MTR Corporation Limited
香港鐵路有限公司
www.mtr.com.hk

The EIA Ordinance Register Office,
27th Floor, Southorn Centre,
130 Hennessy Road,
Wanchai,
Hong Kong

Attention: Mr. Victor Yeung

Your ref :

Our ref: C/HSD/WIL/E1007
#0910122

16 October, 2009

Dear Mr. Yeung,

MTR West Island Line
Environmental Permit No. EP-313/2008C
EP Condition 2.11.1: Archaeological Watching Brief Proposal

In compliance with WIL EP Condition 2.11.1, I enclose herewith 6 hard copies and one electronic copy of the Archaeological Watching Brief Proposal Rev B incorporating AMO's comments shown in your letter dated 12 October 2009 which has been certified by the ET Leader and verified by the IEC.

Yours sincerely,

Richard Kwan
Manager-Environmental

Encls.

RK/EL/bl

Direct Tel: 2688-1179
Direct Fax: 2993-7577

MTR Corporation Limited

West Island Line Project

Archaeological Watching Brief Proposal (Rev B)

Deposited by: _____

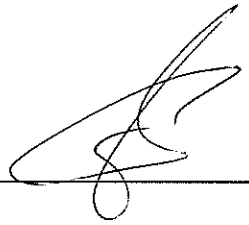
Position: Qualified Archaeologist

Date: 16 October 2009

MTR Corporation Limited

West Island Line Project

Archaeological Watching Brief Proposal (Rev B)

Verified by: 

Position: Independent Environmental Checker

Date: 15 October 2009

MTR Corporation Limited

West Island Line Project

Archaeological Watching Brief Proposal (Rev. B)

Certified by: Glenn Fromm

Position: Environmental Team Leader

Date: 15 October 2009

West Island Line
Revised Proposal for Archaeological Watching Brief

1. Introduction

The Final EIA Report (ENSR 2008), prepared for this project under Agreement No. NEX/1023, identified that the proposed West Island Line extension of the MTR rail network would pass through some areas with the potential to produce archaeological remains associated with the 19th- and early 20th-century development of Hong Kong Island or earlier activity along the pre-reclamation coastline. Nine works sites, namely Areas C, H, I, J, J1, J2, J3, M and M2 (see Figure 1), were thus identified and all will need to be covered by archaeological watching brief during the construction phase of the project (see Appendix B's general *Methodology for Archaeological Watching Brief* and Appendix C's *Specification for Archaeological Watching Brief*).

2. Background to the Study Area

2.1 History

The project Study Area stretches from Mount Davis in the west, on through Kennedy Town and east as far as Sai Ying Pun, thus including parts of the historic core of the early colony, but also crossing areas of the earlier, pre-reclamation coastal strip with the potential for earlier historic and prehistoric remains .

2.1.1 Reclamation

When the British arrived in 1841, the northern shore of Hong Kong Island within the Study Area consisted of a narrow coastal strip hemmed in by mountains. The future development and prosperity of the area was therefore similarly restricted unless more space could be provided through coastal reclamation. As the sections below will explore, the early development of the districts affected by this project was closely linked to a succession of coastal reclamations, which are clearly recorded in the geological map (see Figure 2). The earliest reclamations date to the 1860s, but the process continued in the area into the mid-20th century (Strange 1986). The use of the term "original coastline" in the following sections refers to the coastal landform that existed before reclamation.

2.1.2 Kennedy Town

Kennedy Town was named after Sir Arthur Kennedy, who was Governor of Hong Kong from 1872 to 1877 (Rodwell 1992). The area was originally known as West Bay or Rubbish Bay (from the local inhabitants' use of the area for rubbish disposal).
The growth of Kennedy Town was closely linked to reclamations and the area developed as a Chinese commercial and residential area during the 1870s and 1880s (HK Museum of History 1994). The old main street in Kennedy Town was Belcher Street, which was constructed between 1871 and 1890. Other streets in Kennedy Town also dating to this period include Chater Street (currently Catchick Street), Cadogan Street and Davis Street (Cheng 2000). The photograph in Figure 3 was taken in 1910 and shows what was then Chater Street with the Kennedy Town abattoir on the left.

2.1.3 Shek Tong Tsui

This area was originally a granite quarry used by Hakka stonecutters who, prior to 1841, were based in Kowloon. Development in the area was much slower than in neighbouring Sai Ying Pun, but Queen's Road West was constructed between 1841 and 1850 and Hill Road between 1871 and 1890 (Cheng 2000). A market was constructed at the junction of Hill Road and South Lane in 1875 (see photograph dating to 1910 in Figure 4 and map of 1889 in Figure 5) and the site continued in use as a market until the late 20th century (Empson 1992; Cheng 2000). In the first part of the 20th century, Shek Tong Tsui gained notoriety as a red light district but declined after the prohibition of prostitution in 1935 (HK Museum of History 1994).

2.1.4 Sai Ying Pun

Sai Ying Pun was a sparsely settled area at the time of the British arrival, but developed quickly thereafter. A coastal path, which pre-dated the British arrival in 1841, was eventually widened and improved to become Queen's Road (Smith 1995).

The early British occupation of the area comprised a mixture of military and mercantile interests. It is recorded that a three-gun battery was located just west of a stream (now followed by Water Street) at West Point and barracks were constructed all the way up the hillside to what is now Bonham Road (Smith 1995). The government began the division of Sai Ying Pun into lots, with the first land sale reserved for the government, as early as 1842. It is likely that the government wished to be able to call upon the reserved lots for additional Naval Stores, if and when they might be required. In 1874 the Government Civil Hospital was opened on the hill to the rear of Queen's Road. On the 1889 map, the hospital is shown with associated fever and smallpox wards to its rear down the east side of Eastern Street (See Figure 6).

2.2 Archaeology

There are no known archaeological sites and there have been no previous archaeological investigations conducted within the project Study Area. The archaeological interest in the Study Area therefore relates to the possible remains of structures associated with the early development of the British colony and/or any earlier remains connected with prehistoric to Qing Dynasty activity along the original coastline. The sites of two historical structures fall within proposed development areas, namely: Shek Tong Tsui Market in Site J (see Figure 5) and the Smallpox Ward of the Government Civil Hospital in Site M (see Figure 6).

3. Review of Archaeological Potential

The following table reviews and updates the information presented in the CHIA desk-top study to present in tabular form a more detailed assessment of the archaeological potential of the nine watching brief sites. In the absence of detailed information concerning the depth of cultural deposits and the likely rate at which such material will be removed, it is presently impossible to reliably estimate either the overall duration of contractor's groundworks in the upper layers (with archaeological potential) or the corresponding numbers or overall duration of monitoring visits likely to be required in each site/area. Instead, three relative monitoring frequencies appropriate to the archaeological potential of each site/area are suggested. Based on a five day working week the three frequencies can be expressed as follows:

very low potential – a minimum of one half day monitoring visit per two weeks of groundworks in layers with archaeological potential (equivalent to a 5% sample); low potential – a minimum of one half day monitoring visit per week of groundworks in layers with archaeological potential (equivalent to a 10% sample); and moderate potential – a minimum of two half day monitoring visits per week of groundworks in layers with archaeological potential (equivalent to a 20% sample). The archaeologist should ensure that monitoring in each works area provides at least the agreed minimum coverage in terms of time/area and a good spatial sample across the site footprint.

The table below should be read in conjunction with the geological map in Figure 2 and enlarged site location maps shown in Figures 7-9.

Works Site	Geology & Topography	Existing Impacts	Archaeological Potential	WB Monitoring Frequency
C	Situated on solid geology in the form of coarse ash crystal tuff and beside an area of Quaternary debris flow deposits. In terms of the pre-reclamation topography of the area, the site is situated close to the original shoreline.	Site is currently occupied by a playground, roads and modern buildings. Although there will have been some disturbance caused by the construction of these latter elements to any buried archaeological resources present, there is no evidence of extensive utility provisions in the area.	Based on the probable degree of disturbance, the site's proximity to the original coastline, and the area's history: the site is considered to have **low archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **one half day site visit per week (10% monitoring sample)**
H	Located at the eastern end of Belcher's Bay on a former coastal promontory with solid geology comprising a mixture of coarse ash tuff and sandstone. Landform now completely masked by reclamations, but would originally have been a	Site is currently occupied by an access road leading into The Belcher's residential development and there will have been some impacts to any archaeological resources in the area from the associated construction groundworks. The level of impact from modern utilities in the area is at present unknown.	Based on the probable degree of disturbance, the site's proximity to the original coastline, and the area's history: the site is considered to have **low archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **one half day site visit per week (10% monitoring sample)**

	prominent location, around 50m from the sea with wide views along the coast.			
I	Site runs across a lower hill slope some 150m south of the original coastline, and the underlying geology consists of medium grained granite and Quaternary debris flow deposits.	Site is currently occupied by the junction of an elevated minor road with Pok Fu Lam Road and there will have been some impacts to any buried archaeological remains present from associated construction groundworks as well as utility provision to the area.	Based on the probable degree of disturbance, the site's location on a steep hillside, and the area's history: the site is considered to have **very low archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **one half day site visit per two weeks (5% monitoring sample)**
J	On Quaternary debris flow deposits in a lower hill slope location, around 100-150m south of the original coastline	Site is occupied by the Hill Road Rest Garden and part of the carriageway and footpaths of Hill Road. The construction and maintenance of the road and structural elements of the Garden, as well as utility provision to the area, will have caused some disturbance to any buried archaeological resources in the site.	The site was formerly occupied by Shek Tong Tsui Market, first constructed in 1875 (Cheng 2000), but a market is recorded on the site in maps well into the 20th century. Based on the probable degree of disturbance, the site's proximity to the original coastline and the area's known historical usage: the site is considered to have **moderate archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **two half day site visits per week (20% monitoring sample)**
J1	On Quaternary debris flow deposits in a lower hill slope location, around 100-150m south of the original coastline	Site is occupied by part of the carriageway and footpaths of Hill Road. The construction and maintenance of the road, as well as utility provision to the area, will have caused some disturbance to any	Based on the probable degree of disturbance, the site's proximity to the original coastline, and the area's history: the site is considered to have **low archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **one half day site visit per week (10%**

