenance condition in

order to facilitate the religious practices and village activities organized by the Lai clan. As the Study Hall is one of the important historic buildings in Pat Heung area, its restoration will help to promote cultural tourism and heritage education in Hong Kong.

- 7.4 The environmental impact arising from the project is not considered to be adverse, but on the contrary is considered to be beneficial, both for the building itself and for the surrounding environment. For this reason an application for permission to apply directly for an environmental permit under EIA Ordinance is therefore requested.



Plate 1 The front elevation of the Chik Kwai Study Hall. Temporary propping has been erected by AMO.



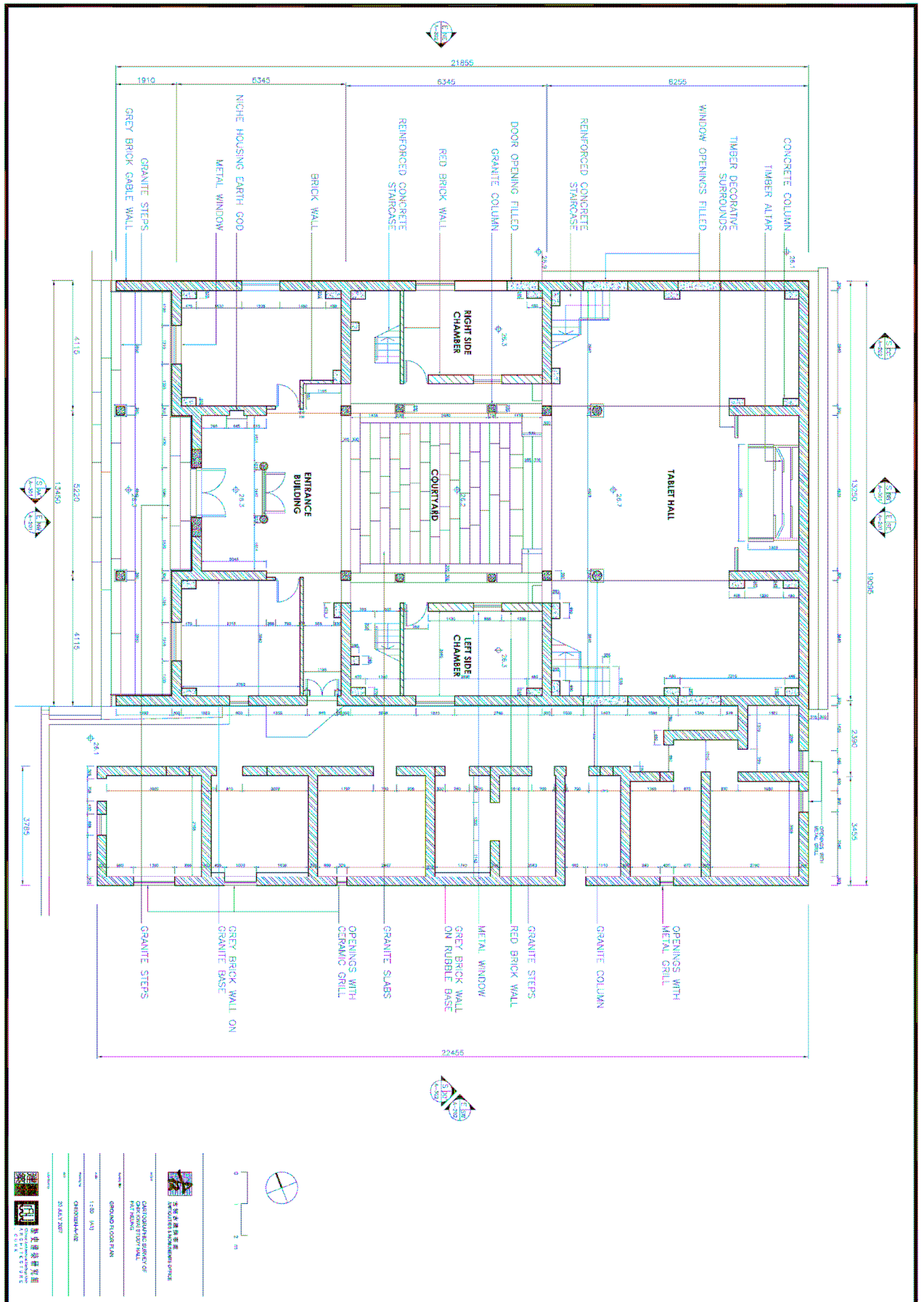
Plate 2 Purlins in the Study Hall have been infested by termite.

