

Agreement No. CE30/2008 (CE)

Kai Tak Development - Infrastructure at Former Runway and Remaining Areas of North Apron and Improvement of Adjacent Waterways: Design and Construction

Phase 1 Archaeological Field Investigation Report







# Civil Engineering and Development Department

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# Phase 1 Archaeological Field Investigation Report

#### June 2016

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# **Table of Content**

			Page
1	INTR	RODUCTION	2
	1.1	Background	2
	1.2	Report Structure	
2	REL	EVANT LEGISLATION, AIMS AND METHODOLOGY	4
	2.1	Phase 1 Archaeological Field Investigation Area	4
	2.2	Relevant Legislation	
	2.3	Aims	
	2.4	Methodology	
	2.5	Site Codes	8
3	GEO	LOGICAL, HISTORICAL AND ARCHAEOLOGICAL BACK	ROUND . 9
	3.1	Geological and Topographical Background	9
	3.2	Historical Background	
	3.3	Archaeological Background	21
4	FIEL	D EVALUATION RESULTS	24
	4.1	Stratigraphy	24
	4.2	Features	
	4.3	Artefact	51
5	IMP/	ACT ASSESSMENT	60
	5.1	Implication of Archaeological Findings	60
	5.2	Archaeological Potential Areas	
	5.3	Findings of the Impact Assessment	71
6	CON	ICLUSION	72
	LICCE	A DLIV	75
KIK	( )( <del>.</del>   ) /	A PH Y	/5

# **List of Tables**

Table 2.1	Materials Reviewed in the Archaeological Review
Table 4.1	Overall Stratigraphy of Phase 1 AFI
Table 4.2	Overall Stratigraphy of T1 to T21, Phase 1 AFI
Table 4.3	House Remains Found in T4
Table.4.4	House Remains Found in T8
Table 4.5	House Remains Found in T11
Table 4.6	House Remains Found in T14 and T14a
Table 4.7	Content of Kai Tak Bund Remains Found in T19
Table 4.8	Content of House Remains Found in T19
Table 4.9	Content of House Remains Found in T21
Table 4.10	Artefact Statistics
Table 5.1	Bearings of Archaeological Features in T3, T4, T8, T11, T14, T14a,
	T19 and T21

## **List of Figures**

List of Figure	5
Figure 3.1a	Lung Tsun Stone Bridge (LTSB), Kowloon Customs Station (IMC, Imperial Maritime Customs) and Kowloon Fort, about 1887
Figure 3.1b	Lung Tsun Stone Bridge, Kowloon Customs Station and Kowloon Fort, 1898
Figure 3.2	Landscape Feature in Kowloon Bay near Investigation Area
Figure 3.3	Lung Tsun Stone Bridge, Former Kowloon Fort and Former Kowloon
	Customs Station (then Police Station)
Figure 3.4	Kai Tak Bund and Kai Tak Airfield, late 1930s
Figure 3.5	Historical Features, Study Area and Investigation Area
Figure 3.6	Aerial Photo of Kai Tak Airfield, 1949
Figure 3.7	Kai Tak Airfield in 1940s
Figure 3.8	Kai Tak Airport Terminal Building, the 1960s
Figure 4.1	Photographic Record of T14, Northwest profile
Figure 4.2	Stratigraphy of T14, Northwest profile
Figure 4.3	Granite Block Alignment (T3-F1) in T3 (facing east)
Figure 4.4	House Remains in T4 (facing southeast)
Figure 4.5	Rammed Earth of House Remains in T4 (facing northeast)
Figure 4.6	House Remains in T4 (facing east)
Figure 4.7	Granite Blocks Alignments in T4 (facing southwest)
Figure 4.8	House Remains in T4
Figure 4.9	House Remains in T8 (1 of 2)
Figure 4.10	House Remains in T8 (2 of 2)
Figure 4.11	Wooden Piles in T9 (facing northwest)
Figure 4.12	House Remains in T11
Figure 4.13	House Remains in T14 (1 of 7)
Figure 4.14	House Remains in T14 (2 of 7)
Figure 4.15	House Remains in T14 (3 of 7)
Figure 4.16	House Remains in T14 (4 of 7)
Figure 4.17	House Remains in T14 (5 of 7)

<b>5</b> '	H D T44 (0 . ( 7)
Figure 4.18	House Remains in T14 (6 of 7)
Figure 4.19	House Remains in T14 (7 of 7)
Figure 4.20	House Remains in T14a (1 of 3)
Figure 4.21	House Remains in T14a (2 of 3)
Figure 4.22	House Remains in T14a (3 of 3)
Figure 4.23	House Remains in T19 (1 of 2)
Figure 4.24	House Remains in T19 (2 of 2)
Figure 4.25	Imprint on Ceramic Pipes in T19
Figure 4.26	Granite Structures in T19
Figure 4.27	House Remains on northeast end in T19
Figure 4.28	Stratigraphy of T21 (1 of 3)
Figure 4.29	Building remains in T21 (2 of 3)
Figure 4.30	Building remains in T21 (3 of 3)
Figure 4.31	Small Finds No. T1 L2:1
Figure 4.32	Small Finds No. T3 L4:1
Figure 4.33	Small Finds No. T3 L4:2
Figure 4.34	Small Finds No. T3 L4:3
Figure 4.35	Small Finds No. T4 L4:1
Figure 4.36	Small Finds No. T6 L5:1
Figure 4.37	Small Finds No. T7 L2:1
Figure 4.38	Small Finds No. T8 F1:1
Figure 4.39	Small Finds No. T9 L3:1
Figure 4.40	Small Finds No. T11 L2:1
Figure 4.41	Small Finds No. T14 L3:1
Figure 4.42	Small Finds No. T19 L3:1
Figure 5.1a	Photos of Police Station in the early 20th century in Hong Kong
Figure 5.1b	Indicative Location of Test Squares & Trenches marked on 1905
J	Survey Map
Figure 5.2	Lung Tsun Stone Bridge & Kowloon Fort, the 1900s
Figure 5.3	Indicative Locations of Test Squares and Trenches marked on the
	1930s' Survey Map
Figure 5.4a	Plan of T14, T14a and T21 in relations with the Footprints of Kowloon
1 190110 0110	City Police Station and Kowloon Fort by overlaying a 1924 map
Figure 5.4b	Cross Section of T14, T14a and T21 in relations with Kowloon City
9	Police Station and Kowloon Customs Station
Figure 5.5	Location of T14, T14a and T21 overlay on the 1924 map
Figure 5.6	Pile Caps and Ground Beams at T14, T14a and T21
9	

# **List of Drawings**

60102100/AFI-1/001	Test Squares and Trenches Locations of Phase 1
	Archaeological Field Investigation
60102100/AFI-1/002	Geological Map of the Phase 1 Archaeological Field
	Investigation
60102100/AFI-1/003	Previous Archaeological Excavations Around the Phase 1
	Archaeological Field Investigation
60102100/AFI-1/004	Test Squares and Trenches Laid on the Historical Features of
	Phase 1 Archaeological Field Investigation - Sheet 1 of 2
60102100/AFI-1/005	Test Squares and Trenches Laid on the Historical Features of
	Phase 1 Archaeological Field Investigation - Sheet 2 of 2

# **List of Appendices**

Appendix A Test Squares and Trenches Records

# 摘要

土木工程及拓展署計劃在啟德機場北停機坪進行基建工程。鑑於 2013 至 2014 年間在沙中線土瓜灣站地盤發現宋元文物,因此該署委託艾奕康有限公司(下稱「本公司」)在北停機坪進行考古調查,目的是審視第 5A 基建工程及相關發展用地範圍內是否存在考古遺存或文物。第一期考古調查於是在第 5A 基建區內開展;調查於 2015 年 2 月開始,至同年 8 月完成,共發掘十九個探方及三道探溝。

在考古實地調查前,本公司考古學家根據歷史文獻、歷史地圖、歷史照片、地形、地質 鑽探及啟德機場歷次考古發掘等資料,進行詳細文獻研究,研判第5A基建區內考古遺 存可能分佈之地點及埋藏深度,從而擬定考古探方和探溝位置及數量。

歷史地圖、歷史照片、地形和地質鑽探資料顯示,第一期考古調查區(第 5A 基建區)東南部原為海灣,西北部則為九龍灣沿岸地帶。宋元明三朝,九龍灣平原已有若干村落。因海防和緝私需要,清政府先後在 1810 年、1873 年和 1887 年在九龍灣畔修建九龍炮台、龍津石橋及九龍關。其後九龍灣進行了三次填海和平整土地的大型工程;第一次是1916 至 1924 年啟德濱及九龍城住宅項目填海和地基平整;第二次是 1942 年至 1945年日軍拆毀啟德濱唐樓及九龍灣平原部分村落以擴建啟德飛機場;第三次是 1950 至1960 年代,港英政府填海和平整土地以發展香港啟德國際機場。

根據土質和土色的差別,第一期考古調查區(第 5A 基建區)考古地層大致分為五層。由上而下,第一層是 1950 年代至 1960 年代啟德機場填土層,第二層是 1942 至 1945 年日軍擴建啟德機場填土層,第三層是 1910 年代至 1930 年代啟德濱及九龍城住宅項目填土層,第四層是二十世紀初期九龍灣沿岸房屋地層,第五層為海沙層。

探方 T3、T4、T8、T11 和探溝 T14、T14a、T19、T21 第四層發現磚石牆基、灰泥和水泥地台、地磚、碎瓦片、陶製水管、唐樓木樁等建築結構,同層出土一些十九世紀晚期至二十世紀初期青花瓷片、醬釉陶片和彩瓷碎片;但其他探方則無發現早於十九世紀晚期之文物和遺蹟。據上述建築物料及其工藝特點(如水泥地台、水泥批蕩、紅磚),並對比歷史地圖和歷史照片,確定第四層磚石牆基、地台、地磚、瓦片和陶製水管都是二十世紀初期建築物殘存結構。第四層建築遺存及地層資料均顯示,二十世紀初期填海及地基平整工程已經破壞當時的建築物。

T14、T14a 和 T21 位於九龍炮台和九龍關原址,經發掘證實,九龍炮台及九龍關地基及其地面建築早已蕩然無存。

如基建工程進行期內發現任何文物,則須通知古物古蹟辦事處。鑑於第一期考古調查並無發現宋元文物及遺蹟,只發現二十世紀初期房屋殘存地基,從而推斷第5A基建區內,除龍津石橋遺蹟外,其餘地方之考古價值極低,故此不需在發展前再進行考古實地調查。基建施工期內不需考古監測,亦毋需後續之緩解措施。

#### 1 INTRODUCTION

# 1.1 Background

- 1.1.1 The Civil Engineering and Development Department (CEDD) is planning to carry out the Stage 5A Infrastructure Works at the former North Apron Area (herein after referred to as the Project) for serving the future developments. The Stage 5A Infrastructure Works covers Road L7, part of Road D1, a slip road connecting to an existing flyover, and Lung Tsun Stone Bridge (LTSB) subway across Prince Edward Road East (PERE) (see Drawing No.60102100/AFI-1/003).
- 1.1.2 Since the announcement of archaeological discoveries at the Sacred Hill (North) study area under the Shatin to Central Link (SCL) Contract 1109 in early 2014, there has been rising public aspiration for *in situ* preservation of the archaeological remains unearthed around the future To Kwa Wan Station, which is located in the former North Apron Area. It is therefore considered necessary to further ascertain the possible existence, extent and significance of archaeological remains in the Project area prior to the commencement of the Project. In this regard, CEDD commissioned AECOM Asia Company Limited (AECOM) in August 2014 to conduct further archaeological investigation in the form of Archaeological Review (AR) and Archaeological Field Investigation (AFI), taking into account the latest development plan for the former North Apron Area, archaeological discoveries of LTSB, and findings from the previous archaeological investigation done under the SCL Project.
- 1.1.3 As evaluated in the Archaeological Review (AR)<sup>1</sup>, the Project Area has undergone many underground disturbances by past human activities such as reclamation and construction works of Kai Tak Bund and Kai Tak Airport. However, there are still sensitive areas where the archaeological remains underground may not have been disturbed. It was therefore recommended in the AR to conduct an archaeological field investigation in form of test square excavation to ascertain the existence, extent and significance of the archaeological remains in areas identified with the highest archaeological potential. Phase 1 AFI concerns Stage 5A area of the Project. findings in the AR, the Phase 1 AFI Proposal has deduced the archaeological sensitive area, i.e. the investigation area for the Phase 1 AFI(Investigation Area), from the Project Area, (more information on determination of archaeological sensitive area is presented in Section 2.4.5.) The Investigation Area is as shown in Drawing No.60102100/AFI-1/001. The development site to be served by Stage 5A Infrastructure Works is shown in Drawing No. 60102100/AFI-1/003.

<sup>&</sup>lt;sup>1</sup> AECOM 2014 Archaeological Review Report for Infrastructure Works at Former North Apron Area. CEDD Archives.

- 1.1.4 An Archaeological Action Plan (AAP) outlining the objective and scope of the Phase 1 AFI, background of the Investigation Area, methodology of the proposed investigation, works programme, and staffing arrangement was prepared in accordance with the Guidelines for Archaeological Impact Assessment established by the Antiquities and Monuments Office (AMO) of the Leisure and Cultural Services Department (LCSD) for application of the Licence to Excavate and Search for Antiquities (the Licence). The Licence No. 382 was granted by the Antiquities Authority in January 2015.
- 1.1.5 The Phase 1 AFI was conducted between February and August 2015. The result of the AFI is recorded in this Phase 1 Archaeological Field Investigation Report (the Report).

## 1.2 Report Structure

- 1.2.1 The structure of the Phase 1 Archaeological Field Investigation Report is as follows:
  - Section 1 gives an introduction;
  - Section 2 outlines the scope, relevant legislation, objectives and Methodology of the Phase 1 AFI;
  - Section 3 states the geological, historical and archaeological background of the Phase 1 AFI area;
  - Section 4 reports the result and findings from the field evaluation;
  - · Section 5 assess the impacts of the Project; and
  - Section 6 concludes this Report.

## 2 RELEVANT LEGISLATION, AIMS AND METHODOLOGY

# 2.1 Phase 1 Archaeological Field Investigation Area

2.1.1 Based on the Licence No. 382, the Investigation Area covers the footprint of the passenger terminal building and the multi-storey carpark of the former Kai Tak Airport. Located at the former North Apron Area, the Investigation Area is bounded by the Kai Tak Nullah to the east, PERE to the north and the former Passenger Terminal Building to the west, while the southern boundary of the Investigation Area makes reference of the further south of the 19<sup>th</sup> century coastline and covers the area of Lung Tsun Stone Bridge (龍津石橋). (Drawing 60102100/AFI-1/001). The 19<sup>th</sup> century coastline was deduced from historical maps and an offset of at least 20m towards the sea was added to the deduced coastline to cater for potential inaccuracy in the historical maps during the investigation.

## 2.2 Relevant Legislation

Antiquities and Monuments Ordinance (Cap.53)

- 2.2.1 The Antiquities and Monuments Ordinance provides the statutory framework for the preservation of objects of historical, archaeological and paleontological interest.
- 2.2.2 The Ordinance contains the statutory procedures for the Declaration of Monuments. Under the Ordinance, monument means a place, building, site or structure which is declared to be a monument, historical building, archaeological or paleontological site or structure because of its historical, archaeological or paleontological significance under section 3 of the Ordinance.
- 2.2.3 Under section 6 and subject to subsection (4) of the Ordinance, the following acts are prohibited in relation to certain monuments, except under permit granted by the Secretary for Development:
  - To excavate, carry on building works, plant or fell trees or deposit earth or refuse on or in a proposed monument or monument; or
  - To demolish, remove, obstruct, deface or interfere with a proposed monument or monument.
- 2.2.4 The discovery of an antiquity, as defined in the Ordinance, must be reported to the Antiquities Authority, or a designated person. The Ordinance also provides that, the ownership of every relic discovered in Hong Kong after the promulgation of this Ordinance shall vest in the Government from the moment of discovery. The Authority, on behalf of the Government, may disclaim ownership of the relic.

2.2.5 No archaeological excavation can be carried out by any person, other than the Antiquities Authority and the designated person, without a licence issued by the Authority. A licence will only be issued if the Authority is satisfied that the applicant has sufficient scientific training or experience to enable him to carry out the excavation and search satisfactorily, is able to conduct, or arrange for, a proper scientific study of any antiquities discovered as a result of the excavation and search, and has sufficient staff and financial support.

#### 2.3 Aims

- 2.3.1 The aim of the Phase 1 AFI is to ascertain the possible existence, extent and significance of archaeological remains within the footprint of the Project and the associated development sites to enable the formulation of the preservation approach for those remains with high heritage value(if any).
- 2.3.2 In order to achieve the aim above, the Phase 1 AFI has been conducted:
  - To ascertain the possible existence, extent, depth of archaeological deposits not previously known, especially from the Song-Yuan Dynasties;
  - To assess the significance of archaeological resources in Investigation Area;
     and
  - To propose recommendations from an archaeological perspective for the Project to proceed, taking into account of field investigation findings.

## 2.4 Methodology

#### Desktop Study

- 2.4.1 An AR was conducted to establish the fundamental archaeological conditions of the Project Area. The AR assessed the archaeological sensitivity of the Project Area, and helped to form a strategic plan and set up an Investigation Area for the Phase 1 AFI.
- 2.4.2 The following materials have been reviewed in the AR in order to gather baseline information on the history, geography, geology and archaeology of the Project Area (**Table 2.1**):

Table 2.1 Materials Reviewed in the Archaeological Review

Materials reviewed	Information provided / Purpose		
	illiorillation provided / Furpose		
Historical documents related to	➤ Historical background		
Kowloon Bay and the former North Apron Area	Development history		
Historical Photographs	<ul> <li>Historical background</li> <li>Development history and graphical information</li> <li>Reconstruction of natural landscape</li> </ul>		
Historical Maps from 19 <sup>th</sup> century to modern period	<ul> <li>Development history and graphic information</li> <li>Reconstruction of natural landscape</li> <li>Interpretation of coastlines in different period</li> <li>Degree of modern disturbance to the ground</li> </ul>		
Previous archaeological reports conducted in the area	<ul> <li>Archaeological findings</li> <li>Establish the chronological / stratigraphical sequence</li> <li>Reconstruction of natural landscape</li> <li>Interpretation of coastlines in different period</li> </ul>		
Geological Maps	<ul> <li>Geological and geographical information</li> <li>Reclamation extent</li> <li>Reconstruction of natural landscape</li> </ul>		
Previous Ground Investigation Reports	<ul> <li>Geological information</li> <li>Reconstruction of natural landscape</li> <li>Interpretation of coastlines in different period</li> </ul>		
Aerial Photos in the 20th century	Development history and graphical information		
Utility Plans and As-Built Records	<ul><li>Development history</li><li>Degree of modern disturbance to the ground</li></ul>		

2.4.3 Based on the materials reviewed, especially the information obtained from comparing historical maps and photographs, the original natural landscape prior to the urban development of Kowloon Bay in the early 20<sup>th</sup> century was reconstructed, and the 19<sup>th</sup> century coastline was therefore postulated based on information from historical and past survey maps.

- 2.4.4 The alignment of Song-Yuan coastline was assessed based on a comprehensive review of the previous archaeological and geological investigation findings. A cluster of ceramic sherds, dated to the Song-Yuan Dynasties, with total weight over two tonnes was discovered in the 2009 excavation<sup>2</sup>. The artefacts were discovered on the seaward side of a huge boulder. The archaeological findings reflected rubbish dumping activities in the Song-Yuan period, and the location was once at the coast where the rubbish was believed to be dumped into the sea. This suggested that such boulders could marked the original coastline of Song-Yuan period. The Song-Yuan archaeological remains unearthed in SCL were also located on the landward side of similar boulders. This observation further reinforced the assumption of the Song-Yuan coastline along the interface of beach deposit area. (See 60102100/AFI-1/002 and 003).
- 2.4.5 The AR assessed the archaeological sensitivity based on the archaeological potential and degree of disturbance by recent urban development such as reclamation and construction works of Kai Tak Bund (present day Kowloon City), Kai Tak Airfield, Kai Tak Airport and recent utilities installation. The archaeological sensitive areas where the archaeological remains underground have not been disturbed was deduced based on desktop review and geological and historical map-overlaying. Predictions regarding the existence, depth and extent of archaeological remains within these sensitive areas were presented in the Archaeological Review Report. Archaeological sensitive area was expected to be found surrounding the Sacred Hill and areas behind the Song-Yuan coastline, except in the archaeological excavated areas, alignments of underground facilities, the old 1942 Nullah and the Kai Tak Passenger Terminal Building.

#### Archaeological Field Investigation (AFI)

- 2.4.6 Based on the mapping of archaeological sensitive areas and the layout of the known historical features determined in the AR, Phase 1 AFI was conducted to ascertain the possible existence, extent and depth of archaeological remains and assess the significance of potential archaeological resources. The AFI was carried out in accordance with the *Guidelines for Archaeological Impact Assessment* established by AMO.
- 2.4.7 Nineteen test squares, each of which has a dimension of 2m x 2m at bottom level, and two long test trenches (T14 and T19), each of which has a dimension of 2m x 20m at bottom level, and a shorter test trench (T21) of 2m x 10m at bottom level, were excavated by open-cut method. Apart from T5 and T13, other proposed excavations were within the onshore area before the 19<sup>th</sup> century.

**A=COM** 7 June 2016

<sup>&</sup>lt;sup>2</sup> AECOM 2010 Kai Tak Development – Infrastructure at Former Runway and Remaining Areas of North apron & Improvement of Adjacent Waterways – Design and Construction: Final Report on Archaeological Survey and Rescue Excavation of Ceramic Shreds of Song Dynasty. CEDD Archives .

- 2.4.8 Strata in test squares and trenches were excavated layer by layer. Mechanical excavation was adopted for removal of substrates that have no archaeological value, such as concrete surfacing, bitumen paving and fill layer etc. Mechanical excavation would stop at either 30cm above an interpreted depth of potential layer with archaeological remains, or when non-fill soil layers were encountered during excavation, when manual excavation would be adopted. The excavation would continue until marine sand layer was reached. The whole excavation process was supervised by the archaeological team to ensure the excavation work would not damage any layer with archaeological remains.
- 2.4.9 All artefacts and features found in undisturbed strata were collected and recorded in order to assess their chronology and archaeological significance. Buildings materials such as green bricks and roof tiles were only collected for sampling purpose instead of collecting all. After documentations were completed, the test squares and trenches were backfilled and reinstated to their original level.

#### 2.5 Site Codes

2.5.1 The site code assigned for this AFI under Licence No. 382 issued by the AMO is KKT2015.

#### 3 GEOLOGICAL, HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

# 3.1 Geological and Topographical Background

- 3.1.1 The Investigation Area was originally located in the coastal area of Kowloon Bay in the early 20<sup>th</sup> century prior to later reclamation works. It is located at the former North Apron Area bounded by the Kai Tak Nullah to the east, PERE to the north and the former Passenger Terminal Building to the west. The southern boundary of the investigation area makes reference of the deduced 19<sup>th</sup> century coastline and covers the area of Lung Tsun Stone Bridge, to which a minimum of 20m offset towards the sea is added to cater for potential inaccuracy in the historical maps during the investigation (**Figures 3.2**, **3.3**).
- 3.1.2 There used to be two brooks running into the sea through the original coast of Kowloon Bay on where the Investigation Area now sits. One brook emerged from the south of Kowloon Walled City (九龍寨城), while another one emerged from the mouth of the valley west to Kowloon Walled City and south to Hau Wong Mui (Hau Wong Temple 侯王廟). The two brooks merged to the east of Nga Tsin Long (衙前塱) Village, and then ran south into the Kowloon Bay (see Figure 3.2).
- 3.1.3 Majority of the Phase 1 AFI Investigation Area is located on alluvial deposits ("Qa" on geological maps), which formed a low-lying flood plain that was gently sloping down into the coast at the northwest side of the Area while the rest of the Area lies on marine sand and fill materials (60102100/AFI-1/002 refers) The alluvial deposit onshore of the Kowloon Bay Area belongs to the Fan Ling Formation of the Holocene period. The alluvium usually consists of grey to yellowish brown clay, sand and gravel that range from well-sorted to semi-sorted. Superficial deposits at the southeast portion of the Area is a piece of undivided dark grey marine silty sand ("ms" on geological maps) that belongs to the Hang Hau Formation of Holocene period, which is the general type of superficial deposits distributed along the coast of Kowloon Bay.
- 3.1.4 Reclamation lands and filled up areas for urban development in the Investigation Area during the 20<sup>th</sup> century covers the natural alluvial and marine deposits. Major reclamations had been carried out since the 1910s for the development of the Kai Tak Bund, and later the development of Kai Tak Airport and its later expansion.

## 3.2 Historical Background

Qin to Five Dynasties (221BC to AD960)

3.2.1 One of the earliest historic textual records of human occupation in South China can be found in Shiji (史記) and Hanshu (漢書), written in the first century BC and first century AD respectively. These records describe that Yue (越) ethnic groups, also known as Hundreds of Yue (百越), were scattered in Southern China. Such ethnic groups comprised of different tribes bearing various surnames. They could be differentiated from the Han ethnic group who

lived in Central China in terms of physical characteristics, language, and folklore.

- 3.2.2 When Southern China became an administration territory of China's central government in 221BC (Qin Dynasty, 221-206BC), the Yue people were gradually assimilated by the Han culture. During Qin period, the Hong Kong region was subordinated to Panyu (番禺) County.
- 3.2.3 In 208 BC, Nanyue (南越) State was established in Guangdong by military officials who were sent from the Qin Court to conquer Yue in the south. Following the collapse of Qin's political power in the north, the Han Dynasty (206BC-AD220) began. Nanyue State soon became a vassal state of Han³. Hong Kong region was subordinated to Boluo (博羅) County⁴ from AD317 to 420, to Baoan (寶安) County from AD331 to 756, and to Dongguan (東莞) County after AD757.
- 3.2.4 According to *Xintangshu* (新唐書)<sup>5</sup>, Hong Kong's role in trading activities and military defence had grown more important since the Tang Dynasty (AD618-907). The Tuen Mun Military Division (屯門鎮) was set up in AD736 in order to strengthen the naval military defence power<sup>6</sup>. Hong Kong had become one of the main pearl harvesting centres in China since the Five Dynasties Period (AD907-960) and the pearl harvesting was concentrated in the Tolo Harbour (大埔海)<sup>7</sup>.

#### Song to Ming Dynasty (AD960 to 1644)

- 3.2.5 During the Song Dynasty (AD960-1279), the Kowloon City area used to be part of the *Guanfu* Salt Field (官富鹽場)<sup>8</sup>. Historic textual records such as *Yudi Jisheng* (輿地紀勝) and *Songhuiyao Jilu* (宋會要輯錄) describe smuggling activities related to salt production. Salt manufacturing at *Guanfu* continued during the Yuan and Ming Dynasties and eventually ceased in 1798 during the Qing Dynasty<sup>9</sup>.
- 3.2.6 The Kowloon City area had gained historic significance in the final years of the Southern Song Dynasty (AD 1127-1279). In 1277, the royal party along with the boy Emperor *Duanzong* (端宗) and his younger brother fled to the *Guanfu* Salt Field area in an attempt to escape from the Yuan army. During Yuan Dynasty (AD1271-1368), the Chinese characters of Sung Wong Toi (宋王臺) were believed to have been inscribed on a rock at Sacred Hill (聖山), which

<sup>&</sup>lt;sup>3</sup> Sima Qian c.a. BC 91 Shiji volume 113 Nanyue Liezhuan (南越列傳).

<sup>&</sup>lt;sup>4</sup> Although the boundary between Boluo (博羅) County and Panyu (番禺) County during Han to East Jin period is unclear, it is generally suggested that Hong Kong region belonged to Boluo Country at that time, according to *Xinan Gazetteer* (新安縣誌 1819).

<sup>5</sup> 歐陽修、宋祁 1975 《新唐書》,北京,中華書局。

<sup>6</sup> 饒玖才 1998《香港地名探索》,香港,天地圖書。

<sup>7</sup> 靳文謨 1688,2006 《嘉慶新安縣誌》,張一兵 編 《深圳舊誌三種》,深圳,海天出版社。

<sup>8</sup> 舒懋官 1819,1974 《嘉慶新安縣誌》,嘉慶二十五年刊本,台灣,成文出版社。

<sup>9</sup> 舒懋官 1819,2006 《嘉慶新安縣誌》,張一兵 編 《深圳舊誌三種》,深圳,海天出版社。

- originally was situated in the southern part of Kowloon City to memorise the historical event of the visiting boy emperor<sup>10</sup>.
- 3.2.7 In 1297, during the Yuan dynasty, the *Guanfu* Salt Field was abolished by the government, and *Guanfu* Magistrate Office (官富巡檢司) was established instead to maintain the social order of the original *Guanfu* Salt Field area and its vicinity.
- 3.2.8 During the 16<sup>th</sup> century in the Ming Dynasty (AD1368-1644), the coastal areas of *Dongguan* County suffered from frequent marauding bandit and pirate attacks. *Xin'an* (新安) County was thus set up in 1573 to defend such attacks<sup>11</sup>. The present day New Territories, Kowloon and Hong Kong were zoned within *Xin'an* County according to *Xin'an Gazetteer* (新安縣誌).

#### Qing Dynasty (AD1644 to 1912)

- 3.2.9 In 1661, Coastal Evacuation Order was compelled by the Qing Court in order to stifle the anti-Manchu troops in Taiwan. People who lived in coastal areas were forced to move about 25 km inland and the evacuation area included the entire Hong Kong. It was not until 1669 when people could move back to Hong Kong. However, after the coastal evacuation, the population in Xin'an County severely dropped from 13,302 as recorded in 1594 to 3,912 in 1677. Hakka people were thus encouraged to move into Hong Kong during late 17<sup>th</sup> to early 18<sup>th</sup> century<sup>12</sup>.
- 3.2.10 After the Coastal Evacuation Order, due to the drop in population, Kowloon City and *Guanfu* Magistrate Office were changed into a beacon tower. In 1810, Fat Tong Mun (佛堂門) artillery battery was repealed and rebuilt in Kowloon City area for coastal defence the new fort was named Kowloon Fort (九龍炮台) and was approximately 20m west to Lung Tsun Stone Bridge (LTSB 龍津石橋)<sup>13</sup> (**Figures 3.1a, 3.1b, 3.2** and **3.3**).
- 3.2.11 Following Qing's failure in the First and the Second Opium Wars, Hong Kong Island, Kowloon Peninsula and Stonecutter's Island were successively ceded in perpetuity to the United Kingdom under the Treaty of Nanking (1842) and the Convention of Peking (1860).
- 3.2.12 Nga Tsin Wai (衙前圍) in Kowloon City was the earliest village established in the Kowloon Peninsula. According to local genealogical records, the village was built between 1570 and 1574<sup>14</sup>. While Kangxi Xinan Gazetteer (康熙新安縣誌) had records of Nga Tsin Tsuen (衙前村) and Kau Lung Tsuen (九龍村) in 1688<sup>15</sup>, Jiaqing Xinan Gazetteer (嘉慶新安縣誌) also had records of the

**AECOM** 11 June 2016

<sup>10</sup> 劉潤和 等 2009《九龍城風物誌》,香港,九龍城區議會。

<sup>11</sup> 靳文謨 1688, 2006 《康熙新安縣誌》,張一兵 編 《深圳舊誌三種》,深圳,海天出版社。

<sup>12</sup> 馬金料 1998《早期香港史研究資料選輯》,香港,三聯書店。蕭國健 1986 《清初遷界前後香港之社會變遷》,台北,台灣商務印書館。Hase, P., 2001 Beside the Yamen: Nga Tsin Wai Village, *Journal of the Hong Kong Royal Asiatic Society*, Vol. 39.