		buried archaeological resources in the site.		**monitoring sample)**
J2	On Quaternary debris flow deposits in a lower hill slope location, around 100-150m south of the original coastline	Site is located between Clarence Road and Queen's Road West and comprises a level open area with a public toilet (to be demolished), which appears to have been terraced into a cut slope. There will have been some disturbance to any archaeological resources present caused by construction groundworks and utility provision.	Based on the probable degree of disturbance, the site's location on a hillside, and the area's history: the site is considered to have **very low archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **one half day site visit per two weeks (5% monitoring sample)**
J3	Site is positioned on a quite steep hillside some 300m inland of the original coastline in an area of medium grained granite and Quaternary debris flow deposits.	Site adjoins Pok Fu Lam Road on its south side and is currently a vehicular access to the University of Hong Kong. There will have been some disturbance to any buried archaeological resources present caused by construction groundworks for the road and utility provision to the area.	Based on the probable degree of disturbance, the site's location on a steep hillside, and the area's history: the site is considered to have **very low archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **one half day site visit per two weeks (5% monitoring sample)**
M	Site is in a lower hill slope position, roughly 100m south of the original coastline, and on medium grained granite and Quaternary debris flow deposits.	Site is located within the bounds of the KGV Memorial Park in an area presently used as a garden and basketball court. There will have been some disturbance to any buried archaeological remains present during construction groundworks for the park and in relation to utility provision to the area.	The area includes the site of the former Smallpox Ward (mapped in 1899) of the Public Hospital (opened in 1874). Despite the probable degree of disturbance, a combination of the site's proximity to the original coastline and the presence of known historical structures are considered to give the site **moderate archaeological potential.**	An initial site visit (on completion of site clearance) followed by a minimum of **two half day site visits per week (20% monitoring sample)**
M2	Site is located	Site is located on the	Given the probable	An initial site

	in a lower hill slope area some 100m back from the original coastline in an area of Quaternary debris flow deposits which, in the northern half of the site, appear to have been overlain with artificial fill when the area was levelled-up for development.	western side of Centre Street and is presently an open sitting-out area. Any buried archaeological resources in the area would have been impacted upon by past development groundworks in the area, although the level of utility provision to the site is unknown.	degree of disturbance, the site's proximity to the original coastline and the area's history it is considered to have **low archaeological potential.**	visit (on completion of site clearance) followed by a minimum of **one half day site visit per week (10% monitoring sample)**

4. References

Cheng P H (Ed.) 2000 *A Century of Hong Kong Roads and Streets*, Joint Publishing (H.K.) Ltd, Hong Kong.

Empson H. 1992 *Mapping Hong Kong: A Historical Atlas*, Government Information Services, Government Printer, Hong Kong

Hong Kong Museum of History 1994, *City of Victoria: A Selection of the Museum's Historical Photographs,* Urban Council of Hong Kong: Hong Kong

Rodwell S. 1992 *A Visitor's Guide to Historic Hong Kong*, The Guidebook Company Limited/ Hong Kong Tourist Association: Hong Kong

Smith C. 1995 *A Sense of History: Studies in the Social and Urban History of Hong Kong*, Hong Kong Educational Publishing Company: Hong Kong.

Stanford's Geological Establishment 1889 *Plan of the City of Victoria Hong Kong*, 1:1,920 scale map, Stanford's Geological Establishment: London.

Strange P. 1986 *Hong Kong and Kowloon Sheet 11 Solid and Superficial Geology Series HGM20 Edition I – 1986*, Geotechnical Control Office, Civil Engineering Services Department: Hong Kong.