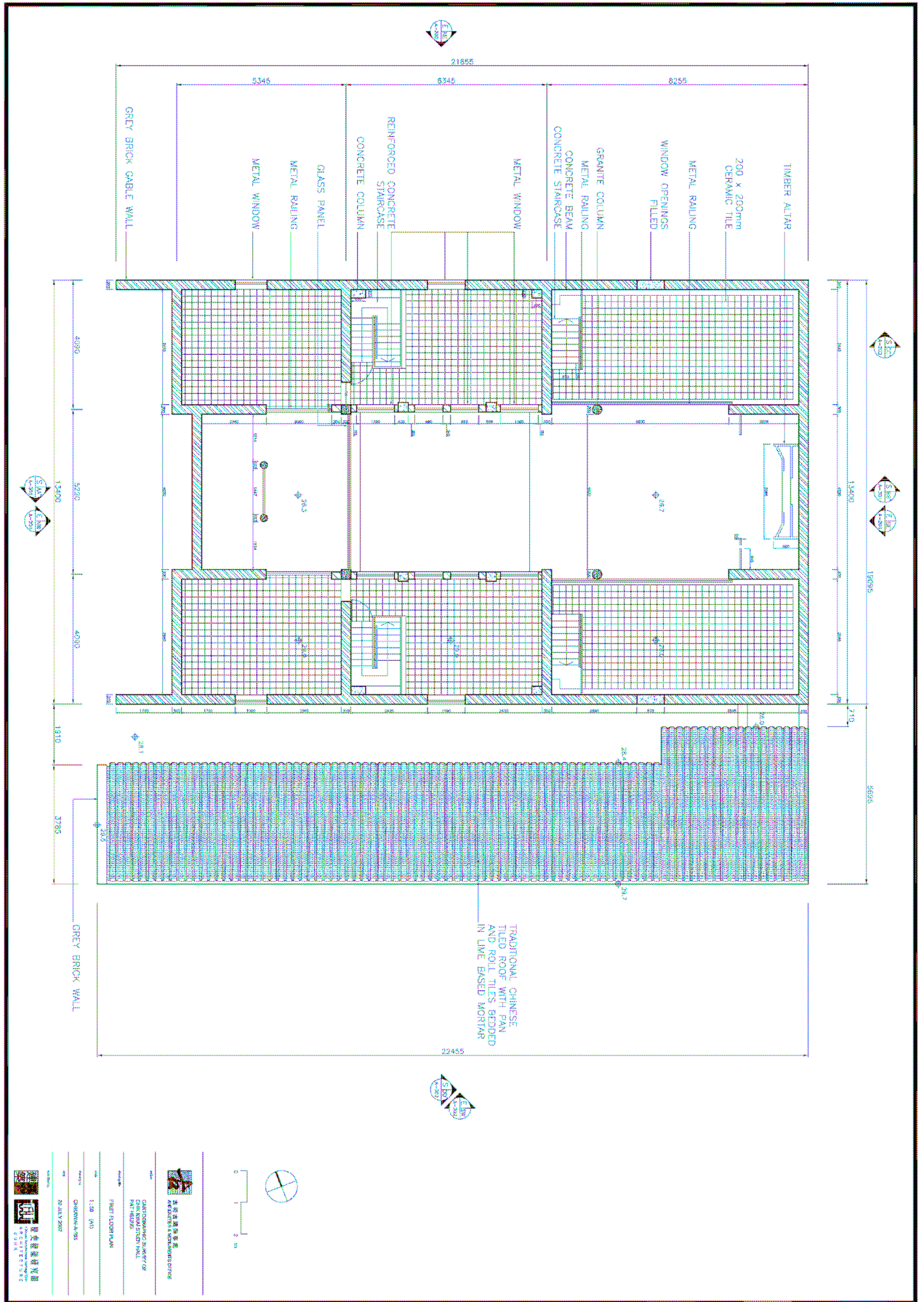


Plate 3 Stucco mouldings on ridges and gables walls are fading.



Plate 4 Conservation treatment to historic murals throughout the building is required.