<sup>13</sup> 劉潤和 等 2009《九龍城風物誌》,香港,九龍城區議會。

<sup>14</sup> 劉潤和 等 2009《九龍城風物誌》,香港,九龍城區議會。

<sup>15</sup> 靳文謨 1688, 2006 《康熙新安縣誌》,張一兵 編 《深圳舊誌三種》,深圳,海天出版社。

Kowloon Fort and *Nga Tsin Tsuen* in 1898<sup>16</sup>. The villages of *Ma Tau Chung* (馬頭涌) and *Kau Pui Shek* (靠背石/交杯石) were established to the south and the east of Sacred Hill respectively. The abovementioned villages were all constructed during the middle of the 19<sup>th</sup> century<sup>17</sup> and were demolished in the 1920s.

- 3.2.13 "Co-loon" (Kowloon) was present on Western Charts during the late 18<sup>th</sup> and early 19<sup>th</sup> centuries<sup>18</sup>. The Kowloon Fort was erected by Chinese navy at Kowloon Bay coast with garrison of about 50 Chinese soldiers in 1811 and it was used in the battle against the British naval force when they intended to occupy Kowloon Bay in 1839<sup>19</sup>. Based on analysis of historical maps, after the British leased New Territories on 1 July1898, the Fort had been dismantled (**Figure 3.2**)<sup>20</sup>.
- 3.2.14 Hong Kong was a centre for smuggling opium in the late 1850s to early 1870s<sup>21</sup>. The Imperial Chinese Maritime Customs Services Kowloon Station, also known as the Kowloon Customs Station (九龍關), was therefore established in 2<sup>nd</sup> April 1887 with its headquarter set up in Central, Hong Kong<sup>22</sup>. According to the ca. 1887 historical map, the location of Kowloon Customs Station was next to Kowloon Fort (**Figure 3.1a**).
- 3.2.15 In order to provide a new masonry pier for Kowloon Customs Station (**Figure 3.1b**) and the navy steamer vessels for controlling opium smuggling, Major-general of *Depang Xie* (大鵬協副將) and Kowloon Deputy Magistrate (九龍巡檢司) ordered the construction of LTSB to replace an old timber pier in 1873 and the LTSB was completed in 1875, with its landward end connecting to the Pavilion for Greeting of Officials (接官亭) (**Figure 3.1b** and **3.3**). The LTSB was 210m long and a timber extension of 82m long was added to the seaward end of LTSB in 1892. The timber extension was converted to concrete structure in 1910 by the Public Works Department of the Hong Kong Government.
- 3.2.16 To Kwa Wan area was one of areas with frequent land quarrel in Kowloon during the late 19th century. Due to the possible threat to Sacred Hill, Sir Ho Kai (何啟) and Major General Wilson Black suggested enforcing new law to protect the Hill. In 1899, Sung Wong Toi Reservation Ordinance was declared to protect Sacred Hill and its surrounding area. The abovementioned area was reserved for the benefit of the public and banned

**AECOM** 12 June 2016

<sup>16</sup> 舒懋官 1819,2006 《嘉慶新安縣誌》,張一兵 編 《深圳舊誌三種》,深圳,海天出版社。

 $<sup>^{17}</sup>$  舒懋官  $^{1819,\,2006}$  《嘉慶新安縣誌》,張一兵 編 《深圳舊誌三種》,深圳,海天出版社。

<sup>&</sup>lt;sup>18</sup> Empson , H 1995 : *Mapping Hong Kong : A Historical Atlas*, Hong Kong Government Printer.

<sup>19</sup> 蕭國健 1997 《關城與炮台》,香港,香港歷史博物館。

<sup>&</sup>lt;sup>20</sup> Historical Map of 1904 (HD4a) shows that the original location of this Fort has become the Police Station in Kowloon City.

<sup>&</sup>lt;sup>21</sup> 林友蘭 1985《香港史話》,香港,上海印書館。Sayer, G. R. 1975: *Hong Kong, 1862 – 1919,* Hong Kong University Press.

<sup>22</sup> 區志堅、陳和順、何榮宗 2009 《香港海關百年史》,香港海關。

from the use of buildings or other purposes<sup>23</sup>. A stone wall was later built to surround the Sacred Hill area.

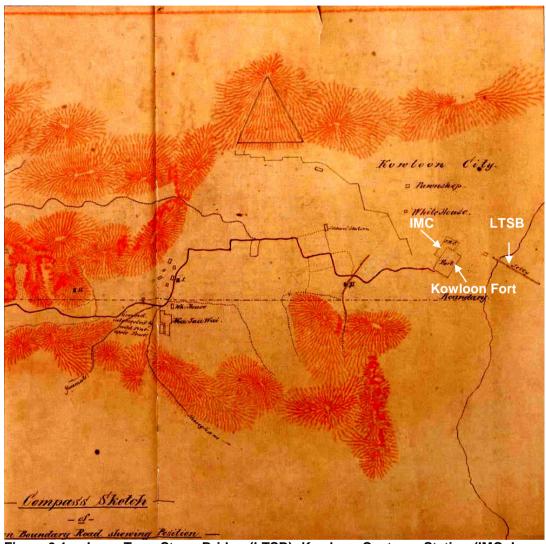


Figure 3.1a Lung Tsun Stone Bridge (LTSB), Kowloon Customs Station (IMC, Imperial Maritime Customs) and Kowloon Fort, about 1887

(Source: www.customsmuseum.cn, Chinese Maritime Customs Museum, Beijing.)

**AECOM** 

June 2016

<sup>23</sup> 林錦源 2002 〈論當前香港史研究的一些新概念---從《保護宋王台條例》說起〉,《香港考古學會會刊》第十五卷。

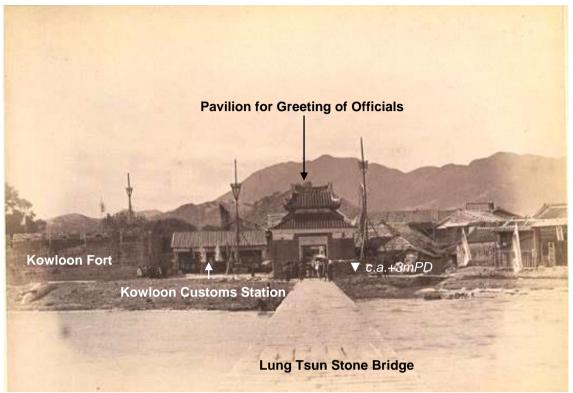


Figure 3.1b Lung Tsun Stone Bridge, Kowloon Customs Station and Kowloon Fort, 1898 (Source: Foceandeeop3000.blogspot.com)

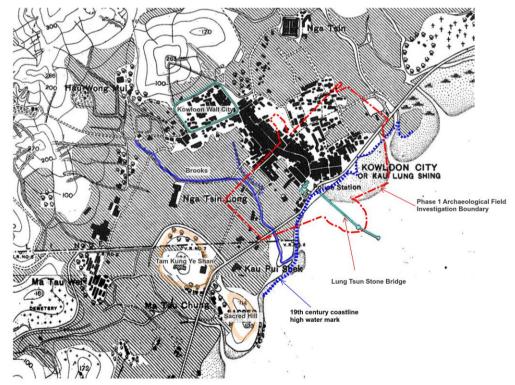


Figure 3.2 Landscape Feature in Kowloon Bay near Investigation Area (Indicative)
(Base map source: Lands Department 1904 Lion Hill Sheet No. 8
(HD4a))

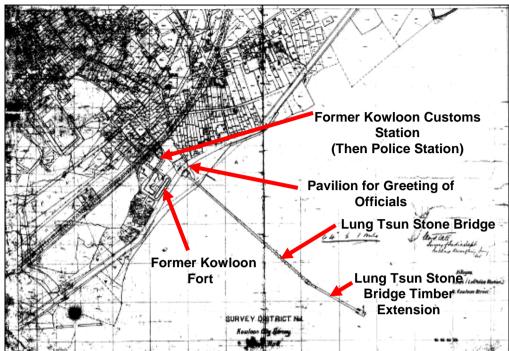


Figure 3.3

Lung Tsun Stone Bridge, Former Kowloon Fort and Former Kowloon
Customs Station (then Police Station)
(Source: Lands Department, 1905 Survey District No. 1 Kowloon City Survey Sheet No. 1)

## The Reclamation of Kai Tak Bund and Kai Tak Airport

- 3.2.17 The First Reclamation of Kowloon Bay coastal area was carried out between 1916 and the early 1920s, which was known as the Kai Tak Bund. Chinese businessmen Sir Ho Kai (何啟) and Mr. Au Tack (區德) established Kai Tak Land Investment Company in the early of 20<sup>th</sup> century. This company bought the rights to reclaim the northern part of Kowloon Bay, including the Investigation Area, for residential development. The reclamation of Kai Tak Bund was planned to be conducted in three stages. Stage one started in 1916 and finished by 1924, but the later stages did not proceed as the Company went bankrupt. About 170m of landward portion of LTSB was buried and the northern part of LTSB was disturbed during the reclamation works<sup>24</sup> (Figures 3.4, 3.5).
- 3.2.18 The Kai Tak Bund reclamation was completed in 1924. LTSB was shortened with only a concrete pavement of causeway linking up the seawall and the landing platform of the LTSB by 1933. In order to maintain the function of the LTSB, a 60m concrete pier was built to connect with the southern end of the LTSB between 1936 and 1937 and the pier was later renamed as Kowloon City Pier (Figures 3.4, 3.5).
- 3.2.19 After the Kai Tak Land Investment Company went into bankruptcy, the Colonial Government took over the Kai Tak Bund development in 1927. The residential development of Kai Tak Bund was halted for the construction of the Royal Air Force Airfield that was completed in 1930. The airfield was then renamed as Kai Tak Airfield<sup>25</sup> (**Figure 3.4**).
- 3.2.20 The Second Reclamation took place during the Japanese occupation between Dec.1941 and Aug.1945. The Japanese Government expanded Kai Tak Airfield to cater for their military needs. The Japanese troops began the extension works of the two new runways of Kai Tak Airfield in 1942. The extension works involved the demolition of houses in Kai Tak Bund and villages in Kowloon Bay, as well as further reclamation. The granite blocks forming the wall of Kowloon Walled City were also demolished by Japanese troops for the construction of the Kai Tak Nullah in 1942 (hereafter referred to as 1942 Nullah)<sup>26</sup>. Likewise, the remaining structure of the Kowloon City Pier was buried in the reclamation. Half of the Sacred Hill was also leveled for reclamation<sup>27</sup>. The extension works of Kai Tak Airfield were completed in 1943 (**Figures 3.6** and **3.7**).

<sup>24</sup> 劉潤和 等 2009《九龍城風物誌》,香港,九龍城區議會。

<sup>25</sup> 劉潤和 等 2009《九龍城風物誌》,香港,九龍城區議會。

<sup>&</sup>lt;sup>26</sup> 吳佛全 2006《七十年目睹的東九龍社區變化》,《田野與文獻:華南研究中心資料通訊》第 45 期,香港科技大學華南研究中心出版。陳雲 2005 《我思故我在——香港的風俗與文化》,香港,花千樹出版有限公司。

<sup>&</sup>lt;sup>27</sup> http://www.legco.gov.hk/1897-98/h980815.pdf

- 3.2.21 The Third Reclamation was carried out for the construction of Kai Tak International Airport between 1946 and 1971. When the British Colonial Government returned to Hong Kong, the military Kai Tak Airfield was re-opened and transformed for civilian use in 1946. In 1952, Kai Tak Airport was refurbished to accommodate the new generation of airplanes and was officially renamed as "Hong Kong International Airport" in 1954. The remaining Sacred Hill was leveled for reclamation materials. Reclamation for the new runway began in 1958, and the new runway and passenger terminal building were opened in 1959 (**Figure 3.8**). Further extension work of the runway was completed in 1971<sup>28</sup>.
- 3.2.22 The current Investigation Area was mainly occupied by the passenger terminal building and the multi-storey carpark of the old Hong Kong International Airport before its closure in 1998.

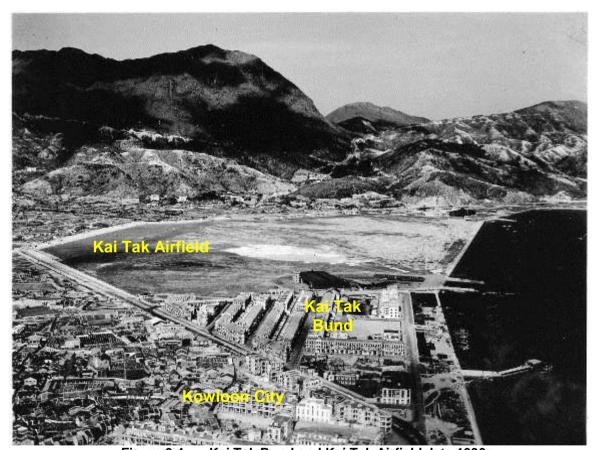


Figure 3.4 Kai Tak Bund and Kai Tak Airfield, late 1930s (Source: <a href="http://gwulo.com">http://gwulo.com</a>)

**A=COM** 17 June 2016

<sup>28</sup>周子峰 2011《圖解香港史:遠古至 1949 年》,香港 中華書局。http://www.cad.gov.hk/chinese/kaitak.html.



Figure 3.5 Historical Features, Study Area and Investigation Area (Indicative) (Source: Lands Department, 1924 Kowloon Peninsula Sheet 2 (HG1-2))



Figure 3.6 Aerial Photo of Kai Tak Airfield, 1949 (Source: Lands Department)

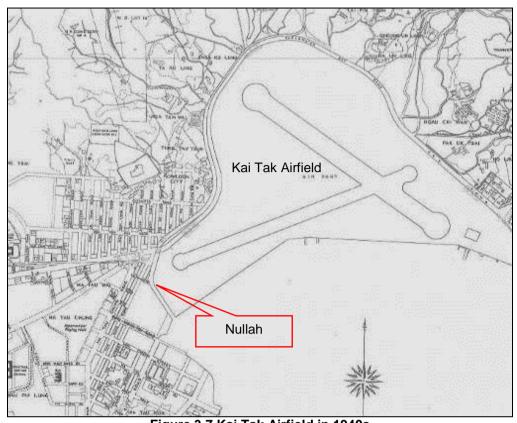


Figure 3.7 Kai Tak Airfield in 1940s (Source: Lands Department, the Kowloon Peninsula (HD28), 1947)



Figure 3.8 Kai Tak Airport Terminal Building, the 1960s (Source: Hong Kong Public Library Collection 1960s)

# 3.3 Archaeological Background

3.3.1 Nine archaeological surveys/investigations<sup>29</sup> have been conducted at the former North Apron Area, unearthing archaeological remains dating back to periods ranging from Song-Yuan to late Qing Dynasties. Archaeological excavations in the vicinity of the Investigation Area were conducted in four previous archaeological investigations as detailed in the ensuing paragraphs. 60102100/AFI-1-003 shows the layout plan of the previous archaeological excavations, except for the 1937 archaeological survey, in the Investigation Area. The 1937 archaeological survey conducted by W. Schofield neither marked the boundary of survey or recorded the location of discoveries on map, and hence is not shown in 60102100/AFI-1-003.

2003 South East Kowloon Development, Site Investigation at North Apron of Kai Tak Airport: Archaeological Investigation – (AT1 – AT10 excavated in 2003)

- 3.3.2 Test pits/trenches AT5, AT6, AT9a, AT9b and AT9c were located in the Investigation Area. Among these test pits/trenches, AT9a and AT9b were located where the Kowloon Fort sat and AT5, AT6 and AT9c were located in the vicinity of the Fort.
- 3.3.3 Only the 1950s to the 1990s Kai Tak Airport fill layers with no archaeological materials were identified in AT5. Test trench AT6 contained fill layers mixed with glazed wares, opium containers, roof tiles and other wastes, and marine deposits at +2.59mPD containing isolated findings of blue and white porcelain sherds from the late Qing period. Test pits AT9a, AT9b and AT9c were excavated as an attempt to search for the remnants of the Kowloon Fort that used to be on the coast of Kowloon Bay in the Qing period, but only fill layers mixed with tiles of unknown origin and marine deposit at +2.3mPD containing isolated sherds, potteries and roof tiles from Late Qing were found. No sign of Kowloon Fort was found and the 2003 Report speculated that "any remains of the Kowloon Fort would have been destroyed during the construction of the Kai Tak Airport" and "the residential development in 1920s had destroyed the Fort Foundation".

<sup>29</sup> List of archaeological surveys/investigations conducted in the former North Apron Area:-

<sup>(1)</sup> Hong Kong Archaeological Society, 1979 Schofield Memorandum of 1956, Journal of The Hong Kong Archaeological Journal, vo.8

<sup>(2)</sup> ERM 2003 South East Kowloon Development, Site Investigation at North Apron of Kai Tak Airport: Archaeological Investigation – Findings for Trenches AT1 – AT10. AMO archive.

<sup>(3)</sup> Maunsell 2008 Kai Tak Development Engineering Study cum Design and Construction of Advance Works – Investigation, Design and Construction: Final Archaeological Impact Assessment Report. CEDD archive.

<sup>(4)</sup> ENSR 2009 Sewage Interception Scheme in Kowloon City – Investigation, Contract No. SP 02/2008: Archaeological Survey Report. AMO archives.

<sup>(5)</sup> AECOM 2009 Kai Tak Development Engineering Study cum Design and Construction of Advance Works---Investigation, Design and Construction—Further Archaeological Investigation, CEDD archive.

<sup>(6)</sup> AECOM 2011 Kai Tak Development – Infrastructure at Former Runway and Remaining Areas of North Apron & Improvement of Adjacent Waterways – Design and Construction: Archaeological Investigation and Rescue Excavation of Song Dynasty Ceramics, CEDD archive.

<sup>(7)</sup> ERM 2007 Sewage Interception Scheme in Kowloon City – Pumping Station, Rising Mains and Trunk Sewers: Archaeological Survey-cum-Excavation, DSD archive.

<sup>(8)</sup> AECOM 2012 Full Excavation for Defining the Preservation Approach of Lung Tsun Stone Bridge, CEDD archive.

<sup>(9)</sup> ERM 2014 Shatin to Central Link (SCL) – Tai Wan and Hung Hom Section: Archaeological Survey-cum-Excavation for Sacred Hill (North), AMO archive.

- 3.3.4 Test pits/trenches AT4, AT7, AT10a and AT10b were excavated in the vicinity of the Investigation Area. No archaeological remains were identified in these trenches.
  - <u>2008 Kai Tak Development Engineering Study cum Design and Construction</u> <u>of Advance Works – Investigation, Design and Construction: Final</u> Archaeological Impact Assessment – (AA1 – AA5 excavated in 2008)
- 3.3.5 Test trenches AA2 and AA5 were located in the Investigation Area. The excavation of test trench AA2 was subdivided into AA2a, AA2b and AA2c to search for remnants of the Kowloon Fort. AA2b and AA2c were situated within the Kowloon Fort area while AA2a was in the vicinity of the Fort. However, no signs of the Kowloon Fort were identified even down to the depth of marine sand layer at +2.45mPD. The 2008 Report stated that "no in situ remains and no diagnostic artefacts relating to any of the target sites (Longjin Pier, Pavilion for Greeting of Officials, and Kowloon Fort) were found" and "the fort was robbed out and removed during the 1920s and later development works in the area".
- 3.3.6 Test trench AA5 and its subsequent extension AA5A to AA5D were located in the LTSB area. The investigation revealed the Landing Platform and nine out of the twenty Supporting Pillars of the LTSB, as well as a well-preserved decking between one pair of pillars (named as SP12 and SP13 in the 2012 full excavation). The concrete addition to the pillars on seaward side and to the Landing Platform was also identified in the excavation.
  - 2009 Kai Tak Development Engineering Study cum Design and Construction of Advance Works Further Archaeological Excavation (T3a to T3d excavated in 2009)
- 3.3.7 Test pits T3a to T3d were located in the Investigation Area. These test pits were proposed for investigating the location and details of the LTSB remnants. The landward end of LTSB on where the Pavilion for Greeting of Officials sat was identified in test pit T3a. Test pits T3b, T3c and T3d were located further southeast towards the seaward side of LTSB and Solid Mass Section of the LTSB were discovered.
  - 2012 Agreement No. KDO002/2011 Full Excavation for Defining the Preservation Approach of Lung Tsun Stone Bridge Remnants (full excavation carried out in 2012)
- 3.3.8 This excavation has revealed the full extent of the LTSB remnants. According to the excavation findings, remnants of LTSB were divided into four main sections: the Pavilion for Greeting of Officials, Solid Mass Section, Supporting Pillar Section, and Landing Platform. The foundation of LTSB was made of dressed granite slabs and it was connected by granite slabs on top as pedestrian decking.
- 3.3.9 The landward end of LTSB was severely disturbed by the construction of foundation and basement for the passenger terminal building and only the remains of the stone foundation of the Pavilion for Greeting of Officials and the

Phase 1 Archaeological Field Investigation Report

lower part of the Solid Mass Section could be observed on that side. Most supporting pillars were found without decking. The Landing Platform on the seaward end was connected by a causeway built after the reclamation of Kai Tak Bund by 1924. The Former Kowloon City Pier was extended into the sea from the Landing Platform, but only the concrete piles have remained.

#### 4 FIELD EVALUATION RESULTS

# 4.1 Stratigraphy

- 4.1.1 A total of nineteen (19) test squares and three (3) test trenches were excavated in the Investigation Area within the footprint of the ex-Passenger Terminal Building as well as the multi-storey carpark of the old Hong Kong International Airport (see 60102100/AFI-1-001). Strata were differentiated on the basis of soil colour, compactness, composition and artefacts found in the layer. In general five strata were identified. Some building remnants from the early 20<sup>th</sup> century were unearthed but they are with very low archaeological significance.
- 4.1.2 With reference to the historical background of the Investigation Area presented in Section 3.2, the general stratigraphy of the 19 test squares and 3 test trenches in the Investigation Area is determined as below:
  - Layer 1 (L1), 1950s to 1960s filled soil during the construction of Kai Tak Airport: This stratum was formed after the World War II in between the 1950s and the 1960s during the transformation of the military Kai Tak Airfield into civilian Kai Tak Airport, i.e. the former Hong Kong International Airport. The stratum is composed of compacted light yellow sandy soil. Underground structures of the ex-Passenger Terminal Building and multi-storey car park (such as concrete footings, concrete slab, water pipes, U-channel, drain pipes) of the former Hong Kong International Airport were found in this layer. No archaeological remain was identified in this stratum.
  - Layer 2 (L2), 1942 to 1945 filled soil from Kai Tak Airfield expansion by Japanese troops: This stratum was formed between 1942 and 1945 when Japanese Government conducted the expansion works of Kai Tak Airfield by demolishing houses and buildings in the area (See Figures 3.7 and 3.8). It is composed of reddish compacted clayey sand. The stratum contained building wastes (tiles, bricks, granite blocks, concrete, etc.) from the demolition of houses in Kai Tak Bund and its vicinity. Some daily utensils such as broken ceramic bowls, plates, cups, glass bottles were found in this stratum. However, no archaeological remain was identified in this stratum. This stratum covers the entire Investigation Area.
  - Layer 3 (L3), 1910s to 1930s filled and reclamation soil: This stratum was formed during the Kai Tak Bund and Kowloon City reclamation between the 1910s and the 1930s. It is composed of compacted reddish clayey soil. Majority of the eastern portion of the Investigation Area is within the original Kai Tak Bund area and most of the test squares and trenches in the Investigation Area contain this stratum, except for T3, T4, T6, T7, and T8. This stratum contained building wastes such as tiles, bricks and granite blocks. Wooden piles of the Kai Tak Bund shophouses and ceramic sherds dating back to early 20th century were identified, indicating the shophouse was filled in the area of Kai Tak Bund area. Red brick structure with cement

pavement was also identified in this stratum of T14. However, no remains of archaeological significance were identified in this stratum.

- Layer 4 (L4), Early 20<sup>th</sup> century sandy soil with house remains: This layer is composed of loose brownish black silty sand. The stratum has a thickness of around 0.3m to 0.4m. This stratum contained house remains such as broken roof tiles, floor tiles, concrete floor, and stone and brick wall foundations, etc. Green brick structure was discovered in this stratum of T19. A few ceramic sherds including blue and white porcelain wares and brown glazed pots dated back to late 19<sup>th</sup> and early 20<sup>th</sup> centuries were also identified. However, the remains had very low archaeological significance in this stratum.
- Layer 5 (L5), Marine sand: The stratum is composed of light grey marine sand. This is a layer with a few archaeological findings.

Table 4.1 Overall Stratigraphy of Phase 1 AFI

i able 4.1	Overall Stratigraphy of Phase 1 AFI			
Layer	Soil	Formation Time	Findings and remark	
L1	1950s to 1960s filled soil: light yellow sandy soil	In between the 1950s to 1960s during the construction of Kai Tak Airport	Underground structures of Kai Tak Airport were found.	
L2	1942 to 1945 filled soil: reddish clayey soil	In between 1942 and 1945 during the expansion of Kai Tak Airfield by Japanese troops	Building wastes from the demolition of Kai Tak Bund for the construction of the Airfield were found.	
L3	1910s to 1930s filled and reclamation soil	In between the 1910s to the 1930s during the reclamation of Kai Tak Bund and Kowloon City	Red colour bricks and roof tiles, buildings waste from demolished houses, wooden piles for the development of Kai Tak Bund, as well as ceramic drainage pipes of Kai Tak Bund shophouse were found.	
L4	Early 20 <sup>th</sup> century sandy soil: dark grey sandy soil	In early 20 <sup>th</sup> century	Floor tiles, greenish brick wall foundation, granite column and footing stones of early 20 <sup>th</sup> century house were found.	
L5	Marine sand	Before the 1900s	A few archaeological findings.	

**4.1.3** The stratigraphy in each test square and trench is presented in **Table 4.2**. For more details, please refer to **Appendix A**. T14 was selected as the example to illustrate the stratigraphy. (**Figures 4.1 and 4.2**)



Figure 4.1 Photographic Record of T14, Northwest profile

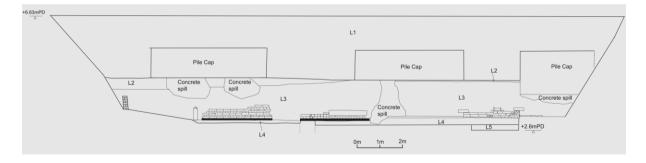


Figure 4.2 Stratigraphy of T14, Northwest profile

Table 4.2 Overall Stratigraphy of T1 to T21, Phase 1 AFI

Test	Table 4.2 Overall Stratigraphy of 11 to 121, Phase 1 AFI  Layer*					
Square/	L1	L2	L3	L4	L5	Summary of
Trench	Depth (mPD)	Depth (mPD)	Depth (mPD)	Depth (mPD)	Depth (mPD)	findings
T1#	0	0	-	-	-	N/A
	(+5.84~+3.8) O	(+3.8~+3.15) O				
T2#			-	-	-	N/A
	(+5.94~+4) O	(+4~+2.91) O				L A E L COTO
Т3	(.5.61 .4.1)	(144.124)	х	0	O (+1.9 +1.61)	L4: Early 20 <sup>th</sup>
	(+5.61~+4.1)	(+4.1~+3.1)		(+3.1~+1.8)	(+1.8~+1.61)	century house remains
T4	0	0	х	0	0	L4: Early 20 <sup>th</sup>
	(+6.23~+4.1)	(+4.1~+3.2)		(+3.2~+2.4)	(+2.4~+1.91)	century house
	, , , , , , , , , , , , , , , , , , ,	,		,	,	remains
T5#	0	-	-	-	-	N/A
T6	(+5.81~+3.74)	0		0	0	No finalinas
10	(+5.78~+3.8)	(+3.8~+3.2)	x	O (+3.2~+2.0)		No findings
T7	Ω	(13.0-13.2)	x	0	(+2.0~+0.8) O	No findings
	(+6.47~+3.95) O	(+3.95~+3.0) O		(+3.0~+2.4) O	(+2.4~+1.51) O	
T8	0		Х			L4: Early 20th
	(+6.12~+4.1)	(+4.1~+3.03)		(+3.03~+2.6)	(+2.6~+2.2)	century house
						remains
Т9	O (+5.51~+3.2)	X	O (+3.2~+1.8)	x	O (+1.8~+1.7)	L3: Shophouse wooden piles of
	(+3.31~+3.2)		(+3.2~+1.0)		(+1.0~+1.1)	Kai Tak Bund
T10#	0	Х	-	-	-	N/A
	(+5.79~+2.68) O					
T11		0	Х	0	0	L4: Early 20th
	(+6.83~+3.9)	(+3.9~+3.45)		(+3.45~+2.85)	(+2.85~+2.0)	century house
T12		0	0		0	remains
112	O (+6 9~+4 1)	O (+4 1~+3 9)		X	(+2.5~+1.93)	No findings
T13	(+6.9~+4.1) O	(+4.1~+3.9) O	(+3.9~+2.5) O	X	0	No findings
	(+6.85~+4.1)	(+4.1~+3.9) O	(+3.9~+2.5)		(+2.5~+2.3)	]
T14				0	(+2.5~+2.3) O	L4:Early 20th
	(+6.63~+4.3)	(+4.3~+3.9)	(+3.9~+3.16)	(+3.16~+2.8)	(+2.8~+2.6)	century house
						and building
T14a	0	0	0	0	0	remains L4:Early 20 <sup>th</sup>
1174	(+6.63~+4.3)	(+4.3~+3.9)	(+3.9~+3.16)	(+3.16~+2.8)	(+2.8~+2.6)	century house
	,	,	,	,	,	and building
						remains
T15#	0	X	-	-	-	N/A
T16	(+7.19~-+3.30) O		0		0	No findings.
110	(+6.78~+3.55)	Х	(+3.55~+1.9)	X	(+1.9~+1.8)	ino imaings.
T17	0	0	0	х	0	No findings.
	(+6.74~+4.1)	(+4.1~+3.9) x	(+3.9~+2.5)		(+2.5~+2.2)	
T18#	(+6.74~+4.1) O	X	-	-	-	N/A
T/ 0	(+6.94~+3.71) O					10
T19	(165 144)	O (14.1.13.0)	(13 0 13 8)	O (12.8, 12.5)	O (125 1221)	L3:
	(+6.5~+4.1)	(+4.1~+3.9)	(+3.9~+2.8)	(+2.8~+2.5)	(+2.5~+2.21)	Shophouse wooden piles
						2. Ceramic
						drainage piles of
						Kai Tak Bund
						L4:
						1.Early 20 <sup>th</sup>
						century house and building
						remains
T20	0	х	0	0	0	No findings
	(+7.11~+3.9) O		(+3.9~+2.4) O	(+2.4~+2.0) O	(+2.0~+1.7) O	
T21		0	_	-		L4:Early 20 <sup>th</sup>
	(+6.63~+4.3)	(+4.3~+3.9)	(+3.9~+3.16)	(+3.16~+2.8)	(+2.8~+2.6)	century house and building
						remains
		I	l	1		

# Excavation was halted due to potential danger caused to the nearby road.

#### 4.2 Features

4.2.1 Among the excavated test squares and test trenches, only nine of them, i.e. T3, T4, T8, T9, T11, T14, T14a, T19 and T21, contained remains of houses that were recorded as "features". All features were found in L3 and L4. Detailed stratigraphic relations, drawings and photographic records are presented in Appendix A.