Appendix A: Supporting Illustrations

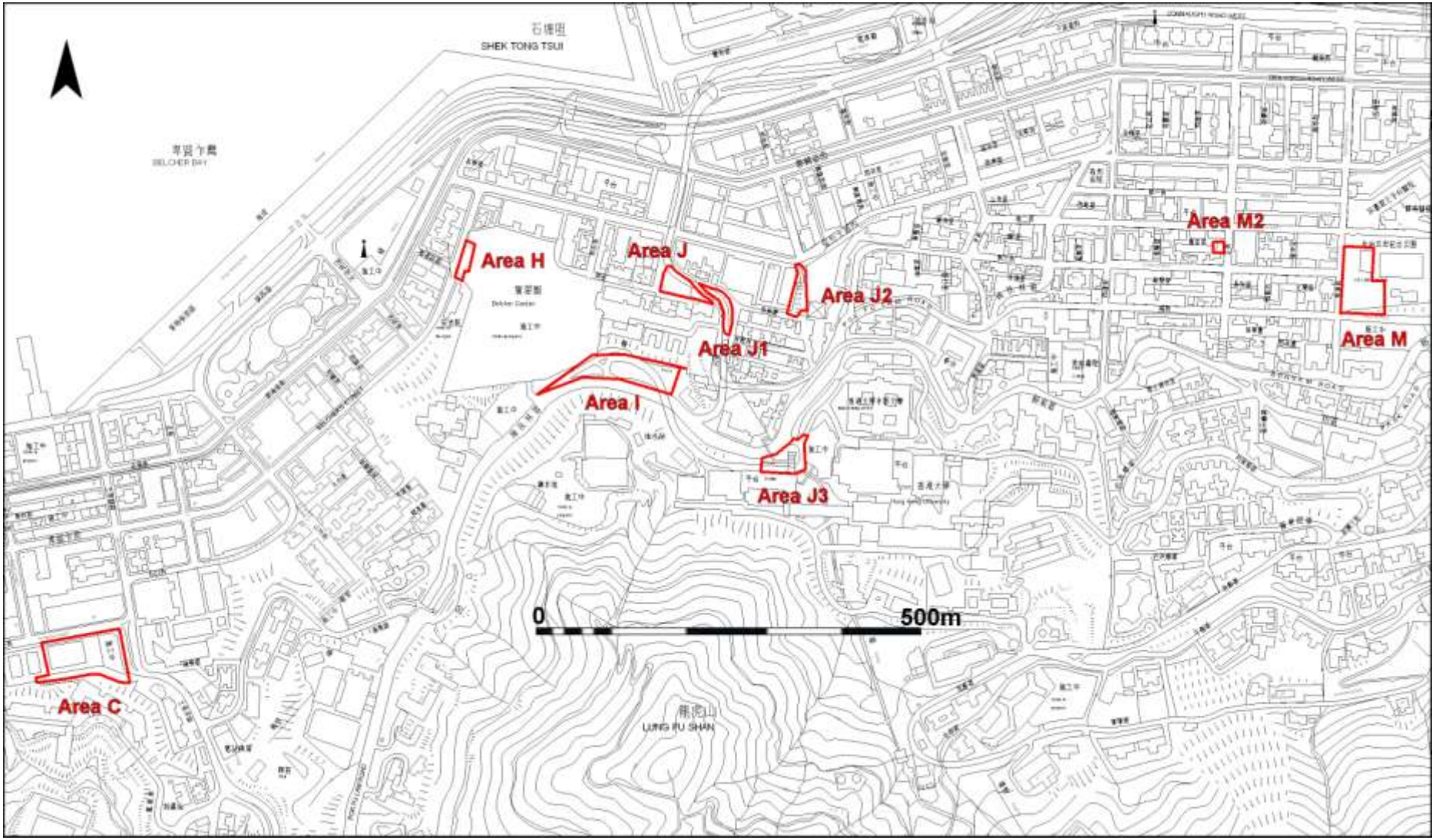


Figure 1: Nine works sites requiring watching brief

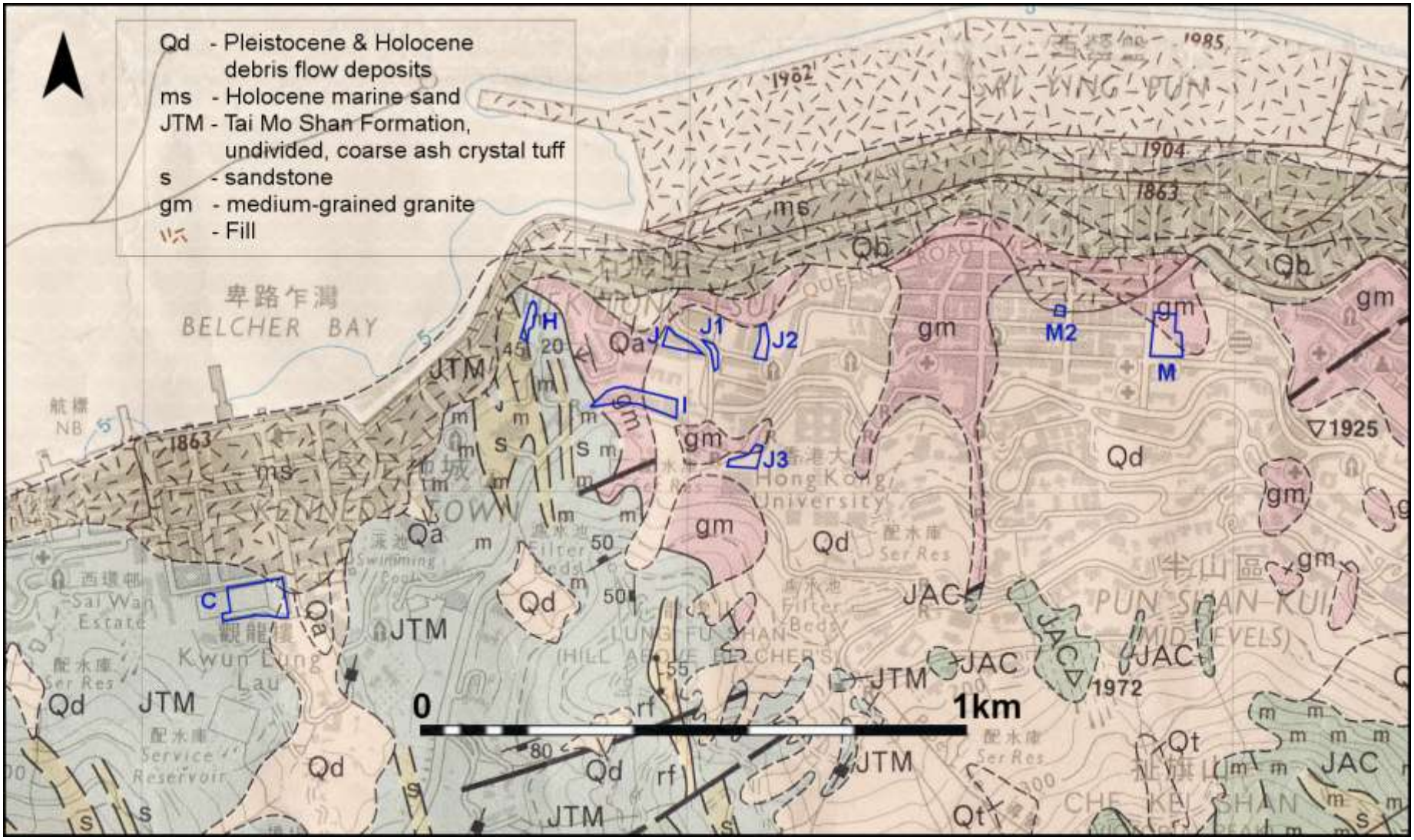


Figure 2: Study Area geology with nine watching brief sites highlighted

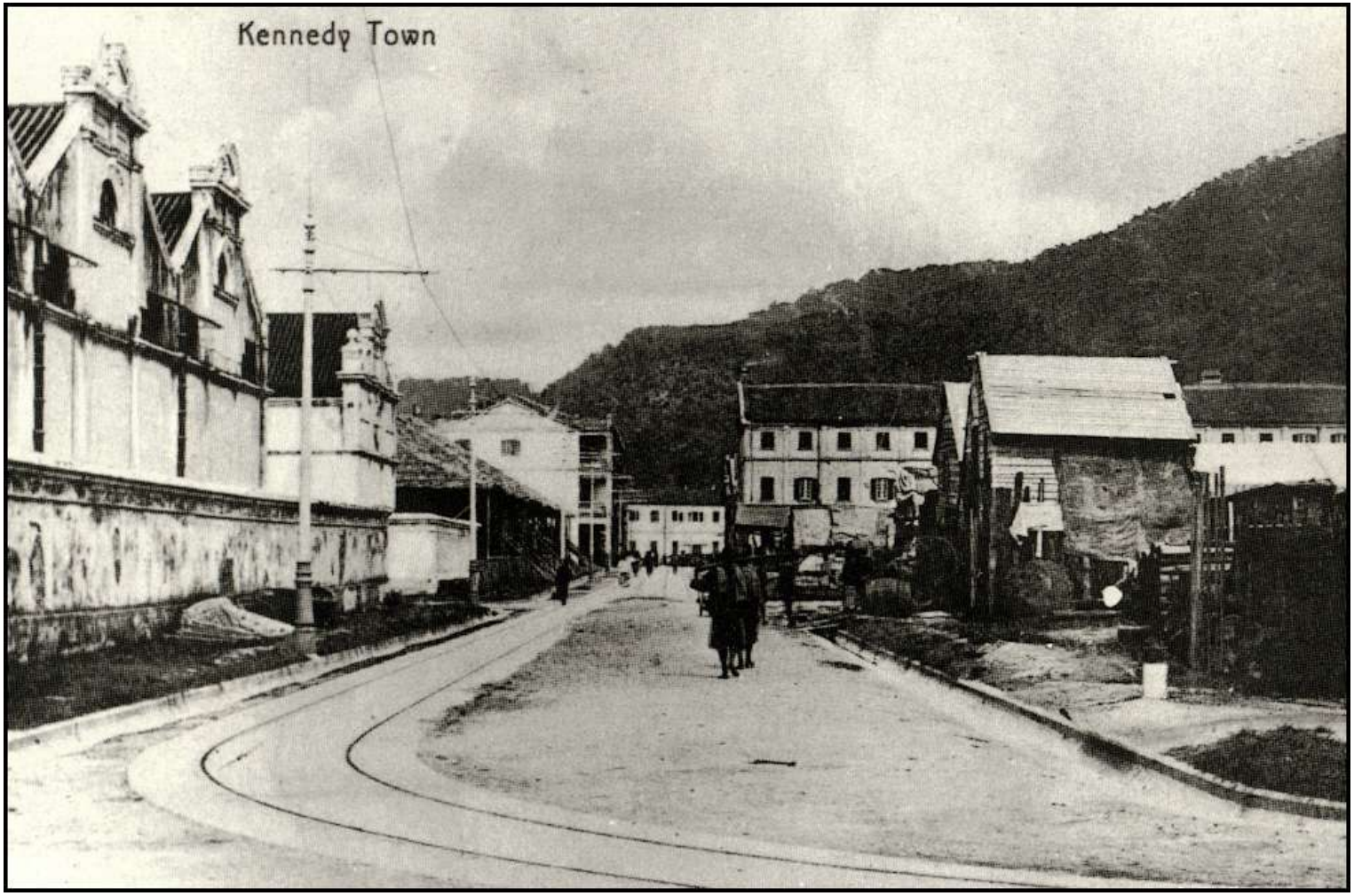


Figure 3: View along Chater Street (now Catchick Street) taken in 1910 – with Kennedy Town abattoir on left (Hong Kong Museum of History 1994)

Figure 4: View along Hill Road c.1910 with Shek Tong Tsui Market to the left and the Leun Shing Hotel in the centre background (Cheng 2000)

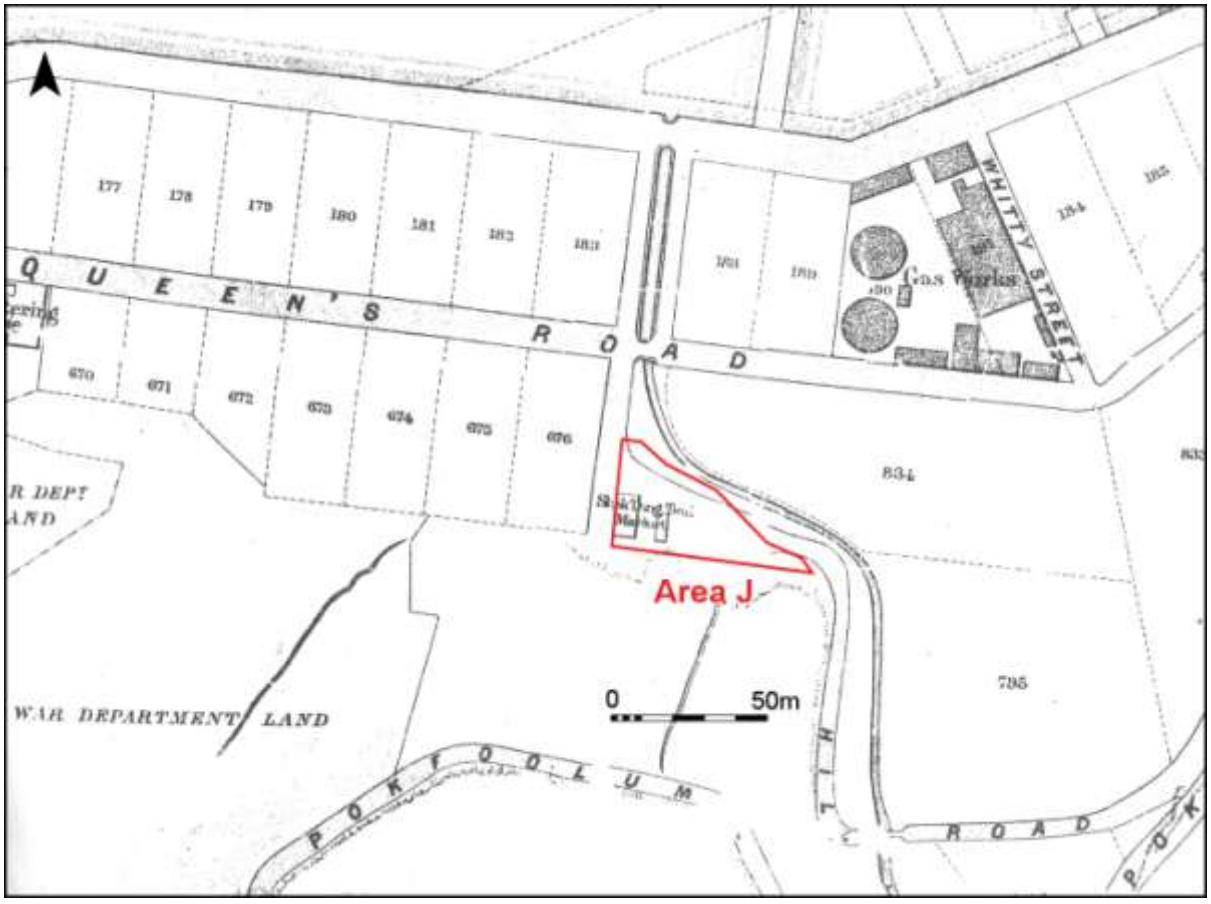


Figure 5: 1889 map showing the original Shek Tong Tsui Market buildings in the south-west corner of Works Area J (Stanford's Geological Establishment 1889).

