# **Revitalising Historic Buildings Through Partnership Scheme**

# Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound

# **Resource Kit**

Date: 27 November 2019



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### I. <u>Introduction</u>

1.1 The purpose of the resource kit is to provide applicants with information to prepare proposals for this revitalisation project under the Revitalising Historic Buildings Through Partnership Scheme (the Revitalisation Scheme). Information provided include:

Section I Introduction;

Section II Historical Background and Architectural Merits

Section III Site Information;

Section IV Building Information;

Section V Vicinity and Access;

Section VI Conservation Guidelines;

Section VII Town Planning Issues;

Section VIII Land and Tree Preservation Issues;

Section IX Slope Maintenance;

Section X Technical Compliance for Possible Uses;
Section XI Special Requirements of the Project; and
Consultation with Southern District Council

- 1.2 In drawing up proposals, applicants should in particular endeavour to:
  - (a) bring out the historical significance of the buildings;
  - (b) follow the Conservation Guidelines; and
  - (c) strike a balance between maintaining the architectural authenticity of the buildings and complying with current statutory requirements.

We appreciate that 1.2(c) will be a complex task. The following suggestions are for the applicants' consideration:

- (i) when undergoing major alteration and addition works and material change of use, the historic buildings should be properly upgraded for compliance with the current building safety and health standards under the Buildings Ordinance (Cap.123). The need for preserving the significant architectural features (**Appendix IX**), site constraints and/ or prohibitive upgrading cost may limit the type of uses that may be chosen for the buildings; and
- (ii) every effort should be made to preserve the elements of significance and character-defining elements of the historic buildings. Addition and alteration works, if necessary, should be undertaken at less visually intrusive locations.

1.3 We have listed out a number of uses under Outline Zoning Plan which can be considered for adaptive-reuse of the site. However, the technical feasibility of such a case will need to be further examined.

1.4 The dimensions, areas and datum levels presented in this resource kit including the drawings and perspectives are for reference only. A thorough cartographic survey for the building and topographic survey for the site should be carried out by authorised specialists to verify the dimensions, areas and datum levels before

detailed design is carried out.

1.5 The information that has been assembled is to give a general understanding of the site and the historic buildings. Key parameters available at the time of preparation of the resource kit are for the applicants' convenience and may not be exhaustive. Because of the unique nature and requirements of each proposal, applicants are

strongly advised to verify the provided data before finalising their proposals.

1.6 The Secretariat of the Revitalisation Scheme will provide a one-stop service to assist applicants and where necessary, refer them to concerned departments. Applicants may contact the Secretariat at:-

Address: Revitalising Historic Buildings Through Partnership Scheme

Secretariat

c/o Commissioner for Heritage's Office, Development Bureau

Unit 701B, 7/F., Empire Centre, 68 Mody Road, Tsim Sha Tsui East,

Kowloon, Hong Kong

Email: rhb\_enquiry@devb.gov.hk

Phone.: 2906 1560 Fax: 2906 1574

### II. Historical Background and Architectural Merits

### 2.1 Historical Background

#### Tai Tam Group of Reservoirs

After the first ever-built reservoir in the territory was completed in 1863 at Pok Fu Lam, to cater for the ever-increasing demands for water in the late 19th century to early 20th century, much larger reservoirs with more complex water supply system including Tai Tam Upper Reservoir (completed in 1888), Tai Tam Byewash Reservoir (completed in 1904), and the two low-level reservoirs, Tai Tam Intermediate Reservoir (completed in 1907) and Tai Tam Tuk Reservoir (completed in 1917) were constructed under the Tai Tam Scheme and Tai Tam Tuk Scheme between 1883 and 1917. Among these four reservoirs, which are collectively known as Tai Tam Group of Reservoirs nowadays, the Tai Tam Tuk Reservoir was the largest and its dam was said to be the largest in Asia at the time. Its construction design and supervision was in-charge by Mr. Daniel Joseph JAFFE, who was the chief engineer of the project. To acknowledge his contributions in Hong Kong, Jaffe Road in Wan Chai was named after him in 1930s.

### Tai Tam Tuk Raw Water Pumping Station

To overcome the topographical constraints for the low-level reservoirs, the Tai Tam Tuk Raw Water Pumping Station (the "Pumping Station" hereinafter) was constructed at the shore of Tai Tam Bay under the First Section of the Tai Tam Tuk Scheme in 1907. With the introduction of plumbing facilities, water is lifting from the low-level reservoirs to the tunnel inlet instead of relying on gravity flow. The Pumping Station originally consisted of engine hall, workshop, store and boiler room, it was connected to a chimney shaft built on the hillside with a flue at the rear. To facilitate the daily operation of the Pumping Station, Senior Staff Quarters for accommodation of European Overseer and Staff Quarters for accommodation of Chinese engine-drivers and stokers were also built close to the station in 1905 and 1907 respectively. Subsequent to the extensions made to the Pumping Station afterwards to accommodate the additional pumping machinery, former pressure filter house built in 1936 situated at the west of the Pumping Station was also converted into No. 2 Staff Quarters to accommodate more staff at site.

The Senior Staff Quarters, the Staff Quarters and the No. 2 Staff Quarters are named as the Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound (SQC hereinafter) have been declared as monuments together with the Pumping Station and other historic structures of Tai Tam Group of Reservoirs under the Antiquities and Monuments Ordinance (Cap. 53) since 2009. Although the Tai Tam Tuk Raw Water Pumping Station is still the oldest pumping station which remains its function today, the staff is not required to stay overnight due to the automation in operation and centralized control of the Pumping Station in recent decades, therefore, most of the staff quarters are now left vacant.

#### 2.2 Architectural Merits

### **Senior Staff Quarters**

The Senior Staff Quarters for the European Overseer is situated on a raised platform at the east end of the Pumping Station overlooking the Pumping Station, with the main north-east façade facing the Tai Tam Harbour. The Senior Staff Quarters consists of a two-storey main building and a single storey servants' quarters. The exterior of the main building is symmetrical in general with the entrance porch and doorway centrally placed at the north-east façade, walls were painted in white with horizontal features highlighted in blue. The central portion of the roof is a hipped roof while the two sides are flat roofs with parapet walls. Some of the window openings have probably been altered, but the proportion of existing window openings at the north-west elevation with window openings on G/F taller than 1/F looks authentic.

Internally, each floor consists mainly of two large rooms at the rear side with French doors opening to the two hallways at the front and north-west side respectively. The large rooms are finished with timber flooring, and originally each have a fireplace connecting to the chimney at the roof. The hallways are designed with large wooden windows and mosaic floor finishes which probably act as vestibules to enhance penetration of natural light and keep the interior cool in summer. There is an existing wooden staircase near the main entrance at the northeast side for circulation between the two floors.

A covered walkway with pitched roof is constructed to connect the south-east side entrance of the main building to the servants' quarters at the rear. The servants' quarters is in L-shaped, the covered walkway extends to north-east façade of the servant's quarters. The pitched roofs of the main building, servants' quarters and covered walkway are finished with double-layered pan and roll tiles.

#### **Staff Quarters**

The Staff Quarters for the engine-drivers and stokers is situated at the west end of the Pumping Station. It consists of a two-storey quarters and a single storey store building which are connected by a covered walkway. The two buildings share a similar design, the staff quarters is long, narrow and rectangular in shape, with open verandahs facing the seaside while the store building is built rectangular in shape at a slight angle to the quarters, with open verandahs facing the hillside. Open concrete stairways are constructed at both ends of the verandah for the quarters. Both building facades have been painted, but probably originally they were exposed red brickwork matching the Pumping Station. The roof of quarters is hipped, finished with double-layered pan and roll tiles while the roof of the store building is mono-pitched with asphalt finishes. Windows on both buildings are segmental arched wooden casements. Jack arch interior slabs are constructed at floor slabs of 1/F which are not commonly use in Hong Kong nowadays.

### No. 2 Staff Quarters

No. 2 Staff Quarters is a two-storey building situated on a raised platform further west to the Staff Quarters. It was originally built as a pressure filter house in 1936 but was later converted to staff quarters for Works Supervisors. The building is L-shape in plan with an external open concrete staircase constructed at the side and an open verandah at the upper level facing seaside. The exterior of the building is fair-faced red bricks, with Shanghai plaster finishes at columns and along the bottom of walls. Most of the doors and windows openings have been found altered, the original main entrance should be located centrally on the ground floor with doorcase finished with Shanghai plaster. Brick partitions are used on the ground floor while wooden partitions are used on the first floor, bathroom on the first floor is later addition. There is also a later-added outbuilding which is used as bathrooms located adjacent to the building.

### **III.** Site Information

#### 3.1 Location

The site of this revitalisation project is located at Tai Tam Reservoir Road, Tai Tam. The Location Plan is shown in **Appendix I**.

### 3.2 Site Description

The site of this revitalisation project is located on land facing the Tai Tam Harbour and surrounded by trees and slopes. It includes the SQC, a disused Underground Cellar and other structures as listed in **Section IV** but excludes the Pumping Station, Chimney Shaft and its Flue, and Tai Tam Bay Pier. Their information will also be included in this resource kit as supplementary information so that the applicants can have a holistic view of the whole development.

### 3.3 Site Boundary

The Site Boundary Plan of this revitalisation project is shown in **Appendix II(A)**.

### 3.4 Site Area

The site area of this revitalisation project is approximately 6356m<sup>2</sup>.

### 3.5 Major Datum Levels

The datum levels of the site of this revitalisation project range from approximately +3.5mPD to +15.6mPD. Major datum levels around the site are shown in **Appendix III** (A).

### 3.6 Topographic Survey

A set of topographic survey plan of the site as in July 2019 is shown in **Appendix III(B)**. The AutoCAD format of the survey plans can be obtained at the Scheme Secretariat by submitting a completed request form. A summary of the information on the site of survey area is given in **Appendix V**.

### IV. Building Information

### 4.1 Building Description

This revitalisation project includes the following buildings, structures and areas:

#### SQC:

- Senior Staff Quarters (Main Building and Servants' Quarters)
- Staff Quarters (Main Building and Store Building)
- No.2 Staff Quarters (Quarters and Outbuilding)

#### Others:

- Dangerous Goods Store
- Fuel Tank
- Garage
- Underground Cellar
- Yard

In addition to the above-mentioned buildings and structures, the Pumping Station, Chimney Shaft and its Flue and Tai Tam Bay Pier are the major buildings and structures located within the survey area.

The Pumping Station is a red brick structure which has been in use all the time and becomes Water Supplies Department (WSD)'s oldest pumping station still in operation. The Pumping Station was part of the First Section of the Tai Tam Tuk Scheme in 1907. Originally, it made use of steam-driven pumps to lift raw water to the tunnel portal in the middle of the hill to provide water supply to the City of Victoria on the North of Hong Kong Island. During the Second Section of the Tai Tam Tuk Scheme between 1914 and 1916, extension to the Pumping Station was made to accommodate additional pumping machinery, including two steam-driven pumps to transfer three million gallons of water per day. Currently, the external and internal finishes of the Pumping Station and the chimney are in a fair condition. Localised water seepage problem can be found on the roof within the Pumping Station. Some rooms have been vacant. The basement of the Pumping Station has been vacant and inaccessible.