*T*3

- 4.2.2 A row of dressed granite blocks in two tiers (T3-F1) was aligned in bearing 335° at an elevation of +3.05mPD on top of L4. Ten granite blocks were exposed in T3, each of which has an average size of about 44cm x 30cm x 20cm. The length of the exposed alignment is 220cm, and its width 80cm (see **Figure 4.3**).
- 4.2.3 The linear alignment and the configuration of these granite blocks suggested that it was a conscious planning to demark some sort of boundary (such as fence or house wall). However, there is no other archaeological evidence and record to prove its exact function. Stratigraphic evidence suggested that it has been disturbed by the later Kai Tak Airfield reclamation that formed L2.



Figure 4.3 Granite Block Alignment (T3-F1) in T3 (facing east)

T4

4.2.4 The features discovered in T4 were more complicated compared to the single granite block alignment in T3 (**Table 4.3** refers). A row of dressed granite wall foundation (T4-F2) which marked a house's external wall was aligned in

<sup>\* &</sup>quot;O" – Layer was present in the test square /trench; "x" – Layer was absent from the test square /trench; "-" – excavation was halted due to technical obstacles and the existence of layer was unclear.

Phase 1 Archaeological Field Investigation Report

338° at +2.96mPD. A cement paved floor (T4-F4a) and rammed earth (T4-F4b to e) were identified next to the granite wall foundation. A layer of roof tile (T4-F1) covering the cement floor was also observed (see **Figures 4.4** to **4.8**). The features were remains of a house disturbed by the Kai Tak Airfield reclamation that formed L2.

Table 4.3 House Remains Found in T4

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T4-F1	Layer of broken roof tile	<ul> <li>Thickness: 24cm</li> <li>Found only in the eastern half of T4, on top of T4-F4 and bounded by T4-F2 to the west</li> </ul>	+3.20	Collapsed roof tiles of a house
T4-F2	Granite block alignment in two tiers	<ul> <li>Alignment length exposed: 470cm</li> <li>Alignment width: 42cm</li> <li>Alignment bearing: 338°</li> <li>Quantities of granite blocks: 10</li> <li>Average size of each granite block: 40×38×34 cm³</li> <li>The alignment run through the U-channel and sewage pipe in the south of T4</li> </ul>	+2.96	Wall foundation
T4-F3	Granite blocks and brick with cement paved surface	Granite block length: 90cm Granite block width: 36cm Granite block thickness: 8cm Cement paving thickness: 0.5cm	+2.98	Doorsteps into the building area
T4-F4a	Cement floor	Thickness: 2cm	+2.96	Cement Floor
T4-F4b	Layer of rammed sandy clay	Thickness: 2cm	+2.94	Top layer of the earth foundation
T4-F4c	Layer of loose sand	Thickness: 8cm	+2.92	second layer of the earth foundation
T4-F4d	Layer of loose sand	Thickness: 2cm +2.84		Third layer of the earth foundation
T4-F4e	Layer of rammed sandy clay	Thickness: 6cm	+2.82	Fourth layer of the earth foundation



Figure 4.4 House Remains in T4 (facing southeast)

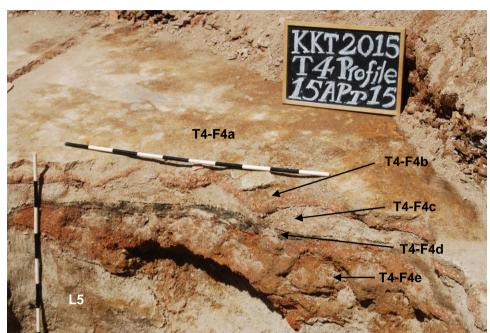


Figure 4.5 Rammed Earth of House Remains in T4 (facing northeast)



Figure 4.6 House Remains in T4 (facing east)

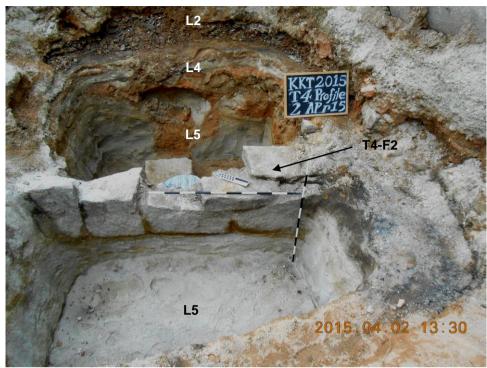


Figure 4.7 Granite Blocks Alignment in T4 (facing southwest)



Figure 4.8 House Remains in T4

## *T*8

4.2.5 A row of combined brick and granite block structure (T8-F1) and a row of dressed granite blocks in two tiers (T8-F2), as well as a cement paved tile floor (T8-F3a) were identified in T8 on top of L4. Rammed earth (T8-F3b to 3d) was found beneath the cement paved tile floor. The granite block walls mark a house boundary. It is believed to be house remains, which was disturbed by Kai Tak Airfield reclamation (L2) (see **Figure 4.9**). The remains contain the following contents (**Table 4.4**):

Table 4.4 House Remains Found in T8

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T8-F1	Combined brick and granite block alignment with cement finishing	<ul> <li>Alignment length exposed: 184cm</li> <li>Alignment width: 66cm</li> <li>Alignment bearing: 75°</li> <li>Quantities of granite blocks: 7</li> <li>Average size of each granite block: 36 × 28 × 12 cm³</li> <li>Concrete finishing thickness: 2cm</li> </ul>	+3.63	Wall foundation
T8-F2	Granite block alignment in two tiers with cement finishing	<ul> <li>Alignment length exposed: 220cm</li> <li>Alignment width: 48cm</li> <li>Alignment bearing: 342°</li> <li>Quantities of granite blocks: 12</li> <li>Average size of each granite block: 40×28×23 cm³</li> <li>Concrete finishing thickness: 2cm</li> </ul>	+3.32	Wall foundation
T8-F3a	Cement pavement	Thickness: 2cm	+3.03	House floor and paving above the rammed earth
T8-F3b	Layer of floor tile	Thickness: 4cm	+3.01	Top layer and paving above the earth foundation
T8-F3c	Layer of loose sandy clay	Thickness: 17cm	+2.97	Second layer of the earth foundation
T8-F3d	Layer of rammed sandy clay	Thickness: 20cm	+2.8	Base of the earth foundation

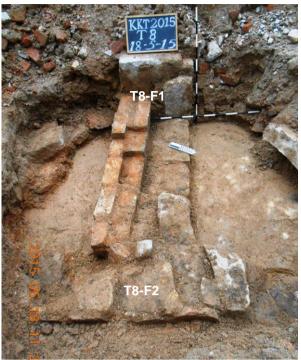


Figure 4.9 House Remains in T8 (1 of 2)

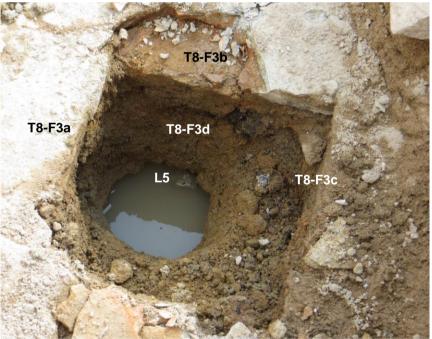


Figure 4.10 House Remains in T8 (2 of 2)

<u>T9</u>

4.2.6 Five wooden piles (T9-F1) at an elevation of c.a. +2.9mPD were found in the eastern part of T9. Each wooden pile diameter measured average in 20cm. The length of the exposed part is 120cm.

4.2.7 The location of these piles and drainage pipes indicated that they were underground facilities and foundation structures. Hence, it is believed that they were infrastructures of Kai Tak Bund (see **Figure 4.11**). Stratigraphic evidence suggested that it has been destroyed by the later Kai Tak Airfield reclamation (L2).



Figure 4.11 Wooden Piles in T9 (facing northwest)

#### T11

4.2.8 A layer of broken roof tile (T11-F1), granite block (T11-F4), two brick structures (T11-F2 and 3), and a cement floor with rhombic pattern (T11-F5a) were identified in T11 on top of L4. With reference to the top elevation of these features, it is believed that they are house remains of the early 20<sup>th</sup> century, which was disturbed by Kai Tak Airfield reclamation (L2) (see **Figure 4.12**). The remains contain the following contents (**Table 4.5**):

Table 4.5 House Remains Found in T11

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T11-F1	Layer of roof tile	Thickness: 20cm	+3.45	Collapsed roof tiles of a house
T11-F2	Red brick structure with cement finishing	<ul> <li>Length exposed: 62cm</li> <li>Width exposed: 22cm</li> <li>Bearing: 328°</li> <li>Average size of each brick: 28×12×6cm³</li> <li>Concrete finishing thickness: 2cm</li> </ul>	+3.87	Wall foundation
T11-F3	Red brick structure with cement finishing	<ul> <li>Length exposed: 82cm</li> <li>Width: 50cm</li> <li>Bearing: 338°</li> <li>Average size of each brick: 28×12×6cm³</li> <li>Concrete finishing thickness: 2cm</li> </ul>	+3.9	Wall foundation

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T11-F4	Granite block structure with cement finishing	<ul> <li>Alignment length exposed: 68cm</li> <li>Alignment width: 38cm</li> <li>Alignment bearing: 70°</li> <li>Quantities of granite blocks: 1</li> <li>Average size of each granite block: 40×34×40cm³</li> <li>Concrete finishing thickness: 4cm</li> </ul>	+3.64	Wall foundation
T11-F5a	cement floor	Thickness: 4cm	+3.25	Floor and paving above the earth foundation
T11-F5b	Layer of loose clayey sand deposit	Thickness: 2cm	+3.21	Top layer of the earth foundation
T11-F5c	Layer of sand deposit	Thickness: 34cm	+3.19	Base of the earth foundation



Figure 4.12 House Remains in T11

#### T14 and T14a

- 4.2.9 A linear alignment of green brick wall foundation with granite blocks (T14-F4) marked a house boundary was identified in T14 on top of L4 at +2.83mPD. A red brick wall with cement finishing (T14-F7) was identified inside the house boundary. Two green brick walls (T14-F5 and F6) run along house boundary toward further south. Cement footing (T14-F9) is found outside the house walls. It is believed to be house remains, which was disturbed by Kai Tak Bund and Kowloon City reclamation (L3) (see **Figures 4.13** to **4.19**).
- 4.2.10 As the archaeological excavation in T14 revealed some extensive green brick structures with cement paving, an extension excavation of 2m by 2m (hereafter referred as T14a) was made to the north of the green brick structures T14-F4 in order to find out the potential extent of the structures already revealed in T14.
- 4.2.11 T14a contains three features. T14a-F1 (red brick structure with cement paste) and T14a-F2 (green brick structure) are the northern extension of T14-F4 (green brick structure). They shared the same bearings and are closely joined together with cement paste. The distinct separation of green and red bricks suggested there may be two phases of construction. Attempts to date the two phases have been made during the AFI, but the archaeological evidence alone cannot be conclusive. T14a-F3 (**Figures 4.20, 4.21** and **4.22**) is a cement paving similar to that of T14-F9 in terms of materials (cement mix with pebbles) and elevation (around+2.8mPD).
- 4.2.12 The remains of T14 and T14a are shown below (Table 4.6):

Table 4.6 House Remains Found in T14 and T14a

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T14-F1	Area of floor tile	<ul> <li>Length: 90cm</li> <li>Width: 30cm</li> <li>Average size of each floor tile: 40×30×4cm³</li> </ul>	+3.16	House floor above rammed earth foundation T14-F3
T14-F2	Area of cement floor Thickness: 4cm		+3.17	House floor above rammed earth foundation T14-F3
T14-F3	Layer of sandy clayey deposit	Thickness: 4cm	+3.12	Top layer of rammed earth foundation
T14-F4	Green brick structure	<ul> <li>Length: 250cm</li> <li>Width exposed: 12cm</li> <li>Bearing: 43°</li> <li>Number of tiers count from base: 3</li> <li>Average size of each brick: 28×10×6cm³</li> </ul>	+3.3	House wall foundation
T14-F5	Green brick structure	<ul> <li>Length exposed: 240cm</li> <li>Width exposed: 32cm</li> <li>Bearing: 43°</li> <li>Number of tiers count from base: 4</li> <li>Average size of each brick: 28×10×6cm³</li> </ul>	+3.2	House wall foundation

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T14-F6	Green brick structure	<ul> <li>Length exposed: 200cm</li> <li>Width: 50cm</li> <li>Bearing: 43°</li> <li>Number of tiers count from base: 8</li> <li>Average size of each brick: 28×12×6cm³</li> </ul>	+3.2	House wall foundation
T14-F7	Red brick structure with concrete paving	<ul> <li>Length exposed: 118cm</li> <li>Width: 40cm</li> <li>Bearing: 315°</li> <li>Number of tiers count from base: 10</li> <li>Average size of each brick: 28×12×6cm³</li> <li>Concrete paving thickness: 8cm</li> </ul>	+3.24	House wall foundation
T14-F8	Cement paving	<ul><li>Thickness: 20cm</li><li>Distribution: middle of T14</li></ul>	+2.84	Cement paving between footings
T14-F9	Cement footing	<ul><li>Thickness: 20cm</li><li>Distribution: eastern part of T14</li></ul>	+2.80	Cement footing under wall foundation T14-F6
T14-F10	Red brick structure	Height: 60cm	+3.8	Wall foundation
T14-F11	Wooden pile	Height: 40cm	+3.2	Kai Tak Bund house foundation pile
T14a-F1	Red brick structure with cement paste	<ul> <li>Length exposed: 120cm</li> <li>Width: 15cm</li> <li>Bearing: 43°</li> <li>Number of tiers count from base: 2</li> <li>Average size of each brick: 32×10×6cm³</li> </ul>	+3.35	House wall foundation
T14a-F2	Green brick structure	<ul> <li>Length: 100cm</li> <li>Width exposed: 12cm</li> <li>Height measured base: 43cm</li> <li>Bearing: 43°</li> <li>Number of tiers count from base: 8</li> <li>Average size of each brick: 28×10×6cm³</li> </ul>	+3.23	House wall foundation
T14a-F3	Cement footing	<ul><li>Thickness: 20cm</li><li>Distribution: middle of T14a</li></ul>	+2.80	Cement footing under wall foundation T14a-F2

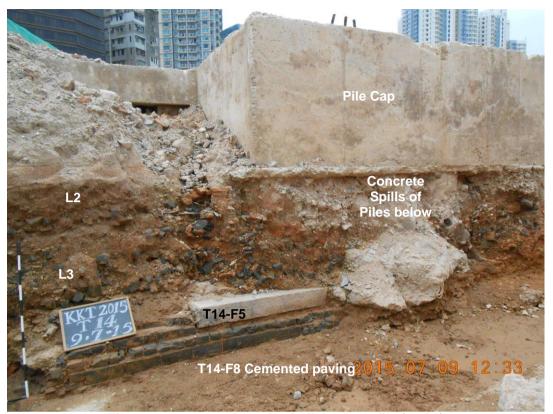


Figure 4.13 House Remains in T14,NE profile (1 of 7)

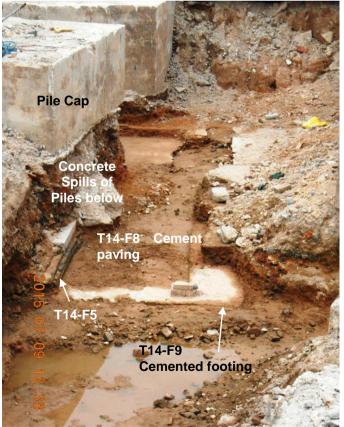


Figure 4.14 House Remains in T14, facing northeast (2 of 7)

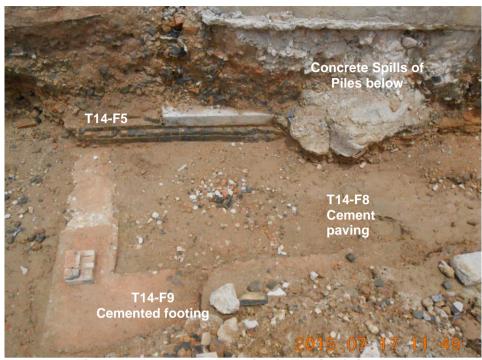


Figure 4.15 House Remains in T14 (3 of 7)



Figure 4.16 House Remains in T14 (4 of 7)



Figure 4.17 House Remains in T14 (5 of 7)



Figure 4.18 House Remains in T14 (6 of 7)



Figure 4.19 House Remains in T14 (7 of 7)

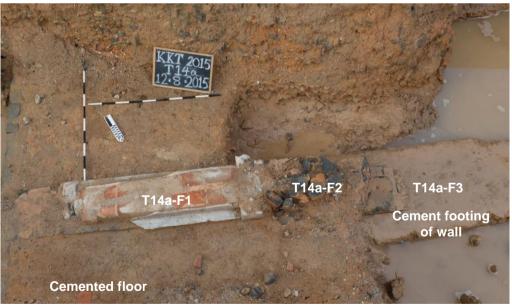


Figure 4.20 House Remains (wall and cement footing) in T14a (1 of 3)



Figure 4.21 House Remains (wall and cement footing) in T14a (2 of 3)

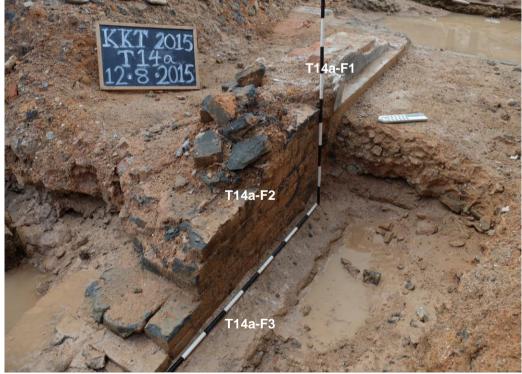


Figure 4.22 House Remains (wall and cement footing) in T14a (3 of 3)

<u>T19</u>

4.2.13 Two wooden piles (T19-F1) and two ceramic drainage pipes (T19-F2 and F3) were identified in T19 in L3. With similar elevation, location and material as in

T9, the wooden piles in T19 believed to be shophouse foundation piles of Kai Tak Bund. The drainage pipes imprinted with a company named "Doulton & Co. Ltd" onto one of the pipes were of Kai Tak Bund period. Doulton & Co. Ltd was a British company focusing on ceramic production from 1854 to 1993<sup>30</sup>. Stratigraphic evidence suggested that the remains in L3 have been disturbed by the later Kai Tak Airfield reclamation (L2). For T19-F1 location, please refer to **Appendix A**. The remains contain the following contents:

Table 4.7 Content of Kai Tak Bund Remains Found in T19

Table 4.7 Content of Nati Tak Band Nemanis i Cana in 110						
Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation		
T19-F1	Wooden piles	<ul><li>Diameter: 10cm</li><li>Length exposed: 30cm</li></ul>	+3.04	Shophouse foundation piles		
T19-F2	Drainage pipe	<ul> <li>Pipe length exposed: 132cm</li> <li>Pipe width: 12cm</li> <li>Bearing: 315°</li> </ul>	+2.98	Kai Tak Bund underground utility		
T19-F3	Drainage pipe with haunching concrete	<ul> <li>Pipe length exposed: 218cm</li> <li>Pipe width: 18cm</li> <li>Bearing: 9°</li> <li>Haunching concrete length exposed: 128cm</li> <li>Haunching concrete width: 38cm</li> </ul>	+2.9	Kai Tak Bund underground utility		

4.2.14 Two granite block structures (T19-F4 and F5), two brick structures (T19-F6 and F7) and two areas of roof tiles (T19-F8 and F9) were identified in T19 on top of L4 at +2.83 mPD to +3.1mPD. The granite block was a column footing of an entrance porch of a house. The wall foundation marked the house boundaries. It is believed to be house remains, which was destroyed by Kai Tak Bund and Kowloon City reclamation (L3) (see **Figures 4.23** to **4.27**). The remains contain the following contents:

Table 4.8 Content of House Remains Found in T19

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T19-F4a	Three layers of granite footing	<ul> <li>Length exposed: 116cm</li> <li>Width: 110cm</li> <li>Bearing: 352°</li> <li>Quantities of granite blocks: 7</li> <li>Average size of each granite block in second and third row: 116×36×20cm³</li> <li>Size of granite block in first row: 40×34×30cm³</li> </ul>	+3.1	Column footing of house entrance porch
T19-F4b	Layer of clayey sand	Thickness: 20cm	+3.0	Layer of rammed earth foundation
T19-F5	Two rows of granite block structure	<ul> <li>Length: 160cm</li> <li>Width exposed: 40cm</li> <li>Bearing: 45°</li> <li>Quantities of granite blocks: 8</li> <li>Average size of each granite block in second row: 40×20×10cm³</li> </ul>	+3.02	Foundation

<sup>30 &</sup>quot;Doulton History." Retrieved July 20, 2015 (http://www.potteryhistories.com/doultonhistory.html)

			1	
		• Size of granite block in first row: 44×20×20cm <sup>3</sup>		
T19-F6	Green brick structure	<ul> <li>length exposed: 152cm</li> <li>Width: 56cm</li> <li>Bearing: 357°</li> <li>Number of tiers count from base: 3</li> <li>Average size of each brick: 26×10×6cm³</li> </ul>	+3.08	Wall foundation
T19-F7	Red brick structure	<ul> <li>Length exposed: 200cm</li> <li>Width: 30cm</li> <li>Bearing: 352°</li> <li>Number of tiers count from base: 1</li> <li>Average size of each brick: 28×12×6cm³</li> </ul>	+3.05	Wall foundation
T19-F8a	Area of floor tile	<ul> <li>Length: 310cm</li> <li>Width exposed: 200cm</li> <li>Average size of each floor tile: 38×38×4cm³</li> </ul>	+2.83	Floor
T19-F8b	Layer of sand	Thickness: 9cm	+2.79	Layer of rammed earth foundation
T19-F9a	Area of floor tile	<ul> <li>Length exposed: 158cm</li> <li>Width exposed: 60cm</li> <li>Average size of each floor tile: 38×38×4cm³</li> </ul>	+2.92	Floor
T19-F9b	Layer of sandy clay	Thickness: 8cm	+2.88	Layer of rammed earth foundation



Figure 4.23 House Remains in T19 (1of 2)

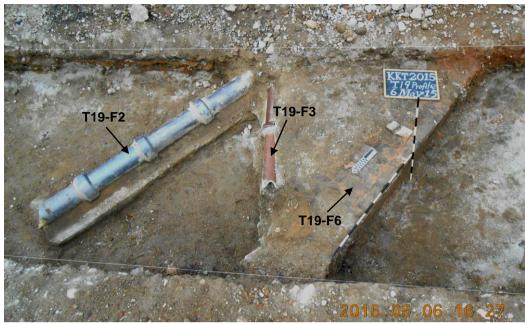


Figure 4.24 House Remains in T19 (2 of2)



Figure 4.25 Imprint on Ceramic Pipes in T19



Figure 4.26 Granite Structures in T19



Figure 4.27 House Remains on northeast end in T19

# <u>T21</u>

4.2.15 This test trench of 4m x 10m was an additional test trench excavated due to the remains found in T14. It was aimed to reveal the potential extent of the structures already revealed in T14 and T14a.

- 4.2.16 Findings in T21 were similar to T14 and T14a. T21-F3 and T21-F5 (green brick structure) with T21-F4 and T21-F6 (cement footing) were similar to those found in T14 and T14a. Their same bearing (N 307°), elevation and materials suggested that these features belong to the same structures built at the same time. On the other hand, T21-F1 (concrete pavement) and T21-F2 (rammed earth) might indicate a second phase addition/modification of this structure as in T14a, but the archaeological evidence alone cannot be conclusive. For T21-F8 and T21-F9 locations, please refer to **Appendix A**.
- 4.2.17 The remains contain the following contents (see also **Figures 4.28** to **4.30**).

Table 4.9 Content of House Remains Found in T21

Feature No.	Materials	Quantities and Measurements and Distribution	Top Elevation (in mPD)	Interpretation
T21-F1	Concrete pavement	<ul><li>Thickness: 5cm</li><li>Distribution: western side of T21</li></ul>	+3.30	Ground surface of the early 20th century
T21-F2	Rammed earth	<ul><li>Thickness: 18cm</li><li>Distribution: western side of T21 beneath T21-F1</li></ul>	+3.25	Rammed earth below T21-F1
T21-F3	Green brick wall	<ul> <li>Length exposed: 220cm</li> <li>Bearing: 317°</li> <li>Number of tiers count from base: 4</li> <li>Average size of each brick: 28×10×6cm³</li> </ul>	+3.04	House wall foundation; buried by T21-F2
T21-F4	Cement footing	<ul><li>Thickness: 5cm</li><li>Distribution: western side of T21</li></ul>	+2.63	Brick wall foundation T14a-F2
T21-F5	Green brick wall	<ul> <li>Length exposed: 230cm</li> <li>Bearing: 317°</li> <li>Number of tiers count from base: 8</li> <li>Average size of each brick: 28×10×6cm³</li> </ul>	+3.54	House wall
T21-F6	Cement footing	<ul><li>Thickness: 17cm</li><li>Distribution: western side of T21 beneath T21-F1</li></ul>	+2.92	Brick wall
T21-F7	Cement paving	<ul><li>Thickness: 5cm</li><li>Distribution: western side of T21</li></ul>	+2.75	Cement paving foundation
T21-F8	Wooden Posts	Six posts	+2.8	1920s-1930s Kai Tak Bund Shophouses wooden piles
T21-F9	Cement paving	Rectangular shape	+2.88	Cement paving foundation

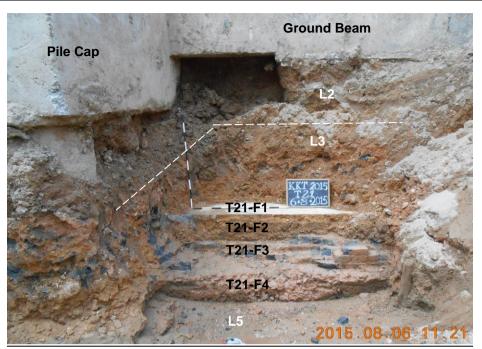


Figure 4.28 Stratigraphy of T21 (1 of 3)

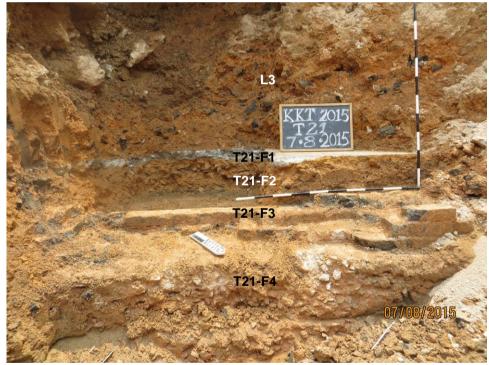


Figure 4.29 Building remains in T21 (2 of 3)



Figure 4.30 Building remains in T21 (3 of 3)

#### 4.3 Artefact

4.3.1 A total of 142 pieces of artefacts have been collected from various test squares and trenches within the Investigation Area (Table 4.10). As the artefacts found in L2, L3 and L4 dated to the early to mid 20<sup>th</sup> century, only the representative ones were collected. Undiagnostic village wares (stone ware and brown glazed ware) contained no identifiable characteristics regarding their manufacturing date and are thus not datable. Blue and white porcelains, polychrome porcelains, glass and building materials being the datable and diagnosable artefact types found from this Investigation. Details of 12 selected artefacts are presented below.

Table 4.10 Artefact Statistics

*Test Square / Trench	Layer	Blue and White	Celadon	White Porcelain	Poly- chrome Porcelain	Stone Ware	Brown Glazed Ware	Floor Tile	Roof Tile	Brick	Glass
T4	L1	1									
T1	L2	1				2					
Т3	L2	2				1				1	
13	L4	5			1	1	2				2
T4	L4	2		1					8	1	4
	L5	1									
	L1				1		7		5		
Т6	L2	2				1	2				
'0	L4						10		2		
	L5								2		
	L2	7							1		
T7	L4	1				2	2		7		1
Т8	L4							1		1	
T9	L3	4			1		1		1		
T11	L1	1									
	L2	3	1		1	1			2	2	1
T14	L3	1		_							
T19	L3	25			4			1			
	Total	56	1	1	10	8	24	2	28	5	7

<sup>\*</sup> Other test squares and trenches contain no artefacts and hence not included in this table.

#### Blue and White Porcelain

4.3.2 The majority of the blue and white porcelain sherds are small pieces of base and rim sherds with unclear pattern and are not good indicators for dating due to their impaired condition. The body colour ranged from reddish orange to greyish white. The glaze varies from grey to greyish white. Application of glazing to the base and the foot-ring varied. Most of the bases were fully glazed, but some remained unglazed. Crackle was uncommon in the glaze.

The cobalt colour varied from greyish blue to blue. Drawing patterns included general floral, chrysanthemum, crane, Chinese character and circular line.

#### Celadon

4.3.3 One piece of celadon rim sherd dated to Song Dynasty was found in L2 of T11. The sherd is small in size and was collected from the filled soil of Kai Tak Airfield reclamation. Since L2 is a filled soil stratum, this rim is a secondary deposit.

#### White Porcelain

4.3.4 One piece of white porcelain body sherd was found in L4 of T4. The paste colour and glaze are white. The sherd is small in size, which made it difficult to diagnose based on its visual elements. However, according to the production technique, it can be dated to the early 20<sup>th</sup> century.

# Polychrome Porcelain

4.3.5 Eight pieces of polychrome porcelains sherds were collected from L1 to L4. Drawing patterns included general floral, fruits, circular line etc. Since L1 to L3 are filled soil strata of Kai Tak Bund and Kai Tak Airport, artefacts found in these strata are regarded as secondary deposits. Only the sherd from L4 of T3 indicated that it was unearthed from original deposit of early 20<sup>th</sup> century and the dating of it is meaningful.

#### Undiagnostic Village Ware

4.3.6 These village wares consist of brown glazed and stone ware sherds. The majority are small pieces of body sherds that are undiagnostic. Jars in various shapes and sizes are the most common wares. The body texture of the sherd is hard with grey to yellowish grey in colour. The exterior was either glazed in brown or remained unglazed. As for the interior, brown glaze coating was common.

#### Floor Tile

4.3.7 Red floor tiles were identified in T4, T8, T11, T14 and T19 above the foundation of a house in early 20<sup>th</sup> century. These floor tiles are square in shape without any pattern or decoration.