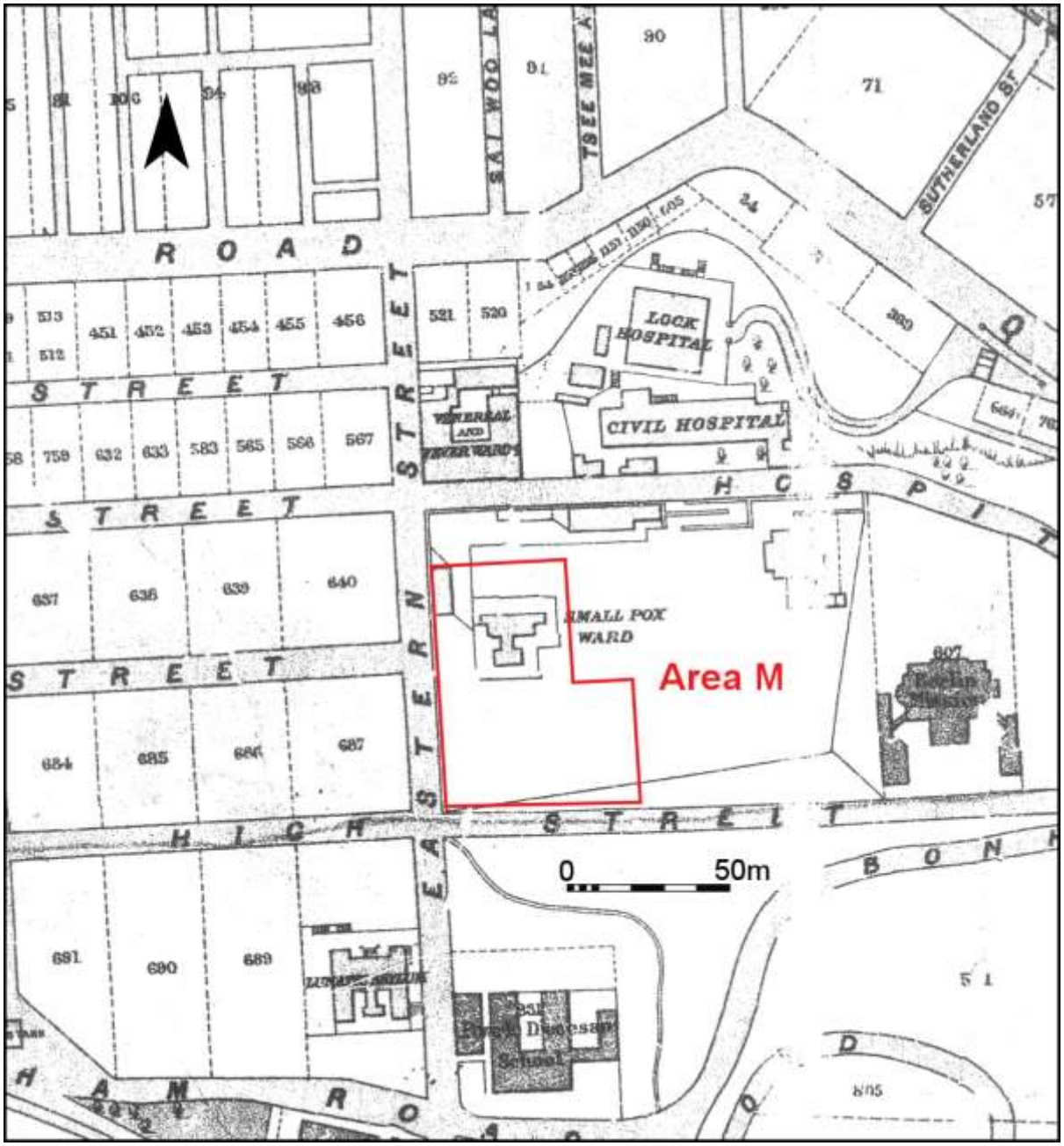


Figure 6: 1889 map showing the Smallpox Ward of the Government Civil Hospital in Works Area M (Stanford's Geological Establishment 1889).