Further extension to the Pumping Station was made in 1925. The three staff quarters were built around the Pumping Station. The Senior Staff Quarters which consists of a Main Building and a Servants' Quarters was built in 1905. The Staff Quarters with external concrete staircases was completed in 1907. It is connected to a Store Building which was probably built between 1912 and 1924. No. 2 Staff Quarters at the West side of the Pumping Station which was originally a pressure filter house

was built in 1936.

Currently, the Main Building of the Senior Staff Quarters appears to be in fair condition. There is newly applied paint on the external and internal walls. Windows have been repaired. However, timber floor in some area and some internal doors were not in good condition. Servants' Quarters of the Senior Staff Quarters appears to be in good condition. There is newly applied paint on the external and internal walls and metal bar brackets.

The Main Building of Staff Quarters appears to be in dilapidated condition. Temporary metal supports are installed in the front elevation which provides support to the roof structure. Paint peeling, concrete spalling and rusted reinforcement can be seen within the building. The Store Building of the Staff Quarters appears to be in fair condition. Damage of some finishes can be observed.

The Quarters of the No. 2 Staff Quarters appears to be in poor condition. Glazing of windows and some doors are replaced by wooden board. Some finishes are damaged. The Outbuilding of No.2 Staff Quarters appears to be in fair condition. Paint peeling can be seen within the building.

The Dangerous Goods Store appears to be in good condition. No apparent defect was observed.

The Fuel Tank appears to be in dilapidated condition. There is no roof for the structure.

The Garage appears to be in fair condition. Paint peeling and minor cracks were observed on wall.

The Underground Cellar appears to be in dilapidated condition. Spalled concrete, rusted reinforcement could be seen within the structure.

The Yard appears to be in good condition. No apparent defect was observed.

A summary of the site and building information is shown in **Appendix V**.

The drawings and perspective are shown and attached at **Appendix VI (A)**.

The photos showing the current general appearance and internal layout of the Pumping Station and the three staff quarters are attached at **Appendix VII**.

### 4.2 Historic Grading

Tai Tam Tuk Raw Water Pumping Station, Chimney Shaft and its Flue, Senior Staff Quarters (Main Building and Servants' Quarters), Staff Quarters (Main Building) and No.2 Staff Quarters were declared as monuments under Antiquities and Monuments Ordinance (Cap.53) on 3 September 2009.

The Store Building of the Staff Quarters was a "Grade 1 historic building". "Grade 1 historic building" is defined as 'Buildings of outstanding merit, which every effort should be made to preserve if possible.'

The Declared Monuments and Historic Building Grading Boundary Plans are shown in **Appendix II(B)**.

#### 4.3 Schedule of Accommodation

The approximate Net Operational Floor Area (NOFA)/Net Floor Area and Construction Floor Area (CFA) of the SQC, Pumping Station and other structures provided in this section are indicative only. Applicants should verify such information on their own before adopting this information in their proposals.

Total Construction Floor Area is approximately 2519 m<sup>2</sup> (excluding Pumping Station). Schedule of area is listed as follows:-

### (a) Senior Staff Quarters – Main Building

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m²)
	Bed Room 1		18
	Sitting Room 1		22
G/F	Hallway 1	118	14
	Corridor 1		12
	Bathroom 1		5
	Toilet		1
	Hallway 2		17
	Staircase		2

	Bed Room 2	atting Room 2 allway 3 athroom 2	18
	Sitting Room 2		22
1 /E	Hallway 3		24
1/F	Bathroom 2		5
	Hallway 4		17
	Staircase Staircase		2
	Total:	236	179

### $(b) \ Senior \ Staff \ Quarters - Servants' \ Quarters$

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m²)
	Servant's Room 1		10
	Servant's Room 2		8
G/E	Servant's Room 3		12
G/F	Bathroom	62	8
	Kitchen		8
	Toilet		2
	Total:	62	48

### $(c) \ Staff \ Quarters-Main \ Building$

Floor Level	Accommodation	Approximate Construction Floor Area (m <sup>2</sup> )	Approximate Net Operational Floor Area/ Net Floor Area (m²)
	Room 8		20
	Room 7		20
G/F	Room 6	167	20
	Room 5 (Canteen)		10
	Kitchen 2		10
	Toilet 1		19
	Corridor 1		42
	Staircase		8

	Room 4		20
	Room 3		20
	Room 2		20
1 /E	Room 1	167	20
1/F	Kitchen 3	167	10
	Toilet 2		8
	Open Verandah		42
	Staircase		8
Total:		334	297

# $(d) \ Staff \ Quarters-Store \ Building$

		Approximate	Approximate Net
Floor	Accommodation	Construction Floor	Operational Floor
Level	7 iccommodation	Area	Area/ Net Floor
		$(m^2)$	Area (m <sup>2</sup> )
	Kitchen 1		8
G/F	Store	47	17
	Covered Walkway		20
	Total:	47	45

### (e) No. 2 Staff Quarters - Quarters

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m <sup>2</sup> )
	Room 1		20
	Room 2		20
G/F	Room 3	95	19
	Kitchen 1		9
	Kitchen 2		9
	Room 3  Kitchen 1  Kitchen 2  Staircase		2
	Room 4		16
1/F	Room 5	95	19
	Room 6		18

Toilet 2		3
Staircase		2
Verandah	N/A	22
Total:	190	159

# (f) No. 2 Staff Quarters – Outbuilding

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m²)
G/F	Toilet 1	8	6
	Total:	8	6

# (g) Dangerous Goods Store

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m²)
G/F	Dangerous Goods Store	19	18
	Total:	19	18

### (h) Fuel Tank

Floor Level	Accommodation	Approximate Tank Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m <sup>2</sup> )
G/F	Fuel Tank	206	
Total:		206	

# (i) Garage

		Approximate	Approximate Net
Floor Level	Accommodation	Construction Floor	Operational
		Area	Floor Area/ Net
		$(m^2)$	Floor Area (m <sup>2</sup> )
G/F	Garage	15	13
	Total:	15	13

# (j) Underground Cellar

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m <sup>2</sup> )
B/F	Underground Cellar	122	112
Total:		122	112

### (k) Yard

Floor Level	Accommodation	Approximate Yard Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m <sup>2</sup> )
G/F	Yard	1280	
Total:		1280	

# Buildings/structures outside site boundary:

# (l) Pumping Station

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m²)
B/F	Internal Area Inaccessible	N/A	N/A
	Engine House		383
	Boiler House		230
	Switch Gear Room		40
	Corridor		29
	Present Workshop		54
	Capacitor Room	1119	15
	Battery Room		19
G/F	Electric Substation		47
G/F	Store Room 1	1119	51
	Store Room 2		15
	Store Room 3		24
	Store Room 4		23
	Store Room 5		31
	Store Room 6		10
	Toilet		2
	Staircase		7
	Total:	1119	980

# (m) Chimney Shaft and its Flue

Floor Level	Accommodation	Approximate Construction Floor Area (m²)	Approximate Net Operational Floor Area/ Net Floor Area (m²)
	Chimney Shaft and its Flue	N/A	N/A

### **4.4** Materials of Construction

# 4.4.1 Senior Staff Quarters – Main Building

		<del>-</del>
Materials	Roof	A combination of hipped and flat roof with flat roofs on the two sides. The hipped roof is of double layered Chinese pan and roll tiled roof
		supported by timber rafters and ridges
	Wall	Brick wall and column
	Floor	Reinforced concrete beam/slab
		Timber floor slab
	Staircase	Granite threshold at the main entrance
		Timber internal staircase
	Covered	Cast iron pole with granite base
	Walkway	Double-layered Chinese pan and roll tiles
		supported by timber rafters and ridges
Finishes	Exterior	Plaster rendered with white paint
		Plaster rendered architectural features with sky
		blue paint
		Metal bar brackets painted in black
	Interior	
	G/F	Wall:
		Plaster rendered with white paint
	Bed Room 1	Floor:
	&	Timber board floor with cement skirting
	Sitting Room	Ceiling:
	1	Plaster rendered with white paint
	<u>1/F</u>	Wall:
		Plaster rendered with white paint
	Bed Room 2	Floor:
	&	Timber board floor with cement skirting
	Sitting Room	<u>Ceiling:</u>
	2	Timber ceiling board with white paint
	<u>G/F</u>	Wall:
	Hallway 1,	Plaster rendered with white paint
	Hallway 2	<u>Floor</u> :
	<u>1/F</u>	Green mosaic floor tiles
	Hallway 3,	Timber board floor
	Hallway 4	<u>Ceiling:</u>
		Plaster rendered with white paint

G/F	Wall:
<u>U/1'</u>	
	White ceramic wall tiles
Corridor1	Floor:
	Floor tiles
	<u>Ceiling:</u>
	Timber ceiling board with white paint
	Plaster rendered with white paint
Bathroom1 &	Wall:
Bathroom2	Ceramic white wall tiles
	Floor:
	Quarry floor tiles
	<u>Ceiling:</u>
	Plaster rendered with white paint
Toilet	Wall:
	Plaster rendered with white paint
	Floor:
	Quarry floor tiles with quarry tiles skirting
	Ceiling:
	Timber board with white paint

### **4.4.2** Senior Staff Quarters – Servants' Quarters

Materials	Roof	Hipped roof with double layered Chinese pan and
		roll tiles supported by timber rafters and ridges
	Wall	Brick wall and column
	Floor	Reinforced concrete slab
Finishes	Exterior	Plaster rendered with white paint
		Lower portion and window cills are plaster
		rendered with sky blue paint
		Metal bar brackets painted in black
	Interior	
	Kitchen	Wall:
		Plaster rendered with white paint
		Floor:
		Timber board floor
		Ceiling:
		No false ceiling. Exposed roof tiles. Timber rafters
		and ridges with black paint

Bathroom	Wall:
	Painted with white paint
	Floor:
	Quarry floor tiles
	Timber board floor
	Ceiling:
	No false ceiling. Exposed roof tiles. Timber rafters
	and ridges with black paint
Servant's	Wall:
Room 1 & 2	Painted with white paint
	<u>Floor</u> :
	Timber board floor
	<u>Ceiling:</u>
	No false ceiling. Exposed roof tiles. Timber rafters
	and ridges with black paint
Servant's	Wall:
Room 3	Plaster rendered with white paint
	Floor:
	Floor tiles
	Ceiling:
	No false ceiling. Exposed roof tiles. Timber rafters
	and ridges with black paint
Toilet	Wall:
	Plaster rendered with white paint
	Floor:
	Mosaic floor tiles
	Ceiling:
	No false ceiling. Exposed roof tiles. Timber rafters
	and ridges with black paint

# 4.4.3 Staff Quarters – Main Building

		<del>-</del>
Materials	Roof	Hipped roof with double layered Chinese pan and roll tiles supported by timber rafter and ridges
	Wall	Brick wall and column
	Floor	Jack arched slab
	Staircase	Reinforced concrete with metal column
	Verandah	Reinforced concrete slab with metal column
Finishes	Exterior	Wall paint with creamy white paint
		Floor with cement sand screeding
		Metal balustrade paint in light blue
	Interior	
	<u>G/F</u>	Wall:
	Room 5	Paint with white paint on the upper portion and
	(Canteen),	grey paint on the lower portion
	Room 6,	Floor:
	Room 7,	Cement sand screeding
	Room 8 &	Ceiling:
	Kitchen 2	Jack arched slab with arched concrete ceiling in
		white paint and cast-iron beams in black paint.