#### Roof Tile

4.3.8 Broken pan tiles were identified in T4, T8, T11, T14 and T19 in red or grey were the only tile type that can be identified. The identified roof pieces were small. The sub-rounded shape of the broken edge of the tiles in L5 of T6 indicated that they are probably secondary deposit being washed by wave actions.

#### **Brick**

4.3.9 Large amount of broken bricks were identified from L2 to L3 in every test squares and trenches. They were possibly house remains of the early 20<sup>th</sup> century that were destroyed by the Kai Tak Bund and the later development. In T4, T8, T11 and T14, brick structures were identified on top of L4, indicating that they were house remains of the early 20<sup>th</sup> century. The bricks can be divided into red and green bricks with average size of 28cm x 12cm x 6cm.

#### Glass

4.3.10 Glass was identified mainly in L4, which suggested they were early 20<sup>th</sup> century remains. Bottles in various colour, shape and size are the most common utensil.

#### Selected Finds

- 4.3.11 Among the unearthed artefacts, 12 pieces of artefacts are selected as they contained identifiable dating features according to their body texture, form, glaze and pattern. The dating of blue and white porcelain sherds refers to the ceramics found in Guangdong according to their typology. The selected finds numbering system in this Report combined the test square and trench, strata, and piece number. For example, T1 L1:1 represents test square T1, strata L1 and the first piece of selected finds.
- 4.3.12 Selected Finds No. *T1 L2:1* (see **Figure 4.31**) is a blue and white rim sherd of bowl with hard and greyish white body. The surface is smooth and without crackle. The cobalt is greyish blue with pattern of floral on the exterior and double circle at the interior base. Its length is 4.5cm and width is 4cm. According to its glaze, body and morphological style and pattern, it can be dated to the Late Qing dynasty to the early 20<sup>th</sup> century.

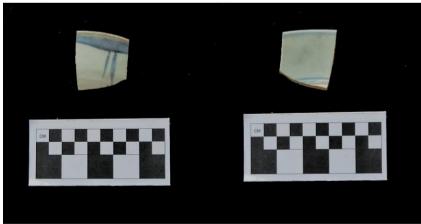


Figure 4.31 Small Finds No. T1 L2:1

4.3.13 Selected Finds No. *T3 L4:1* (see **Figure 4.32**) is a blue and white bowl sherd with hard and greyish white body. The surface is smooth and without crackle. The cobalt is greyish blue with pattern of chrysanthemum on the exterior and Chinese character "敬" (respect) at the interior base. Its height is 4.3cm and foot ring diameter is 5.8cm. According to its glaze, body and morphological style and pattern, it can be dated to the Late Qing Dynasty to the early 20<sup>th</sup> century.



Figure 4.32 Small Finds No. T3 L4:1

4.3.14 Selected Finds No. *T3 L4:2* (see **Figure 4.33**) is a polychrome porcelain body sherd of bowl with hard and greyish white body. Covered by greyish white glaze on both sides, the surface is smooth and without crackle. The cobalt is blue with pattern of double circle on rim and base of both sides. Green colour of dotted pattern and leaf pattern painted on the exterior. Its length is 11cm and width is 5cm. According to its glaze, body and morphological style and pattern, it can be dated to the Late Qing dynasty to the early 20<sup>th</sup> century.



Figure 4.33 Small Finds No. T3 L4:2

4.3.15 Selected Finds No. *T3 L4:3* (see **Figure 4.34**) is white glass small bottle. Its rim diameter is 3.1cm, base diameter is 3.8cm and height is 3.6cm. According to its morphology, it can be dated to the early 20<sup>th</sup> century.



Figure 4.34 Small Finds No. T3 L4:3

4.3.16 Selected Finds No. *T4 L4:1* (see **Figure 4.35**) is a blue and white plate sherd with hard and white body. Covered by white glaze on both sides, the surface is smooth and without crackle. The cobalt is blue with pattern of chrysanthemum and ribbon on the interior body and base. Moreover, a cobalt line is on the rim and a small floral pattern is on the exterior body bounded by lines. Foot ring diameter 8cm and height is 2.5cm. According to its glaze, body and morphological style and pattern, it can be dated to the early 20<sup>th</sup> century.



Figure 4.35 Small Finds No. T4 L4:1

4.3.17 Selected Finds No. *T6 L5:1* (see **Figure 4.36**) is a roof tile sherd with hard and reddish orange body. Its length is 5cm and width is 2cm. The sub-angular shape of the broken edge of the tile indicated that it is a secondary deposit. According to body, it can be dated to the early 20<sup>th</sup> century.

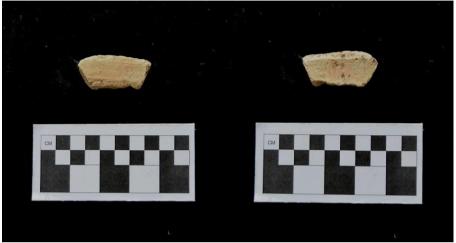
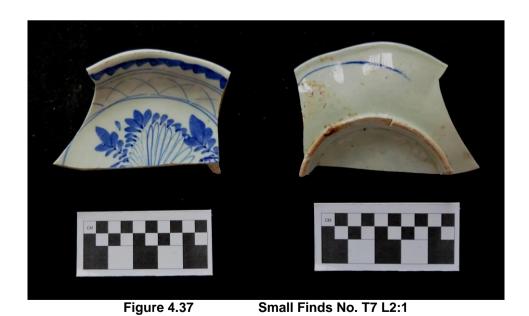


Figure 4.36 Small Finds No. T6 L5:1

4.3.18 Selected Finds No. *T7 L2:1* (see **Figure 4.37**) is a blue and white plate sherd with hard and white body. The rim is in floral shape and it covered by white glaze on both sides, the surface is smooth and without crackle. The cobalt is blue with pattern of fence on the interior body and chrysanthemum at the base. A line of cobalt is on the exterior body. Foot ring diameter 11cm and height is 4cm. According to its glaze, body and morphological style and pattern, it can be dated to the early 20<sup>th</sup> century.



4.3.19 Selected Finds No. *T8 F1:1* (see **Figure 4.38**) is a brick with hard and reddish orange body. Cement finishing with 0.7cm is paved on the exterior of the brick.

Its length is 28cm, width is 11.5cm and height is 6cm. According to its body and morphological style, it can be dated to the early 20<sup>th</sup> century.



Figure 4.38 Small Finds No. T8 F1:1

4.3.20 Selected Finds No. *T9 L2:1* (see **Figure 4.39**) is a blue and white rim sherd of bowl with hard and greyish white body. Covered by greyish white glaze on both sides, the surface is smooth and without crackle. The cobalt is greyish blue with pattern of Chinese character "喜喜" (double happiness) on the exterior body. Its length is 8cm and width is 5cm. According to its glaze, body and morphological style and pattern, it can be dated to the early 20<sup>th</sup> century.



Figure 4.39 Small Finds No. T9 L3:1

4.3.21 Selected Finds No. T11 L2:1 (see Figure 4.40) is a celadon rim sherd of bowl with hard and greyish white body. Covered by yellowish green glaze on both sides, the surface is smooth and without pattern and crackle. Its length is 4.5cm and width is 3cm. According to its glaze, body and morphological style, it can be dated to the Song Dynasty. However, it is found in the filled soil of Kai Tak Airfield reclamation (L2) and hence considered a secondary deposit.

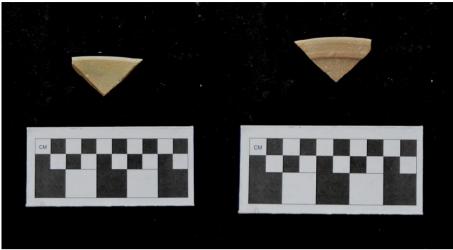


Figure 4.40 Small Finds No. T11 L2:1

4.3.22 Selected Finds No. *T14 L3:1* (see **Figure 4.41**) is a blue and white bowl sherd with hard and greyish white body. Covered by greyish white glaze on both sides, the surface is smooth and without crackle. The cobalt is blue with pattern of floral inside panels on the exterior and interior body. The rim covered by cobalt line and a spiral is at the interior base. Rim diameter is 11.4cm, foot ring diameter is 6.4cm and height is 5.5cm. According to its glaze, body and morphological style and pattern, it can be dated to the early 20<sup>th</sup> century.



Figure 4.41 Small Finds No. T14 L3:1

4.3.23 Selected Finds No. T19 L3:1 (see Figure 4.42) is a blue and white bowl sherd with hard and white body. Covered by white glaze on both sides, the surface is covered with crackle. The cobalt is blue with pattern of double circle under the rim and pattern of cranes on the exterior body. The Rim diameter is 13cm, foot ring diameter is 6 cm and height is 7.5cm. According to its glaze, body and morphological style and pattern, it can be dated to the early 20<sup>th</sup> century.



Figure 4.42 Small Finds No. T19 L3:1

#### 5 IMPACT ASSESSMENT

### 5.1 Implication of Archaeological Findings

<u>House Remains in Test Squares and Trenches T3, T4, T8, T9, T11, T14, T14a, T19 and T21</u>

- 5.1.1 All house remains identified in T3, T4, T8, T9, T11, T14, T14a, T19 and T21 were found between +2.8mPD and +3.6mPD on top of L4 (in T3, T4, T8, T11, T14, T14a,T19 and T21) and L3 (in T9). They can be dated through stratigraphic sequence and historical map overlaying.
- 5.1.2 Stratigraphically speaking, features in T3, T4, T8, T11, T14, T14a, T19 and T21 (**Tables 4.3** to **4.8** refer) were on top of L4 and were buried by L3 or L2 above, hence dated to the early 20<sup>th</sup> century. On the other hand, features in T9 were built in L3 and opens at L1, hence dated to the Kai Tak Bund period.
- 5.1.3 Based on 1904, 1905 and 1924 historical maps, historical photograph (Figures 3.1b, 3.3 and 3.4) and LTSB excavation, settlements of this area shows that most houses were built with bearings between N307° and N358°, and their floor elevation were at c.a. +3mPD, which coincides with the archaeological findings in T3, T4, T8, T11, T14, T14a, T19 and T21 (see Table 5.1 and Figure 5.1b). There is a correlation between the historical maps information and the archaeological evidence on site, which suggests that these house remains belong to the early 20<sup>th</sup> century.

Table 5.1 Bearings of Archaeological Features in T3, T4, T8, T11, T14, T14a, T19 and T21

Feature No.	Interpretation	Bearing (north)	Base Elevation
T3-F1	Land boundary	335°	+3.0mPD
T4-F2	Wall foundation	338°	+2.88mPD
T8-F1	Wall foundation	75° (right angle of 345°)	+3.02mPD
T8-F2	Wall foundation	342°	+3.03mPD
T11-F2	Wall foundation	328°	+3.26mPD
T11-F3	Wall foundation	338°	+3.24mPD
T11-F4	Wall foundation	70° (right angle of 340°)	+3.25mPD
T14-F9	Cement footing	305°	+2.83mPD
T19-F4a	House foundation	352°	+2.9mPD
T19-F5	House foundation	45° (right angle of 315°)	+2.83mPD
T19-F6	Wall foundation	357°	+2.98mPD
T19-F7	Wall foundation	352°	+3.05mPD
T14a-F2	Wall foundation	307°	+3.26mPD
T14a-F3	Cement footing	307°	+2.72mPD
T21-F1	Concrete slab	307°	+3.27mPD
T21-F3	Wall foundation	307°	+3.28mPD

#### On Kowloon Fort (T14)

5.1.4 From the 1898 and the 1900s historical photo (**Figures 3.1b** and **5.2**), it is known that the Kowloon Fort had a battery using large quantities of dressed granite slabs on its exterior (which possibly wrapped the rammed earth or other fill materials inside). In light of this, finding of groups of granite slabs at its original location could imply the presence of this battery of the Fort at T14. However, this field investigation did not find any granite slabs in such condition. In fact, as presented in **Table 4.2** and Sections 4.2.9 to 4.2.12 and 4.2.15 and 4.2.17, the lack of any granite slabs (and potential fill materials of the battery) identified suggested that the Kowloon Fort has been demolished entirely, as late as the construction of the Kai Tak Bund in the 1930s where no sign of the Fort was observed on the 1930s' survey map (**Figure 5.3**).

# On Kowloon Customs Station and Kowloon City Police Station (T14, T14a and T21)

- 5.1.5 Archaeological findings in T14, T14a and T21 revealed green (and red) brick structures, rammed earth beneath and a cement pavement at the base just above the marine deposit. While the archaeological evidence could not conclude the function of this structure due to the lack of any signature artefact, historical maps and photos suggested that these structural remains might be the remains of Kowloon City Police Station (see **Figure 3.1b**, **5.1a** and **5.1b**). But the archaeological evidence alone cannot be conclusive.
- 5.1.6 From the late 19th to early 20th century historical maps and Report of the Captain Superintendent of Police for the Year 1899, the original Kowloon Customs Station was used as Kowloon City Police Station since the British formally took over New Territories in April 1899. The Kowloon City Police Station's opening date was 16th April 189932, the Customs Station was then demolished a few years later, a new two storey Western style police station was subsequently built at the Customs Station site (Figures 3.1b, 5.1b and **5.2**). Based on the known extent and orientation of Lung Tsun Stone Bridge and comparing 1904, 1905 and 1924 maps of Kowloon City (Figures 3.3, 3.4 and 3.6); it is confirmed that T14, T14a and T21 are within the location of Kowloon Custom Station or the Kowloon City Police Station. However, as presented in Sections 4.2.9 to 4.2.12 and 4.2.15 to 4.2.17, the field investigation results showed that there is no archaeological evidence suggesting the function of this house remain is related to the Customs Station. In light of this, the features identified in T14, T14a and T21 cannot be point towards the original Kowloon Customs Station or the Kowloon City Police Station.
- 5.1.7 From the 1900s' historical photo, the Kowloon City Police Station was built in two storey Western style with long veranda at its façade (**Figure 5.1a, 5.2**). Similar police stations were built at Tai O in Lantau Island, Au Tau and Ping

**A=COM** 61 June 2016

Hong Kong Police 1900 Report of the Captain Superintendent of Police for the Year 1899. "At Kowloon City and Cheung Chau the Police Station are quartered in the old Customs Station there."

Shan in Yuen Long region in 1899 to 1902 (**Figure 5.1a**). Due to modern materials and techniques (e.g. concrete finish, cemented footing and red bricks) used in the Kowloon City Police Station construction, the significance of the Kowloon City Police Station remains, if existed, are considered very low.

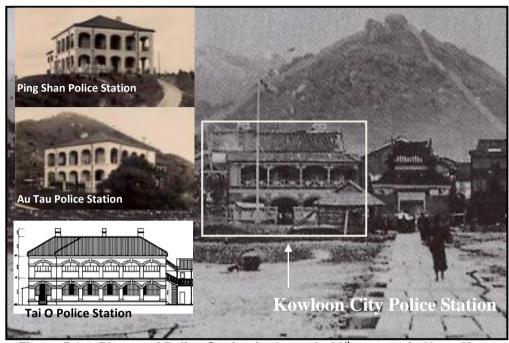


Figure 5.1a Photos of Police Station in the early 20th century in Hong Kong

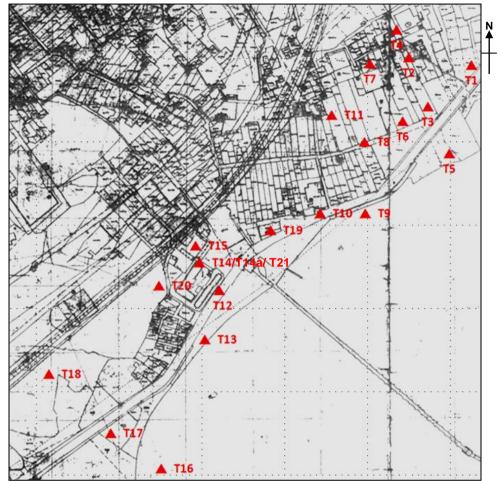


Figure 5.1b Indicative Location of Test Squares and Trenches marked on 1905 Survey Map (Source: Lands Department)



Figure 5.2 Lung Tsun Stone Bridge & Kowloon Fort, the 1900s (Source: http://gwulo.com)

- 5.1.8 As shown in a later survey map in 1930s (**Figure 5.3**), all these early 20<sup>th</sup> century houses within the Investigation Area of this Report have been removed and replaced by shophouses of Kai Tak Bund. In the same map, T9 and T19 were both inside the Kai Tak Bund shophouses area. Wooden piles in T9 and the drainage pipes of T19 can therefore be interpreted as the foundation piles of Kai Tak Bund houses and its underground utilities. The Kai Tak Bund residences were then demolished during the construction of Kai Tak airfield and later Kai Tak Airport.
- 5.1.9 The house remains in T3, T4, T8, T9, T11 and T19 have modern origins, which were destroyed by either the Kai Tak Bund reclamation (for T4, T9 and T19) or the Kai Tak Airfield construction (T3, T8, T11 and T19).

### Kowloon Fort and Kowloon Customs Station (Test Trench T14, T14a and T21)

- 5.1.10 Despite the lack of findings from the supposed Kowloon Fort location (around T14 of this excavation) found in pervious archaeological investigations, this AFI still attempts to assess whether the Fort (or its remnants) still exists on its original location today. Test trench T14 is designed to locate at the Fort area to investigate its possible existence (**Figures 5.4a** and **5.5**). Desktop studies already revealed that a box culvert has been constructed in 2009 across the southern part of the Kowloon Fort. Attempts have been made to recover the Fort remains through trial excavation and watching brief <sup>33</sup> in 2003, 2008 and 2009 in and around the Fort, but no remains of this Fort was found (details on the locations of existing utilities and archaeological field investigations previously conducted are shown in drawing nos. **60102100/AFI 1/004** and 005). Test trench T14 is therefore placed on the northern wall of the Fort in order to obtain a holistic picture of the condition of the Fort. The findings of T14 are described in Sections 4.2.9 to 4.2.12 and **Appendix A**.
- 5.1.11 The findings at T14, T14a and T21 contained house remains, including concrete floor, cemented footings and brick wall foundations. The discovery were made at an elevation approximately between +3.2mPD and +3.6mPD with bearings 307°. This coincide with the early 20<sup>th</sup> century house remains identified in T3 (granite rows at +3.05mPD on L4), T4 (+2.8 to +3.2mPD on L4), T8 (+2.8 to +3.6mPD), T11 (+3.2 to +3.6mPD) and T19 (+2.8 to +3.1mPD).
- 5.1.12 From the 1898 historical photo (**Figure 3.1b**), the Kowloon Customs Station was built in Chinese vernacular style, with entrance porch (前檐廊) at the façade of the building. On the 1904 and 1905 historical maps(**Figures 3.3** and **3.4**), however, only the Kowloon City Police Station was marked on the map, with no signs of the Kowloon Customs Station.
- 5.1.13 It is certain that these findings were house remains of some structures. However, there is no archaeological evidence to suggest any functional or historical relevancy of these house remains. On the other hand, there is no archaeological evidence to prove their relations to any significant historical,

<sup>&</sup>lt;sup>33</sup> Per. comm. with AMO officers.

cultural, or social events in the past. Yet, according to the 1904, 1905 and 1924 historical maps, there was a police station constructed at the eastern side of T14. The plan and orientation of the house remains (307°) coincided with the south western corner of this police station (**Figures 5.4a** and **5.5**).

- 5.1.14 A cement floor (T14-F2) and a brickwall footing (T14-13) were directly lain on marine sand found in T14,T14a and T21. It indicated no remnants related to Kowloon Customs Station were beanth such house remains (**Figures 5.4a** and **5.4b**).
- 5.1.15 According to archaeological findings of 2003<sup>34</sup> and current findings, the 1924 Kai Tak Bund seawall levels was at elevation of +3.05mPD, house remains of late 19<sup>th</sup> and early 20<sup>th</sup> centuries are at around +3.0 mPD, it is believed that remains of Kowloon Fort and Kowloon Customs Station (at elevations of +2.80mPD to+3.24mPD) were fully destroyed by the subsequent development threats. It is known that the Kowloon Fort had a battery using large quantities of dressed granite slabs on its exterior which possibly wrapped the rammed earth or other fill materials inside, a granite tablet with four Chinese characters above Fort's entrance arch, if finding of groups of granite slabs at its original location could imply the presence of this battery of the Fort at test trench T14, however there is no such dressed granite slabs and any granite tablet was found in T14.
- 5.1.16 The two declared monuments, Former Chinese Customs Station at Fat Tau Chau Island dated to ca. 1662 to 1887<sup>35</sup> and Former Yamen Building at the Kowloon Wall City Park were built in the period between middle and late 19<sup>th</sup> century. Their construction materials are green bricks, dressed granite wall foundation, ceramic and granite floor tiles, it is believed that construction materials and method of Kowloon Customs Station was similar to the Yamen and Chinese Customs Station at Fat Tau Chau Island. However, there is no such construction materials were found in the three trenches, TP14, TP14a and T21, In light of this, the Kowloon Fort and Kowloon Customs Station were fully demolished for Kowloon City Police Station and the subsequent development threats.
- 5.1.17 Coupled with the relatively modern construction materials used of these house remains (e.g. concrete and red bricks), the house remains in the Layer 4 of T14, T14a and T21 can be dated to the early 20<sup>th</sup> century. While there is no artefactual evidence to suggest the function of this house remains, the location coincidence with the Kowloon City Police Station is on the 1904, 1905 and 1924 maps suggested that these remains may belong to this Kowloon City Police Station. While historical evidence may suggest the existence of Kowloon Customs Station in this area, it is difficult to draw a direct correlation between the archaeological discovery at T14, T14a and T21 and the Kowloon Customs Station. According to Hong Kong police history, the original Customs Station was used as Kowloon City Police Station since British took

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<sup>&</sup>lt;sup>34</sup> ERM 2003 South East Kowloon Development, *Site Investigation at North Apron of Kai Tak Airport: Archaeological Investigation – Findings for Trenches AT1 – AT10.*, AMO archive.

<sup>35</sup> 古物古蹟辦事處 2007 《香港佛頭洲遺址 2004 年考古調查簡報》,《華夏考古》,2007·4 期。

over New Territories in April 1899, a few years later, the Customs Station was demolished, a new two storey Western style police station was then erected at the original Customs site. In light of this, the archaeological significance of these believed to be Police Station remains in T14, T14a and T21 are considered very low due to lack of archaeological evidence to suggest any functional or historical relevancy to the Kowloon Customs Station and Kowloon Fort as well as the relatively modern materials used in the construction. Furthermore, the investigation work on site revealed that all the remains found in the Layer 4 of T14, T14a and T21 were significantly destroyed by the subsequent developments, in particular, the pile caps and ground beams of the ex-airport buildings (relevant discussion in Section 5.1.15, **Figures 4.1**, **4.2** and **5.6**). As such, the significance of the remaining house remains left on site is considered very low due to its disturbed nature.

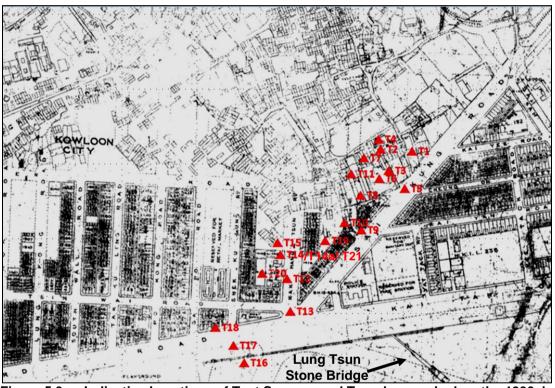


Figure 5.3 Indicative Locations of Test Squares and Trenches marked on the 1930s' Survey Map (Source: Lands Department)

5.1.18 The excavation at T14, T14a and T21 has reached marine deposit at +2.69mPD. Given that all materials above the marine sand layer have been examined, it is concluded that T14, T14a and T21 contained no remains of the Kowloon Fort. It is believed that the Kowloon Fort was totally demolished and its foundation was further destroyed by late developments. The findings of T14 reconfirmed the findings/conclusions of previous archaeological excavations and watching brief in 2003, 2008 and 2009 (i.e. no remains of Kowloon Fort were discovered).

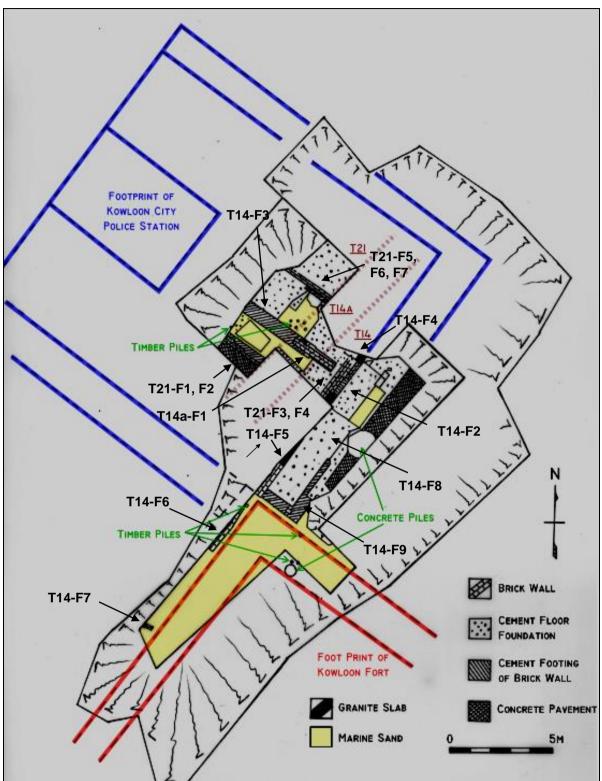


Figure 5.4a Plan of T14, T14a and T21 in relations with the Footprints of Kowloon City Police Station and Kowloon Fort by overlaying a 1924 map (Red dot line: Kowloon Fort footprint; blue dot line: Kowloon City Police Station footprint)

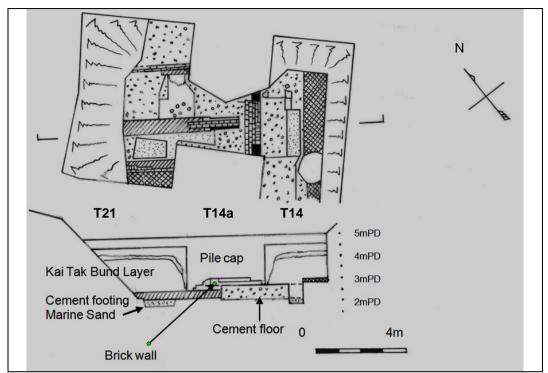


Figure 5.4b Cross Section of T14, T14a and T21

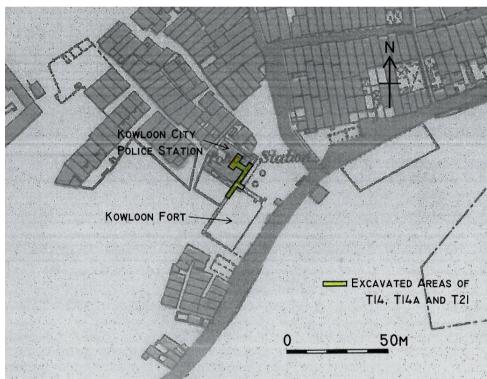


Figure 5.5 Location of T14, T14a and T21 overlay on the 1924 map
(Base map source: Lands Department 1924 Kowloon Peninsula Sheet 2 (HG1-2))



Figure 5.6 Pile Caps and Ground Beams at T14, T14a and T21.

On the Kai Tak Airport (Ex-Passenger Terminal Building and associated multi-storey carpark)

5.1.19 Throughout the excavation, it has been noted that the remains of underground structures of the Former Kai Tak Airport has been left *in-situ*. This has caused difficulties to the investigation work, in particular in T14, T14a and T21, for obtaining holistic information of the features discovered. Based on technical drawings of Kai Tak Airport and observation during Phase 1 AFI, the base of the pile cap is at approximately +3.6mPD (**Figure 5.6**). According to the side notes on the construction drawings of the Passenger Terminal Building<sup>36</sup>, each pile could reach a depth of 50 to 65 feet (about 15 to 20m,). Since the original ground of the Kowloon Fort and Kowloon Customs Station (**Figure 3.1**) was at c.a. +3.0mPD, these piles of Kai Tak Airport have destroyed any archaeological materials during its construction in the 1950s. Hence, the Kai Tak Airport Terminal Building and associated multi-storey carpark have a negative impact to the archaeology of the Investigation Area. Please refer to drawing no. **60102100/AFI 1/004** on the location of the abovementioned pile caps.

<sup>&</sup>lt;sup>36</sup> Hong Kong Government 1959 Kai Tak Airport Development: Proposed Franki Piling Plan – Terminal Building at Kai Tak Airport. CEDD Archive.

### Halted excavation at T1, T2, T5, T10, T15 and T18

5.1.20 Excavation of six test squares (T1, T2, T5, T10, T15 and T18) did not reach the marine sand layer due to various reasons (Table 4.2 refers). One additional test square T20 was added in order to obtain better results than T15 and T18, which their excavations were hindered by the existing sewage pipes. Although archaeological information were not obtained from these six test squares, the surrounding test squares / trenches provided sufficient information to understand the archaeological phenomena, which supplemented the assessment of archaeology of the Investigation Area.

## 5.2 Archaeological Potential Areas

- 5.2.1 The Investigation Area was located in the original coastal area of Kowloon Bay in the early 20<sup>th</sup> century prior to reclamation works of Kai Tak Bund development in pre-WWII period, and later development of Kai Tak Airport since the 1950s, No *in situ* artefact, archaeological feature and stratum dated to Song-Yuan Dynasties or prehistoric period were identified in the Investigation Area.
- 5.2.2 The relatively modern construction materials used for the house remains (e.g. concrete, cement and red bricks) identified in Investigation Area suggested that they were built in the early 20<sup>th</sup> century, which were then severely disturbed by the Kai Tak Bund reclamation between 1916 and 1924 as well as the reclamation and construction works of Kai Tak Airfield between 1942 and 1945 and the Kai Tak Airport's construction and extension between the 1950s and the 1990s.
- 5.2.3 Majority of the Investigation Area is located on the reclamation area and within the footprint of former Passenger Terminal Building and multi-storey carpark, the underground structures of these buildings such as pipe caps and basement had disturbed or, even destroyed the original structures of Kowloon Fort, Customs Station and Kowloon City Police Station. No archaeological evidence could suggest either a functional or historical relevancy of the original Kowloon City Police Station building, or any relations to any historical, cultural or social event in the past. In light of this, the archaeological significance of findings of early 20<sup>th</sup> century house remains and believed to be Kowloon City Police Station remains is considered very low.
- 5.2.4 It is believed that the remains within the entire area of the Investigation Area were disturbed or destroyed by the works conducted for Kai Tak Bund and Kowloon City (stratum L3), Kai Tak Airfield (stratum L2) and Kai Tak Airport (stratum L1). Layer 4 was found in the landward side of the entire area of investigation area, dated back to late 19<sup>th</sup> to early 20<sup>th</sup> centuries. Some structural remains, such as cement floor, tiles, wooden piles, ceramic pipes and column stone blocks have been discovered. However, these remains showed no correlations to Lung Tsun Stone Bridge(LTSB). They only showed chronological similarities with the LTSB. Thus Layer 4 and the other area behind the 19<sup>th</sup> century coastline has very low archaeological significance, except the known extent of LTSB, which has been fully excavated in 2012.