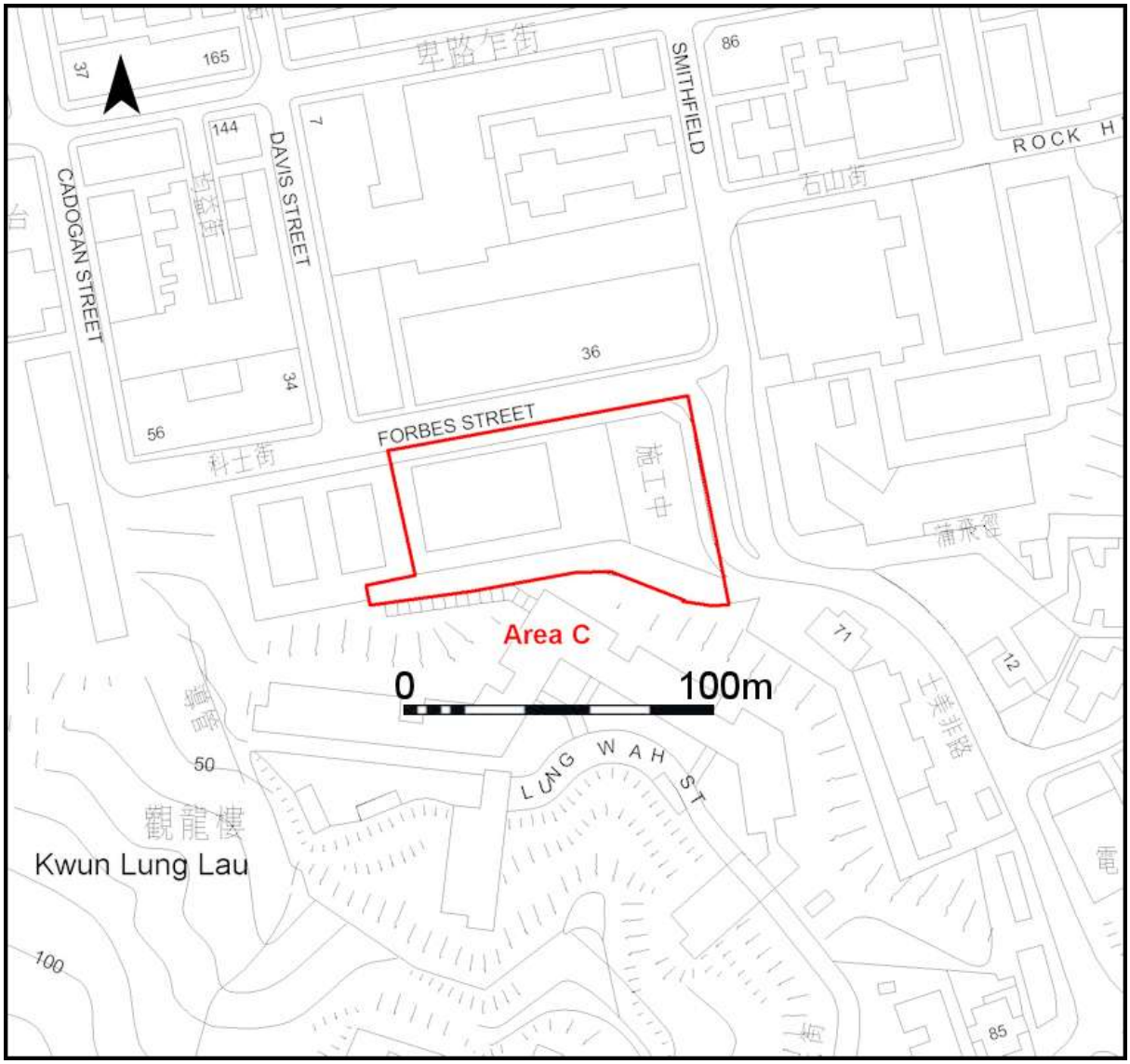


Figure 7: Works Area C – site boundary

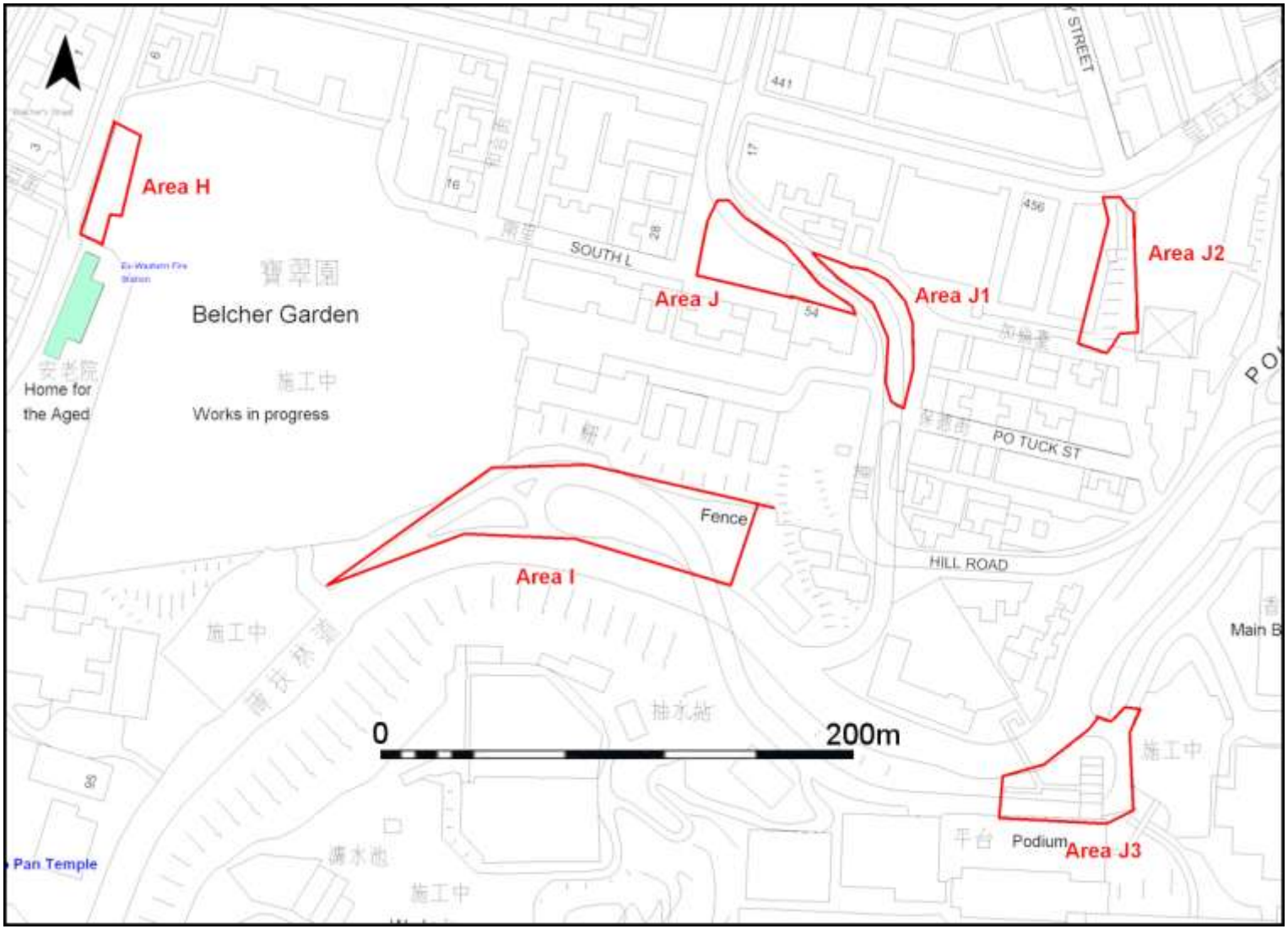


Figure 8: Works Areas H, I, J, J1, J2 and J3 – site boundaries

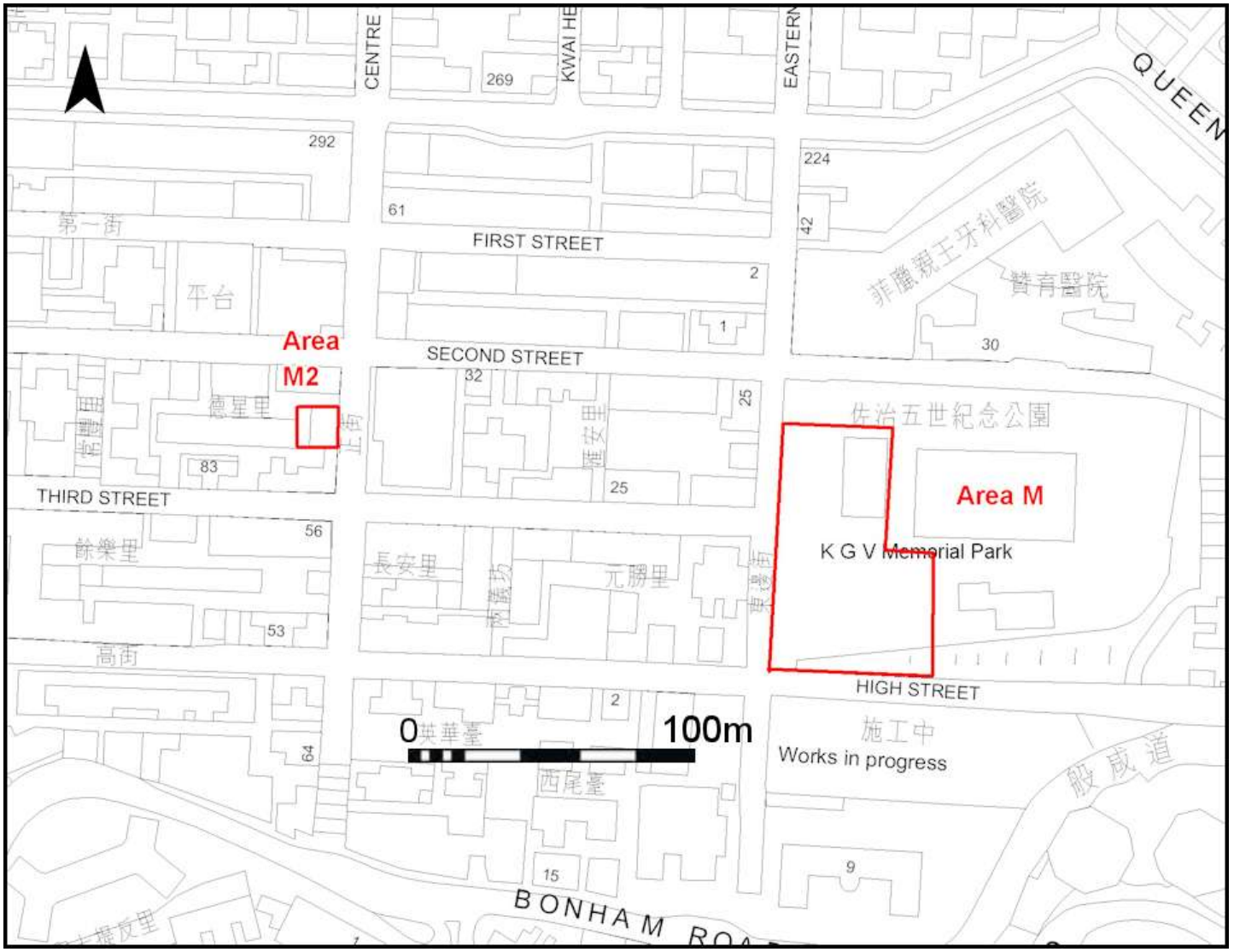


Figure 9: Works Areas M and M2 – site boundaries

Appendix B: Methodology for Archaeological Watching Brief

1. Introduction

Archaeological Watching Brief is a form of mitigation which is required when engineering works impact on areas that have been assessed as having some degree of archaeological potential and where conventional testing methods are deemed insufficient. The range of archaeological resources that require monitoring include both historical and prehistoric material and features.

A watching brief should be undertaken by a qualified and licensed archaeologist during excavation works at the construction stage. A qualified archaeologist should inspect the site at an interval that will depend upon the archaeological potential of the area in question and the nature and duration of the construction programme. Details of the frequency of inspection will be provided to AMO for review and comment once the detailed construction programme has been finalised. A construction programme should be provided to the archaeologist carrying out such watching brief prior to the commencement of site works in order to arrange the inspection schedule. The archaeologist should be notified no less than 3 working days prior to any changes to the construction programme so that arrangements can be made to monitor the works. The Engineer should facilitate arrangements and liaise between the archaeologist and construction contractor.

The Watching Brief process entails the observation of the engineering works by qualified archaeologists in order to identify any archaeological material or features revealed during the excavation phase of the works schedule. Upon identification of such material or features the archaeologists will require immediate access to the excavation area for recording of the material/features *in situ*, artefact/ecofacts retrieval and sample collection.

These guidelines serve two basic purposes: firstly, that the archaeological resources are adequately recorded and recovered and secondly, that appropriate measures are taken on site to create a minimum of delays to the engineering schedule.

2. Detailed Methodology of the Watching Brief

2.1 Watching Brief Personnel & Licence Requirements

Watching Brief should be undertaken by a qualified archaeologist, who must apply for a licence under the Antiquities and Monuments Ordinance (Cap. 53) from the Antiquity Authority before the commencement of archaeological fieldwork. Such licences are valid for a period of 12 months and, given the 2-3 year duration of this project, it will therefore be necessary to renew the licence. In order to facilitate such licence renewal, the archaeologist must provide with the application an interim report summarising the works conducted and findings made during the existing licence period. All staff employed by the archaeologist must be suitably qualified and experienced for their roles.

2.2 Areas to be monitored

The areas which require Watching Brief must be defined and submitted by the qualified archaeologist under the project and agreed with AMO prior to commencement of works.

2.3 Site access

Archaeologists should be allowed reasonable access to relevant areas of groundworks, so that deposits can be examined and recorded. Trenches may require temporary shoring and groundworks might need to be temporarily rescheduled, to provide a safe environment for such works. Provision should be made, at the earliest stage of construction programming, for specific blocks of time to be available for unrestricted archaeological access to areas of groundworks in the identified area of archaeological potential.

2.4 Monitoring and retrieval methodology

The table below shows the various categories of archaeological material and features that are most likely to occur in local contexts. Also listed are the recommended type and degree of recording and retrieval required for each category.

Categories of Archaeological Materials	Retrieval Procedures
Human Burial Skeletal remains Items associated with human burial, i.e. grave goods	**Full Recording & Recovery of Human Remains & Associated Artefacts & Ecofacts** ▪ Complete recording by photography, drawing, written description ▪ Full measurement of burial and surrounding matrix ▪ Retrieval of human remains and associated artefacts & ecofacts ▪ Retrieval of surrounding soil for further analysis
Intact Features Structural/architectural remains Undisturbed contexts, e.g. hearth, midden, habitation area, assemblages of artefacts and/or environmental material	**Full Recording of Archaeological Features & Recovery of Artefacts/Ecofacts** ▪ Recording and measurement of salient features by photography, drawing and written description ▪ Retrieval of artefacts & ecofacts ▪ Retrieval of samples from the surrounding matrix
Intact Artefacts Complete objects, e.g. pottery, metal objects, stone and bone tools. The objects are complete but isolated and are not part of assemblage of feature	**Recovery of Artefacts & Record of Matrix** ▪ Retrieval of objects ▪ Recording by written description and photography ▪ Sampling of surrounding matrix
Isolated & Fragmentary Material Pottery sherds, non-human bone, other artefact fragments (e.g. metal, tile, glass). There are no complete objects, the material is isolated and fragmentary in nature	**Recovery of Archaeological Material & Recording as Appropriate** ▪ Retrieval of fragmentary artefacts & ecofacts ▪ Recording by written description and photography, as appropriate ▪ Sampling of surrounding matrix
Deposits with Archaeological Potential -Soil deposits which exhibit characteristics associated with archaeological remains in Hong Kong	**Sampling of Deposit** -Recording of soils by photography and written description -Collection of soil samples from deposits displaying archaeological potential

Any archaeological materials recovered during the programme should be properly recorded and submitted to the AMO. Upon the discovery of significant archaeological remains, the qualified archaeologist will contact both the AMO informing them of the discovery and the Site Engineer to ensure a temporary suspension of works. Any follow-up works, if required, should be conducted following consultation and agreement with the AMO.

2.5 Recording forms for Watching Brief

Full and proper records (written, graphic, electronic and photographic as appropriate) should be made for all work undertaken. Standardised forms are used for the recording of any archaeological material identified during the Watching Brief and these would typically include the following:

- Registers to record the finds, special finds, contexts, photographs, drawings, levels and samples;
- Context description forms; and
- A daily record form designed specifically for Archaeological Watching Brief. This form must locate clearly the area of works monitored, the nature and extent of the works, and summaries of the day's findings all cross-referenced to register numbers used that day.

2.6 Safety requirements

Archaeologists and staff employed in monitoring must follow the safety procedures enforced by the contractors on site.

2.7 Watching Brief Reporting Requirements

2.7.1 Monthly Progress Reports

The progress report demonstrating the progress of works and discovery/findings within a specified period should be provided to relevant authorities including AMO for information. The progress report on the archaeological watching brief work is to be included in the monthly EM&A report.

2.7.2 Watching Brief Report

The procedures and result of the Watching Brief should be presented in report form, following standards set by the AMO for reports on other types of archaeological field work. This includes details of the overall programme, methodology, sampling strategy, implementation, findings and interpretation. The report should be submitted to the AMO for approval in draft and, following resolution of any comments, in final form. All data, material and records forming the site archive must be submitted to the AMO upon completion of the project. The watching brief report should contain, as a minimum, the following elements:

- Non-technical summary
- Site location (including maps and relevant drawings) and descriptions
- Context of the project
- Geological and topographical background
- Archaeological and historical background
- General and specific aims of field works monitoring

- Reference to relevant legislation
- Field methodology
- Results
- Conclusion
- Recommendations
- Appendices and supporting illustrations including maps, drawings, photos of site and finds
- References

2.8 Mitigation Measures

The Contractor should be sufficiently flexible to allow any necessary contingency arrangements to be implemented. Should significant archaeological materials be discovered, appropriate mitigation measures will be designed and implemented with the prior approval of the AMO.