 香港古物及古蹟辦事處

 ANTIQUITIES AND MONUMENTS OFFICE

 CHIAO KWAI STUDY HALL OF PAT HEUNG

 FIRST FLOOR PLAN

 DATE: 1.28.2010

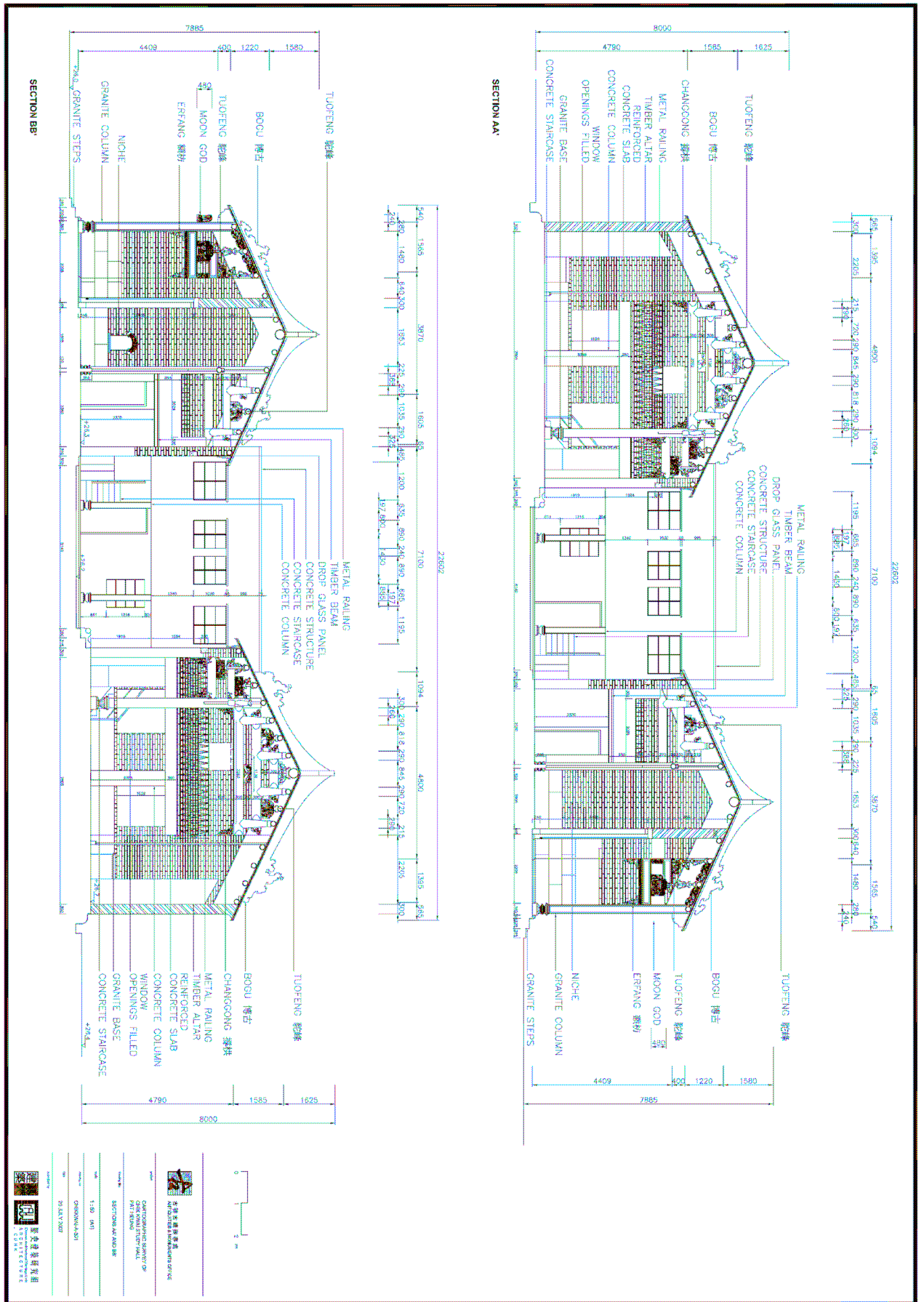
 DRAWN BY: CHOW WAI LEE

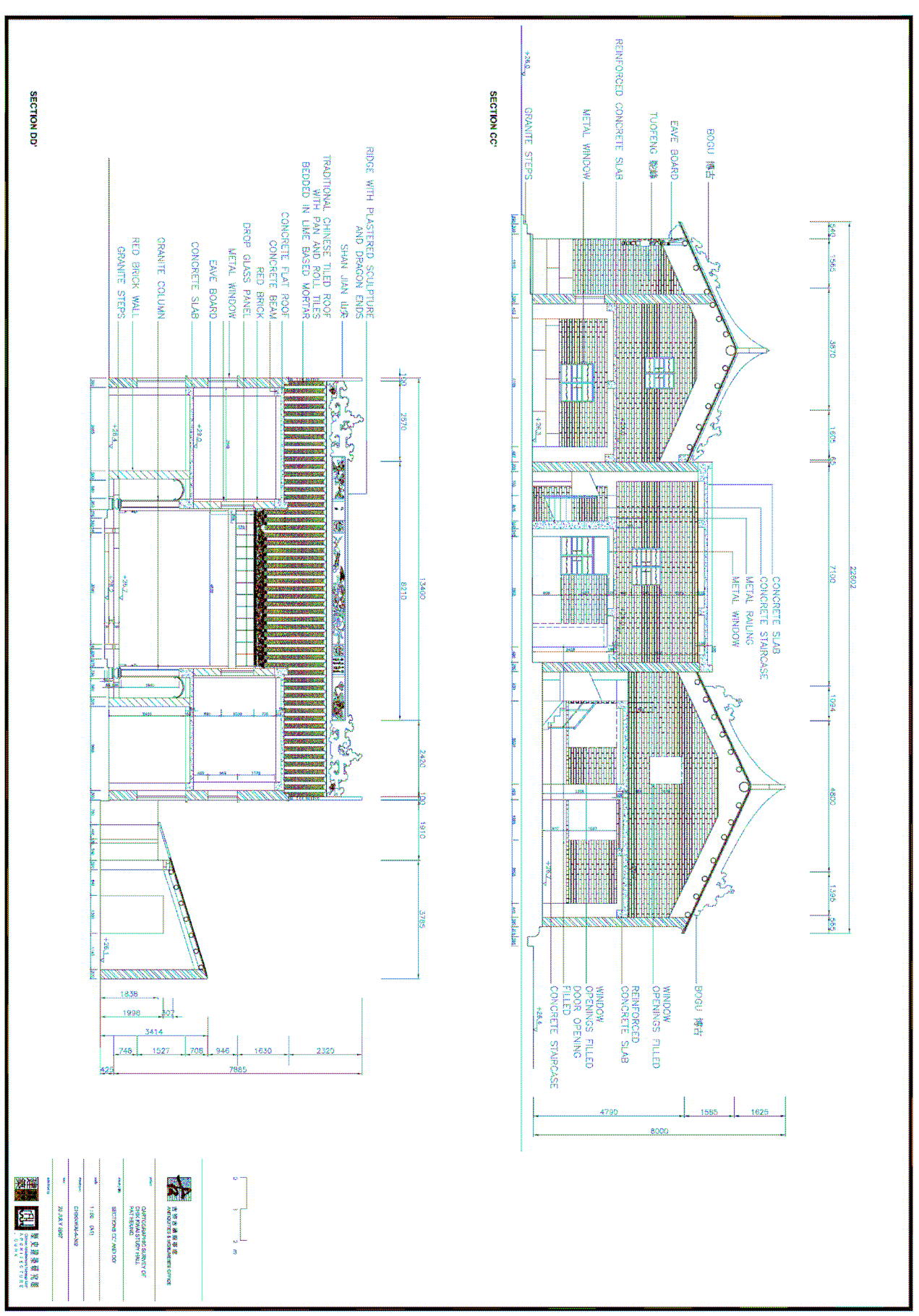
 DATE: 20 JULY 2009



 香港古物及古蹟辦事處

 ANTIQUITIES AND MONUMENTS OFFICE





SECTION DD

SECTION CC



 古物及古蹟辦事處
 ANTIQUITIES AND MONUMENTS OFFICE



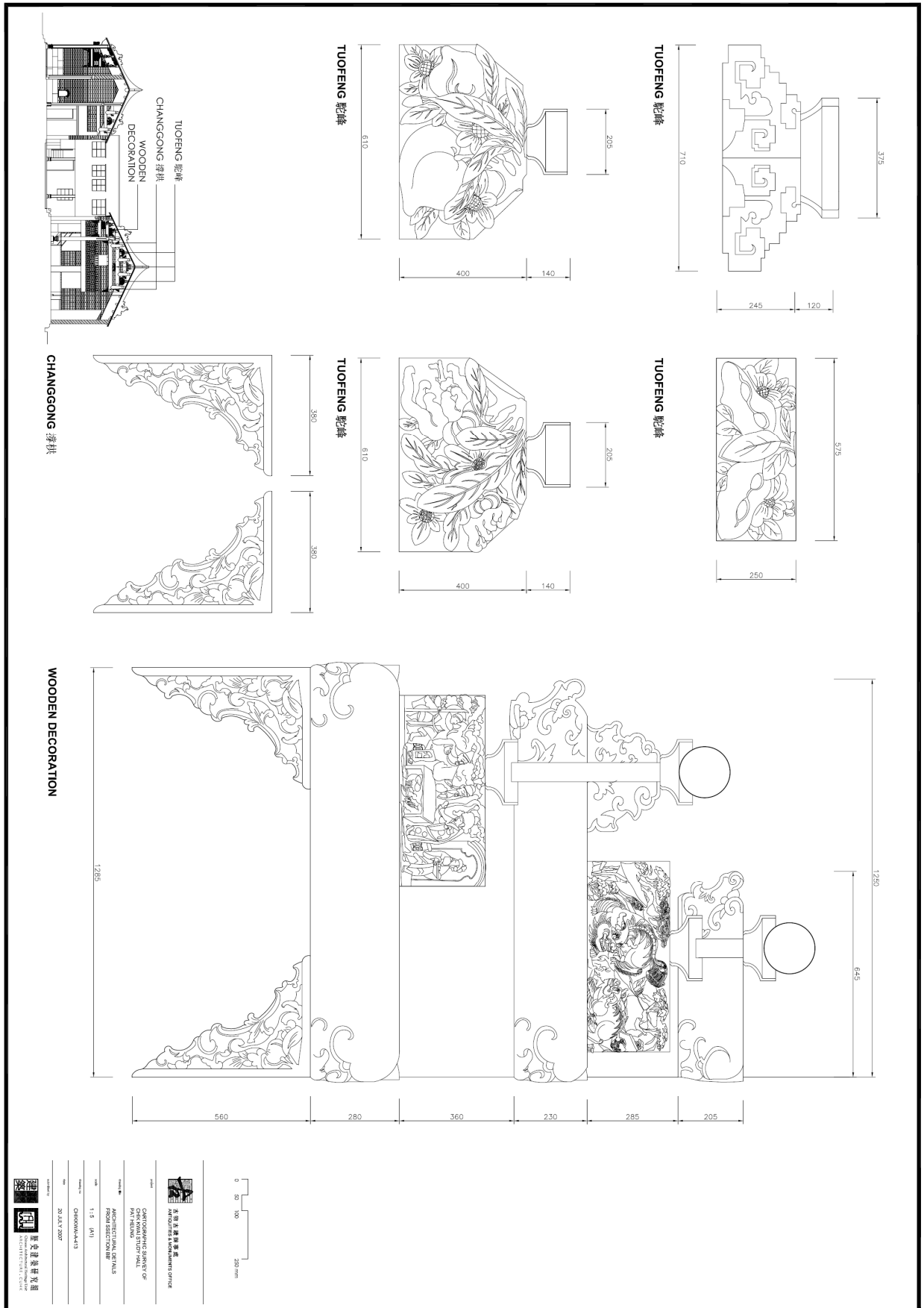
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 ARCHITECTURAL SERVICES DEPARTMENT

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 SECTION CC AND DD
 CHIK KWAI STUDY HALL
 20 JAN 2007



 香港中文大學
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 古物及古蹟辦事處
 ANTIQUITIES AND MONUMENTS OFFICE

PROJECT: CARICACIOUS SKETCH OF CHIK KWAI STUDY HALL, PAT HEUNG
 ARCHITECT: ARCHITECTURAL DESIGN DETAILS FROM DESIGN 988
 DATE: 1:8 (A1)
 DRAWN BY: CHIKWAI-K13
 DATE: 20 JULY 2007


 0 50 100 200 mm