G/F	Wall:
Toilet 1	Paint with white paint on the upper portion and
	grey paint on the lower portion
	Floor:
	Cement sand screeding
	Ceiling:
	Jack arched slab with cast iron beams in black
	paint and arched concrete ceiling in white paint.
<u>1/F</u>	Wall:
Room 1,	Paint with white paint
Room 2,	Floor:
Room 3 &	Cement sand screeding
Room 4	<u>Ceiling:</u>
	No false ceiling. Exposed roof tiles painted in
	white paint. Timber rafters, ridges and trusses with
	black paint
<u>1/F</u>	Wall:
Kitchen 3&	Paint with white paint on the upper portion and
Toilet 2	grey paint on the lower portion
	Floor:
	Cement sand screeding
	<u>Ceiling:</u>
	No false ceiling. Exposed roof tiles painted in
	white paint. Timber rafters, ridges and trusses with
	black paint

# **4.4.4 Staff Quarters – Store Building**

Materials	Roof	Reinforced concrete mono-pitched roof with
		asphalt on top
	Wall	Brick wall and column
	Floor	Reinforced concrete slab
	Roof eave	Supported by metal column on granite base
Finishes	Exterior	Wall paint with creamy white paint
		Floor with exposed concrete
	Interior	
	Kitchen 1 &	Wall:
	Store	Paint with white paint on the upper portion and
		grey paint on the lower portion
		Floor:
		Cement sand screeding
		Ceiling:
		Plaster rendered with white paint.

# **4.4.5** No. 2 Staff Quarters - Quarters

Materials	Roof	Reinforced concrete flat roof
	Wall	Reinforced concrete column
		Fair-faced brick wall
	Floor	Reinforced concrete slab and beam
	Staircase	Reinforced concrete
	Verandah	Reinforced concrete slab and beam
Finishes	Exterior	Fair-faced bricks wall, column and lower portion
		of wall in Shanghai plaster
		Granolithic floor finishes on 1/F verandah and
		staircase
		Plaster render with white paint on ceiling under-
		verandah
		Canton tile on the upper roof
		Asphalt on the lower roof
	Interior	
	<u>G/F</u>	Wall:
	Kitchen 1 &	Paint with white paint on the upper portion and
	2	grey paint on the lower portion
		Floor:
		Cement sand screeding
		Ceiling:
		Plaster rendered with white paint
	G/F	Wall:
	Room 1,	Brick wall painted with white paint.
	Room 2 &	Floor:
	Room 3	Cement sand screeding
		Ceiling:
		Plaster rendered with white paint
	<u>1/F</u>	Wall:
	Room 4,	Paint with white paint. Timber board partitions.
	Room 5 &	Floor:
	Room 6	Cement sand screeding
		Ceiling:
		Plaster rendered with white paint

# **4.4.6** No. 2 Staff Quarters – Outbuilding

Materials	Roof	Reinforced concrete flat roof with asphalt on top
	Wall	Reinforced concrete
	Floor	Reinforced concrete
Finishes	Exterior	Plaster render with creamy white paint
		Floor with exposed concrete
	Interior	
	G/F	Wall:
		Upper portion paint with white paint. Lower
		portion paint with creamy paint.
		Floor:
		Cement sand screeding
		Ceiling:
		Paint with white paint

### **4.4.7 Dangerous Goods Store**

Materials	Roof	Reinforced concrete mono-pitched roof with
		asphalt on top
	Wall	Block wall
	Floor	Reinforced concrete
Finishes	Exterior	Plaster render with white paint
	Interior	
	G/F	Wall:
		Plaster with white paint
		Floor:
		Cement sand screeding
		Ceiling:
		Paint with white paint

### 4.4.8 Fuel Tank

Materials	Roof	N/A
	Wall	Reinforced concrete
	Floor	Reinforced concrete
Finishes	Exterior	Fair-faced concrete
	Interior	
	G/F	Wall:
		Fair-faced concrete
		Floor:
		Cement sand screeding
		<u>Ceiling:</u>
		N/A

### **4.4.9** Garage

Materials	Roof	Reinforced concrete mono-pitched roof with asphalt on top
	Wall	Block wall
	Floor	Reinforced concrete
Finishes	Exterior	Plaster render with white paint
	Interior	
	G/F	Wall:
		Plaster with white paint
		Floor:
		Cement sand screeding
		Ceiling:
		Paint with white paint

# 4.4.10 Underground Cellar

Materials	Roof	Reinforced concrete
	Wall	Reinforced concrete
	Floor	Reinforced concrete
	Column	Reinforced concrete
Finishes	Exterior	N/A
	Interior	
	Basement	Wall:
		Entrance area paint with white paint
		Columns are fair-faced concrete
		Floor:
		Cement sand screeding
		Ceiling:
		Entrance area paint with white paint

### 4.4.11 Yard

Materials	Floor	Reinforced concrete
Finishes	Exterior	Cement concrete

# Buildings/structures outside site boundary:

# **4.4.12 Pumping Station**

	0	
Materials	Roof	Pitched roof comprises of double layered Chinese pan and roll tiles supported on timber purlins which in turn rest on metal trusses made of cast iron frames and steel tie rods. With monitor raised roof at the boiler house and new workshop.
	Wall	Redbrick columns and wall.
	Floor	Reinforced concrete beam/slab construction
	Staircase	Reinforced concrete
District or		
Finishes	Exterior	Fair-faced bricks
		Plaster rendered architectural features and canopy
		with white paint
	Interior	
	Engine	Wall:
	Room,	Plaster rendered with white paint
	Boiler	White ceramic wall tiles on the lower portion
	House,	Floor:
	Corridor &	Cement sand screeding with non-slip floor paint
	Store Room	Ceiling:
	1-6	No false ceiling. Roof tiles paint with white paint.
	1 0	Roof metal support and timber purlins with black
		paint
	Basement	
	Dasement	Wall:
		Plaster rendered with white paint
		Floor:
		Cement sand screeding
		<u>Ceiling:</u>
		Plaster rendered with white paint
	Toilet	Wall:
		White ceramic wall tiles
		Floor:
		Quarry floor tiles
		Ceiling:
		Plaster rendered with white paint
	Present	Wall:
	Workshop	Plaster rendered with white paint
	1	Floor:
		Timber boards with brown paint skirting
		Ceiling:
		No false ceiling. Roof tiles paint with white paint.
		Roof metal support and timber purlins with brown
		paint
	Consoiter	•
	Capacitor	Wall:
	Room	Plaster rendered with white paint
		Floor:
		Quarry floor tiles with tiles skirting
		Ceiling:
1		Plaster rendered with white paint

### 4.4.13 Chimney Shaft and its Flue

Materials	Whole	Fair-faced brick
	Chimney	
	Shaft and its	
	Flue	
Finishes	Exterior	Fair-faced bricks

#### 4.5 Circulation

### 4.5.1 General Description

### (a) Senior Staff Quarters (Main Building and Servants' Quarters)

These two buildings are locating at a higher level which has to be accessed through a flight of steps. A covered walkway is erected on the ground floor which connects the Main Building and the Servants' Quarters. A timber staircase is located inside the Senior Staff Quarters connecting the ground floor and the first floor.

### (b) Staff Quarters (Main Building and Store Building)

These buildings can be accessed directly from the main entrance through Tai Tam Reservoir Road. Two concrete staircases adhered to the corridors are constructed at two ends of the north elevation of the Main Building connecting the ground floor and first floor. The Main Building and Store Building are connected by a covered walkway at ground floor.

### (c) No. 2 Staff Quarters (Quarters and Outbuilding)

The Quarters and its Outbuilding are locating on a sloping area at a higher level near the site entrance which has to be accessed through a flight of steps. An external concrete staircase is located at the east elevation connecting the ground floor and first floor through an verandah.

### (d) Dangerous Goods Store

The Dangerous Goods Store can be directly accessed from the Yard.

### (e) Fuel Tank

The Fuel Tank can be directly accessed from the Yard.

#### (f) Garage

The Garage can be accessed through a ramp from the Yard.

### (g) Underground Cellar

The Underground Cellar can be entered through a staircase located at an

open space between the Pumping Station and Garage. There is only one staircase gaining access to and from the cellar.

#### (h) Yard

The Yard can be directly accessed from internal road connecting to Tai Tam Reservoir Road.

### Buildings/structures outside site boundary:

### (i) Pumping Station

Pumping Station can be accessed directly from Tai Tam Reservoir Road. Most of the areas are connected through a corridor inside the Pumping Station, except the Electric Substation and Store Room located at the west elevation of the building which has separate entrances. The selected applicant should allow access of both WSD vehicles and staff from Tai Tam Reservoir Road to the Pumping Station during the construction and operation of this revitalisation project.

#### 4.5.2 Barrier-Free Access

(a) Senior Staff Quarters (Main Building and Servants' Quarters)

No barrier-free access is provided to overcome the level difference between internal road to ground floor of both buildings, the internal and external spaces at ground floor of both buildings, and from the ground floor to the first floor of the Main Building.

#### (b) Staff Quarters (Main Building and Store Building)

No barrier-free access is provided to overcome the level difference between the internal and external spaces of both buildings and from the ground floor to the first floor of Main Building.

### (c) No. 2 Staff Quarters (Quarters and Outbuilding)

No barrier-free access is provided to overcome the level difference between internal road to ground floor of both buildings, the internal and external spaces at ground floor of both buildings and from the ground floor to the first floor of the Quarters.

### (d) Dangerous Goods Store

A ramp is provided to connect the internal area and the Yard.

#### (e) Fuel Tank

There is no major level difference from the Yard to the internal area of Fuel Tank.

### (f) Garage

The Garage is connected to Yard through ramp which is quite steep to accommodate the change in level between the Garage and the Yard.

### (g) Underground Cellar

No barrier-free access is provided to gain access to the Underground Cellar from ground level.

### (h) Yard

The internal road access to the Yard is quite steep to accommodate the change in level between the Tai Tam Reservoir Road and the Yard.