Appendix C: Specification for Archaeological Watching Brief

1. Introduction

In contrast the generalised overview of archaeological watching brief methods provided in Appendix B above, this section provides a more detailed specification tailored to suit the particular circumstances of this project.

2. Site Clearance Works

The process of archaeological watching brief in each site/area* will commence when demolition and clearance of all current surface obstructions has been completed. The engineer/contractor's representative must advise the archaeologist when the latter stage will be reached, giving at least 3 days' notice, to ensure that the archaeologist can make an initial inspection of the cleared site. It is important to note that every site/area, whatever its archaeological potential, should be the subject of such an initial assessment visit by the archaeologist.

*NB: Should any of the works sites be sub-divided and cleared at different times, it will be necessary to advise the archaeologist at the appropriate time to allow an initial visit for each area.

3. Estimation of depth of cultural deposits

In urban or semi-urban settings it is quite possible that cultural deposits such as historical building foundations or earlier historic/prehistoric remains might exist at some considerable depth below the modern surface. This is particularly likely in northern Hong Kong Island where a history of seasonal erosion (landslides) coincides with an area having a 150-year history of urban development and renewal. It is likely, therefore, that the depth to which archaeological monitoring will need be conducted will probably vary considerably between and within sites – this is especially likely for works sites located in lower hill slope areas and on the former narrow coastal plain. Engineering borehole or test pit data can provide very useful early warning of such variation and, if available, such data should be used as a predictive tool by the archaeologist.

4. Scope of Monitoring Works

The archaeological monitoring will be carried out in the course of the contractors' ground works in the nine work sites identified as having archaeological potential. The depth of the archaeological monitoring will be various due to the local depositional history of each work site. The scope of the archaeological watching brief is therefore limited to the monitoring of cultural horizons overlying sterile natural strata.

5. Monitoring Programme

5.1 Overall Construction Programme

The table below shows the overall construction programme for the nine works sites requiring archaeological watching brief:

Works Site	Site Activities	Start	Finish
Area C	Piling & excavation	1 Jan 2010	31 Jan 2011
Area H	Piling & excavation	1 May 2011	31 Mar 2012
Area I	Piling & excavation	1 Nov 2010	28 Feb 2011
Area J	Piling & excavation	1 Nov 2009	30 Apr 2010
Area J1	Piling & excavation	1 Aug 2010	31 Dec 2010
Area J2	Excavation	1 Oct 2010	31 Dec 2010
Area J3	Piling & excavation	1 Aug 2010	30 Sep 2010
Area M	Piling & excavation	1 Jan 2010	30 Apr 2010
Area M2	Excavation	1 Feb 2010	30 Apr 2010

NB: Since the construction programme is subject to change, the schedule of the archaeological watching brief would also need to be adjusted should such change occur.

5.2 Calculation of Watching Brief Monitoring Rates

The frequency, duration and number of monitoring visits required in each of the works sites/areas will be dependent on a number of factors, namely: the character and rate of progress of development groundworks, the archaeological potential of each site/area, and the nature, extent and condition of any archaeological remains encountered. It is therefore extremely desirable that a detailed works programme showing both the process and timing of development groundworks for each site/area is available before the Final Proposal for Archaeological Watching Brief is submitted to the AMO.

5.3 Watching Brief Monitoring Frequencies

As the table in Section 3 above shows, a draft monitoring frequency is proposed for the nine works sites, which is based on an assessment of their archaeological potential in terms of topography and geology, known archaeological resources, site history, and likely degree of previous impacts. By assessing these criteria, three levels of archaeological potential were identified:

- Very Low: requiring only occasional monitoring after the initial site visit – a minimum of one half day monitoring visit per two weeks of groundworks in layers with archaeological potential – equivalent to a 5% monitoring sample

- Low: requiring regular monitoring after the initial site visit – a minimum of one half day monitoring visit per week of groundworks in layers with archaeological potential – equivalent to a 10% monitoring sample
- Moderate: requiring frequent monitoring after the initial site visit – a minimum of two half day monitoring visits per week of groundworks in layers with archaeological potential – equivalent to a 20% monitoring sample

The archaeological potential, monitoring frequency/samples and sites affected are summarised in the following table (calculations based on a notional 5-day week):

Archaeological Potential	Monitoring Frequency	% Monitoring Sample	Works Sites Affected
Very Low	1 x 0.5 day visit per 2 weeks	5%	I, J2 & J3
Low	1 x 0.5 day visit per week	10%	C, H, J1 & M2
Moderate	2 x 0.5 day visits per week	20%	J & M

Appendix D: Event Action Plan

Event	Action Required		
	AAL Archaeologist	**MTR Site Engineer**	**Works Contractor**
Human Burial found: -Skeletal remains -Grave and/or grave goods clearly associated with human burial	-Inform AMO & Site Engineer & request that work be stopped until archaeological work is completed & the AMO has had the opportunity to visit site -Carry out full recording & recovery of human remains & associated features/finds	-Notify contractor	Temporarily suspend work in affected site area & facilitate safe access for purposes of archaeological excavation and recording
Intact Features found: -Structural remains (e.g. foundations of Smallpox Ward) -Undisturbed contexts (e.g. hearth, midden, habitation area, assemblages of artefacts and/or environmental material	-Inform AMO & Site Engineer & request that work be stopped until archaeological work is completed & the AMO has had the opportunity to visit site -Full recording of archaeological features & finds recovery	-Notify contractor	Temporarily suspend work in affected site area & facilitate safe access for purposes of archaeological excavation and recording

Intact Artefacts found: -complete objects (e.g. pottery vessels, metal objects, stone & bone tools). The objects are complete but isolated & are not part of an assemblage or associated with a feature	-Inform AMO & Site Engineer & request that work be stopped until archaeological work is completed & the AMO has had the opportunity to visit site -Recording of finds location & finds recovery	-Notify contractor	Temporarily suspend work in affected site area & facilitate safe access for purposes of archaeological excavation and recording
Isolated Material found: -Sherds, non-human bone, artefact fragments (metal, pottery, glass). There are no complete objects, the material is isolated & fragmentary in nature	-Rapid recovery of sample of archaeological material & recording of location	No action required	Allow archaeologist brief opportunity to collect samples of material
Deposits with Archaeological Potential found: -Soil deposits which exhibit characteristics associated with archaeological remains in Hong Kong	Rapid recovery of soil sample	No action required	Allow archaeologist brief opportunity to collect samples of material

Name: Ellen Cameron
Year Of Birth: 1965
Nationality: Canadian (Hong Kong Permanent Resident)

Education/Qualifications

B.A. Sociology and Anthropology, Carleton University, Ottawa, Canada 1987
MSc. Environmental Archaeology and Palaeoeconomy, University of Sheffield, U.K. 1991

Professional Associations

Indo-European Prehistory Association
European Association of South East Asian Archaeologists

Certifications

Construction Industry Safety Training Certificate

Present Position:

Director ARCHAEOLOGICAL ASSESSMENTS LTD

Pen Portrait

Ellen is a qualified archaeologist and cultural resource manager with fifteen years experience in Hong Kong, Singapore, the U.K. and Canada. Since joining ARCHAEOLOGICAL ASSESSMENTS she has been responsible for developing methodologies for the recording, assessment and conservation of historical buildings and structures. Ellen has also worked on numerous archaeological projects in Hong Kong. Her area of specialisation is environmental archaeology, with an emphasis on palaeo-environmental reconstruction, palaeoeconomy and faunal analysis. Ellen is currently working on a number of built heritage and archaeological impact assessment projects in Hong Kong.

Agreement No. CE 52/2007 (HY) Tuen Mun - Chep Lap Kok Link – Investigation – Cultural Heritage Impact Assessment – Senior Archaeologist and Built Heritage manager for the project
(Ongoing)

Agreement No. CE 1/2008 (WS) – Improvement of Fresh Water Supply to Cheung Chau – Terrestrial Archaeological Impact Assessment – Manager for the terrestrial archaeological input to the project.
(Ongoing)

Consultancy Agreement NEX/2207 – EIA Study for KTE: Cultural Heritage Impact Assessment – Cultural Heritage Manager for the impact assessment, including both built heritage and terrestrial archaeology.
(Ongoing)

Agreement No. 9SN005 Construction of a Secondary Boundary Fence and New Sections of Primary Boundary Fence and Boundary Patrol Roads – Cultural Heritage Impact Assessment – Cultural Heritage consultant for the impact assessment. Including desk-based research, built heritage field survey, impact assessment and mitigation recommendations. (Ongoing)

Agreement No. CE 50/2007 (DS) North District Sewerage Stage 2 (Remainder) and Sewerage to Chuen Lung Village, Kau Wa Keng Old Village and Lo Wai – Investigation, Design and Construction – Cultural Heritage Impact Assessment – Cultural Heritage manger for the project including desk-based study, survey scope and methodology and impact assessment. (Ongoing)

Agreement No. CE 65/2006(DS) Port Shelter Sewerage Stage 2 and Stage 3 – Design and Construction - Cultural Heritage Impact Assessment – Cultural Heritage Co-ordinator for the project, including desk-based study and field investigations for the impact assessment. (Ongoing)

Consultancy Agreement NEX/1039 South Island Line (East) Environmental Impact Assessment – Cultural Heritage Impact Assessment – Cultural heritage Coordinator for the impact Assessment (Ongoing)

Agreement No CE 4/2007 (DS) Sewage Interception Scheme in Kowloon City – Investigation – Cultural Heritage – Cultural Heritage Project Coordinator for the archaeological Impact Assessment and Built Heritage Manager for the BHIA. (2009)

Agreement No. CE 60/2005 (TP) Land Use Planning for the Closed Area – Feasibility Study – Cultural Heritage – Cultural Heritage Coordinator for the planning study. (Ongoing)