# 5.3 Findings of the Impact Assessment

- 5.3.1 Based on the field investigation and the fact that the remains had been significantly damaged or even destroyed by the subsequent developments, the Investigation Area (except the extent of LTSB, where the works to be implemented under the Stage 5A Infrastructure Works would not encroach into ) has very low archaeological significance. Thus, no impact arising from the Stage 5A Infrastructure Works is anticipated.
- 5.3.2 As there are no impacts anticipated in the Investigation Area (except the extent of LTSB, where the works to be implemented under the Stage 5A Infrastructure Works would not encroach into) no mitigations measure would be required for implementation of the Stage 5A Infrastructure Works.

#### 6 CONCLUSION

- 6.1.1 Investigation Area is is located at the former North Apron Area bounded by the Kai Tak Nullah to the east, PERE to the north and the former Passenger Terminal Building to the west. The southern boundary of the investigation area makes reference of the deduced 19<sup>th</sup> century coastline and covers the area of Lung Tsun Stone Bridge(LTSB). Since the announcement of archaeological discoveries under the Shatin to Central Link (SCL) project in late 2013, there has been strong public aspiration for *in-situ* preservation of the relics unearthed in the area. It was considered necessary to carry out further archaeological investigations prior to the construction of the proposed Stage 5A infrastructure works for serving the development sites at the western portion of the former North Apron Area at Kai Tak Development Area, to ascertain the possible existence, extent, depth and to assess significance of any relics found within the footprint of the Stage 5 infrastructure works and the related development sites.
- 6.1.2 The overall objective of the Phase 1 AFI covering the footprint of Stage 5A Infrastructure Works is to ascertain the possible existence, extent, depth of artefact and archaeological feature within the footprint of the Project not previously known, especially from the Song-Yuan Dynasties(960-1368AD), to enable the formulation of the preservation approach for those remains having high heritage value.
- 6.1.3 The geological, historical and archaeological background of the Investigation Area has been reviewed. The superficial deposit of the Investigation Area is alluvium and marine sand, major reclamations covered the alluvium and marine sand had been carried out since early 20<sup>th</sup> century for the development of Kai Tak Bund and Kai Tak Airport.
- 6.1.4 The historical literatures recorded human settlement in Kowloon City area in Song-Yuan Dynasty. Later in Qing Dynasty, villages constructed in Kowloon City area, and Kowloon Customs Station, Kowloon Fort and Lung Tsun Stone Bridge (LTSB) built in the Investigation Area. The Investigation Area was then subjected to three phases of reclamations since the early 20<sup>th</sup> century by the Kai Tak Bund and Kowloon City development in the 1910s, Kai Tak Airfield construction in the 1930s to the middle 1940s and the Kai Tak Airport construction since the 1950s.
- 6.1.5 According to the field evaluation results, the overall stratigraphy of Investigation Area can be divided into five strata:
  - L1 is 1950s to 1960s filled soil during the construction of Kai Tak Airport.
     No archaeological remains were discovered.
  - **L2** is 1942 to 1945 filled soil from Kai Tak Airfield expansion by Japanese troops. No archaeological remains were discovered.
  - **L3** is 1910s to 1930s filled and reclamation soil. Ceramic sherds dated early 20<sup>th</sup> century were discovered.

- **L4** is early 20th century sandy soil. Ceramic sherds dated from the late 19<sup>th</sup> to early 20<sup>th</sup> centuries were discovered along with house remains of the early 20<sup>th</sup> century in T3, T4, T8, T11, T14, T14a, T19 and T21.
- **L5** is marine sand stratum.
- 6.1.6 A total of 142 pieces of artefacts have been collected from Phase 1 AFI mainly in L2, L3 and L4. Blue and white porcelain sherds are in majority and being the datable and diagnosable artefact types. According to the glaze, body, morphological style and decoration pattern, they can be dated from the late 19<sup>th</sup> to the early 20<sup>th</sup> century.
- 6.1.7 Combined evidences of the stratigraphic sequence, archaeological findings and historical map overlaying, all house remains identified in T3, T4, T8, T11, T14, T14a, T19 and T21 on top of L4 were dated to the early 20<sup>th</sup> century. On the other hand, features in T9 in L3 were dated to the Kai Tak Bund period. The early 20<sup>th</sup> century houses have been removed and replaced by shophouses of Kai Tak Bund and present day Kowloon City southeast proportion, which were in turn demolished by the construction of Kai Tak Airfield and later Kai Tak Airport.
- 6.1.8 Test trenches T14, T14a and T21 were designed to locate at the Kowloon Fort and Kowloon Customs Station area to investigate the existence of the Fort and the Customs Station. House remains were identified on top of Layer 4 only at the trenches. According to the about 1887, 1904, 1905, 1924 historical maps and *Report of the Captain Superintendent of Police for the Year 1899*, a police station was constructed at original site of Customs Station at the T14, T14a and T21. While there is no artefactual evidence to suggest the function of this house remains, the physical remains resembling the location of the Kowloon City Police Station on the 1904, 1905 and 1924 maps suggested that these remains might belong to this Police Station.
- 6.1.9 According to abovementioned 1899 Report of Hong Kong police, the original Kowloon Customs Station was re-used as Kowloon City Police Station since British took over New Territories in 16<sup>th</sup> April 1899. The original Kowloon Customs Station was built in Chinese official building style (vernacular style with entrance porch at the façade), it was demolished a few years later, a new two storey Western style Police Station Building was built at the Customs Station site(**Figure 5.1a**). While historical evidences may suggest the existence of Customs Station in this area, it is difficult to draw a correlation between the discovery at T14, T14a, T21 and the Customs Station. The archaeological significance of these house remains in T14, T14a and T21 are very low due to the lack of evidence to suggest any functional or historical relevancy to the Kowloon Customs Station and Kowloon Fort as well as the relatively modern materials used in the construction.
- 6.1.10 The construction materials used for the house remains in the late 19<sup>th</sup> to early 20<sup>th</sup> centuries were relatively modern. The house remains were then severely disturbed by the Kai Tak Bund reclamation and the later development of Kai Tak Airfield and Kai Tak Airport. No archaeological evidence suggested a

functional or historical relevancy of the original building, or any relations to any historical, cultural or social event in the past. In light of this, the archaeological significance of these findings is considered very low. For the Investigation Area of the Phase 1 AFI, apart from the extent of LTSB, it is believed that remains were disturbed by the works conducted for Kai Tak Bund and Kowloon City (stratum L3), Kai Tak Airfield (stratum L2) and Kai Tak Airport (stratum L1). The archaeological value of Stratum L4 and the Investigation Area is considered very low.

6.1.11 Apart from the extent of LTSB, the Investigation Area has very low archaeological significance. No archaeological impact is therefore anticipated and no mitigation measures, such as watching brief (monitoring) and further investigation and excavation are required for implementation of the Stage 5A Infrastructure Works. AMO would be notified when antiquities or supposed antiquities were found during the construction.

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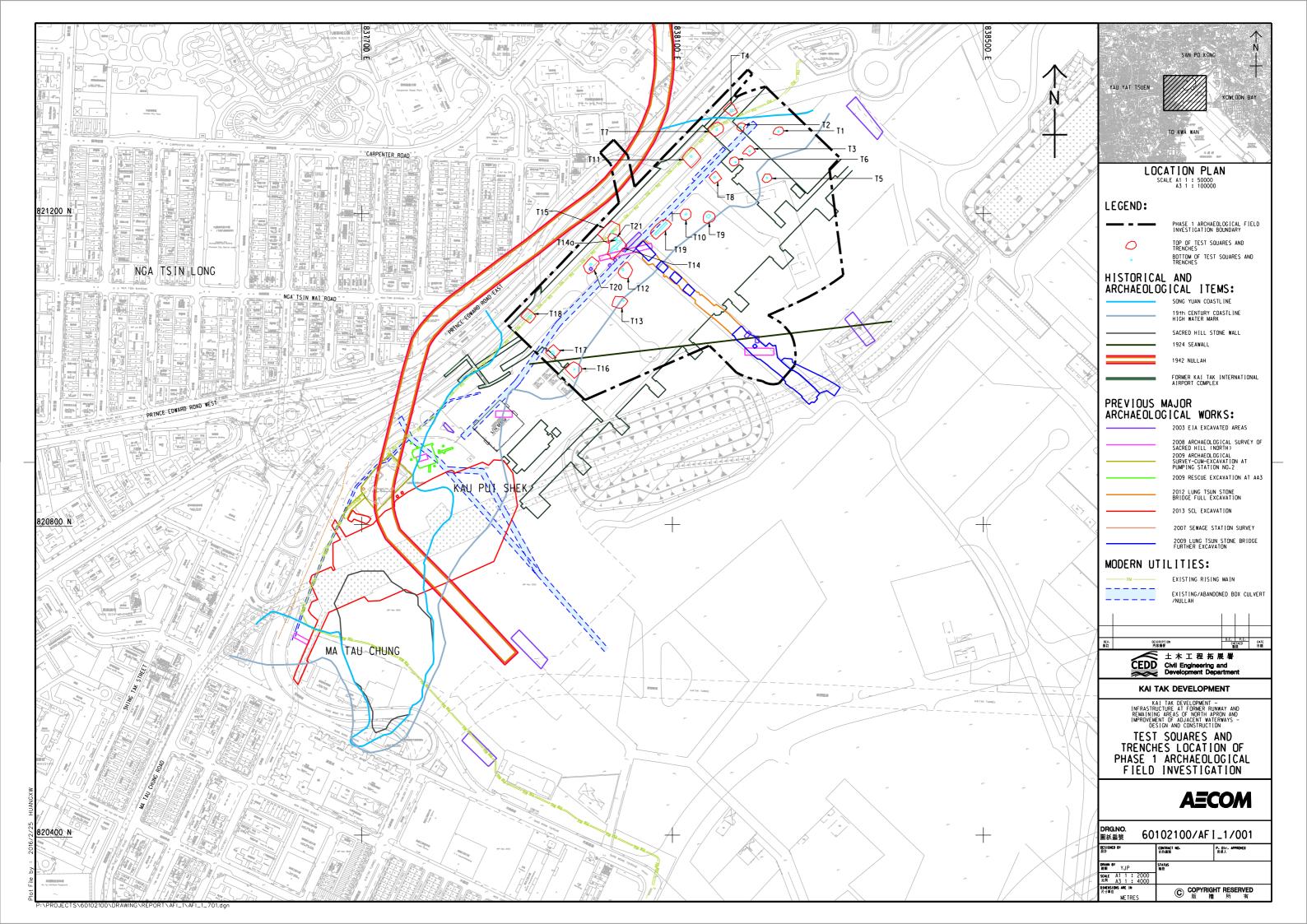
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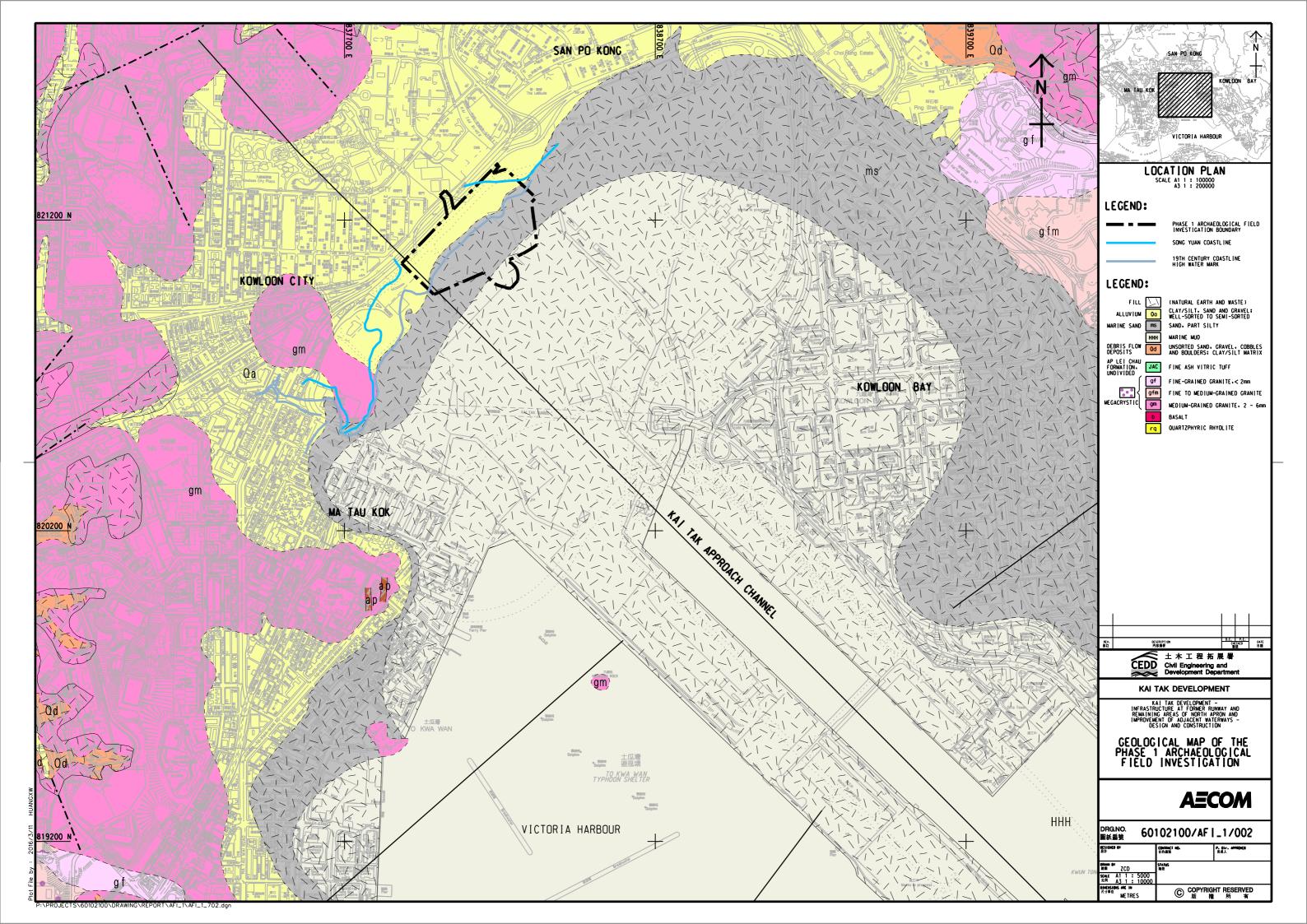
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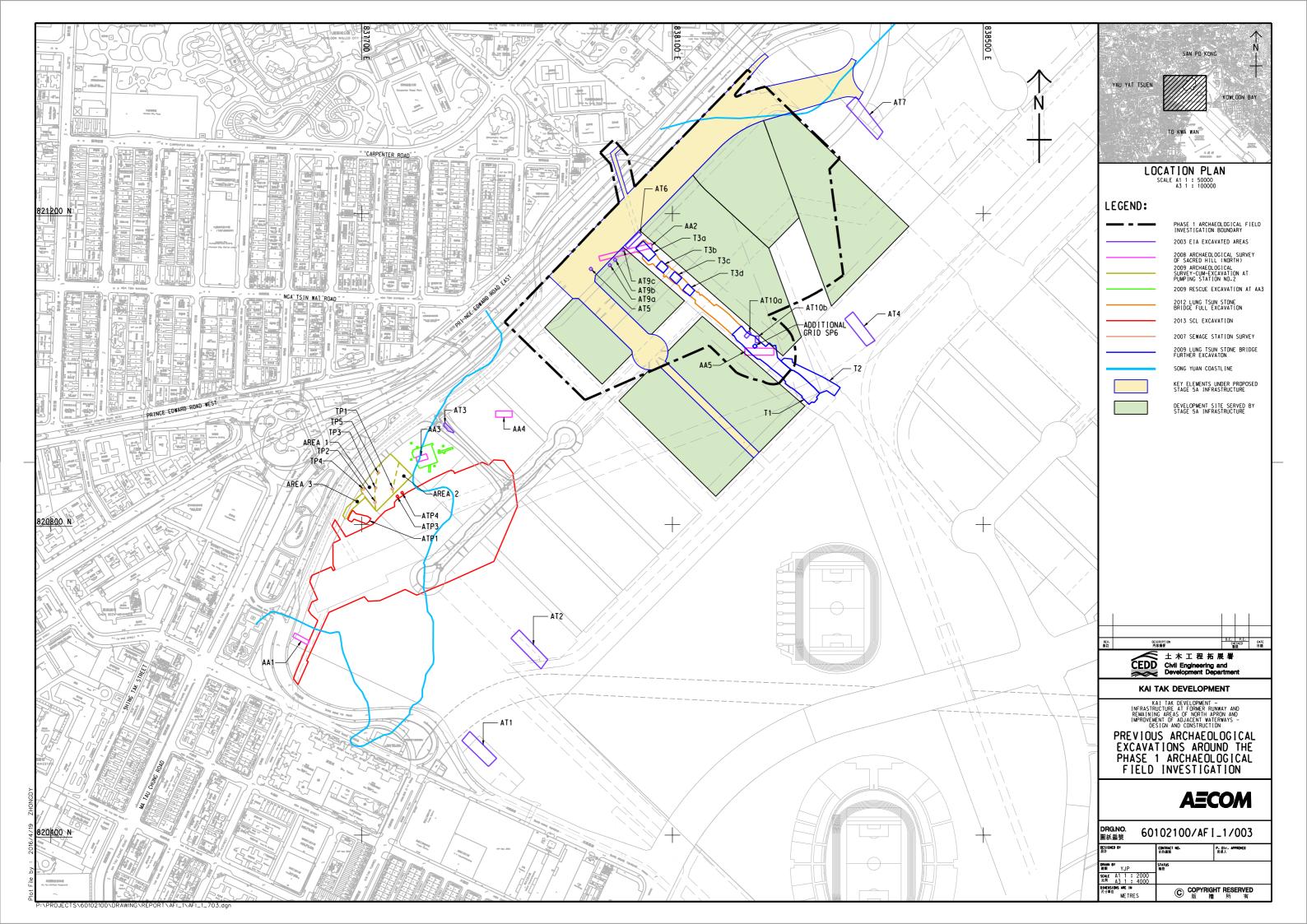
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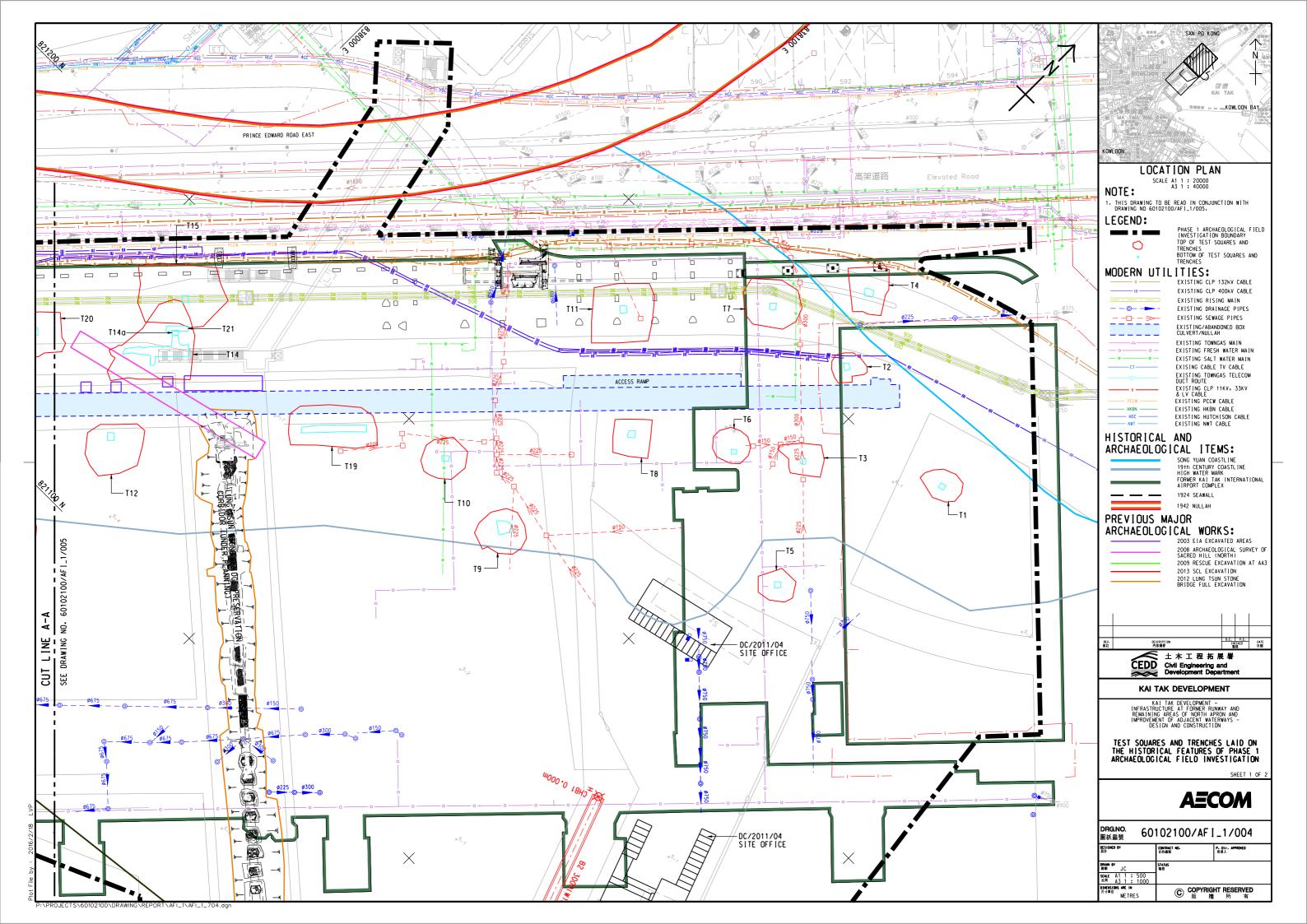
Phase 1 Archaeological Field Investigation Report

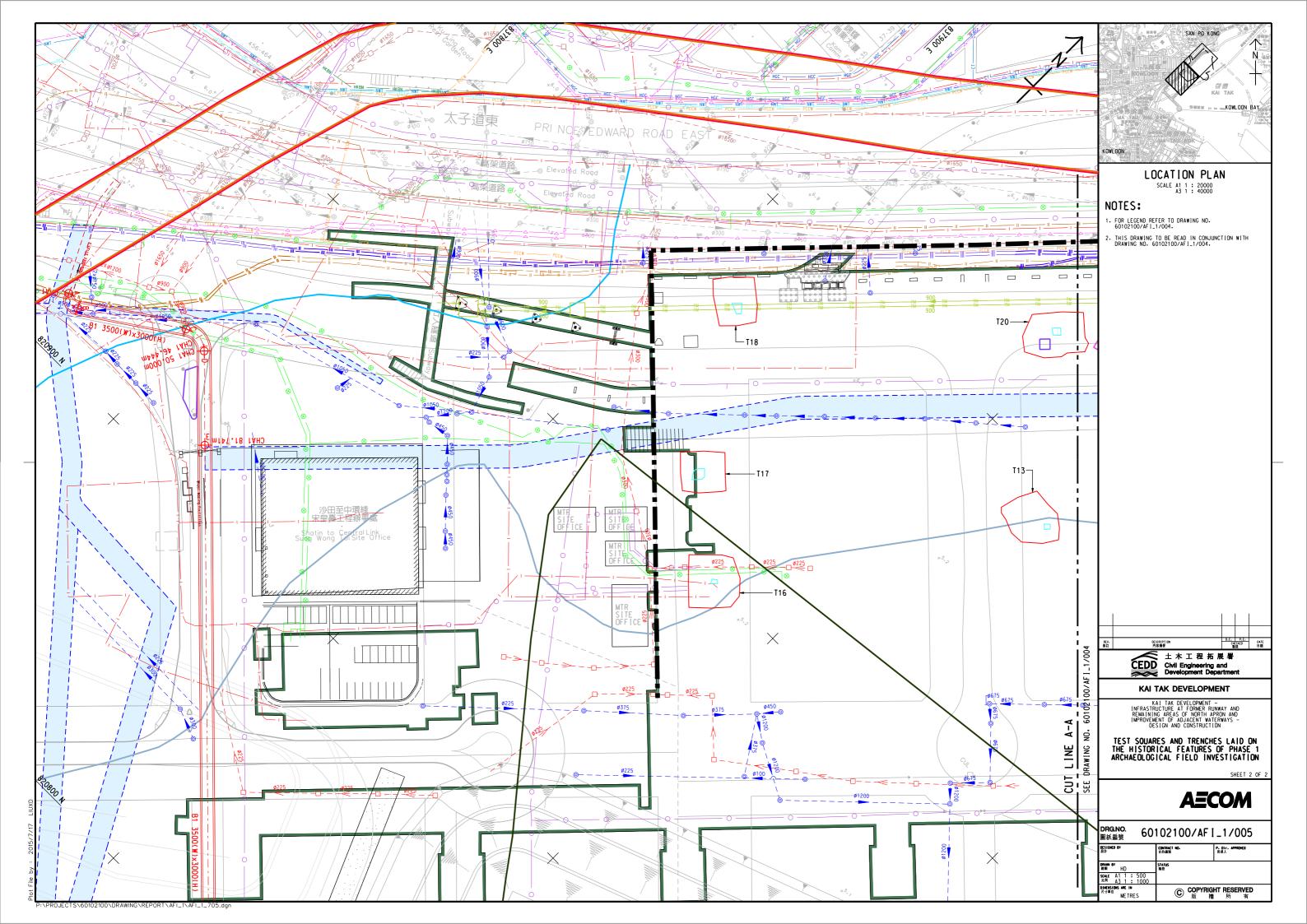
Yim W.W.-S. 1986 Abstracts Number 3 - Sea Level Changes in Hong Kong During the Last 40,000 Years, Geological Society of Hong Kong and Department of Geography and Geology, University of Hong Kong.







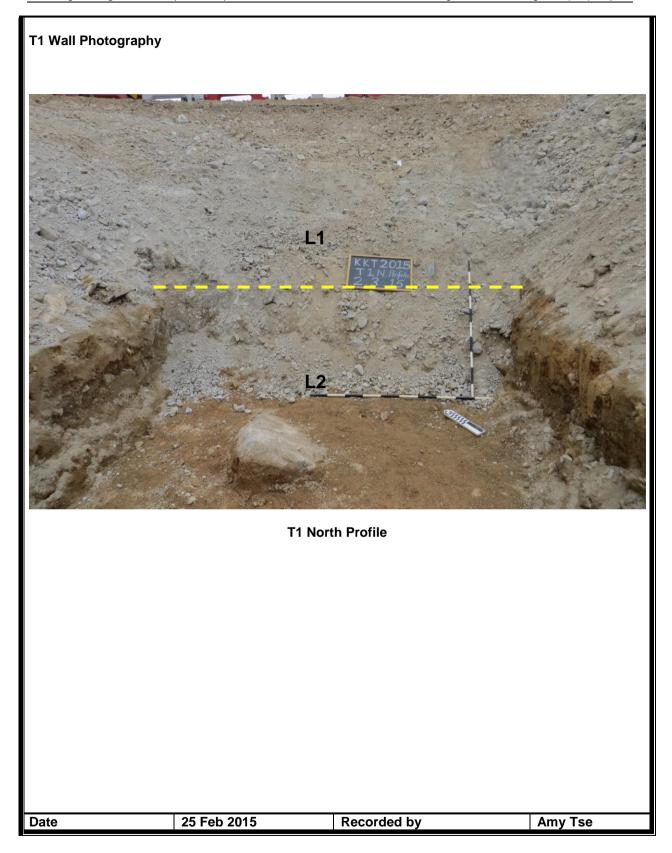




## APPENDIX A

Test Squares and Trenches Records – KKT2015 Phase 1

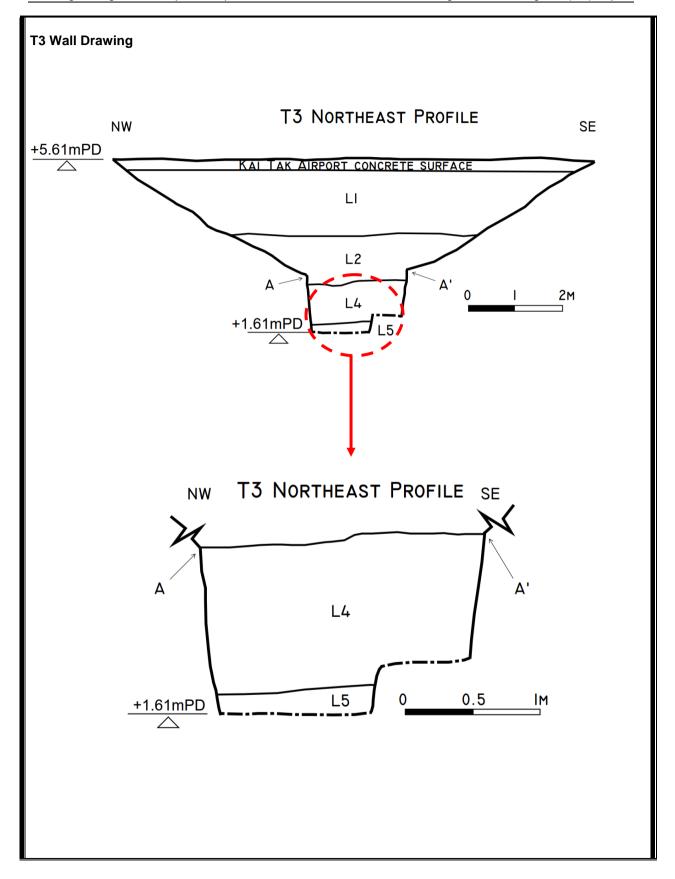
1. Test Pit	Records						
Location	Kai Tak	Site Code	KKT2015		Test Squ No.	are	T1
Test P	Pit Easting 838236.71	Northing 821305.85	Test Measurement	Pit	Top:13.5		
Digging Method	Backhoe ren materials labours exca and below	noves modern and manual avate Layer 4	Ground Lavel		+5.84mPD		
Stratigraph	ny and Finds	T					
Layer	Soil Texture	Soil Colou	r Finds		pth PD)		ronology and marks
L1	Compact clay sand with pebb brick and ceran sherds	le, Vollowich	Brown glazed ware and blue- and-white	+5	.84~ +3.8		i0s -1960s Kai Tak port filled soil
L2	Compact clay sand with pebb boulder, brick a ceramic sherds	le, Reddish	Brown glazed ware and blue- and-white	+3	.8 ~ +3.15		2-45 Kai Tak field filled soil
TI North Profile							
w /	+3.	15mPD	LI L2	0			E +5 <u>.84m</u> PD