### Buildings/structures outside site boundary:

### (i) Pumping Station

A ramp is provided to connect the internal areas and the external ground. No barrier-free access is provided to gain access to the basement of the Pumping Station.

### 4.6 Major Alterations and Additions

Major upgrading works have been carried out in the Pumping Station between 1914 and 1916 to accommodate the additional pumping machinery and further extension works to the East of the Pumping Station were completed in 1925.

Old drawings obtained from Water Supplies Department (WSD) are shown at **Appendix VI(D)**. Applicants' attention is drawn to the differences between the existing building layouts and details and the old drawings. The existing layouts of buildings are shown at **Appendix VI(A)**.

In 2005, restoration work to the roof of the Pumping Station building was completed. Restoration work to the chimney was carried out in 2007.

### 4.7 Preliminary Structural Appraisal

This section preliminarily appraises the structural condition of the buildings within the Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound historical site.

### 4.7.1 Structural Appraisal Methodology

This structural appraisal mainly relies on the following information:

- a) An on-site visual inspection carried out in mid July 2019, with the aid of the following equipment:
  - Hammer for Hammer-tapping test, for detecting spalled and debonded concrete;
  - ii. Hand-held laser range-finders and laser levels, for detecting major deformation of the structures; and
  - iii. Camera for photographic record.
- b) The results from the following in-situ structural tests carried out in mid-September 2019:
  - i. Rebound hammer tests of reinforced concrete (RC) structural elements;
  - ii. Cover-meter survey of RC structural elements; and
  - iii. Trial pit inspection of footing.

A set of visual inspection photographic record and a set of in-situ test results can be obtained at the Scheme Secretariat by submitting a completed request form.

### 4.7.2 Structural System of the existing buildings

As no structural plans or records could be found for any of the building structures in the historical compound, the structural system of each of the buildings are determined by the on-site visual inspection and in-situ tests, as follows:

### a) Buildings/structures within site boundary

### i. Senior Staff Quarters – Main Building

Roof	Reinforced concrete / Chinese roof tiles on timber rafters hybrid
First Floor	Reinforced concrete beam/slab*
Ground Floor	Timber floor with unknown substrate
Walls	Bricks
Columns	Brick piers
Footing	Corbelled brick isolated footings on concrete pad
Internal Staircase	Timber balustrades, railings and steps

<sup>\*</sup>Floor slab is to be determined

### ii. Senior Staff Quarters - Servants' Quarters

Roof	Chinese roof tiles on timber rafters  Metal brackets at North elevation
Ground Floor	Concrete slab
Walls	Bricks
Columns	Brick piers
Footing	Corbelled brick isolated footings on concrete pad**

<sup>\*\*</sup>Footing is to be determined

### iii. Covered Walkway Between Main Building and Servants' Quarters

Roof	Chinese roof tiles on timber rafters, which are supported by metal frame and metal posts
Ground Floor	Concrete slab
Footing of Steel Posts	Isolated shallow footings**

<sup>\*\*</sup>Footing is to be determined

### iv. Staff Quarters - Main Building

Roof	Chinese roof tiles on timber rafters, purlins and timber truss and metal joist system
First Floor	Reinforced arched concrete slabs on cast iron beams, brick walls and piers
Ground Floor	Concrete slab
Walls	Fair-faced bricks
Columns	Fair-faced bricks piers
Footing	Corbelled brick isolated footings on concrete pad**
Open Staircase and its Cover	Reinforced concrete with metal columns Metal balustrades
Verandah	Reinforced concrete supported by the building's brick walls and piers at the inner end, and supported by metal beams resting on metal posts at the outer edge of verandah
	Metal balustrades

<sup>\*\*</sup>Footing is to be determined

# $v. \ \ Staff\ Quarters-Store\ Building$

Roof	Concrete slab, pitched
Canopy	Concrete slab extended from roof slab and supported by steel posts at the outer edge of slab
Ground Floor	Concrete slab
Walls	Fair-faced bricks
Columns	Fair-faced bricks piers
Footing	Corbelled brick isolated footings on concrete pad**

<sup>\*\*</sup>Footing is to be determined

# vi. No. 2 Staff Quarters - Quarters

Roof	Reinforced concrete beam / slab
First Floor	Reinforced concrete beam / slab
Ground Floor	Concrete slab
Walls	Fair-faced bricks
Columns	Reinforced concrete
Footing	Corbelled brick isolated footings on concrete pad**
Open Staircase	Reinforced concrete  Metal balustrades with concrete posts and railings
Verandah	Reinforced concrete cantilever beam/slab Metal balustrades with concrete posts and railings
Canopy above Verandah	Reinforced concrete cantilever beam/slab

<sup>\*\*</sup>Footing is to be determined

### vii. No. 2 Staff Quarters - Outbuilding

Roof	Reinforced concrete beam / slab
Ground Floor	Concrete slab
Walls	Reinforced concrete
Footing	Concrete footing

### viii. Dangerous Goods Store

Roof	Reinforced concrete slab
Ground Floor	Concrete slab
Walls	Masonry bearing walls

### ix. Fuel Tank

Walls	Reinforced concrete	

### x. Garage

Roof	Reinforced concrete slab
Ground Floor	Concrete slab
Walls	Masonry bearing walls

### xi. Underground Cellar

Ground Floor (Top Slab) and Basement Floor	Reinforced concrete beam / slab
Columns	Reinforced concrete
Screen Walls	Reinforced concrete
Footing	Reinforced concrete columns with chamfers sitting on RC pad footings

### i. Yard

Ground Slab	Reinforced concrete
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# b) <u>Buildings/structures outside the site boundary</u>

# i. Chimney

Chimney and its visible base above ground	Fair-faced bricks
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#### 4.7.3 Structural Alterations

Based on the available building plans, there is no identifiable structural alteration works done to the following buildings:

- Senior Staff Quarters Main Building
- Senior Staff Quarters Servants' Quarters
- Staff Quarters Main Building
- Staff Quarters Store Building
- No. 2 Staff Quarters Quarters
- No. 2 Staff Quarters Outbuilding

However, apart from the building structures listed above, there are no building plans available for the remaining building structures. Nonetheless, these structures appear to be properly constructed and have no sign of major structural alterations after they were built, with the exception of the open-frame garage extension built with corrugated metal sheet (as roof) and steel frame attached to the garage.

### 4.7.4 Structural Conditions of Buildings

The structural conditions of the buildings are as follows:

### a) Buildings/structures within site boundary

### i. Senior Staff Quarters – Main Building

Roof	Unable to assess due to false ceiling
First Floor	Unable to assess the majority of the floor system due to finishes (timber board or floor tiles) on both surfaces.
	Good condition for the assessable portions, with minimal structural defect observed

Ground Floor	Unable to assess the floor system due to timber board finish
Walls	Good condition with no structural defect observed
Columns	Good condition with no structural defect observed
Footing	Trial pit reveals one of the footings is in good condition with brickworks in proper arrangement
Internal Staircase	Some superficial deterioration of timber

# ii. Senior Staff Quarters - Servants' Quarters

Roof	Fair condition with minor deterioration of timber
Ground Floor	Unable to assess the floor system due to timber board finish
Walls	Good condition with no structural defect observed
Columns	Good condition with no structural defect observed
Footing	Unable to access; assumed to be in similar condition compared to the footing inspected at the Senior Staff Quarters – Main Building

# iii. Senior Staff Quarters - Covered Walkway Between Main Building and Servants' Quarters

Roof	Fair condition with no identifiable structural defects.
Cast Iron Posts	Fair condition with minor rusting
Footing	Inaccessible

# $iv. \quad Staff\ Quarters-Main\ Building$

Roof	Local major deterioration of timber rafters and joist system at various locations, especially the roof above the verandah.  Propping posts are installed to stabilize the structure.
First Floor	Moderate deterioration and rusting of cast iron beams observed under the slab
Ground Floor	Fair condition
Walls	Fair condition with minor local cracks
Columns	Major cracks observed in some columns
Footing	Inaccessible
Staircase	Fair condition with minor local cracks and spalling
Verandah	Minor to moderate concrete cracks, spalling, exposed reinforcements throughout the RC slab.
	Major crack which has been developed to a complete split of RC slab at one location.
	Propping posts are installed to stabilize the structure.

# v. Staff Quarters – Store Building

Roof	Moderate water seepage and spalling
Canopy	Moderate water seepage and spalling
Ground Floor	Fair condition
Walls	Minor cracks with water seepage
Columns	Fair condition
Footing	Inaccessible

# vi. No. 2 Staff Quarters - Quarters

Roof	Fair condition with minor cracks and spalling
First Floor	Minor to moderate cracks and spalling throughout under the slab
	Exposure of highly corroded reinforcement observed in some areas resulted from severe spalling problem
Ground Floor	Fair condition
Walls	Fair condition with some local cracks
Columns	Fair condition with minor local cracks
Footing	Inaccessible
Staircase	Good condition with minimal structural defect observed
Verandah	Minor to moderate cracks and spalling under the slab
Canopy above Verandah	Minor to moderate cracks and spalling under the slab

# vii. No. 2 Staff Quarters - Outbuilding

Roof	Minor to moderate cracks and spalling throughout under the slab  Highly corroded reinforcement is exposed and observed in some areas resulted from severe spalling problem
Ground Floor	Fair condition
Walls	Fair condition with some rendering delamination
Footing	Inaccessible

# viii. Dangerous Goods Store

Roof	Top of slab: good condition in general with some minor cracks
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	Slab Soffit: inaccessible during the visual inspection
Ground Floor	Inaccessible during the visual inspection
Walls	Fair condition in general with some minor cracks

# ix. Fuel Tank

# x. Garage

Roof	Fair condition in general, with some local cracks / spalling and exposure of reinforcement in small areas
Ground Floor	Fair condition
Walls	Fair condition in general with some minor cracks

# xi. Underground Cellar

Ground Floor (top slab)	Ceiling of the corridor: Highly corroded reinforcement is exposed and observed in large areas resulted from severe spalling problem. Majority of the exposed reinforcements has a large reduction of cross-sectional area  Ceiling of the cellar: Moderate condition with local cracks and spalling under the
Columns	Reinforcement is exposed and observed in some of the columns resulted from spalling problem  Minor to moderate spalling and cracks on nearly all visible columns
Screen Walls	Fair condition
Footing	Covered in clay and soil; unable to assess

#### xii. Yard

Ground Slab Very good condition in general
--

### Buildings/structures outside site boundary

### i. Chimney Shaft and its Flue

•	Good condition in general with very minor cracks at few locations
above ground	

In general, there are no identifiable structural irregularities, nor excessive deformation (both horizontally and vertically) observed in all the building structures above.

Most of the defects identified above are commonly found in structures at this age due to normal wear and deterioration. They do not pose any potential structural hazards at this stage.