Agreement No. CE 14/2007 (DS) Upgrading of Mui Wo Village Sewerage Phase 2 and Mui Wo Sewage Treatment Works–Investigation, Design and Construction - Built Heritage and Terrestrial Archaeology – Cultural Heritage Coordinator for the project, including archaeological and built heritage impact assessments. (Ongoing)

Agreement No. CE 63 2006 (CE) Improvement Works for Mui Wo Facelift – Feasibility Study - Terrestrial Archaeology - Senior archaeologist for the AIA. (2009)

Agreement No. CE 64 2006 (CE) - Improvement Works for Tai O Facelift – Feasibility Study - Cultural Heritage – Cultural Heritage Coordinator for the heritage assessment, including terrestrial and marine archaeology and built heritage issues. (Ongoing)

Agreement No. CE 39/2007 (DS) Outlying Islands Sewerage Stage 2 – Lamma Village Sewerage Phase 2 – Investigation, Design and Construction Cultural Heritage Impact Assessment – Cultural Heritage Project Coordinator for the impact assessment, including AIA and BHIA. (Ongoing)

Agreement No. CE 55/2006 (EP) Inter-reservoirs Transfer Scheme (IRTS) Water Tunnel between Kowloon Byewash Reservior and Lower Shing Mun Reservior - Cultural Heritage Impact Assessment - Built Heritage Manager and Senior Archaeologist for the impact assessment. (Ongoing)

Agreement No CE 58/2006 Central Kowloon Route and Widening of the Gascoigne Road Flyover Investigation – Cultural Heritage Impact Assessment: Senior archaeologist and built heritage manager for the impact assessment including the preservation of the Yau Ma Tei Police Station. (Ongoing)

Agreement No. KDO 01/2007 (CE) Preliminary Feasibility Study for the Development of Suggested Land Sale Site LS –WTS-0023 PA 12 Fung Shing Street, Ngau Chi Wan – Feasibility Study – Cultural Heritage: Cultural heritage expert for the desk-based study and assessment of heritage features including an area of abandoned shrine statues. (2009).

Tsim Sha Tsui Station Northern Subway Environmental Impact Assessment Study – Cultural Heritage Impact Assessment – Cultural Heritage expert for undertaking identification of heritage resources, assessment of impacts and recommendation of mitigation measures for the protection of historical buildings. (2009)

Agreement No CE 61 2006 (DS) Upgrading of Central and East Kowloon Sewerage – Investigation Design and Construction - Cultural Heritage – Cultural Heritage Team Leader for the project which will include both an archaeological and built heritage impact assessment.
(ongoing)

Contract No. 07/92476 Environmental Impact Assessment study For development of a 100 MW offshore Windfarm in Hong Kong – Terrestrial Archaeology and Built Heritage: Senior Archaeologist and Built Heritage manager for the site selection and assessment of landing options for the proposed wind farm
(2007)

Agreement No CE 40/2006 (HY) Tsing Yi Lantau Link – Feasibility Study – Cultural Heritage Project co-ordinator for the heritage study which includes desk-based options assessment for terrestrial and marine archaeological sites and Built Heritage resources.
(2008)

Agreement No. CE 9/2006 (DS)Tolo Harbour Sewerage of Unsewered Areas, Stage II - Investigation, Design and Construction - Cultural Heritage: Team leader for the archaeological and built heritage impact assessment for the project which include the provision of village sewerage and pumping station in Ma On Shan, Shatin and Tolo.
(ongoing)

Agreement No CE 1/2006 (DS) Upgrading of North District and Tolo Harbour Regional Sewerage – Investigation, Design and Construction – Cultural Heritage Impact Assessment - Team leader for the archaeological and built heritage impact assessment for the project which include the provision of village sewerage and pumping station in Ma On Shan, Shatin and Tolo.
(ongoing)

Agreement No. 35/2006 (CE) Kai Tak Development Engineering Study cum Design and Construction of Advance Works – Investigation, Design and Construction – Cultural Heritage – Cultural heritage team coordinator for the Built heritage and Terrestrial and Marine Archaeological Impact Assessments.
(2008)

Agreement No. CE 38/2006 (CE) Tuen Mun Sewerage – Investigation, design and Construction – Cultural Heritage: Cultural heritage team leader for the project which will include Cultural Heritage Impact Assessment and mitigation recommendations.
(Ongoing)

Agreement No. CE41/2006 (DS) Lam Tsuen Valley Sewerage – Investigation Design and Construction – Cultural Heritage Impact Assessment - Cultural heritage team leader for the project which will include Cultural Heritage Impact Assessment and mitigation recommendations.
(Ongoing)

Agreement No. CE 34/2006 (CE) Ma On Shan Development : Engineering Works at Whitehead and Lok Wo Sha Phase 1 – Design and Construction: Cultural Heritage: Cultural heritage team leader for the project which will include the preparation of technical requirements for the scope and methodology of archaeological investigation and rescue excavation if required.
(Ongoing)

Agreement No. CE 42/2006 (TP) Planning Study on Liantang/Heung Yuen Wai Cross-boundary Control Point and its Associated Connecting Roads in Hong Kong – Feasibility Study – Cultural heritage and Archaeology: Cultural heritage team leader for the feasibility study, including compilation of the baseline profile for heritage resources in the study Area, broad environmental assessment and acceptability of the project.
(Ongoing)

Agreement No. CE 30/2006 (DS) Yuen Long and Kam Tin Sewerage and Sewage Disposal: Design and Construction: Cultural Heritage: Cultural Heritage Team Leader for the project. The project will include review and updating of previous CHIA reports, updated impact assessment and recommendation of appropriate mitigation measures.
(Ongoing)

Agreement No. CE 13/2006 Yuen Long and Kam Tin Sewerage Stage 2 and 3: Design and Construction: Cultural Heritage Impact Assessment: Cultural Heritage Team Leader for the project. The CHIA includes desk-based study, built heritage and archaeological field surveys (to be tendered) and impact assessment and recommendation of appropriate mitigation measures.
(2008)

Development of an Asia-Pacific methodology for Cultural Heritage Impact Assessments: Phase 1: Review of Existing Systems: Project Team Member. The review of various CHIA systems will include evaluation and assessment of strengths and weaknesses with the goal of developing a regional benchmark CHIA system.
(2007)

Proposed Residential Development at Various Lots in DD206, Lok Wo Sha: Machine and Hand Excavation of Four Trenches in Central Area under Fill: Project Coordinator and site supervisor for the archaeological excavation. The excavation will entail machine and hand dug 20 by 5 metre trenches.
(Ongoing)

Proposed Residential Development at Various Lots in DD206, Lok Wo Sha: Archaeological Investigation of the "Shaanxi Area": Project Coordinator and site supervisor for the archaeological excavation which will include field scan, auger test and test pit excavations.
(Ongoing)

Drainage Improvement in Northern Hong Kong Island, Lower Catchment (Mainworks) – Design and Construction: Cultural Heritage Manager for the project, including review of impacts to built heritage resources and recommendations for mitigation for protective measures during construction and operational phases of the project.
(2008)

Harbour Area Treatment Scheme (HATS) Stage 2A: Built Heritage Impact Assessment – Investigation: Built Heritage manager for the CHIA, including assessment of impacts to historical military installations on Stonecutters Island
(Ongoing)

Further Study on Dualling of Hiram's Highway between Clear Water Bay Road and Marina Cove and Improvement to Local Access at Ho Chung: Heritage Review: Principal Investigator for the built heritage review of historic facilities and impact assessment for the project
(2008)

Link Options between Tuen Mun and Lantau – Feasibility Study: Cultural Heritage: Project co-ordinator for the heritage study which includes desk-based options assessment for terrestrial and marine archaeological sites and Built Heritage resources.
(2007)

Proposed Extension of Public Golf Course at Kau Sai Chau - Archaeological Watching Brief: Senior Archaeologist for the project. The project includes monitoring vegetation clearance and excavation for site formation of the new golf course.
(2007)

North District Sewerage Stage 2 Phase 1 – Design and Construction: Cultural Heritage Impact Assessment: Built Heritage manager for the project including desk-based review, built heritage field survey and assessment of impacts arising from the construction of the trunk sewer and village sewerage.
(2008)

Ping Ha Road improvement and Hung Shui Kiu Development Stage 2 – Remaining Works – Environmental, Drainage and Traffic Impact Assessment – Investigation: Cultural Heritage: Built Heritage manager for the review and updating of findings, including desk-based research and field survey of historical villages in NWNT.
(2005-2006)

Repositioning and Long Term Operation of Ocean Park: Cultural Heritage Impact Assessment: Built Heritage Manager for the project. Work scope includes desk-based study and field survey, encompassing the village of Wong Chuk Hang San Wai and historical structures and graves within the park boundary.
(2005-2006)

Formation, Roads and Drains in Area 54, Tuen Mun – Phases 1 and 2, Environmental, Traffic and Drainage Impact Assessment Review – Investigation: Built Heritage Manager for the Review, which included site evaluation for graves
(2005-2006)

Proposed Extension of Public Golf Course at Kau Sai Chau: Cultural Heritage Impact Assessment: Built Heritage Manager for the CHIA. Works include desk-based review and historical grave survey, as well as mitigation recommendations for directly impacted graves.
(2005)

Drainage Improvement in East Kowloon: Design and Construction: Built Heritage Manager for the CHIA, which included drainage improvement in several urban districts in Kowloon. The works included, desk-based research, the preparation of a methodology for the field survey, submission of tender documents and assessment of impacts and mitigation recommendations.
(2005)

Drainage Improvement in Northern Hong Kong Island _ Hong Kong West Drainage Tunnel and Lower Catchment Improvement – Investigation: Built Heritage Manager for the project which consists of the construction of two portals and a tunnel structure as well as the construction of intake structures in several historical districts on Hong Kong Island (including mid-levels), The CHIA included the assessment of impacts and mitigation measures for graded buildings on Hong Kong Island.
(2004-2006)

Archaeological Investigation at Various House Lots in D.D.206, Wu Kai Sha, Ma On Shan, Central Area Under Fill – Archaeological Investigation: Archaeologist and site supervisor for the project. The works include test pit survey and evaluation of archaeological potential of the site and recommendations for further site investigations if necessary.
(2004-2006)