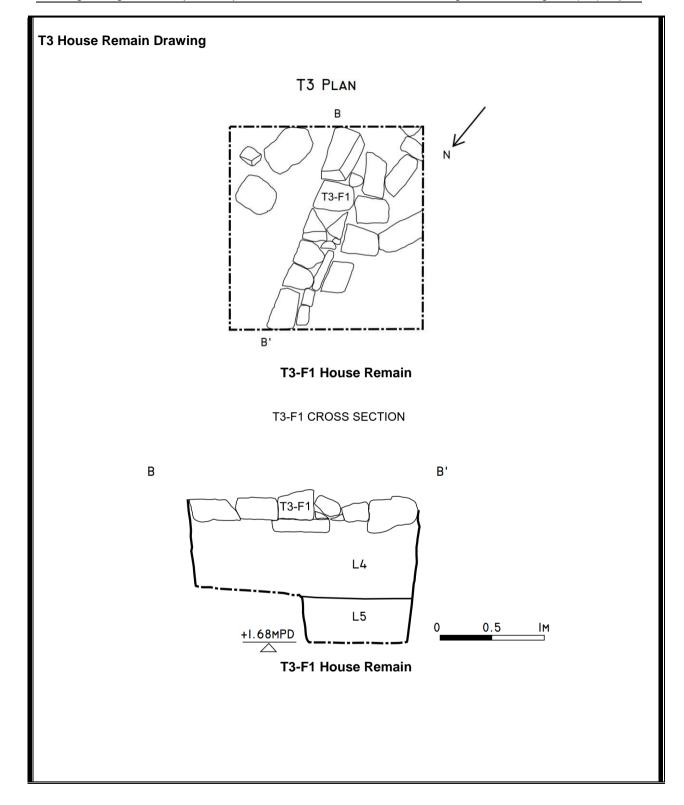


					Test Squa	ro	
Location	Kai Tak	Site Code	KKT2015		No.		T2
Test Pit Coordinate	Easting 838187.82	Northing 821311.43	Test Measurement	Pit	Top:10m > Bottom: 2		
Digging Method	Backhoe rem	oves modern nd manual	Ground Level		+5.94mPD		ZIII
Stratigraphy	and Finds						
Layer S	Soil Texture	Soil Colour	Finds				ronology and marks
L1 c	Compact clayes and wit concrete pebble and cobble an orick	h Dull e Yellowish		+5.	U/ -: I/		i0s -1960s Kai Tak port filled soil
L2 c	Compact claye sand wit concrete pebble an coulder and brick	Reddish Orange		+4	~ +2.91	Airí (ele	2-45 Kai Tak field filled soil ectric cables nd beneath L2)
+5.94mPD	NW	T2 N	LI L2	_	FILE 1mPD	0	SE 1 2M



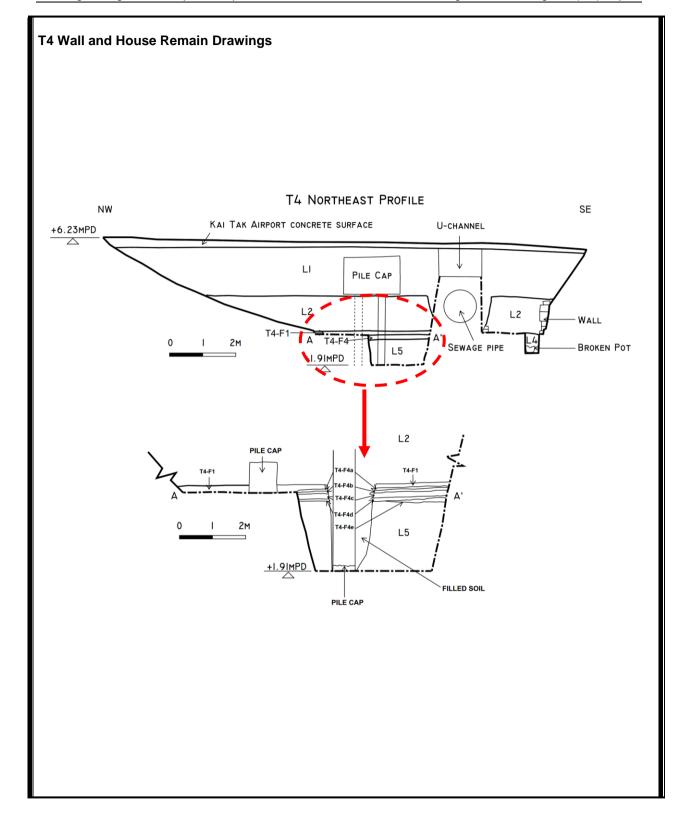
Location		Kai Tak	Site Code	KKT2015		Test Square No.		Т3
Test P	Pit	Easting 838199.27	Northing 821279.65	Test Measurement	Pit	Top:11.20 Bottom: 2		
Digging Method		Backhoe rem	oves modern nd manual	Ground Level		+5.61mPl		- <b>Z</b> III
Stratigraph	ıy a	and Finds						
Layer and Feature		oil Texture an emain	d Soil Colour	Finds		pth PD)		ronology and marks
L1	Sa	ompact claye and wit oncrete pebbl ad cobble	h Vollowish		+5	.61 ~ +4.1		50s -1960s Kai Tak port filled soil
L2	sa ce br	ompact claye and with tile ramic sherds ick, concret bble and cobbl	Reddish brown	blue and white, brown glazed ware, building waste	+4	.1 ~ +3.1	_	l2 - 1945 Kai Tak field filled soil
T3-F1		ranite ston ignment (335°)	е		+3	.05 ~ +2.7		rly 20th century Il foundation
L4	wi	oose sandy si th cerami erds, glass	Brownien	blue and white, brown glazed ware, glass	+3	.1 ~ +1.8	sar	rly 20 <sup>th</sup> century ndy soil with use remains
L5	Lo	oose sand	Light Gray			.8 ~ +1.61 d below	Ма	rine sand

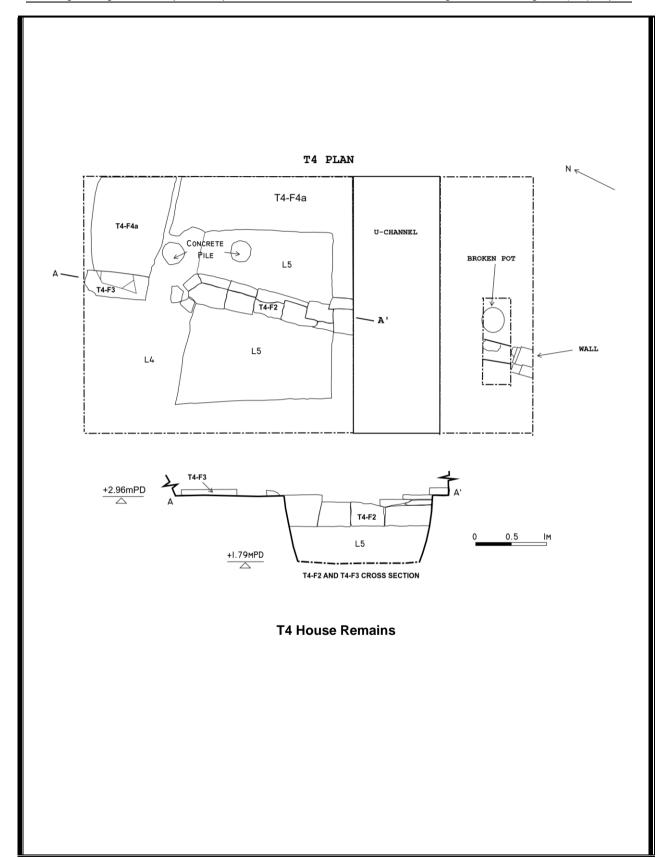




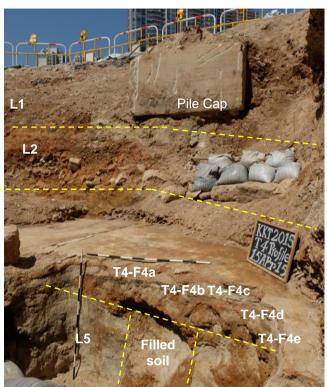


Location	Kai Tak	Site Code	KKT2015		Test Square		T4	
Test F Coordinate	Pit Easting e 838176.13	Northing 821333.36	Test Measurement	Pit		Top:14.7m × 13m Bottom: 2m × 2m		
Digging Method	materials a labours exca and below	oves modern ind manual vate layer 4	Ground Level		+6.23mPI	D		
	ny and Finds							
Layer and Feature	Soil Texture ar Remain	Soil Colour	Finds		pth PD)		ronology and marks	
L1	compact clayers sand with concrete pebble and cobble, armodern waste	th Dull le Yellowish		+6.	23 ~ +4.1		50s - 1960s Kai k Airport filled soil	
L2	Compact clayers sand with till ceramic sherd brick, concrepebble and cobb	e, s, Brown		+4.	1 ~ +3.2		l2 - 1945 Kai Tak field filled soil	
T4-F1	Layer of broke roof tile	Bright Reddish Brown	Tiles and bricks	+3.	2 ~ +2.96	of	llapsed roof tiles a house in the ly 20th century	
T4-F2	Granite blocalignment in twitiers (338°)	***		+2. +2.		the	II foundation of e early 20th ntury	
T4-F3	Granite block ar brick with ceme paved surface			+2. +2.	.96	<b>20</b> t	orstep of the early h century	
T4-F4a	Cemented floor			+2. +2.			ment floor of the ly 20th century	
T4-F4b	Layer of ramme sandy clay	Orange		+2. +2.		Top	layer of the th foundation	
T4-F4c	Layer of loos sand	Light Reddish Gray		+2. +2.		ear	cond layer of the th foundation	
T4-F4d	Layer of loos sand	Black		+2. +2.			rd layer of the th foundation	
T4-F4e	Layer of ramme sandy clay	Orange		+2. +2.			urth layer of the th foundation	
L4	Loose sandy silt	Brownish Black	Blue and white	+3.	2 ~ +2.4	sar	rly 20 <sup>th</sup> century ndy soil with use remains	
L5	Loose sand	Light Gray			4 ~ +1.91 d below	Ма	rine sand	

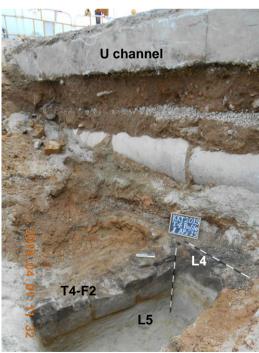




## T4 Wall and House Remain Photography

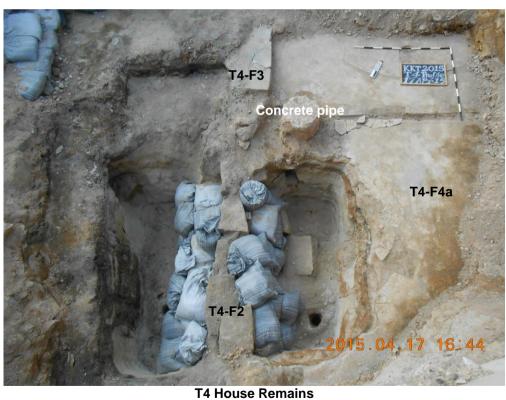


**T4 Northeast Profile** 



**T4 Southern Profile** 







**T4 House Remains** 



Broken pottery pot



T4 House Remains (stone Wall in T4 Southern Portion)



T4 House Remains (T4-F3 Cement Pavement)

Date SADI 2013 NECOTAGEDY Steven NY	Date	9 Apr 2015	Recorded by	Steven Ng
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					Tool O		
Location	Kai Tak	Site Code	KKT2015		Test Square No.		T5
Test Pit Coordinate	Easting 838221.68	Northing 821246.11	Test Measurement	Pit	Top:13m Bottom: 2		
Digging Method	Backhoe remo materials a labours excav below	oves modern nd manual	Ground Level		+5.81mPI		
Stratigraphy a	and Finds						
Layer So	oil Texture	Soil Colour	Finds		pth PD)		ronology and marks
L1 co	ompact claye and wit oncrete pebbl nd cobble, a rick	h Dull e Yellowish		+5.			50s - 1960s Kai k Airport filled soil
T5 Wall Draw	ing						
+5.8IMPD =	+3.7 2	KAI TAK AIRPO	LI RT CONCRETE SURFA LI CONCRETE SLAB	CE	R PIPE 0		SE 1 2M

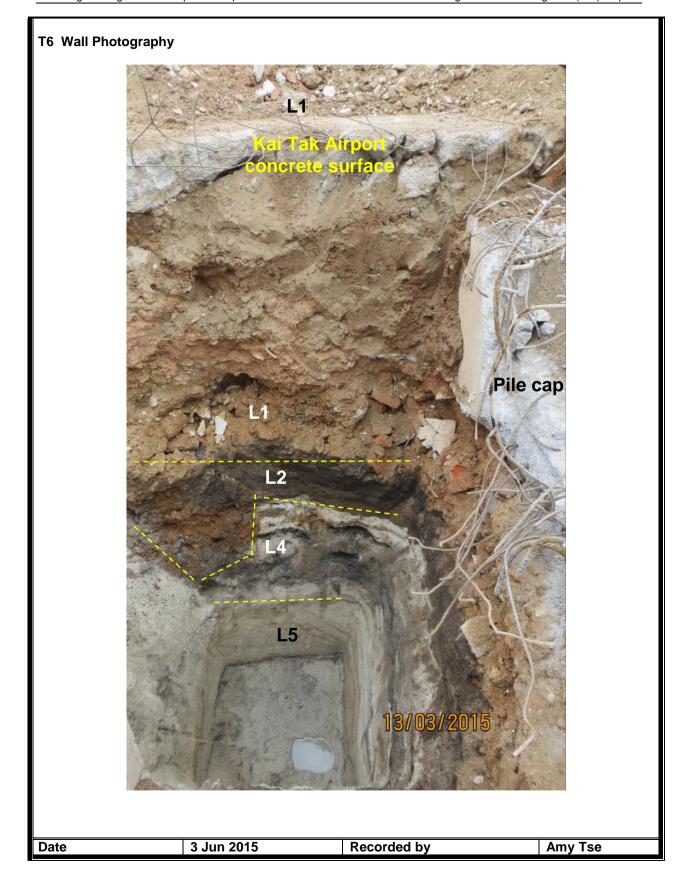
## **T5 Wall Photography**



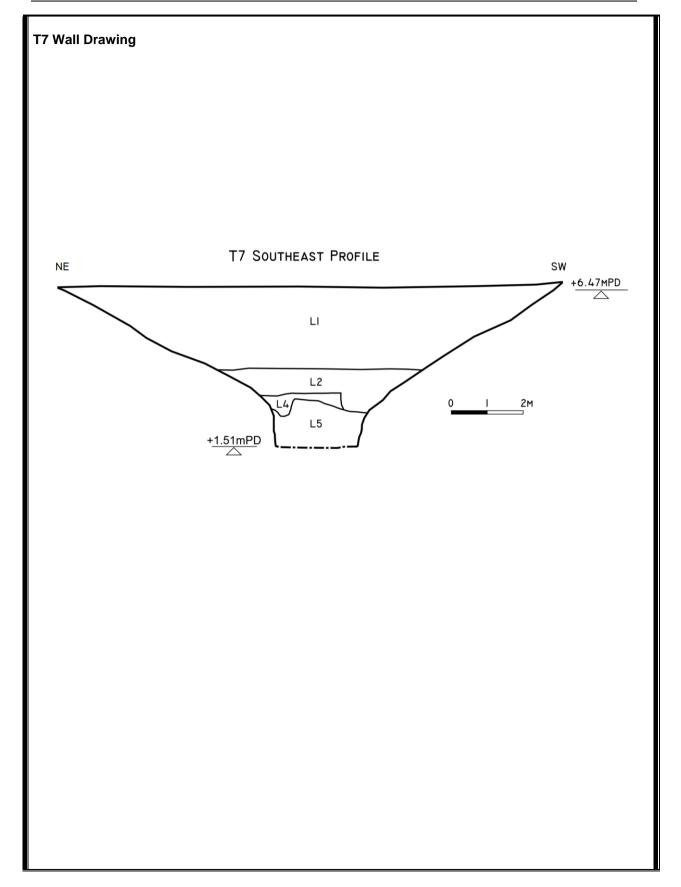
**T5 Northeast Profile** 

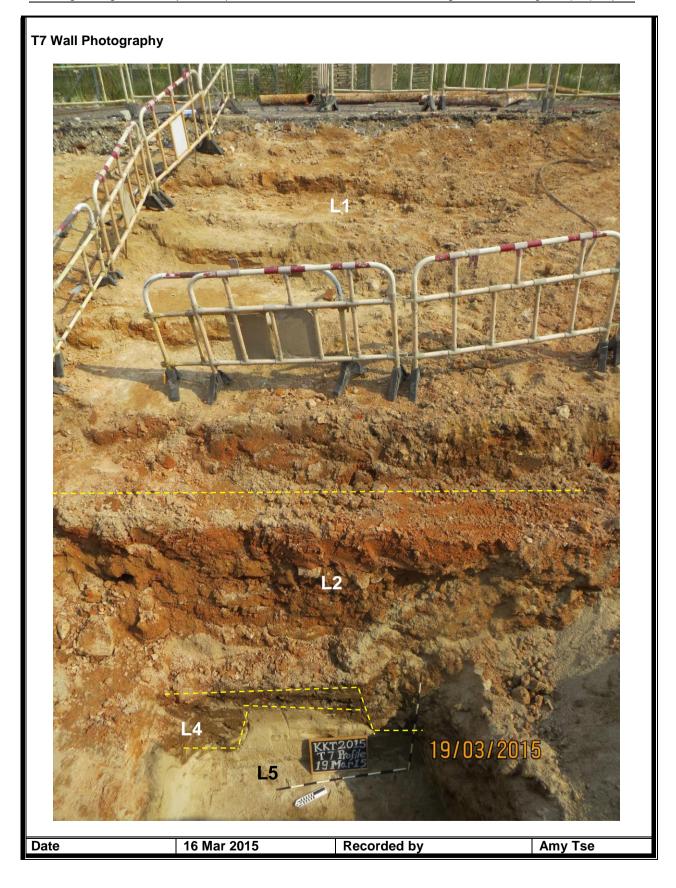
Date 11 Mar 2015 Recorded by Amy Tse

1		ı					
Location	Kai Tak	Site Code	KKT2015		Test Squ No.		Т6
Test P		Northing	Test	Pit	Top:12.5r		
Coordinate		821266.22	Measurement		Bottom: 1	12.5	m × 1.10m
Digging Method	materials a	oves modern and manual vate L4 and	Ground Level		+5.78mPI	)	
Stratigraph	y and Finds						
Layer	Soil Texture	Soil Colour	Finds		pth PD)		ronology and marks
L1	Compact clayer Sand wire concrete pebb and cobble, brice shell and ceram sherds	Dull Yellowish	Brown glazed ware	+5	.78 ~ +3.8		50s -1960s Kai Tak port filled soil
L2	Compact clayers sand wire concrete pebblich, and ceram sherds	Reddish e, Brown	Brown glazed ware, blue-and- white and tile	+3	.8 ~ +3.2	Air	12 - 1945 Kai Tak field filled soil
L4	Loose sandy s with ceram sherd	Black	Brown glazed ware and tile		.2 ~ +2.0	sar	rly 20 <sup>th</sup> century ndy soil with use remains
L5	Loose sand wire ceramic sherd	Light Grey			.0~ +0.8 d below	Ма	rine sand
T6 Wall Dra	+5.78MPD NE						SW >

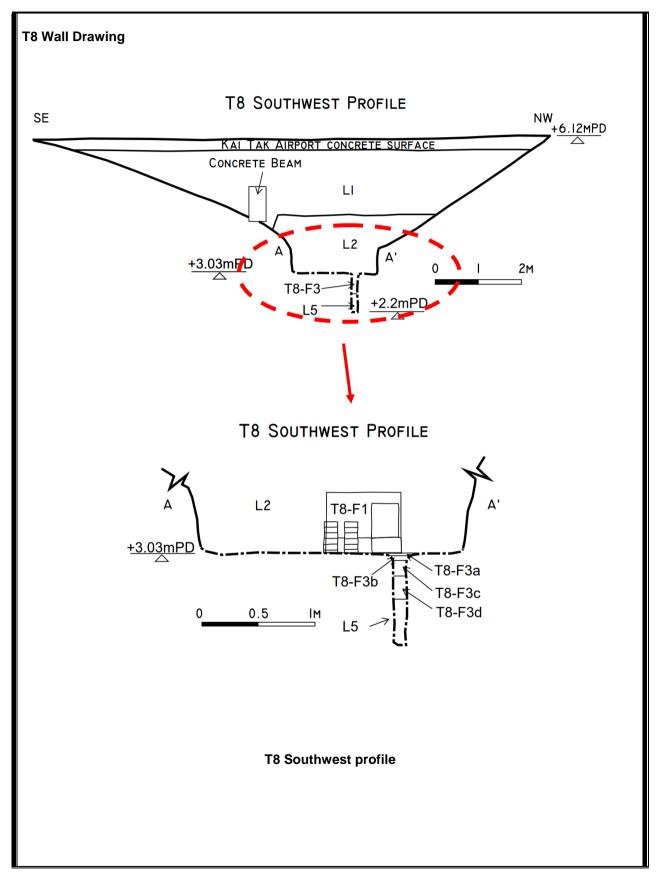


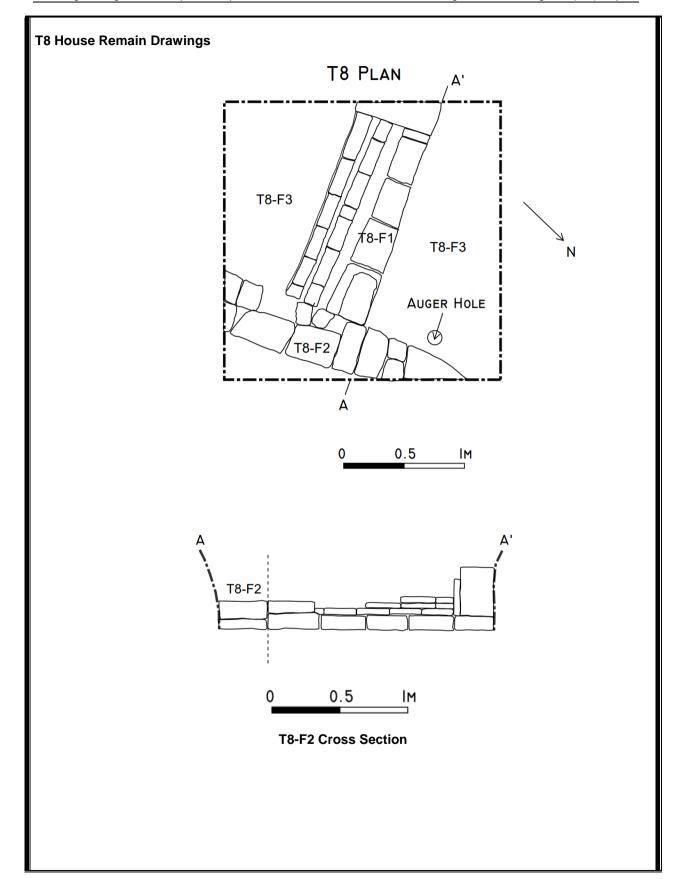
Location		Kai Tak	Site Code	KKT2015		Test Squ No.	are	Т7
Test F Coordinate	Pit	Easting 838157.25	Northing 821308.29	Test Measurement	Pit	Top:16m Bottom: 2		
Digging Method		labours excav Kowloon Stree	nd manual ate strata of	Ground Level		+6.47mPI		
Stratigraph				1	Do	pth	Chi	ronology and
Layer	So	il Texture	Soil Colour	Finds		PD)		narks
L1	Sa	ncrete pebbl d cobble an	h Dull e Yellowish		_	.47 ~ .95		0s - 1960s Kai Airport filled soil
L2	sai coi and bri	mpact claye nd wit ncrete pebbl d cobble, tile ck and cerami erd	h e Reddish e, Orange	Brown glazed ware and blue- and-white	+3	.95 ~ +3.0	_	2 - 1945 Kai Tak field filled soil
L4	wit	ose sand si th tile an ramic sherd	Brownish	Brown glazed ware and tile	+3	.0 ~ +2.4	Ear san hou	
L5	Lo	ose sand	Light Grey			.4 ~ +1.51 d below	Ma	rine sand

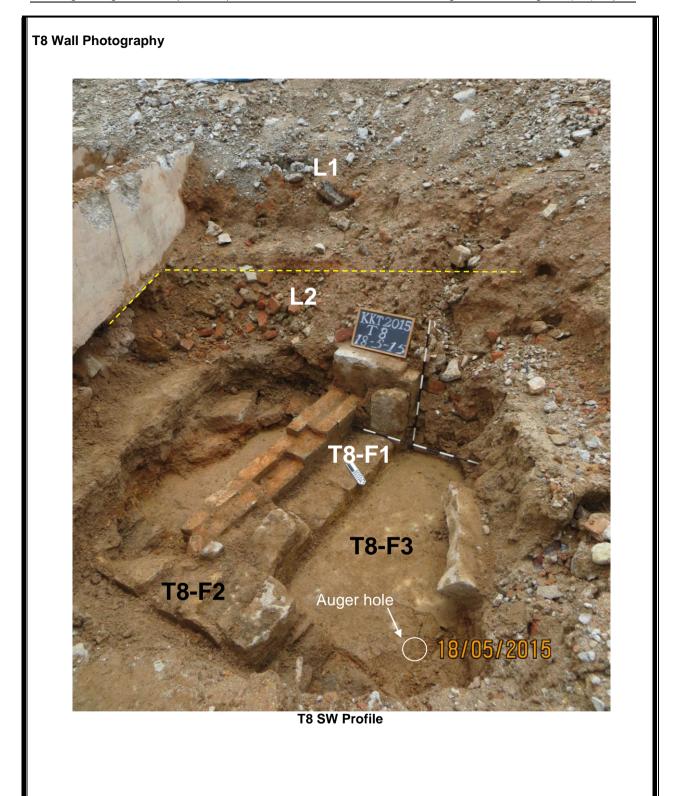


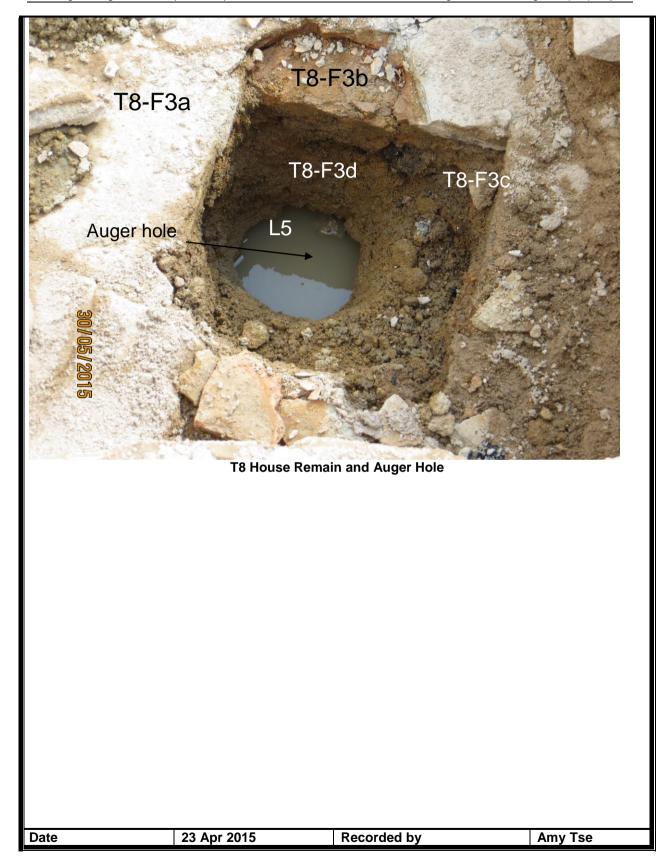


Location	K	ai Tak	Site Code	KKT2015		Test Squ	are	Т8
Test F	Pit E	asting	Northing	Test	Pit	No. Top:12.4	n ×	 12m
Coordinate	8	38154.12	821247.15	Measurement		Bottom: 2		
Digging Method	m la b	naterials a bours exca elow	oves modern and manual vate L4 and	Ground Level		+6.12mPI	)	
Stratigraph	ny and	d Finds		1				
Layer and Feature	Soil Rem	Texture ar ain	Soil Colour	Finds		pth PD)		ronology and marks
L1	Sand	pact claye d(Coarse) wi crete pebb cobble	h Vellowish		+6.	.12 ~ +4.1		50s - 1960s Kai k Airport filled il
L2	sand cond ad c	pact clayed with the clayed wi	Reddish		+4.	.1 ~ +3.03	_	42 - 1945 Kai Tak field filled soil
T8-F1	brick bloc with finis	ceme hing (75°)	te nt nt	Brick	+3.	.63 ~ .03	Wa	III Foundation
T8-F2	tiers	nite bloo nment in tw with ceme hing (342°)	70		_	.32 ~	Wa	III Foundation
L4	Loos	se sandy silt	Brownish Black		+3.	.03 ~ +2.6		rly 20 <sup>th</sup> century ndy soil with use remains
T8-F3a	Cem	ent ement			+3.	.03 ~ .01		use floor of the ly 20th century
T8-F3b	•	er of floor tile		Floor tile	+3.		To	p layer and paving ove the earth indation
T8-F3c		er of loos ly clay	Brown		+2.	.97 ~ +2.8		cond layer of the th foundation
T8-F3d		er of ramme ly clay	Yellowish Brown		+2.	.8 ~ +2.6		se of the earth Indation
L5	Loos	se sand	Light Grey			.6 ~ +2.2 d below	Ма	rine sand