However, attention shall be drawn to the Staff Quarters – Main Building. Its overall structural condition is poor in general, especially for the roof, the balcony, the 1/F slab, and some brick piers. The defects of these elements shall be repaired in due course to ensure the structural integrity of the building is in order.

### 4.7.5 Findings from the In-Situ Structural Tests

The in-situ tests performed are mostly for verifying (1) types of structural elements and (2) general deterioration extent of structural elements.

The results and data obtained from the in-situ tests are insufficient for quantitative structural analysis/calculations, such as the actual floor loading capacities.

The findings and interpretations of the in-situ tests are as follows:

### a) Covermeter Survey

The cover meter survey confirms the following elements to be RC slabs, with reinforcement layout:

- i. Staff Quarters Main Building 1/F Slab
- ii. No. 2 Staff Quarters 1/F Slab
- iii. Yard
- iv. Underground Cellar Top Slab

However, the cover meter survey was not able to detect any reinforcements at the first floor of the Senior Staff Quarters – Main Building.

### b) Rebound Hammer Test

All test locations selected for rebound hammer test are of sound concrete with no cracks and spalling. The concrete strength at all selected locations have a minimum estimated strength of 31MPa (RC walls and columns), which is higher than the normal design strength during that era (1900's). In other words, the concrete strength in these structures is considered to be sound and optimal in general at the non-defective locations.

### c) Trial Pit Inspection of Footing

A trial pit was excavated next to one of the brick piers at the Senior Staff Quarters – Main Building to inspect one of its footings. The footing is a corbelled brick isolated footing, sitting on top of a concrete pad, which is founded on Completely Decomposed Granite (CDG). The corbelled brickwork under the pier was found to be in good condition with proper form and arrangement. Overall, the footing is in structurally sound condition.

The finding from the trial pit is taken as a reference for some other building structures in the historical compound. Therefore, it is assumed that in addition to the Senior Staff Quarters – Main building, the footings of the following buildings are of the similar type, and in

similar structural condition.

- Senior Staff Quarters Servants' Quarters
- Staff Quarters Main Building
- Staff Quarters Store Building
- No. 2 Staff Quarters Quarters

### d) Open-Up Inspection

An open-up inspection was performed at the outer edge of verandah RC slab soffit of the Staff Quarters – Main building. It is revealed that steel members are embedded in the RC slab as reinforcements. The corrosion state of the steel beams are found to be moderate to severe, with a considerable loss of cross-section area observed.

### 4.7.6 Loading Assessment

The design imposed load values presented below are assumed from the London City Council (L.C.C.) By Law 1909. While it is true that some building structures in the historical compound were built before 1909, the assumed design imposed load are considered to be relevant and reasonable, as the LCC1909 appears to be the first code to define the design imposed load for different usages.

The "suggested imposed load" values are discounted from the assumed design imposed load, with subjective reduction factors assigned based on the above findings. Before adopting the suggested imposed load figures for the proposed use(s), the actual structural condition of the floor(s) shall be further verified.

### Buildings/structures within site boundary

### a) Senior Staff Quarters – Main Building

		Assumed Design Imposed Load	Suggested Imposed Load
Floor	Usage	(kPa)	(kPa)
G/F	Domestic	3.35	3.35*
1/F	Domestic	3.35	3.35*
R/F	-	2.68	2.68

<sup>\*</sup>subject to further verification of the floor loading system

### b) Senior Staff Quarters – Servants' Quarters

		Assumed Design Imposed Load	Suggested Imposed Load
Floor	Usage	(kPa)	(kPa)
G/F	Domestic	3.35	3.35*
R/F	-	NA	0.75

<sup>\*</sup>could be upgraded if the G/F slab is confirmed to be on-grade

# c) Staff Quarters - Main Building

Floor	Usage	Assumed Design Imposed Load (kPa)	Suggested Imposed Load (kPa)
G/F	Domestic	3.35	3.35*
1/F & Verandah	Domestic	3.35	2.0**
R/F	-	N/A for pitched tiles	0.75***

portion	
2.68 for RC flat roof	
portion	

<sup>\*</sup>could be upgraded if the G/F slab is confirmed to be on-grade

### d) Staff Quarters – Store Building

		Assumed Design Imposed Load	Suggested Imposed Load
Floor	Usage	(kPa)	(kPa)
G/F	Domestic	3.35	3.35*
R/F and Canopy	-	1.34	0.8**

<sup>\*</sup>could be upgraded if the G/F slab is confirmed to be on-grade

### e) No. 2 Staff Quarters - Quarters

Floor	Usage	Assumed Design Imposed Load (kPa)	Suggested Imposed Load (kPa)
G/F	Domestic	3.35	3.35*
1/F & Verandah	Domestic	3.35	3.35
R/F	-	2.68	2.68

<sup>\*</sup>could be upgraded if the G/F slab is confirmed to be on-grade

<sup>\*\*</sup>with a 40% reduction factor due to its current condition and to be further reviewed after testing

<sup>\*\*\*</sup>due to inaccessibility for structural evaluation and to be further reviewed after testing.

<sup>\*\*</sup>with a 40% reduction factor due to its current condition and to be further reviewed after testing.

# f) No. 2 Staff Quarters - Outbuilding

E	11	Assumed Design Imposed Load	Suggested Imposed Load
Floor	Usage	(kPa)	(kPa)
G/F	Domestic	3.35	3.35*
R/F	-	2.68	1.61**

<sup>\*</sup>could be upgraded if the G/F slab is confirmed to be on-grade
\*\*with a 40% reduction factor due to its current condition and to be
further reviewed after testing

### g) Dangerous Goods Store

Floor	Usage	Assumed Design Imposed Load (kPa)	Suggested Imposed Load (kPa)
G/F	Storeroom	Unknown	5.0*
R/F	-	1.34	1.34

<sup>\*</sup>assumed to be on-grade

### h) Fuel Tank

Assumed Design Imposed Load	Suggested Imposed Load	
(kPa)	(kPa)	
Unknown	5.0*	

<sup>\*</sup>assumed to be on-grade

# i) Garage

Floor	Usage	Assumed Design Imposed Load (kPa)	Suggested Imposed Load (kPa)
G/F	Garage	Unknown	5.0*
R/F	-	2.68	2.68

<sup>\*</sup>assumed to be on-grade

# j) Underground Cellar

Floor	Usage	Assumed Design Imposed Load (kPa)	Suggested Imposed Load (kPa)
G/F (Top of Cellar)	Roof	2.68	1.6*
B/F (Cellar Bottom Slab)	Unknown	Unknown	5.0**

 $<sup>\</sup>mbox{*with a 40\%}$  reduction factor due to its current condition and to be further reviewed after testing

<sup>\*\*</sup>assumed to be on-grade

#### k) Yard

Assumed Design Imposed Load	Suggested Imposed Load
(kPa)	(kPa)
Unknown	5.0*

<sup>\*</sup>assumed to be on-grade

### 4.7.7 Summary and Recommendations on building structures

- a) Except the Staff Quarters Main Building, most structural defects found in the inspected buildings are minor. Nonetheless, these defects are structural, and shall be repaired whenever feasible.
- b) The major defects found in Staff Quarters Main Building shall be repaired as soon as possible. Further deterioration of these defects will pose structural safety concern to the building. In view of temporary propping posts are already in place, there is no imminent danger noted for the building. However, the area near the propping posts is recommended to be fenced off from the public as an additional safety measure.
- c) The floor loading system of G/F and 1/F of Senior Staff Quarters Main Building remains unknown. Further investigation is required in order to substantiate the current condition of the floor system and fit for the proposed use(s).
- d) The selected applicant should verify the recommended imposed loading capacity before adopting them for the design of their proposed use of the building blocks. Should the applicant's proposed use involves greater imposed loads on floors, the applicant shall carry out sufficient tests and detailed analysis to assess the structural capacity and to implement necessary strengthening works depending on the finding of the structural assessment and proposed use.

# 4.8 Building Services and Utilities

A list of existing provisions of building services and utilities for the site of the survey area is as follows:

# 4.8.1 Senior Staff Quarters – Main Building

<b>Building Services</b>	Existing Provision
Lift Installation	There is no lift and escalator installation in the building.
Mechanical Ventilation and Air-Conditioning System Installation (abbreviated as MVAC hereafter)	• There is no Air-Conditioning (A/C) installation in the building. A wall mount exhaust air fan is installed at the G/F toilet.
Gas Installation	There is no town gas or liquefied petroleum gas (abbreviated as LPG hereafter) installation within the building.
Potable Water Supply	<ul> <li>A water meter cabinet is found at the external area of the building next to Servants' Quarters. The potable water supply of the Main Building is tee-off from this water meter. The potable water tariff meter is dismantled. Potable water supply to the building is disconnected.</li> <li>1 no. 22mm dia. potable water pipe is connected to the wash basins at G/F Toilet and 1/F Bathroom 2.</li> </ul>
Flush Water Supply	<ul> <li>There is no saltwater connection to the building. Flushing water supply is tee-off from the fresh water main. A water meter cabinet is found at the external area of the building next to Servants' Quarters. The flushing water tariff meter is dismantled. Flushing water supply to the building is disconnected.</li> <li>The flushing water is connected to the sanitary fitments directly without storage tank.</li> </ul>
Drainage Installation	• Foul water drains are connected to the sanitary fitments inside G/F Toilet and 1/F Bathroom 2. The foul water drains are discharged to the underground foul water manholes and finally connected to the septic tank near the Garage.

<b>Building Services</b>	Existing Provision
Drainage Installation (cont')	• Rainwater runs off from the roof is collected to the surface channel on the ground. The rainwater is then discharged to the catch pits at the slope adjoining the building.
Fire Services Installation	<ul> <li>No fire services installation is installed.</li> <li>No street fire hydrant is found near the site of the survey area.</li> </ul>
Electrical Installation	<ul> <li>Power supply to the building is disconnected.</li> <li>A disconnected Hong Kong Electric (HEC) tariff meter is fixed on the wooden meter board under the staircase. A 63A TPN MCB board is installed at 1/F outside Bathroom 2.</li> <li>Lighting fittings are provided at G/F Toilet and at the entrance connected to covered walkway. Lighting fittings in other areas were dismantled.</li> <li>Power sockets are installed throughout the building. Wiring for the lightings and sockets are run in PVC trunking.</li> </ul>
Telecommunication Network	<ul> <li>Abandoned telephone junction box is found installed at the external wall of the building.</li> <li>No telecommunication cable is installed in the building.</li> </ul>

# 4.8.2 Senior Staff Quarters –Servants' Quarters

<b>Building Services</b>	Existing Provision
Lift Installation	There is no lift and escalator installation in the building.
Mechanical Ventilation and Air-Conditioning System Installation	There is no MVAC installation in the building.
Gas Installation	There is no town gas or LPG installation in the building.
Potable Water Supply	<ul> <li>A water meter cabinet is found at the external area of the building. The potable water tariff meter is dismantled.</li> <li>1 no. 22mm dia. potable water pipe is connected to the sanitary fitments at G/F Toilet and Bathroom.</li> </ul>

<b>Building Services</b>	Existing Provision
Flush Water Supply	<ul> <li>A water meter cabinet is found at the external area of the building. The flushing water tariff meter is dismantled. Flushing water supply to the building is disconnected.</li> <li>The flushing water pipe is connected to the sanitary fitments directly without storage tank.</li> </ul>
Drainage Installation	<ul> <li>1 no. 100mm dia. soil waste pipe is connected to the water closets at the toilet and bathroom. Waste water from floor drains and wash basins are discharged to the sump tank outside the building by a 40mm dia. waste pipe. The waste water is then pumped to the 100mm dia. soil waste pipe by sump pump and connected to the septic tank near the garage.</li> <li>Rainwater runs off from the roof is collected to the surface channel on the ground. The rainwater is then discharged to the catch pits at the slope adjoining the Senior Staff Quarters – Main Building.</li> </ul>
Fire Services Installation	No fire services installation is installed.
Electrical Installation	<ul> <li>A 40A TPN MCB board is installed at G/F Servant's Room 3.</li> <li>Lighting fitting is installed at the external wall of the building. Lighting fittings in other areas were dismantled.</li> <li>Power sockets are installed throughout the building. Wiring for the lightings and sockets are run in cable trunking.</li> </ul>
Telecommunication Network	No telecommunication cable is installed in the building.