 古物及古蹟辦事處
 ANTIQUITIES AND MONUMENTS OFFICE

Summary of Mitigation Measures						
Project Profile Sections	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the Measure(s)	Location of the Measure	When to implement the measure?	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 Chik Kwai Study Hall is a declared monument, permit will be obtained from the Antiquities Authority before any works may commence on-site	ArchSD and AMO	Chik Kwai Study Hall at Sheung Tsuen, Pat Heung	Before the commencement of the project	Antiquities and Monuments Ordinance (Cap.53)
5.2.2.1	Works carried out shall match the original design	To preserve the historical and architectural significance of the Study Hall	Contractor	Site area	During the construction period	---
5.2.2.2	All colours for painting and materials employed must be approved by the ArchSD and AMO	To preserve the historical and architectural significance of the Study Hall	ArchSD and AMO	Site area	During the construction period	---
5.2.2.3	Employ experienced craftsmen and artists	To preserve the historical and architectural significance of the Study Hall	Contractor	Site area	During the construction period	---
5.2.2.4 & 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 a.m. 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 (i)	Use basket and the like to carry debris from the roof to ground level for disposal.	To minimize the dust problem created by the demolishing works	Contractor	Site area	During the construction period	Air Pollution Control (Construction Dust) Regulations
5.4.1 (ii)	Regularly dampen the floor	To avoid spread of dust during the hacking-up of and removing of floor finishes.	Contractor	Site area	During the construction period	Air Pollution Control (Construction Dust) Regulations

5.4.1 (iii)	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