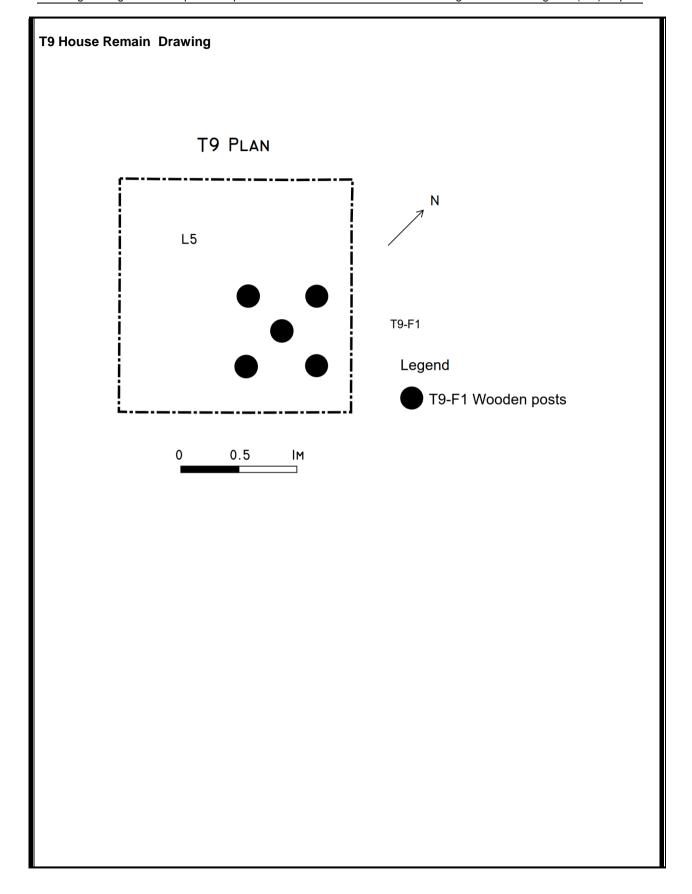


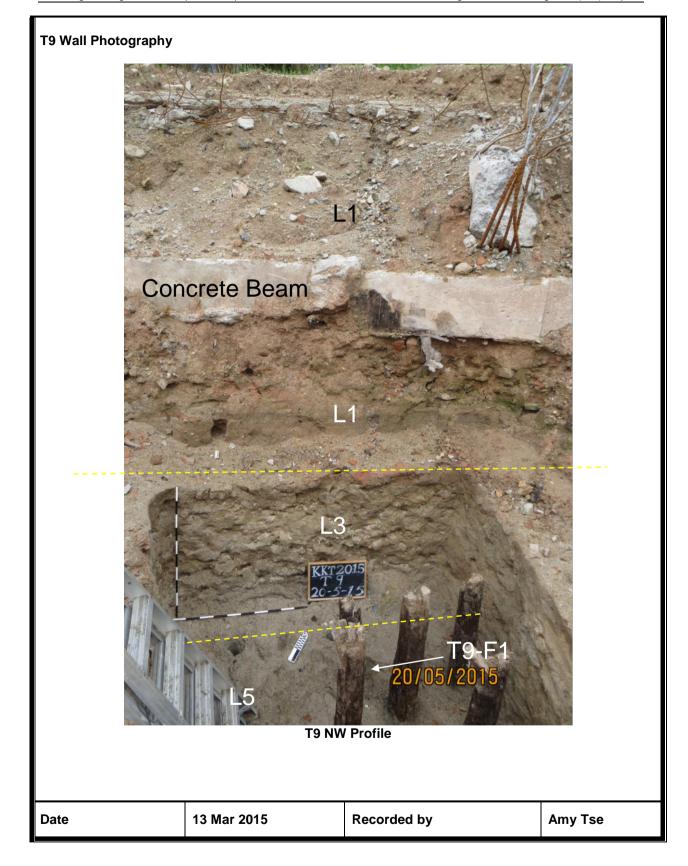






Location		Kai Tak	Site Code	KKT2015		Test Squ No.	are	Т9
Test F Coordinate	Pit	Easting 838146.87	Northing 821197.11	Test Measurement	Pit	Top:14.5		
Digging Method		labours excav Kowloon Stree	nd manual rate strata of	Ground Level		+5.51mPI	<b>D</b>	
Stratigraph	ıy a	and Finds	<u> </u>	1				
Layer and Feature		oil Texture an emain	Soil Colour	Finds		pth PD)		ronology and marks
L1	sa	ompact claye and wit oncrete pebb ad cobble	h Vollowich		+5.	.51~ +3.2		50s - 1960s Kai k Airport filled soil
L3	til	oose sand wit e and cerami nerd	Rrownich	Brown glazes ware, blue-and- white, polychrome and tile	+3.	.2 ~ +1.8	& r	10s to 1930s filled eclamation soil
T9-F1	W	ooden piles			+2.	.9 +1.7		i Tak Bund house Indation pile
L5	L	oose sand	Light Grey			.8 ~ +1.7 d below	Ма	rine sand
Sw	awi		T9 NORTHWEST	MIRPORT CONCRETE SURFA	ACE	LI	NE -	+5.5IMPD
CONCRETE BEAM  A  L3  1-1.7mPD  A  T9-F1  A  O  O  O  O  O  O  S  IM								

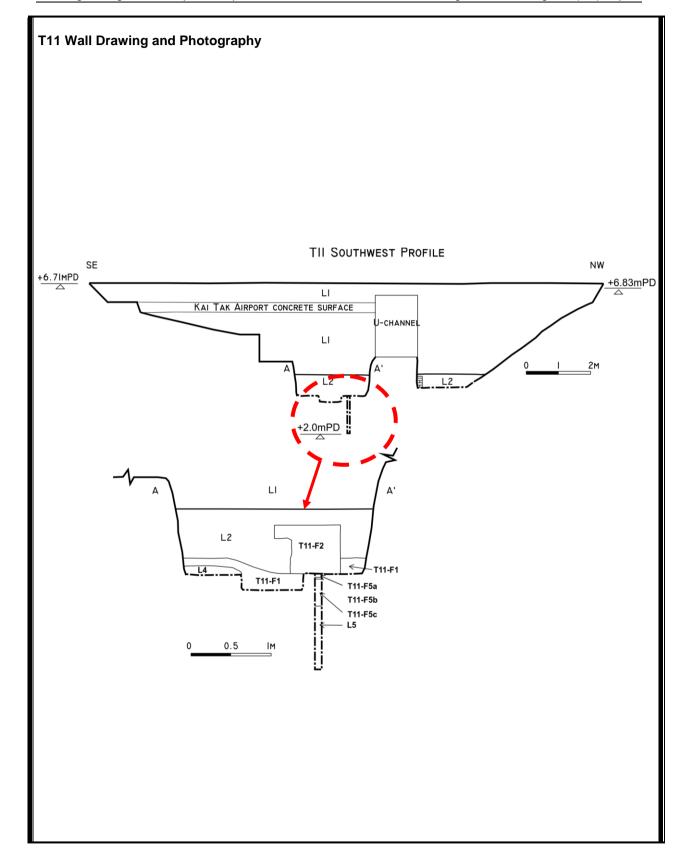




				I			T 1 0			
Location		Kai Tak		e Code	KKT2015		Test Squa		T10	
Test P Coordinate		Easting 838117.36		rthing 199.28	Test Measurement	Pit	Top:12m : Bottom: 2			
Digging Method		Backhoe rem materials a labours exca below	and	manual	Ground Level		+5.79mPD			
Stratigraph	y a	and Finds			T			-		
Layer	So	oil Texture		Soil Colour	Finds		pth PD)		ronology marks	and
L1	sa cc ar	ompact claye and wit oncrete pebb ad cobble, bric ad modern wast	th I le ' ck I	Dull Yellowish Brown		+5. +2.			50s - 1960s k Airport filled	
T10 Wall Di	rav	ving								
+5.79MP		NW		TIO Nor	THEAST PROF	FILE V	V		SE	
			Pi	ILE CAP	LI	Ρ	ILE CAP			
			<u>+</u>	2.68MPD	CONCRETE SLAB		<u>0 l</u>		<b>2</b> M	

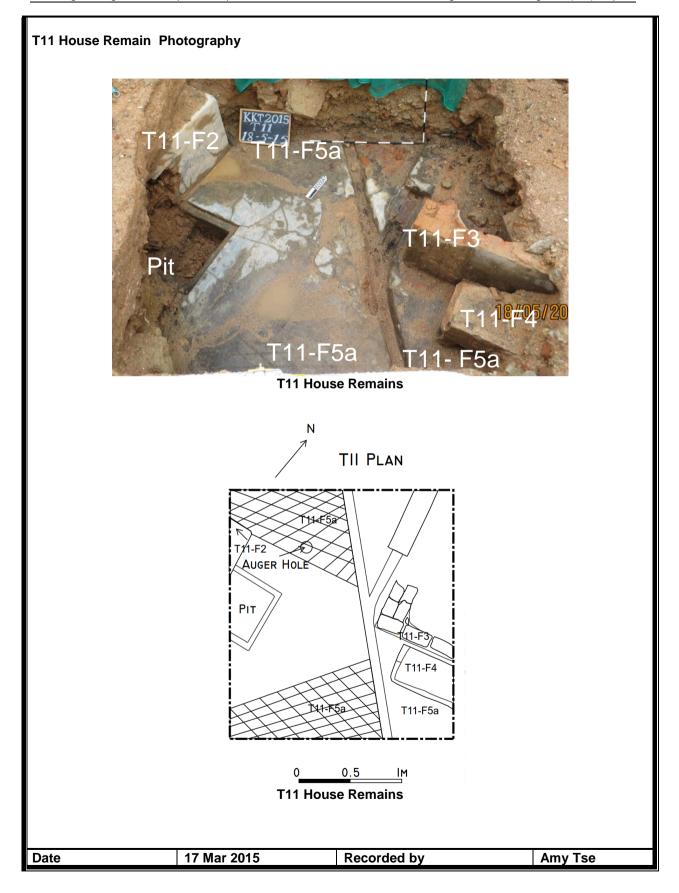
## **T10 Wall Photography** Pile cap Pile cap Concrete slab Date 9 Mar 2015 Recorded by **Amy Tse**

Location	Kai Tak	Site Code	KKT2015		Test Squ No.	are	T11
Test P Coordinate	•	Northing 821273.74	Test Measurement	Pit	Top:19.7r Bottom: 2		
Digging Method	labours exca below	nd manual	Ground Level		+6.83mPI	ס	
Stratigraph	y and Finds						
Layer and Feature	Soil Texture an Remain	d Soil Colour	Finds		pth PD)		ronology and marks
L1	Compact clayer sand with concrete pebb and cobble, brid and modern wast	h Dull e Yellowish k Brown	blue and white	+6.	.83 ~ +3.9		50s - 1960s Kai k Airport filled soil
L2	Loose clayers sand with tile ceramic sherd brick, concrete pebble and coble	Reddish Orange	brick, glass, celadon, tile, blue and white, brown glazed ware	+3.	9 ~ +3.45	Air	12 - 1945 Kai Tak field filled soil
T11-F1	Layer of roof tile		Tiles	+3. +3.			llapsed roof tiles a house
T11-F2	Red brid structure wit cement finishin (328°)	h		+3.	.87 ~ +2.5	Wa	II foundation
T11-F3	Red brid structure wit cement finishin (338°)	h		+3.	9 ~ +3.25	Wa	II Foundation
T11-F4	Granite bloc structure wit cement finishin (70°)	h		+3.		Wa	II Foundation
L4	Layer of sand	• Brown		+3. +2.			rly 20 <sup>th</sup> century ndy soil with use remains
T11-F5a	Cement floor			+3. +3.			or and paving ove the earth indation
T11-F5b	Layer of loos clayey san deposit	d Yellow		+3. +3.		ear	p layer of the th foundation
T11-F5c	Layer of san deposit	d Brownish Grey		+3. +2.			se of the earth Indation
L5	Loose sand	Light Grey			.85 ~ +2.0 d below	Ма	rine sand

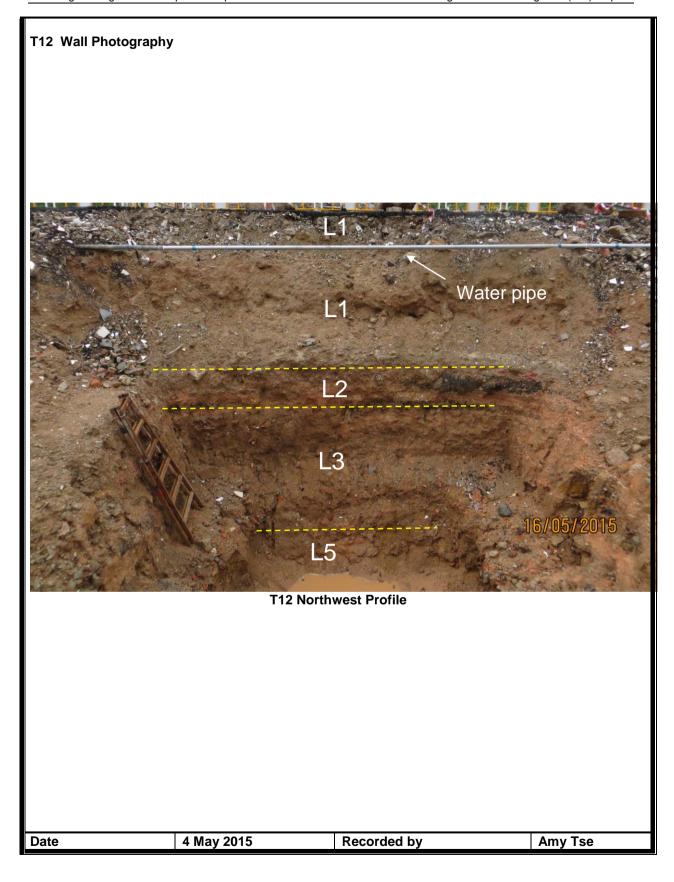




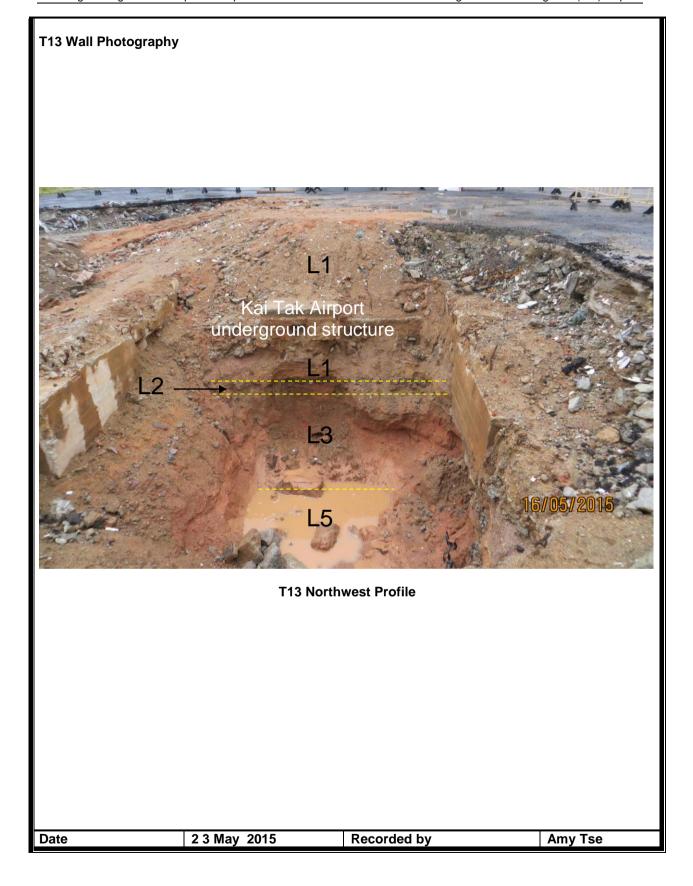
**T11 NW Profile** 



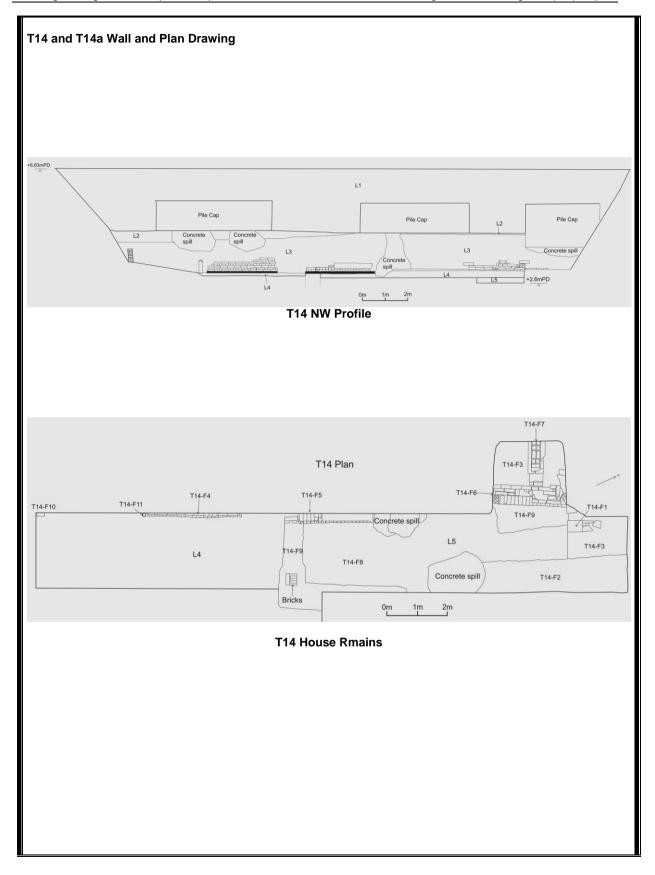
						T1 0		
Location	Kai Tak	S	ite Code	KKT2015		Test Squ No.	are	T12
Test P Coordinate	Easting 838036.25		orthing 21128.18	Test Measurement	Pit	Top:16.4		
Digging Method	Backhoe re materials labours exc below	nov and	es modern I manual	Ground Level		+6.9mPD		- 2
Stratigraph	y and Finds							
Layer	Soil Texture		Soil Colour	Finds		pth PD)		ronology and marks
L1	concrete peb and cobble, br and modern wa	rith ble ick	Dull Yellowish Brown		+6.	.9 ~ +4.1		50s - 1960s Kai k Airport filled soil
L2	Compact clay		Reddish Orange		+4.	.1 ~ +3.9		12 - 1945 Kai Tak field filled soil
L3	Compact clay sand with peb and cobble		Reddish Brown		+3.	.9 ~ +2.5		10s to 1930s filled d reclamation soil
L5	Loose sand		Light Grey			.5 ~ +1.93 d below	Ма	rine sand
T12 Wall D	Prawing							
sw	Т	2 N	ORTHWEST PRO	FILE			NE	+6.9mPD
	L						<b>—</b>	
			WATER PIPE					
	L2 L		+1.93mPD	0	ı	2M		

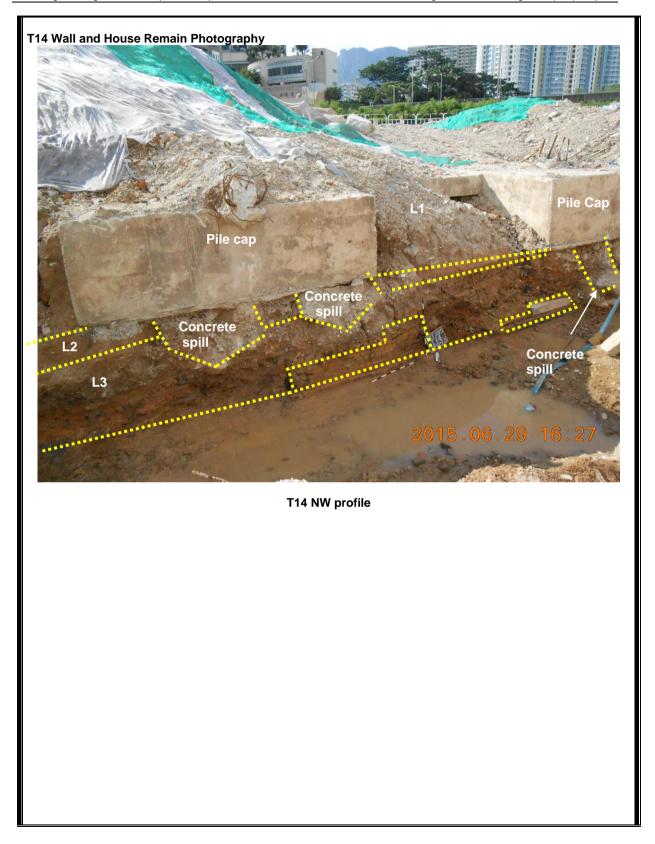


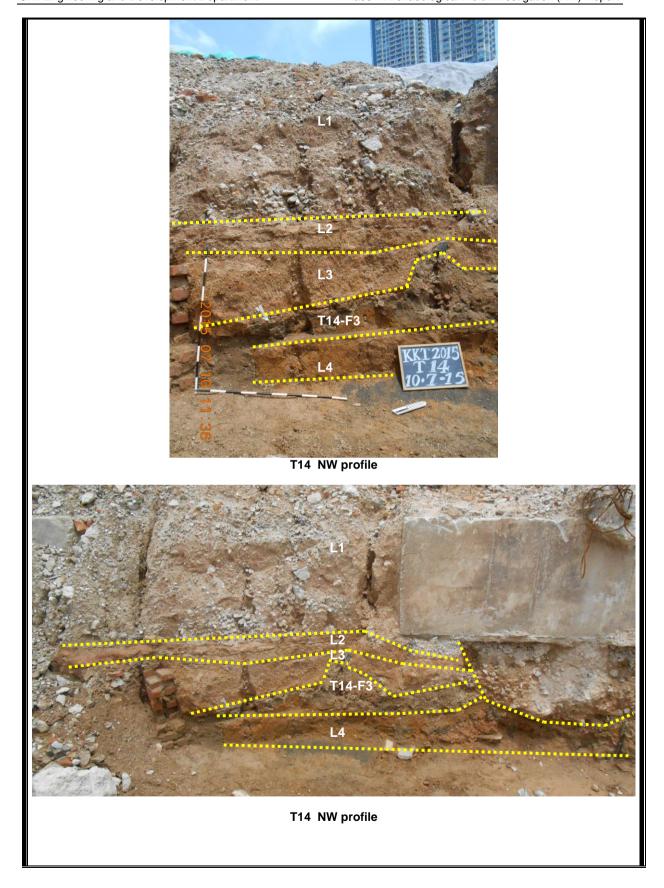
Location		Kai Tak	Site Code	KKT2015		Test Squ No.	are	T13		
	Pit	Easting	Northing	Test	Pit	Top:9.6m				
Coordinate	9	838037.06	821087.92	Measurement		Bottom: 2	2m ×	: 2m		
Digging Method		Backhoe rem materials a labours exca below	nd manual	Ground Level		+6.85mPI	)			
Stratigraph	ny a	and Finds								
Layer	Sc	oil Texture	Soil Colour	Finds	Finds Depth (mPD)			Chronology and Remarks		
L1	sa co an	ompact claye and wit oncrete pebb ad cobble, an odern waste	h Dull e Yellowish		+6.	.85 ~ +4.1		50s - 1960s Kai k Airport filled soil		
L2		ompact claye ind	Orange		+4.	.1 ~ +3.9		12 - 1945 Kai Tak field filled soil		
L3	sa	ompact claye and with pebb ad cobble			+3.	.9 ~ +2.5		10s to 1930s filled d reclamation soil		
L5	Lo	oose sand	Light Grey			.5~ +2.3 d below	Ма	rine sand		
T13 Wall D	raw	ving								
SW			TI3	Northwest Pr	OFILI	<b>=</b>		NE		
<u> </u>	_							+6.85mPD		
			_		LI					
								_		
K A I T	vk \	AIRPORT UNDERGROUN	ID STRUCTURE		LI	T	$\dashv$			
IVALL	AIN A	AIN ON I ONDERGROUP	D STRUCTURE				<b>—</b>	—L2		
L3										
		0 1	2M 	7	<b></b> 7		ر 2.3ml	PD		
				L5/				`		
				23						



Location	Kai Tak	Site Code	KKT2015		Test Sq No.	uare	T14 & T14a
Test F Coordinate	Pit Easting te 838030.95	Northing 821162.72	Test Measurement	Pit	Top:26m Bottom:		
Digging Method	Backhoe rem materials and i excavate L4 and		Ground Level		+6.63mPl	D	
Stratigra	phy and Finds						
Layer	Soil Texture	Soil Colour	Finds	Depth	(mPD)		onology and narks
L1	compact clayers sand with concrepebble and cobble and modern waste	te Vellowish		+6.63	~ +4.3		s – 1960s Kai Tak ort filled soil
L2	Compact clayers	Reddish Orange		+4.3 ~	+3.9		– 1945 Kai Tak eld filled soil
L3	Compact clayers sand with pebb and cobble, green brick and tile	le Reddish en Brown	Blue-and- white porcelain sherd	+3.9 ~	+3.16		s to 1930s filled and Imation soil
T14a-F1	Red brick structu with cement paste			+3.35		Hous	se wall foundation
T14a-F2	Green brid structure	:k		+3.23			se wall foundation
T14-F1	Area of floor tile		<b></b>	+3.16	~ +3.12		ned earth dation F3
T14-F2	Area of cement floo			+3.17	~ 3.13		ned earth dation F3
T14-F3	Layer of sand clayey deposit	Yellow		+3.12	~ +3.08		layer of rammed n foundation
T14-F4	Green brid structure			+3.3 ~	+2.83	Wall	foundation
T14-F5	Green brid structure			+3.2 ~	+2.8	Wall	foundation
T14-F6	Green brid structure			+3.2 ~	+3.0	Wall	foundation
T14-F7	Red brick structure with concre paving		<b></b>	+3.24	~ +3.1		foundation
L4	Layer of sandy clawith pebbles	Brown		+3.16	~ +2.8		ly 20 <sup>th</sup> century dy soil with house ains
T14-F8	Cement paving			+2.84			ent paving dation under wall dation F5
T14-F9	Cement footing			+2.8		foun	dation under wall dation F6
T14-F10	Red brick structure			+3.8 ~			foundation
T14-F11	Wooden pile			+3.2 ~	2.8	foun	Tak Bund house dation pile
T14a-F3	Cement paving			+2.80			ent paving dation under wall dation T14a-F2
L5	Loose sand	Light Grey		+2.8~	+2.6	Mari	ne sand









Recorded by

Amy Tse

2 May 2015

Date

					Test Squ	are		
Location	Kai Tak	Site Code	KKT2015		No.		T15	
Test Pi Coordinate	838021.79	Northing 821176.28	Test Measurement	Pit	Top:27m Bottom: 2			
Digging Method	materials a labours exca below	noves modern and manual avate L4 and	Ground Level	Level		+7.19mPD		
Stratigraph	y and Finds							
Layer	Soil Texture	Soil Colour	Finds		pth PD)		ronology an marks	nd
L1	Compact clayers with concrete pebb and cobble, brid and modern was	th Dull le Yellowish ck Brown			.19~ .30		i0s to 1960s K Airport filled so	
T15 Wall Dr	awing							
+7.19MPD	NE CONCRETE —	TI5 SOU		FIL NCR	— U-chan	NEL 2M	SW	

# T15 Wall Photography U-channe Drain pipes Drain pipes

19 Mar 2015 Date Recorded by Amy Tse

**T15 Southeast Profile** 

-					Test Squ	aro		
Location	Kai Tak	Site Code	KKT2015		No.	aie	T16	
Test Pi Coordinate		Northing 820999.82	Test Measurement	Pit	Top:17.5r Bottom: 2			
Digging Method	materials a labours exca below	oves modern and manual wate L4 and	Ground Level		+6.78mPD			
Stratigraph	y and Finds		1		41-	Ol-		
,	Soil Texture	Soil Colour	Finds		pth PD)		ronology a marks	and
L1	Compact clayers sand with pebb and cobble, brid and modern was	le Yellowish		+6. +3.			50s - 1960s k Airport filled s	
L3	Loose claye sand with pebb and cobble			+3.	.55 ~ +1.9		l0s to 1930s fil d reclamation so	
L5	Loose sand	Light Grey			.9 ~ +1.8 d below	Ма	rine sand	
SW +6.78mPD		L5	LI CONCRETE L3 +1	.8mP[c	0		<u>1</u> 2M	NE NE

# T16 Wall Photography



**T16 Northwest Profile** 

Date Recorded by Amy Tse

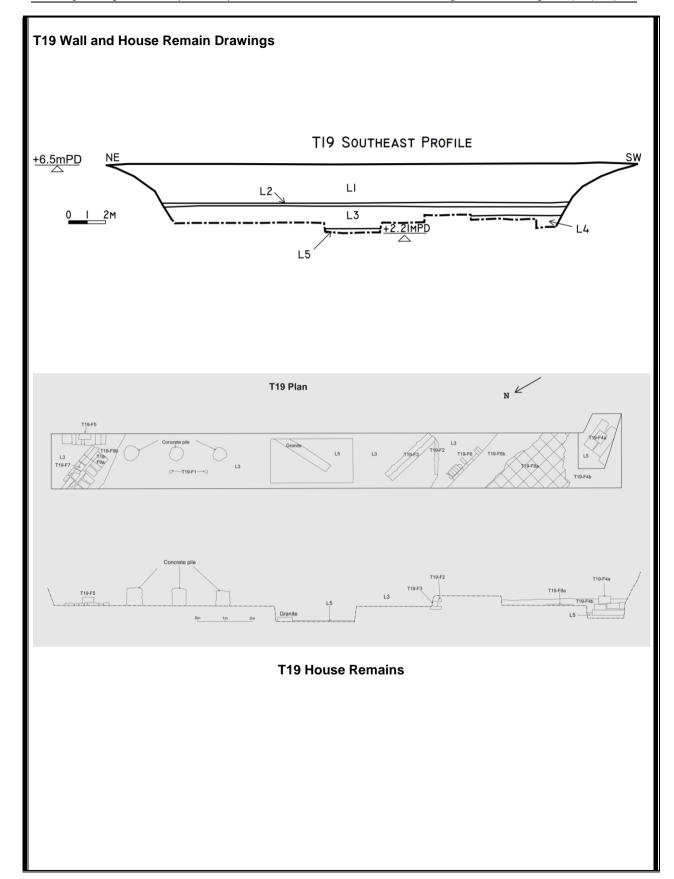
i e	1						-
Location	Kai Tak	Site Code	KKT2015		Test Squ No.		T17
Test Pi Coordinate		Northing 821020.56	Test Measurement	Pit	Top:18m Bottom: 2		
Digging Method	Backhoe rem materials a labours exca below	oves modern nd manual	Ground Level		+6.74mPI		- 2
Stratigraph	y and Finds						
Layer	Soil Texture	Soil Colour	Finds		pth PD)		ronology and marks
L1	Compact clayers sand with pebble and cobble, brid and modern wast	e Yellowish		+6.	74 ~ +4.1		50s - 1960s Kai k Airport filled soil
1.2	Compact claye sand			+4.	1 ~ +3.9		12 - 1945 Kai Tak field filled soil
L3	Loose clayers sand with pebble and cobble			+3.	9 ~ +2.5		l0s to 1930s filled d reclamation soil
L5	Loose sand	Light Grey			.5 ~ +2.2 d below	Ма	rine sand
sw		TI7 No	RTHWEST PROFILE				NE +6.74mPD
0	2M	L2 L3	+2.2mPD	AM .			