# 4.8.3 Staff Quarters – Main Building

<b>Building Services</b>	Existing Provision
Lift Installation	• There is no lift and escalator installation in the building.
Mechanical Ventilation and Air-Conditioning System Installation	<ul> <li>A wall mount exhaust air fan is provided at G/F Kitchen. Exhaust hood is provided at 1/F Kitchen.</li> <li>Window type A/C unit is provided at Room No. 2 at 1/F. No A/C installation is provided at other rooms.</li> </ul>

<b>Building Services</b>	Existing Provision
Gas Installation	• The gas supply for this building is by LPG cylinders. LPG is used for the water heaters in the toilets and the cooking equipment at 1/F Kitchen 3.
Potable Water Supply	<ul> <li>A potable water tariff meter (#M14-417878) is installed for the building. A 40mm dia. potable water pipe distributes potable water to the building.</li> <li>Potable water supply is provided for Toilet 1, Toilet 2, Kitchen 2, Kitchen 3 and the water tap at the building external area (behind the building).</li> </ul>
Flush Water Supply	<ul> <li>No saltwater connection to the building.</li> <li>The existing flush water to soil fitment is directly connected from the potable water supply pipe. No flush water tank is installed within the building.</li> </ul>
Drainage Installation	<ul> <li>Foul water drains are connected to the sanitary fitments at G/F and 1/F toilets and kitchens. The foul water drains are discharged to the underground foul water manholes and finally connected to the septic tank near the Staff Quarter - Store Building.</li> <li>Rainwater from the roof is collected by rainwater pipe and discharged to surface channel with pipe shoe. The rainwater is then discharged to the culvert near the Tai Tam Reservoir Road.</li> </ul>
Fire Services Installation	• A fire extinguisher is installed at the entrance of G/F Kitchen 2.
Electrical Installation	<ul> <li>MCB boards are installed in the EMR room at G/F. It is inaccessible during inspection.</li> <li>Lighting fittings are installed at all rooms, kitchens, toilets, corridor and at the external wall of the building.</li> <li>Lighting switches, double pole switches, fuse spur units and socket outlets are installed at all the location.</li> <li>General lighting and power sockets are installed throughout the building. Wiring for the lightings and sockets are run in cable trunking at corridor and surface mounted inside the rooms.</li> </ul>

<b>Building Services</b>	Existing Provision
Telecommunication Network	<ul> <li>There is no telecommunication cable installed in the building.</li> <li>1/F Room No.4 (staff accommodation) was inaccessible during inspection. Condition is not known.</li> </ul>

# 4.8.4 Staff Quarters – Store Building

<b>Building Services</b>	Existing Provision
Lift Installation	There is no lift and escalator installation in the building.
Mechanical Ventilation and Air-Conditioning System Installation	There is no MVAC Installation in the building.
Gas Installation	• There is no town gas or LPG installation in the building.
Potable Water Supply	No potable water supply is provided.
Flush Water Supply	No flush water supply is provided.
Drainage Installation	Rainwater runs off from the roof is collected to the surface channel on the ground. The rainwater is then discharged to the culvert near the Tai Tam Reservoir Road.
Fire Services Installation	No fire services installation is installed.
Electrical Installation	<ul> <li>There is no MCB board installed in this building.</li> <li>Lighting fittings are installed at all rooms. Spotlights are installed at the external wall of the building</li> <li>Lighting switches, double pole switches, fuse spur units and socket outlets are installed at all the location.</li> <li>General lighting and power sockets are installed throughout the building. Wiring for the lightings and sockets are run in cable trunking at corridor and surface mounted inside the rooms.</li> </ul>
Telecommunication Network	There is no telecommunication cable installed in the building.

# 4.8.5 No.2 Staff Quarters –Quarters

<b>Building Services</b>	Existing Provision
Lift Installation	There is no lift and escalator installation in the building.
Mechanical Ventilation and Air-Conditioning System Installation	<ul> <li>There is no A/C Installation in the building.</li> <li>2 nos. wall mount exhaust air fans are installed at G/F Kitchen 1 and Kitchen 2.</li> </ul>
Gas Installation	<ul> <li>LPG gas heater and associated gas pipe remain at the 1/F Toilet 2</li> <li>No LPG gas cylinder is connected to the above-mentioned heaters.</li> </ul>
Potable Water Supply	<ul> <li>A potable water tariff meter (#M18-401041) is installed for the building. A 22mm dia. potable water pipe distributes potable water to the building.</li> <li>Potable water supply is provided for the bathroom, toilets and kitchens.</li> </ul>
Flush Water Supply	• Flush water supply is connected to potable water pipe.
Drainage Installation	<ul> <li>Foul water drains are connected to the sanitary fitments at G/F and 1/F toilets and kitchens. The foul water is collected to the septic tank outside the building and discharged to another septic tank near the Staff Quarters – Store Building through underground foul water drainage system.</li> <li>Rainwater from the roof is collected by rainwater pipe and discharged to flat channel with pipe shoe. The rainwater is then discharged to the culvert near the Tai Tam Reservoir Road.</li> </ul>
Fire Services Installation	• A fire extinguisher is installed at the entrance of G/F kitchens.
Electrical Installation	<ul> <li>2 Nos. 100A 6 Way SPN MCB board are installed at G/F Room 1 and Room 2 for G/F. 1 No. 100A 12 Way SPN MCB board are installed at 1/F Room 5 for 1/F.</li> <li>Lighting fittings are installed at all rooms. External lightings are installed at the canopy of 1/F and G/F and external wall.</li> <li>Lighting switches, double pole switches, fuse spur units and socket outlets are installed at all the location.</li> </ul>

<b>Building Services</b>	Existing Provision
Telecommunication Network	No telecommunication cable installed in the building.

# ${\bf 4.8.6} \qquad {\bf No.2~Staff~Quarters-Outbuilding}$

<b>Building Services</b>	Existing Provision		
Lift Installation	There is no lift and escalator installation in the building.		
Mechanical Ventilation and Air-Conditioning System Installation	<ul> <li>There is no A/C Installation in the building.</li> <li>The toilets is naturally ventilated with louvre doors and louvre windows.</li> </ul>		
Gas Installation	<ul> <li>LPG gas heater and associated gas pipe remain at Toilet 1.</li> <li>No LPG gas cylinder is connected to the above-mentioned heater.</li> </ul>		
Potable Water Supply	<ul> <li>The potable water supply of this building is obtained from the No.2 Staff Quarters – Quarters.</li> <li>1 no. 22mm dia. potable water pipe connected to shower mixer at Toilet 1.</li> </ul>		
Flush Water Supply	• Flush water supply is connected to potable water pipe.		
Drainage Installation	100mm dia. soil waste pipe is connected to the septic tank outside the building and discharged to another septic tank near the Staff Quarters – Store Building through underground soil waste pipe.		
Fire Services Installation	No fire services installation is installed.		
Electrical Installation	<ul> <li>No individual MCB board is found for this building. Power supply is extended from the MCB board in the No.2 Staff Quarters - Quarters.</li> <li>Lighting fittings are installed at bathrooms and toilets.</li> </ul>		
Telecommunication Network	No telecommunication cable installed in the building.		

# **4.8.7** Garage

<b>Building Services</b>	Existing Provision			
Mechanical Ventilation and Air-Conditioning System Installation	The garage is naturally ventilated with high and low level vents.			
Electrical Installation	<ul> <li>A SPN MCB board is installed for power provision to garage.</li> <li>Lighting fittings, lighting switches and socket outlets are installed in the garage and at the shelter next to the garage.</li> </ul>			
Drainage Installation	<ul> <li>There is no foul water drainage in the garage.</li> <li>There is no stormwater drainage for the garage.</li> </ul>			
Other Building Services	No other building services are found in the garage.			

# 4.8.8 Underground Cellar

<b>Building Services</b>	<b>Existing Provision</b>		
Electrical Installation	<ul> <li>Incoming power cable and final circuit cables are disconnected.</li> <li>Socket outlets and lighting fittings remain on the wall with disconnected power cables.</li> </ul>		
Other Building Services	• No other building services are found in the cellar.		

# 4.8.9 Yard

<b>Building Services</b>	<b>Existing Provision</b>	
Electrical Installation	• There is no electrical installation in the yard.	
Drainage Installation	• There is no foul water or storm water drainage in the yard.	

### 4.8.10 Buildings/Structures outside the site boundary

The Pumping Station, Chimney Shaft and its Flue and the pier are outside the site boundary. The Pumping Station is still in operation and its building services, if affected by this revitalising project should also be maintained. The building services of Pumping Station are provided as follows for reference. There are no building services in the chimney and the pier.

### 4.8.10.1 Pumping Station

<b>Building Services</b>	<b>Existing Provision</b>			
Lift Installation	There is no lift and escalator installation within the building.			
Mechanical Ventilation and Air-Conditioning System Installation	<ul> <li>There is no A/C installation at the building.</li> <li>Exhaust air fans are provided in toilets, engine house, battery room, capacitor room and switch gear room.</li> <li>A suspended ceiling fan is installed in the workshop.</li> </ul>			
Gas Installation	• There is no gas installation within the building.			
Potable Water Supply	<ul> <li>There is no individual water tariff meter for this building. Potable water pipe is connected from Staff Quarter – Main Building. No potable water tank is provided within the building. All water fitments within the buildings are connected to the potable water supply pipe directly.</li> <li>22mm dia. potable water pipe is extended from the Staff Quarter – Main Building to the wash basins of battery room, present workshop and toilet.</li> </ul>			
Flush Water Supply	• There is no saltwater connection to the building. The existing flush water to soil fitment is directly connected to the potable water supply pipe. No flush water tank is installed within the building			
Drainage Installation	• Foul water drains are connected to the sanitary fitments inside battery room, present workshop and toilet. The foul water drains are discharged to the underground foul water manholes and finally connected to the septic tank near the Staff Quarters – Store Building.			