North-East New Territories (NENT) Landfill Extension-Feasibility Study: Cultural Heritage Impact Assessment: Project manager for the Cultural Heritage Impact Assessment. The construction programme will require the demolition of historical agricultural terraces, sections of boulder trackways and graves. The assessment includes Archaeological and Built Heritage Impact evaluations and mitigation recommendations will include detailed programmes for the recording and possible dismantling of the resources prior to the construction works.
(2004-2006)

Drainage Improvement in Northern New Territories-Package C. Investigation-Design and Construction: Built Heritage Manager and archaeologist for the CHIA and ES. The project includes assessment of indirect impacts to structures in historical villages, as well as graves.
(2002-2006)

Northeast New Territories Village Sewerage: Archaeologist for Archaeological Monitoring Programme (for hand dug sewer lines and machine excavated leeching fields. Field supervisor for the historical structure condition survey. The project included survey in a number of historical villages in the closed border area. Assessment of building condition and impacts from nearby excavations were used to prepare a protective strategy programme for the impacted structures.
(2002 -2005)

EIA and TIA Studies for Yuen Long and Kam Tin Sewerage and Sewage Disposal Stage 2 – Investigation – Cultural Heritage Impact Assessment: Built Heritage manager and archaeologist for the project. The scope included desk-based research, field investigations as well as impact assessment and mitigation recommendations.
(2002-2004)

Request for Amendments to the "OU(CRA)" Zone on the Draft Wan Chai Outline Zoning Plan No. S/H5/22 Application No. Z/H5/2: Former Tung Chi College Original Granite Retaining Wall: Provision of Independent Expert Statement, including desk-based research and field assessment. The input for the project included a preliminary condition assessment of the retaining wall and related structures and an evaluation of the existing data for both, the retention of the structure and its incorporation into any potential future development and the demolition of the structure.
(2004)

Kowloon Southern Link: Contract No GSA-5100: EIA and Associated Services: Cultural Heritage Impact Assessment: Built Heritage Manager for the project. The focal area for the BHIA was centred around the Former Marine Police Headquarters (A Declared Monument). A full field survey was conducted as well as a preliminary condition survey of all impacted structures. The project also included the compilation of mitigation measures for the FMPQ compound for both the tunnel construction and cumulative impacts from the redevelopment of the FMPHQ project.
(2001-2004)

Drainage Improvement in Sai Kung – Design and Construction: Cultural Heritage Impact Assessment: Built Heritage Manager for the project which included desk-based assessment, methodology for tender proposal for field survey, supervision of field survey and impact assessment and mitigation recommendations
(2003-2004)

Drainage Improvement in Sha Tin and Tai Po. Design and Construction: Built Heritage Manager and archaeologist for the Cultural Heritage Impact Assessment. The project included a desk-based study and the compilation of a Built Heritage Field survey methodology and tender document preparation for both historical villages and structures in urban areas.
(2003- 2005)

Archaeological Survey at two Small House Lots in D.D. 218 At Che Ha Village, Tai Po, N.T. Senior Archaeologist for the project. The project included an auger testing programme and the excavation of four test pits.
(2004)

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai: Drainage Improvement, Stage 1 Phase 2B (Channel KT 14)- Archaeological Site Evaluation (Section C). Archaeologist for the project which included desk-based assessment of archaeological potential and site evaluation
(2004)

Siu Ho Wan Water Treatment Works-Investigation: Built Heritage Manager and archaeologist for the Cultural Heritage Impact Assessment
(2004)

Land Formation and Infrastructure Works for Prison Development at Hei Ling Chau: Built Heritage Manager for the Cultural heritage Impact Assessment. The project included the assessment of impacts to buildings associated with a former leprosarium, which had been readapted for use as a prison.
(2003).

Archaeological Investigation at Chai Kek, Tai Po: Team member for the Archaeological survey, including test pits and auger holes tests
(2003).

Improvements to San Tin Interchange: Cultural Heritage Impact Assessment: Project manager for the CHIA and Built Heritage manager. The project included desk-based studies and Built heritage field surveys of a number of historical villages in San Tin.
(2003)

Drainage Improvement in Tuen Mun: Archaeologist for the Cultural Heritage Impact Assessment. The BHIA included desk-based research and a field survey of heritage structures in Tuen Mun.
(2003)

Outlying Island Sewerage Stage 1 Phase 2-Package J. Archaeological Survey at Sok Kwu Wan: Site supervisor for the survey (2003)

Drainage Improvement North New Territories. Package A: Built Heritage Manager and archaeologist for the Cultural Heritage Impact Assessment (2002-2003)

KCRC East Rail Extensions: Environmental Support Services: Senior archaeologist for the implementation of the mitigation recommendations involving field evaluation and archaeological monitoring of all three sections of the East Rail Extensions (2002-2003)

Improvement to Tung Chung Road between Lung Tseng Tau and Cheung Sha: Cultural Heritage Impact Assessment: Built Heritage Manager and archaeologist for the assessment (2001-2002)

Yung Shue Wan, Lamma: Archaeological Investigations: Site supervisor for the excavations which were conducted in advance of construction (2002)

West Rail Depot and Station, CC-609: Eastern Access Road (EAR) Archaeological Monitoring: Archaeologist for the project (2002)

Comprehensive Feasibility Study for the Revised Scheme of South East Kowloon Development, Archaeological Site Investigation: Sacred Hill: Site supervisor for the investigation (2002)

KCRC West Rail Depot and Station – Eastern Access Road: Archaeological investigations of the proposed alignment: Archaeologist and site supervisor for the assessment (2002)

Design and Construct Assignment for Widening of Tolo Highway/Fanling Highway between Island House Interchange and Fanling: Implementation of mitigation measures: Archaeologist and site supervisor for the project (2002)

Archaeological Assessment at Kong Sin Wan, Telegraph Bay: Site supervisor for the excavation which included undertaking test pits (2001)

Planning and Development Study on HKIS and LI: Cultural Heritage Impact Assessment for the proposed development: Built Heritage Manager and archaeologist for the assessment. The project included the assessment of indirect impacts to historical structures on Hong Kong Island.
(2001)

Yung Shue Wan Development, Engineering Works, Phase 2: Cultural Heritage Impact Assessment: Built Heritage Manager and Archaeological researcher for the assessment (2001)

Archaeological Impact Assessment at Nam Wai, Sai Kung: Archaeologist for the Assessment which included auger tests and test pit excavation (2000)

Proposed Housing Development within Lyemun Fort Area (Lyemun Barracks Compound): Heritage Impact Study and Review: Archaeological researcher for the review. The field survey included the remains of World War II structures and the foundation of fortified structure that may date to the 18th Century. (2000)

EM&A for Penny's Bay Reclamation Stage 1: Archaeological coordinator overseeing the monitoring of mitigation measures regarding the Penny's Bay archaeological site. (2001)

Planning and Development Study on North West New Territories: Built heritage manager and archaeologist for the Cultural Heritage Impact Assessment for the Hung Shui Kiu SGA (2001)

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvement, Stage 1: Built heritage manager and archaeologist for the Cultural Heritage Impact Assessment for area KT13 (2000)

Route 10 –NLYLH Section from North Lantau to Tsing Lung Tau: Design and Construct Assignment: Built heritage manager for the Cultural Heritage Review for this section of Route 10. (2000)

Feasibility Study for Housing Development at Whitehead and Lee On in Ma On Shan, Sha Tin: Built Heritage manager and archaeologist for the impact assessment (1999-2000)

KCRC East Rail Extension: Sheung Shui to Lok Ma Chau Spur Line: Built Heritage Manager and archaeologist for the Cultural Heritage Impact Assessment of the proposed rail alignment (1999-2000)

132 kV Overhead Pole Line and Underground Cables from Po Lam Substation to Tui Min Hoi Substation – Circuit No. 2: Archaeologist for the evaluation of the area to be effected in the Ho Chung Valley (1999)

Cha Kwo Ling Kaolin Mine Feasibility Study: Cultural Heritage Impact Assessment: Built heritage survey manager for the project. The project included the recording of historical buildings in a former rural village, which at the time of the survey was located in urban Kowloon and had developed over the past 50 years as a squatter settlement. Mitigation included preservation by record and the relocation of selected structures. (1999)

Lantau North-South Road Link between Tai Ho and Mui Wo: Built Heritage supervisor for the Cultural Heritage Impact Assessment of the proposed alignment (1998-1999).

Investigation Study for Widening of Tolo/Fanling Highway between Island House Interchange and Fanling: Archaeologist for the field evaluation of the proposed road widening project (1998-1999)

Tuen Mun Sewerage – Eastern Coastal Sewerage Extension: Built Heritage Manager and archaeologist for the Cultural Heritage Impact Assessment of the proposed sewerage alignments and associated pumping stations (1998-1999)

Investigation Study for Widening of Tolo/Fanling Highway between Island House Interchange and Fanling: Senior archaeologist for the archaeological field evaluation of the proposed road widening project (1998-1999)

Archaeological Investigation at Tung Wan Tsai Ma Wan: Assistant Field Director to the archaeological investigation in advance of Construction Works for Residential Development (1994-1995)

Employment History (including dates of employment):

1999 on ARCHAEOLOGICAL ASSESSMENTS LTD

1992-1997 Freelance Archaeologist in Hong Kong and Singapore

Responses to AMO, LCSD comments dated 12.10.09 on the AWB Revised Proposal

Item	AMO Comment	AAL Response
1	The requirement of the progress report should be stated clearly in relevant sections of the AWB proposal accordingly.	Noted. Text of Appendix 'B' Section 2.7 will be amended to include the requirement for Monthly Progress Reports.
2	Pursuant to the Antiquities and Monuments Ordinance (Cap.53), the licence to excavate and search for antiquities is valid for a period of 12 months. Given that the archaeological watching brief will last 2-3 years, renewal of licence is anticipated. To facilitate the licence renewal, the archaeologist is required to submit a working paper summarizing the works and findings during the licence period. Please consider including such requirement in the AWB proposal.	Noted. Text of Appendix 'B' Section 2.1 of the AWB Proposal will be amended to include a requirement for an appropriate Interim Report to accompany licence renewal applications.
3	As per our previous comment, we have no comment on the additional areas, namely A1, A2 and A3 as well as the extended Area I as stated in the EP-313/2008/C from archaeological viewpoint.	Noted.