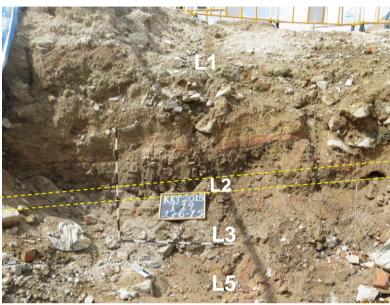
								Tool	Carre	240			
Location		Kai Tak			KKT2015			No.	t Squa		T18		
Test P Coordinate		Easting 837917.48		-	Test Measureme		Pit		:15.5n tom: 2				
Digging Method		labours exca below	nd	l manual	Ground Lev	/el			4mPD				
Stratigraph				<u> </u>	1		Do	pth	I	Ch	ronology	,	and
Layer	Sc	oil Texture		Soil Colour	Finds			PD)			marks	<u> </u>	anu
L1	sa co an	ompact claye and with oncrete pebb and cobble, brid and modern was	th le ck	Dull Yellowish Brown			+6. +3.		~		60s to 1 Airport		
+6.94MPD	SE			TI8 SO	UTHWEST PR	PILE			KAI TA	K AIRI	PORT CONCRE	NW ETE SURFA	ACE

# T18 Wall Photography Kai Tak concrete surface **U-channel** Pile Concrete **Drain** pipes Kai Tak Airport concrete surface Drain pipes **T18 Southwest Profile** Date 6 May 2015 Recorded by Amy Tse

Location	Kai Tak	Site Code	KKT2015		Test Squ No.	are	T19
	it Easting	Northing	Test	Pit	- 1		
Coordinate	838084.58	821180.35	Measurement		Bottom: 20m × 2m		× 2m
Digging Method	Backhoe rem materials a labours exca below	nd manual	Ground Level		+6.5mPD		
Stratigraph	y and Finds						
Layer	Soil Texture	Soil Colour	Finds		Depth (mPD)		ronology and marks
L1	compact clayer sand with concrete pebble and cobble and brick	e Vollowich		+6.	5 ~ +4.1		0s -1960s Kai Tak port filled soil
L2	Compact clayer	y Reddish Orange		+4.	1 ~ +3.9		2 - 1945 Kai Tak ield filled soil
L3	Loose clayey san with tile, ceram sherds, glas pebble, cobble an waste	Brownish	Blue and white celadon, brown glazed ware, brick	+3.	9 ~ 2.8	_	0s to 1930s filled I reclamation soil
T19-F1	Wooden piles			+3.	04 ~ +2.71		use foundation piles
T19-F2	Drainage pipe			+2.	98 ~ +2.86	Kai und	Tak Bund lerground utility
T19-F3	Drainage pipe with haunching concrete			+2.	9 ~ +2.6	Kai und	Tak Bund lerground utility
T19-F4a	Three layers of granite footing	of		+3.	1 ~ +2.4		umn footing of ise entrance porch
T19-F4b	Layer of clayer sand	yellow		+3.	0 ~ +2.8		er of rammed earth
T19-F5	Two rows of granit block structure	e		+3.	02 ~ +2.7	Ηοι	use foundation
T19-F6	Green brid structure			+3.	08 ~ +2.7	Wal	II foundation
T19-F7	Red brick structure			+3.	05 ~ +2.7		II foundation
T19-F8a	Area of floor tile			+2.	83 ~ +2.79	Flo	
T19-F8b	Layer of sand	Light Grey			79 ~ +2.7	fou	er of rammed earth ndation
T19-F9a	Area of floor tile			+2.	92 ~ +2.88	Flo	
T19-F9b	Layer of sandy clay	, Reddish Orange		+2.	88 ~ +2.8	fou	er of rammed earth
L4	Layer of sandy clawith pebbles	y Brown			8~+2.5		ly 20 <sup>th</sup> century dy soil with house nains
L5	Loose sand	Light Grey			5 ~ +2.21 d below	Mar	rine sand



# T19 Wall and House Remain Photography



**T19 East Profile** 





T14 overall



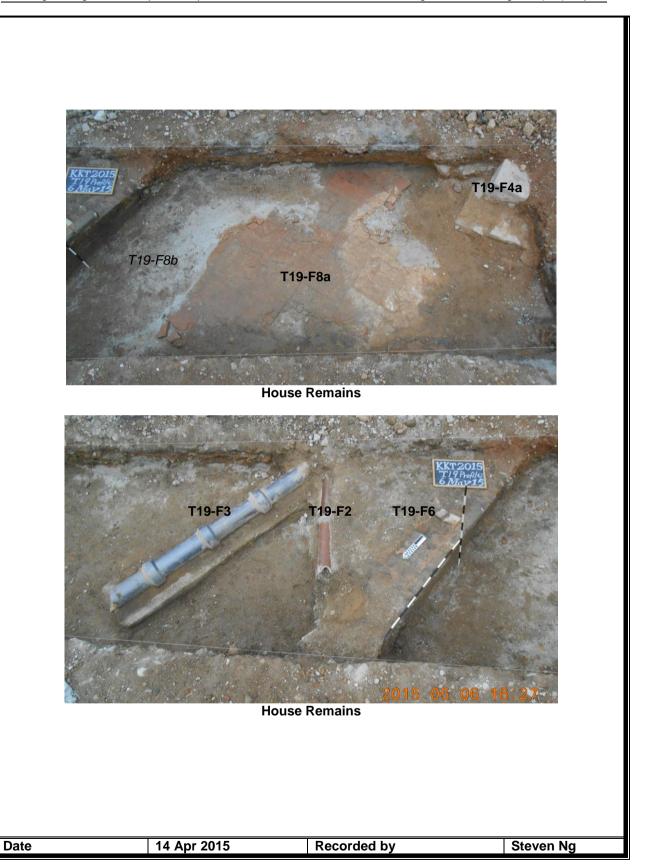
House Remains (floor tile,T19-F9a)



House Remains (brick wall, T19-F6)

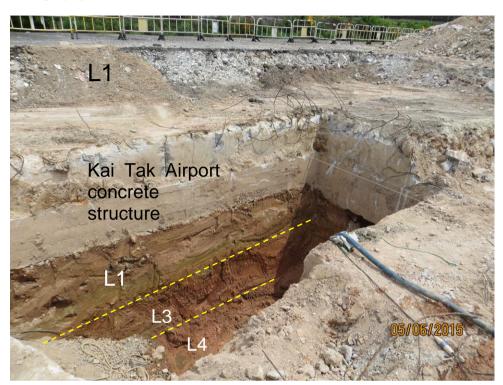


House Remains (floor tile, T19-F8a)



				Ŧ			To at Com		
Location		Kai Tak	Site Code		KKT2015		Test Squ No.		T20
Test F Coordinate	Pit e	Easting	Northing		Test Measurement	Pit	Top: 20m x 14.5m Bottom: 2m x 2m		
Digging Method		labours exca below	nd manua	ıl	Ground Level		+7.11mPi	+7.11mPD	
Stratigraph	ny a	and Finds	1		T				
Layer	So	oil Texture	Soil Colo	ur	Finds		pth PD)		ronology and marks
L1	sa ar	ompact claye and with pebb ad cobble, bric ad modern was	Yellowish	1		+7	.11 ~ +3.9		50s - 1960s Kai k Airport filled soil
L3	sa	oose claye and with pebb ad cobble				+3	.9 ~ +2.4	and	0s to 1930s filled dreclamation soil
L4	w	oose sand si ith tile an eramic sherd	I Brownish	1			.4 ~ +2.0	sar	rly 20 <sup>th</sup> century ndy soil with use remains
L5	Lo	ose sand	Light Gre	y			.0 ~ +1.7 d below	Ма	rine sand
sw				Т	20 Northwest Pro	OFILE			NE
							LI		
+7.IIMPD				_	KAI TAK AIRPORT CO	NCRETE	SURFACE		
					+1.7	7mPD	L3  L4  L5		0 <u> </u>

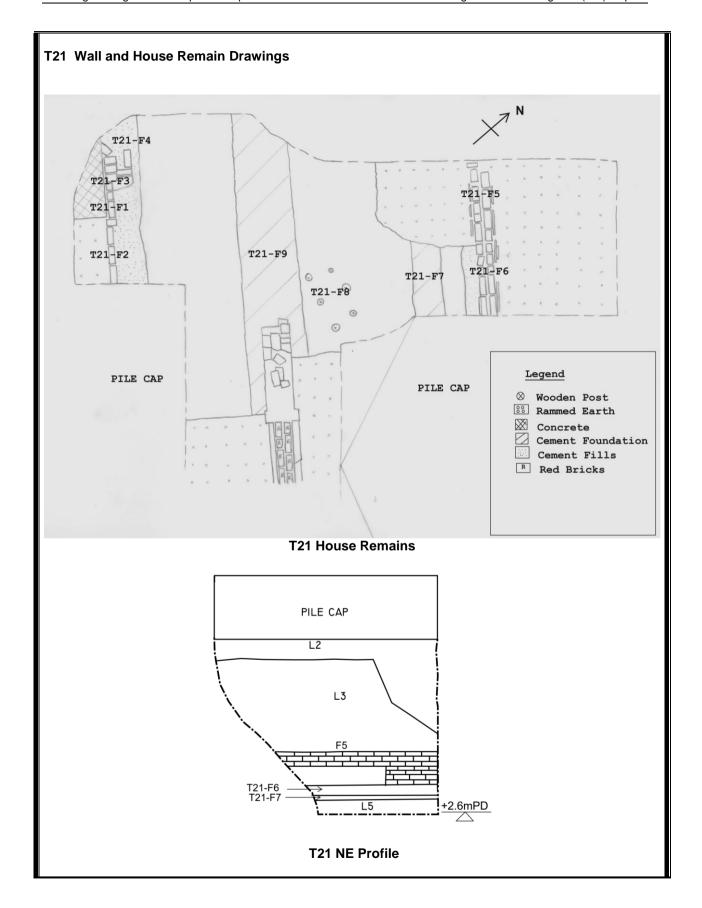
# T20 Wall Photography



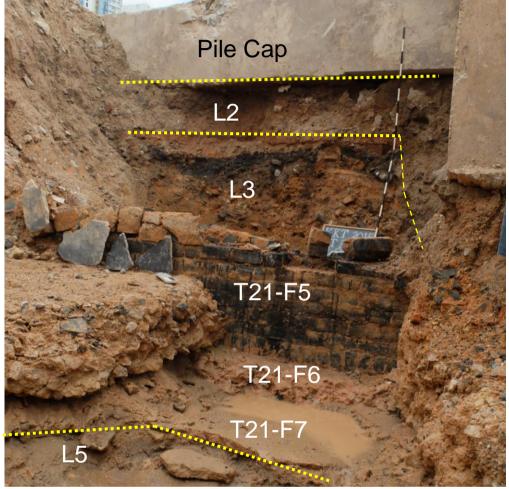
**T20 North Profile** 

Date 2 Jun 2015 Recorded by Amy Tse

Location	Kai Tak	Site Code	KKT2015		Test Squ No.	are	T21
	it Easting	Northing	Test	Pit	Top:10m		
Coordinate	838030.95	821162.72	Measurement		Bottom: 7	7m ×	3m
Digging Method	Machine to r Kai Tak Bund soil Manual excave	Reclamation	Ground Level		+6.63mPD		
Stratigraph	y and Finds						
Layer	Soil Texture	Soil Colour	Finds		pth PD)		ronology and marks
L1	Compact clayers sand with concrete pebble and cobble, and modern waste	h Dull le Yellowish		+6.	.63 ~ +4.3		i0s – 1960s Kai Airport filled soil
L2	Compact claye	Reddish Orange		+4.	.3 ~ +3.9		2 – 1945 Kai Tak field filled soil
L3	Compact clayers sand with pebb and cobble, green brick and tile	e Reddish	Blue-and- white porcelain sherd	+3.	.9 ~ +3.16		0s to 1930s filled I reclamation soil
T21-F1	Concrete pavement			+3.	.25~+3.30		ound surface of early 20 <sup>th</sup> century
T21-F2	Rammed Earth			+3.	.07~+3.25	Rar	mmed Earth
T21-F3	<b>Green Brick Wall</b>			+3.	.04	Fou	undation wall
L4	Layer of sand clay with pebbles			+3.	.16~+2.8	san	ly 20 <sup>th</sup> century ndy soil with use remains
T21-F4	Cement Footing			+2.	.58~+2.63	Brid fou	ck Wall ndation
T21-F5	<b>Green Brick Wall</b>			+3.			use Wall
T21-F6	Cement Footing			+2.	.75~+2.92		ck Wall
T21-F7	Cement Paving			+2.	.70~+2.75	fou	ment paving ndation
T21-F8	Six Wooden Post	s		+2.	.8	Bui	20s-1930s Kai Tak nd Shop houses oden piles
T21-F9	Cement Paving			+2.	.88		ment paving ndation
L5	Loose sand	Light Grey		+2.	.8~ +2.6	Ma	rine sand







T21 NE profile



Comments Received	<u>Date Received</u>
1. AMO	2 February 2016
2. AMO	19 May 2016
3. AMO	25 May 2016



Comments	Response to comments
Comments received from AMO by email dated or	
Field Investigation Report	
<ol> <li>It is noted that the southern boundary of the Investigation Area was defined by the 19th century coastline (Section 2.1.1). However, the boundary of the "Phase I Archaeological Field Investigation Boundary" as shown in all the figures of the report covered the whole Lung Tsun Stone Bridge and a lot further to the seaward direction. Please supplement explanation in this discrepancy.</li> </ol>	The boundary of the "Phase 1 Investigation Boundary" was revised to the following description: "The southern boundary of the Investigation Area makes reference to the further south of the 19 <sup>th</sup> century coastline and covers the area of Lung Tsun Stone Bridge".  Please see Section 2.1.1 and 3.1.1.
2. The archaeological sensitive area was expected to be found surrounding Sacred Hill and areas behind the 10th century coastline due to the discoveries of Song-Yuan archaeological remains (Section 2.4.4 and 2.4.5). Since Song-Yuan period is 960—1368, i.e. 10th to 14th century. Please clarify why remains from Song-Yuan period are mainly behind the 10th century coastline but not the coastline of later period, say 14th century.	The "10 <sup>th</sup> century coastline" was replaced as "Song-Yuan coastline" in Section 2.4.4 and 2.4.5.
3. It is noted from Section 5.2.4 and the other relevant sections that the Investigation area had no archaeological potential except the known extent of the Lung Tsun Stone Bridge. The archaeological investigation revealed that Layer 4 contained (as indicated in Table 4.1) floor tiles, greenish brick wall foundation, granite column and footing stones with "features" of house remains (Section 4.2.1) seriously disturbed by the construction of foundation and basement for the passenger terminal building and the other earlier developments. No remnants of the other important structures of historical significance such as the Kowloon Fort, Kowloon Customs Station could be identified. It is of our view that some early remains in Layer 4 (as indicated in Table 4.2) shared some historical context of the early stage of the Lung Tsun Stone Bridge and the archaeological data retrieved would help understand the surrounding environment of the bridge structures coexisted at the beginning of the 20th century although detailed information was not available due to their very fragmentary conditions. Please review whether they are of no archaeological potential/significance (Section 6.1.10) and consider whether the archaeological value of some findings in L4 would be very low. It, however, would	The value of archaeological findings of Layer 4 and Investigation Area was revised as very low . Please refer to Section 4.1.2, 5.1.17, 5.2.4, 5.3.1, 6.1.10, 6.1.11

not affect the conclusion on the assessment of the archaeological impact.	
Based on the above comment, please supplement in last paragraph of 摘要, Section 6.1.11 and the other relevant sections the recommendation that AMO should be notified when antiquities or supposed antiquities were found during the construction works in the investigation area.	The last paragraph of 摘要 and Section 6.1.11 were revised.
Regarding L3 Kai Tak Bund reclamation soil, it was referred to the Kai Tak reclamation between 1916 and 1924. Please note some test pits were located outside the reclamation area but contained L3 as reported in Table 4.2. From Figure 5.3, it is noted that in parallel to the construction of Kai Tak Bund, there was also development of shop houses in its periphery in the same period. Please review what L3 refers to and revise as appropriate.	L3 in Section 4.1.2, Table 4.1, Section 6.1.5 were revised as "1910s to 1930s filled and reclamation soil". Since there is not any chronological difference between the Kai Tak Bund reclamation soil and non Kai Tak Bund reclamation soil, "1910s to 1930s filled and reclamation soil" was used to describe L3.
Some features mentioned in the text Section 4 could not be found in their relevant figures. While it is understood that their details could be found in Appendix A, please double check to ensure the features in text tally with the figures in Section 4 and add supplementary notes if necessary for easy reference.	Figure 4.12 was added to show T8-F3a - T8F3d. Figure 4.17 was added to show T14-F8 and T14-F11. For T19-F1 and T21-F8 –T21-F9 info, please refer to Appendix A. Such text were supplemented in 4.2.14 and 4.2.16.
It is noted that description of some results of the desktop study did not tally with the outcome of the Archaeological Field Investigation, such as the location of the Police Station in Figure 3.4 and in the discussion on the Police Station in Section 5. It is understood the overall study after the fieldwork may verify the findings of the desktop study. Please clarify is it the case and explain the discrepancy in the report as appropriate.	The location of the Police Station in Figure 3.4 was revised.  Kowloon City Police Station was subsequently built at the Customs Station site, instead of Kowloon Fort. Please refer to Section 5.1.6.
References and footnotes in the report should be presented in full details and in unified format.	Footnote no. 8, 27, 28 were revised.
Please revise "Kowloon Police Station" in Section 5.1.7, Section 5.1.14, Section 5.1.15 and Figure 5.4a as "Kowloon <b>City</b> Police Station".	Section 5.1.5, 5.1.7, 5.1.12, 5.1.14 and Figure 5.4a were revised as "Kowloon City Police Station".

10. 摘要: According to Section 2.3, the aims of the field investigation comprise not only the possible existence, extent and depth of archaeological deposits dated to the Song-Yuan Dynasties. Please revise the aims of the field investigation stated in the first paragraph of 摘要 accordingly.	The aims of the field investigation including assess the significance of archaeological resources and propose recommendations were supplemented in the first paragraph of 摘要.
Section 1	
11. Section 1.1.3: please check whether the phase "Phase 1 AFI concerns area of the Project" should read "Phase 1 AFI concerns <b>Stage 5A</b> area of the Project".	Section 1.1.3 revised accordingly.
12. Drawing No.60102100/AFI_1/003:The development sites associated with Stage 5A and Stage 5B infrastructural works as mentioned in Section 1.1.3 were not clearly illustrated in Drawing No.60102100/AFI_1/003. Please refine the drawing.	Please find the revised figure in the attachment.
Section 2	
13. Section 2.1: please further describe and clarify the relation between the area of Stage 5A, the project area for archaeological investigation and the proposed test pit locations in both text and figures taking into account the following observations:	
<ul> <li>The 19<sup>th</sup> century coastline was shown on Drawing no.:60102100/AFI_1/001 and 002 instead of Drawing no.:60102100/AFI_1/002 and 003 as reported.</li> <li>It was reported in Section 2.1.1 that "the southern boundary of the Investigation Area was defined by the 19<sup>th</sup> century coastline". However the investigation area illustrated on Drawing no.:60102100/AFI_1/001, 002 and 003 with black dot-dash line was found not to be deduced from this coastline.</li> </ul>	The boundary of the "Phase 1 Investigation Boundary" was revised to the following description: "The southern boundary of the Investigation Area makes reference to the further south of the 19 <sup>th</sup> century coastline and covers the area of Lung Tsun Stone Bridge". Please see Section 2.1.1.
14. Section 2.4.1: please note that the Archaeological Review Report has not been finalized yet.	Noted. Despite that, the Final Archaeological Review Report was still being enhanced with assistance by AMO, the main approach and recommendations were appointed by AMO.
15. Section 2.4.7: please revise the sentence "All proposed excavations were within the onshore area before the 19 <sup>th</sup> century" because T5 and T13 were not proposed at the estimated onshore area of the 19 <sup>th</sup>	Section 2.4.7 was revised accordingly.

Figure 3.3 and 3.6's boundary were revised accordingly.
Figure 3.7 was removed.
Figure 4.1b was revised to match figure 4.1a.
The column of "Depth (mPD)" was removed in Table 4.1. The depth of each test pit was supplemented in Table 4.2.
Table 4.2 was revised.
"L2" location was revised.
Figure 4.3a was revised. Label "11" should be "T14-F11".
Figures 4.3a and 4.4a were revised as "Brick wall and cement footing and cement floor" and "Brick wall and cement floor".  "Ground bean" was replaced by "Ground beam"

24. Figure 4.6: the arrow of "T4-F2" was pointed to a wrong location. Please amend.	The arrow pointing T4-F2" was revised accordingly.
25. Table 4.4: please revise "T8-F3" as "T8-F3a". Please also supplement the information of T8-F3b to T8-F3d to tally with the record of T8 in Appendix A.	Details of T8-F3b-T8-F3d were supplemented.
26. Table 4.6: please supplement the details of T14-F11 and T14-F12 which were reported in the record of T14 in Appendix A	The original T14-F8 was changed to "L4". Therefore, there were eleven features in T14 in total. Details of T14-F11 was supplemented.
27. Figure 4.15: T14-F9 was pointed to a wrong location. Please amend.	The arrow pointing T14-F9 was revised accordingly.
28. Table 4.8: please supplement the details of features T19-F4a, T19-F4b, T19-F8a, T19-F8b, T19-9a and T19-9b which were reported in the record of T19 in Appendix A.	Details of T19-F4a, T19-F4b, T19-F8a, T19-F8b, T19-9a and T19-9b were supplemented.
29. Figure 4.26: please change a photo which fully shows the features in the northeast end of T19.	The photo was replaced accordingly.
30. Section 4.2.15: please check the size of T21 which was different from that stated in its record in Appendix A.	The size of T21 was checked and revised.
31. In view that the features in T14, T14a and T21 were inter-related, description and plan drawings of these features as a whole should be included in Section 4.2 to provide a clearer picture of their character and extent for impact assessment in Section 5.	Please refer to Section 5.1 (from 5.1.5 to 5.1.18).
32. Section 4.3: it is understood that L1 to L3 of the test pits in stage 5A area were mostly excavated mechanically. Therefore, only a few ceramic shards, tile and brick fragments were collected in the course of excavation works. Please supplement the artefact collection strategy to reflect the issue.	The representative or datable ceramic shards, root tiles and bricks were collected in the Layers 1 to 3.
33. According to Table 4.1, L5 (marine sand) was regarded as a sterile layer with no archaeological findings. However, Table 4.10 indicated that a piece of Blue and White shard and two roof tile fragments were found in L5 of T4 and L5 of T6 respectively. Please sort out such discrepancy.	Table 4.1 revised as "with a few archaeological findings".

34. It is noted that the artefacts collected from test pits as shown in Table 4.10 did not match with the artefacts mentioned in Appendix A which were unearthed from test pits. Please explain why there was such a difference.	The artefacts mentioned in Appendix A were the ones we observed during the excavation at each layer. But only representative artefacts were collected and presented in Table 4.10. Hence, there was a difference between the main text and Appendix A. Such difference was mentioned in Section 4.3.1.
35. Section 4.3.12: please clarify the Small Finds No. which was different from that stated in the caption of Figure 4.30.	Section 4.3.12 discrepancy was resolved.
Section 5	
36. Table 5.1: please clarify whether "T19-F4" refers to "T19-F4a".	T19-F4 was revised to T19-F4a.
37. Section 5.1.7:	
Since it is generally agreed that the Kowloon City Police Station played a role in the development of Kowloon City and it was part of the history of Hong Kong, please consider deleting "the lack of evidence to suggest importance of the Police Station to the history of Hong Kong as well as".	Revised accordingly.
<ul> <li>Please revise the "Kowloon Police Station" as "Kowloon City Police Station".</li> </ul>	"Kowloon Police Station" was replaced by "Kowloon City Police Station".
38. Figure 5.1b: please revise the location of T14 as "T14/T14a/T21".	The location of T14a and T21 were added.
39. Section 5.1.11: It is noted the discussion in Section 5.1.11 used green bricks as evidence to support the structure might belong to the Police Station, but it also suggested that the Customs Station was built in Chinese vernacular style and "green brick has been extensively used in buildings of that time in Chinese vernacular structures". Please further elaborate to avoid misunderstanding.	5.1.14 was revised as below: "As green brick has been extensively used in buildings of that time in Chinese vernacular structures, it is therefore a logical assumption to suggest that the remains of these green brick structures might belong to the Customs Station. The use of red bricks, cement pastes and concrete pavements found directly on top of the green brick structures might indicate the demolition of Kowloon Customs Station prior to the construction of Kowloon City Police Station."
40. Section 5.1.13: please revise "Chinese charters" as "Chinese characters".	Revised accordingly.
41. Figure 5.4b: the caption "Cross Section of T14, 14a and T21 in relations with the Footprints of Kowloon City Police Station and Kowloon Fort" did not match with the figure as the footprints of the Kowloon City Police Station and Kowloon Fort were not shown in the figure. Please revise the caption as appropriate.	The caption was revised.

42. Figure 5.3: please indicate the locations of T14a and T21.	Locations of T14a and T21 were added.
Section 6  43. Section 6.1.6: please revise "L3 and L4" as "L2, L3 and L4" so as to tally with Section 4.3.1 and Table 4.10.	Revised accordingly.
Plan  44 Proving No. 60402400/AFL 4/004	As this report only feetings on Stone EA project
44. Drawing No. 60102100/AFI_1/001: Please supplement the locations of T14a and T21, highlight the locations of test pits/trenches in the legend, and indicate the project area boundaries of Stage 5A and 5B for ease of reference.	As this report only focuses on Stage 5A project area, Stage 5B boundary was not put in the figure. The locations of T14a and T21 were supplemented in the figure.
45. Drawing No. 60102100/AFI_1/003: Please indicate the project area boundaries of Stages 5A and Stage 5B for ease of reference.	As this report only focuses on Stage 5A project area, Stage 5B boundary was not put in the figure.
46. Drawing No. 60102100/AFI_1/004: Please indicate the locations of T14a and T21 and highlight the location of test pits/trenches in the legend for ease of reference.	The locations of T14a and T21 were supplemented in the figure.
Appendix A	
47. Please ensure that the descriptions of the digging method tally with the information of the excavation of test pits. Please also check the typing errors in test pit records.	
48. Please provide the record of T14a.	Please find T14a information in T14 table.
49. Please ensure the consistency between the main text and Appendix A in terms of presenting test pit layers.	Revised accordingly.
50. Please note that the following comments, which are by no means exhaustive, list out some issues relating to the descriptions and drawings of test pit records that require revision:	
T4:	
<ul> <li>"L6" in the table should read "L5".</li> <li>The features in the eastern portion of the test pit should be reported, i.e. the area of T4 on the east of the large sewerage pipe.</li> </ul>	L6 was replaced by L5 in the table.  The features in the eastern portion of the test pit was supplemented in the drawing.

51. T8: please check whether "L4" should read "L5" and revise the test pit wall drawing accordingly.	L4 was replaced by L5 in the test pit wall drawing.
52. T13: L2 was missing in the test pit wall drawing. Please amend.	L2 was added in the test pit wall drawing.
53. T14:	
L4 was missing in the table. Please amend.	L4 was added in the table.
F11 was reported as a wooden pile in the table, but it seems to be a brick structure on the wall drawing. Please amend.	Brick structure was replaced by a wooden pile.
54. T19:	
<ul> <li>Layer and feature numbers were missing in some of the test pit wall drawings. Please amend.</li> </ul>	Revised accordingly.
F7 is missing on T19 Plan (3). Please amend.	F7 was added in the plan.
55. T20: please revise the test pit wall drawing by showing the stratigraphy of L3, L4 and L5.	L3, L4 and L5 were added in the test pit drawing.
56. T21: it is noted that the features of housing remains recorded in the table are different from that shown in Table 4.9. Please check and revise the table as appropriate.	Revised accordingly.

	omments	Response to comments
		n 19 May 2016 on Phase 1 Archaeological Field
	gation Report	
1.	It is noted that objective to "調查第 5A 基建區內是否有宋元文物和遺蹟" is not the same as Section 2.3 Aims and Section 6.1.1 in conclusion. Please revise the objective in 摘要 according to the main text.	摘要 has been revised according to section 2.3 and section 6.1.1.
2.	On the fourth paragraph, Please check "······第四層是二十世初期九龍灣沿岸房屋地層" should be read as "······第四層是二十世紀初期九龍灣沿岸房屋地層".	第四層是二十世初期九龍灣沿岸房屋地層 has been revised to 第四層是二十世紀初期九龍灣沿岸房屋地層
Section	2	
3.	In Section 2.1.1, of please note that the 19th century coastline was not shown on Drawings 60102100/AFI-1/003. In addition, Drawings 60102100/AFI-1/001, the coastline was shown on Drawings 60102100/AFI-1/002, please consider to revise.	Drawing 60102100/AFI-1/003 has been removed in section 2.1.1 text.
Section	13	
4.	In the footnotes for Section 3.2.8 and Section 3.2.12, please check if the 1688 Xin'an Gazetteer should be of the Kangxi period instead of the Jiaqing period.	The 1688 Xin'an Gazetteer has been revised to Kangxi period in footnote 11 and 15.
Section	4	
5.	On Table 4.1, L5 Marine sand was reported as "Sterile, with a few archaeological findings". Please consider to revise for easy understanding as sterile normally means no artefacts exist in terms of archaeology.	The words "with a few archaeological findings" has been removed from Table 4.1.  Relevant text has also been removed in section 4.1.2.
6.	Please provide a photo with the feature T14-F11.	Photo of T14-F11 has been supplemented. (Please see figure 4.19)
		T14-F11 is a timber pile. Relevant text has been revised in table 4.6 and Appendix A.
7.	In Figure 4.26, please provide a photo that the features on the northeast end in T19 could be fully showed.	Please see Figure 4.27. The photo has shown all the features on the northeast end in T19.
Section	5 & 6	
	In Section 5.1.14, it is noted the revision in Section 5.1.14 that "As green brick has been extensively used in buildings of that time in Chinese vernacular structures, it is therefore a logical assumption to suggest that the remains of these green brick structures might belong to the Kowloon Customs Station on top of the green	Section 5.1.14 has been rewritten as "A cement floor (T14-F2) and a brickwall footing (T14-13) were directly lain on sterile marine sand found in T14,T14a and T21 which indicated no remnants related to Kowloon Customs Station beanth such house remains (Figures 5.4a and 5.4b)."

brick structures might indicate some demolition of Customs Station prior to the construction of Kowloon City Police Station" may imply that the remnants of the Kowloon Customs Station was unearthed in the archaeological field investigation, which is not tally with the discussion of the other parts of the report. Please clarify.	
9. In Section 5.1.17 and Section 6.1.10, the significance of the housing remains in T14/T14a/T21 was considered very low and "negligible" respectively in these sections, please revise.	"Negligible" has been revised as "very low" in section 5.1.17 and section 6.1.10.
Section 6.1.6 was missing from the section, please revise.	Section 6.1.6 has been added.
11. In Figure 5.4b, please delete "in relations with Kowloon City Police Station and Kowloon Customs Station" in the title of the figure for no such relation was shown on the figure.	"In relations with Kowloon City Police Station Station and Kowloon Customs Station" has been removed in the title of Figure 5.4b.

Comments	Response to comments	
Comments received from AMO by email dated on 25 May 2016 on Phase 1 Archaeological Field		
Investigation Report		
On point 5 of our previous comment, it was noted that the words "with a few archeological"	Table 4.1 has been revised accordingly.	
findings" had been removed from Table 4.1 and Section 4.1.2 was also amended accordingly. However, in view of that pottery shards did found in L5 of T4 and T6 as shown on Table 4.10, thus:	Descritpion of L5 in Section 4.1.2 has been revised accordingly.	
The description on the column of "Findings and remark" of L5 on Table 4.1 was suggested to be revised as " A few archaeological findings".		
The description of L5 in Section 4.1.2 was suggested to be revised as "The stratum is composed or light grey marine sand. This is a layer with a few archaeological findings".		
2. On point 6 of our previous comment, T4-F11 was amend as timber pile. Please note that the revised Table 4.1 and Appendix A as mentioned in the response to this comment were not included in the amended pages of the report attached in your	T14-F11 was referred as "Wooden pile" instead of "Timber pile" in table 4.6 and Appendix A in the last submission on 20 May 2016. Information of T14-F11 (Wooden pile) in Table 4.6	
previous email. Please ensure the relevant text on Table 4.1 and Appendix A was revised accordingly.	and Appendix A have been revised accordingly. Please see the attachment.	