<b>Building Services</b>	<b>Existing Provision</b>			
Fire Services Installation	<ul> <li>No Wet Fire Protection System (i.e. FH/HR &amp; Sprinkler Systems) is installed.</li> <li>CO<sub>2</sub> fire extinguisher is installed at L.V. switch gear room.</li> <li>Smoke detection system is installed at the building. The system panel is installed near the entrance of Engine House (Pump Hall). Break glass units and alarm bells are installed at the entrances of the building.</li> <li>Emergency lighting (battens with battery modules) and exit signs are installed in the building.</li> </ul>			
Electrical Installation	<ul> <li>There is a set of 2500A L.V. switchboard fed from 2 nos. HEC 1500kVA transformers.</li> <li>The L.V switchboard supply power to the following services: <ol> <li>Pump set No.1 to 5;</li> <li>2 nos. air compressors; and</li> <li>Lighting and small power of the building.</li> <li>A set of HEC tariff meter (#5056000 &amp; #5056001) is installed in the switch gear room.</li> <li>There are two MCB boards in the switch gear room. A 100A 12 way TPN MCB board "DB-A" supplies power to lightings and small power at Engine House (Pump Hall), Equipment Room and Basement.</li> <li>Another 100A 12 way TPN MCB board "DB-B" supplies power to lightings and small power at present workshop, toilet and also the exhaust air fan at Engine House (Pump Hall).</li> <li>A 63A 14-way SPN MCB board is installed in the workshop. It supplies power to lightings and small power in the present workshop.</li> <li>General lighting and power sockets are installed throughout the building. Wiring for the lightings and sockets are either run in surface mounted or in concealed conduit.</li> </ol> </li></ul>			
Telecommunication Network	PCCW telecommunication cables are installed inside the building for HEC tariff meter and telephone set at the present workshop.			

### V. <u>Vicinity and Access</u>

#### 5.1 Access

Access to the site of this Revitalisation Project is shown in the Access Plan in **Appendix VIII**.

#### **5.1.1 Vehicular Access**

Vehicular access to the site of this Revitalisation Project is only available from Tai Tam Reservoir Road whereas the part within the site currently under WSD's maintenance and management is a single lane two-way traffic vehicular access with width of approximately 3.4m, which is not wide enough for a large vehicular fire appliance.

### **5.1.2** Emergency Vehicular Access (EVA)

EVA complying with the requirements stipulated in Section 6, Part D of Code of Practice for Fire Safety in Buildings 2011 for buildings is not available within the site.

### 5.1.3 Parking

Based on the WSD's information, public car parking is not available within the site.

### 5.1.4 Loading and Unloading Area

Formal loading/unloading area for vehicles of public is not available within the site.

### 5.1.5 Pedestrian Access

Pedestrian can access from the nearest bus stop at the Tai Tam Country Park of Tai Tam Road to the main gate of the site along Tai Tam Reservoir Road in about 6 minutes. Part of the Tai Tam Reservoir Road do not provide clear defined pedestrian path. Pedestrian also can access to the main gate of the site at Tai Tam Reservoir Road from the coastal footpath at the west side of Tai Tam Bay.

#### 5.1.6 Access from the sea

The site of this Revitalisation Project can be accessed from the sea by landing on Tai Tam Bay Pier.

#### 5.1.7 Refuse Collection Point

There is no refuse collection point within the site.

### VI. Conservation Guidelines

### **6.1** General Conservation Approach

- 6.1.1 All applicants are advised to give due regards to the latest editions of the Venice Charter (ICOMOS), the Burra Charter (Australia ICOMOS) and the Principles for the Conservation of Heritage Sites in China (ICOMOS China), which give the established international principles in heritage conservation in preparing their proposals for the conservation works.
- 6.1.2 We understand it will be a complex issue to strike a balance between maintaining the architectural authenticity of historic building and complying with the current statutory requirements under the Buildings Ordinance (Cap 123). On this issue, we would advise:
  - (a) when undergoing major alteration works and change of use, the historic building should be properly upgraded to meet the same level of safety in respect of the new use as in the case of new buildings. The need for preserving the significant architectural features (**Appendix IX** refers), site constraints or prohibitive upgrading cost may limit the type of use that may be chosen for the building; and
  - (b) every effort should be made to preserve the façades of the historic building except unauthorized building structures, if any. Addition and alteration works, if necessary, should be undertaken at the sides or other less visually prominent location of the building concerned. The original façades of the building should generally be left unaltered and must not be disturbed, i.e. no major external additions or alterations to the premises will be allowed, unless permitted under these Conservation Guidelines. External redecoration is restricted to design and colours that are compatible with the age and character of the buildings and the paint system is to be reversible 1. Any fixed signage should match the age and character of the exterior of the building and is to be approved by the Antiquities and Monuments Office (AMO) prior to installation.
- 6.1.3 For the renovation works to comply with statutory building control requirements, the following general guidelines are given to the applicants for

<sup>&</sup>lt;sup>1</sup> "Reversibility" is an act or process which can be undone or removed at a later date without causing material injury, loss, damage or change to the historic site or the historic building as the case may be.

reference. However, they should not be treated as exhaustive and it is essential for the selected applicant to refer to the full requirements imposed by the relevant authorities in respect of their proposals, including the Buildings Department, Fire Services Department, Drainage Services Department, etc.

Possible Building Works	Any improvement works recommended to doorway openings, steps, etc. must respect the historical integrity of the building(s), and carry out at less prominent area.		
a) Means of Escape			
b) Fire Resisting  Construction to Floors,  Doors and Walls and  Staircase	Any necessary upgrading works proposed to meet current requirements must respect the historical integrity and materials of the element concerned, which will probably be required to be retained in-situ.		
c) Emergency Vehicular Access (EVA)	EVA should blend in with the surroundings to preserve the historical character of the building(s).		
d) Natural Lighting and Ventilation	Alteration or enlargement of any original windows or provision of any new window openings must respect the historical integrity of the building(s), and carry out at less prominent area.		
e) Barrier-Free Access	Any proposed access improvement for persons with a disability must respect historical integrity of the building(s) and its/their surroundings, in particular the external elevation(s) of the building(s).		
f) Floor Loadings	Any proposed upgrading works necessary to meet "change of use" requirements must respect the historical integrity and materials of the floor concerned.		
g) Building Services	Any proposed upgrading of electrical supply, air conditioning, fire services and plumbing installations should ensure that no "non-		

Possible Building Works	Conservation Guidelines		
	reversible" works are carried out to the historic building(s).		
h) Plumbing and Sanitary Fitments	If "historic fitment(s)" is/ are identified, it/ they should be preserved, while modern fittings of compatible design to the existing may be reused, replaced or increased in number as required.		
i) Sewage, Drainage System and Waste Disposal Facilities	All drainage services that are to be retained should be checked and overhauled as necessary; capacity of the existing system and adequacy of authorised waste disposal methods should also be confirmed and upgraded as necessary.		

- 6.1.4 The conditions of each historic building are unique. As such, the problems encountered in the renovation works of each historic building should be tackled on a case-by-case basis. If compliance with the conservation requirements as listed in these Conservation Guidelines cannot be achieved because of statutory requirements arising from the proposed adaptive re-uses, AMO's approval should be sought.
- 6.1.5 The selected applicant should engage a building contractor, for the renovation works, who is included in the Development Bureau's "List of Approved Contractors for Public Works Buildings category" of appropriate group according to the estimated value of the works contract (<a href="https://www.devb.gov.hk/Contractor.aspx?section=80&lang=1">https://www.devb.gov.hk/Contractor.aspx?section=80&lang=1</a> for the list) and a Registered General Building Contractors of Buildings Department (<a href="https://www.bd.gov.hk/en/resources/online-tools/registers-">https://www.bd.gov.hk/en/resources/online-tools/registers-</a>

search/registrationsearch.html for the list). If the contractor to be appointed for the renovation works is not itself an approved specialist contractor included in the "List of Approved Suppliers of Materials and Specialist Contractors for Public Works – Repair and Restoration of Historic Buildings category" (RRHB specialist contractor), the appointed contractor must engage a RRHB specialist contractor from the Approved List as its specialist sub-contractor for carrying out the repair and restoration works of the "Architectural Features to be Preserved" to the historic building. All other specialist sub-contractors for the renovation works should also be engaged from the relevant categories/groups in the Development Bureau's "List of Approved Suppliers

of Materials and Specialist Contractors for Public Works (<a href="http://www.devb.gov.hk/en/construction\_sector\_matters/con">http://www.devb.gov.hk/en/construction\_sector\_matters/con</a> tractors/supplier/index.html for the list).

### 6.2 Special Requirements of the Project

- 6.2.1. The Senior Staff Quarters (Main Building and Servants' Quarters), the Staff Quarters (Main Building only) and the No. 2 Staff Quarters of the SQC are declared monuments under the Antiquities and Monuments Ordinance (Cap. 53) (hereinafter refer to as "this Ordinance") with exceptional historical, social and scientific value and significance. (Please refer to the declared monuments and historic building grading boundary plans enclosed in **Appendix II(B)** for details.) Any works within the declared monuments boundary will require a permit granted by the Antiquities Authority under this Ordinance.
- 6.2.2. The proposed revitalisation works may involve application(s) for Environmental Permit(s) under the Environmental Impact Assessment Ordinance (Cap. 499) and/or planning permission under the Town Planning Ordinance (Cap. 131) subject to advise from the Environmental Protection Department (EPD) and Planning Department respectively.
- 6.2.3. A Cultural Heritage Impact Assessment (CHIA) process may be required for revitalisation of SQC, subject to the EPD's advice.
- 6.2.4. When an Environmental Impact Assessment (EIA) with CHIA is required by EPD, a separate Heritage Impact Assessment (HIA) on the same heritage site is NOT required.
- 6.2.5. Before submitting the Project Profile to apply for the EIA Study Brief, the selected applicant should preferably consult AMO on the necessity of a CHIA for its project and if affirmative, agree with AMO on the CHIA Study Brief. AMO will decide the merits and timing of consulting Antiquities Advisory Board on the CHIA, preferably before AMO advises EPD on the CHIA findings submitted by the selected applicant to apply for approval of the statutory EIA report.

### **6.3** Specific Conservation Requirements

- 6.3.1 The revitalisation of the Senior Staff Quarters (Main Building and Servants' Quarters), the Staff Quarters (Main Building only) and the No. 2 Staff Quarters for new uses should take full consideration of its declared monument status. Together the Store Building of Staff Quarters (Grade 1 historic building), they remain fairly authentic and the architectural features at both exterior and interior of the buildings are still generally kept. The revitalisation approach should take account of the principle of "minimum intervention" and "reversibility", such that they will essentially be kept for public appreciation of its original design and architectural features.
- 6.3.2 To retain the original timber flooring system at Senior Staff Quarters and jack arch slabs at Staff Quarters, the new uses for the 1/F floor of the two buildings should be carefully considered with reference to the existing loading capacity. The adverse visual impact on the character defining elements and the ambience of the existing buildings should be minimized and substantial modifications of the existing building structures or fabrics including the existing flooring system and the materials could be avoided.
- 6.3.3 The Tai Tam Group of Reservoirs plays an important role in the development of public water supply. Being the backbone for the Hong Kong Island's water supply, the Tai Tam Group of Reservoirs also witnesses the expansion of the urban areas of Hong Kong moving from the central and western districts to the eastern side of Hong Kong Island. The values of the SQC in terms of historic, social and scientific values, sharing group values with other historic items of the Tai Tam Group of Reservoirs. In this regard, the setting of the Tai Tam Group of Reservoirs should be conserved and the values of the Tai Tam Group of Reservoirs should be properly interpreted within the site. Any new structures to be built within the site which are necessary for the new use should be compatible with the surroundings and should not create prominent visual impact to the Tai Tam Group of Reservoirs in a holistic approach.
- 6.3.4 Despite the Tai Tam Tuk Raw Water Pumping Station is outside the project boundary, it is the tangible item reflecting the scientific value of the Tai Tam Group of Reservoirs from the engineering perspective, as the Tai Tam project is the first reservoir which make use of pumping facilities and not rely as much on gravity flow. Therefore, any new building to be constructed within the site

- should respect and not overwhelm the Tai Tam Tuk Raw Water Pumping Station, which is considered as the most iconic building in the vicinity.
- 6.3.5 There is an underground cellar/ underground air raid shelter (and associated tunnels if any) situated within the site, even though it is neither declared monument nor graded building, nonetheless, it contributes to the setting of the Tai Tam Group of Reservoirs. Damage to these underground structures should be avoided in the revitalisation works. However, the exact locations of these underground structures are uncertain at this stage, further research and site investigation on history and locations should be carried out during design stage, to ensure that no new works will damage the underground structures.
- 6.3.6 The SQC remain fairly authentic and the architectural features at both exterior and interior of the buildings are still generally kept. As such, any repair and restoration should follow the original forms, architectural details and materials as far as practical in careful considerations so as to bring out the architectural value of these buildings built in the early 20<sup>th</sup> century.
- 6.3.7 A number of character-defining elements must be preserved in-situ and maintained as necessary. They are listed in **Appendix IX(A)**. Their corresponding required and recommended conservation treatments are listed at **Appendix IX(B)** and **IX(C)**respectively.
- 6.3.8 Every effort should be made to carry out all "required treatments" set out under **Appendix IX(B)** of the Conservation Guidelines. If compliance with the "required treatments" cannot be achieved, justifications should be given to the AMO for their consideration. **Appendix IX(C)** of the Conservation Guidelines set out the "recommended treatment" to the historic building, which should be carried out as far as practicable.

### VII. Town Planning Issues

The site is zoned as "Government, Institution or Community (1)" on the Approved Hong Kong Planning Area No.18 – Tai Tam & Shek O – Outline Zoning Plan (OZP) No. S/H18/10, which was approved by the Chief Executive in Council on 6 May 2008 and gazetted on 16 May 2008. The full set of OZP including the Plan, Notes and Explanatory Statement is available at the Town Planning Board (TPB)'s website(http://www.info.gov.hk/tpb/). Relevant extracts of the OZP and Notes for the Government, Institution or Community (1) are shown in **Appendix X**.

The planning intention of the Government, Institution or Community (1) is primarily to serve the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

The Notes for the Government, Institution or Community (1) (**Appendix X**) stipulate that any new development, or addition, alteration and/or modification to or redevelopment of an existing buildings result in a total development and/or redevelopment not in excess of a maximum building height of 20 meters above Hong Kong Principal Datum.

The Notes also set out the uses or developments that are always permitted (the 'Column 1' uses) within the zone and those requiring permission from the TPB(the 'Column 2' uses). The application for Column 2 uses should be made to the TPB under section 16 of the Town Planning Ordinance. If the use proposed by an applicant is not under Column 1 or Column 2, an application for amendment of the zoning on the OZP under section 12A of the Town Planning Ordinance will be required to be submitted to the TPB for consideration.

Prior to the submission of an application, advice could be sought from Hong Kong District Planning Office of the Planning Department at 14/F, North Point Government Offices, 333 Java Road, North Point, Hong Kong (Tel: 2895 3957).

All applications for permission under section 16 of the Town Planning Ordinance will be considered by the TPB within two months of their receipt. The TPB may reject or approve an application, with or without conditions. The applicant will be notified in writing of the TPB's decision after confirmation of the minutes of the meeting at which the decision is made (normally two weeks after the meeting).

### **VIII.** Land and Tree Preservation Issues

#### 8.1 Land Issues

The site rests on Government land and is currently under the purview of Water Services Department (WSD) and Government Property Agent. The Site Boundary Plan of this Revitalisation Project is shown in **Appendix II(A)**.

#### 8.2 Tree Issues

Based on the tree schedule prepared in July 2019, there are currently 293 trees located in the vicinity of the site. A tree schedule depicting the conditions and value of trees is shown in **Appendix XI**. The topographic survey drawings showing the locations of those trees are shown in **Appendix III(B)**. The information given in the above tree schedule and topographic survey drawings may be changed from the time of the survey.

There is no Old and Valuable Tree (OVT) in the OVT Register within the site.

Trees surveyed in the vicinity of the site are tagged with Tree Number T1-T293.

In general, no tree growing on the site or adjacent thereto shall be interfered with without the prior written consent of the District Lands Officer and the AMO or the appropriate authorities who may, in granting consent, impose such conditions as to transplanting, compensatory landscaping or replanting as he may deem appropriate.

The selected applicant shall be responsible for the horticultural maintenance of vegetation and maintenance of trees within the site boundary.

### IX. Slope Maintenance

9.1 According to the Systematic Identification of Maintenance Responsibility of Slopes in the Territory (SIMAR) Unit, there are ten slope features within and adjoining the site. Information on the slope features as on 11 July 2019 and the details are summarised below and shown in **Appendix XII**. Slope features 2-10 are outside the site boundary but within the survey area of this resource kit. The conditions of the features require further assessment.

### Slope features within the site boundary

Slope Feature 1:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Within W	Water Supplies	Water Supplies
A/C200		Portion of	Department	Department
		GLA-HK109	_	_

### Slope features outside the site boundary

Slope Feature 2:

Clana Numban	Cub	Location	Dagnangibla	Maintenance
Slope Number	Sub-	Location	Responsible	Maintenance
	division		Party	Agent
15NE-	-	Within GLA-	Water Supplies	Water Supplies
A/CR707		HK109	Department	Department

Slope Feature 3:

STOPE T CONTOUTE C.	<u> </u>			
Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-B/C91	-	Within GLA-	Water Supplies	Water Supplies
		HK109	Department	Department

Slope Feature 4:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Within GLA-	Water Supplies	Water Supplies
B/C313		HK109	Department	Department

Slope Feature 5:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Within GLA-	Government	Architectural
B/C194		HK1085, Tai	Property	Services
		Tam Tuk	Agency	Department
		Water Supplies		
		Department		
		Quarters		

Slope Feature 6:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Within GLA-	Government	Architectural
B/C193		HK1085, Tai	Property	Services
		Tam Tuk	Agency	Department
		Water Supplies		
		Department		
		Quarters		

Slope Feature 7:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Adjoining	Government	Architectural
B/DT11		Government	Property	Services
		Quarters to the	Agency	Department
		East of		
		Government		
		Land		
		Allocation-HK		
		109		

Slope Feature 8:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-B/F85	1	Adjoining and	RBL1050RP	N/A
		within		
		RBL1050RP		
15NE-B/F85	2	Adjoining and	Lands	Lands
		within	Department	Department
		RBL1050RP		
15NE-B/F85	3	Adjoining and	Water Supplies	Lands
		within RBL	Department	Department
		1050RP		

Slope Feature 9:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Within GLA-	Water Supplies	Water Supplies
B/R101		HK109, Tai	Department	Department
		Tam Tuk	_	_
		Pumping		
		Station		

### Slope Feature 10:

Slope	Sub-	Location	Responsible	Maintenance
Number	division		Party	Agent
15NE-	-	Within GLA-	Water Supplies	Water Supplies
B/R102		HK109	Department	Department

The selected applicant should allow the Government or its representatives to gain access to the slope features concerned to carry out required slope maintenance works. Should the selected applicant's proposal for adaptive re-use of the site of this Revitalisation Project affects the existing registered/non-registered slope features, geotechnical assessment and/or corresponding slope upgrading works as required by the Building Authority and other government departments should be carried out by the selected applicant to suit his proposal. The selected applicant shall be responsible at their own cost for any necessary upgrading, repair and maintenance of the registered/non-registered slope features affected by the revitalisation works.

The selected applicant should consult the relevant government departments, such as the Building Department, Geotechnical Engineering Office of Civil Engineering and Development Department to ensure all the slopes and retaining walls are stable with respect to the revitalisation proposal.

Any slope upgrading works should not alter the existing external appearance of the buildings within the site of this Revitalisation Project or cause adverse impact on the stability of any slopes and structures within or in the vicinity of the site of this Revitalisation Project.

### X. Technical Compliance for Possible Uses

### 10.1 Uses that could Possibly be Considered

Possible adaptive re-use of the site of this Revitalisation Project includes:

- (a) Eating Place;
- (b) Education Institution;
- (c) Exhibition or Convention Hall;
- (d) Field Study Education/ Visitor Centre; and
- (e) Place of Recreation, Sports or Culture.

The technical feasibility of each case will need to be further examined. Applicants are welcome to come up with suggestions on possible uses that they consider to be the most suitable for the site of this Revitalisation Project. Applicant should make reference to the "Definition of Terms" under the Town Planning Board's web site to ascertain if a particular use is permitted. Applicants are required to ascertain the technical feasibility, including the structural adequacy and conservation requirements, of their proposed uses.

### 10.2 Technical Considerations

Technical considerations to be given due regard include:

(a) Compliance with the requirements under the Buildings Ordinance and relevant ordinances. These requirements include but are not limited to:

Requirements	Remarks
Means of escape	Upgrading works may include, but not limited to,
1	the provision of code-compliant staircase. In
	view of the conservation requirements limiting
	the extent of upgrading works, fire engineering
	study may be adopted as an alternative approach
	to comply with the current safety requirements.
	For use of Place of Public Entertainment (PPE),
	it should follow Part III of CoP for the Provision
	of Means of Escape in Case of Fire 1996.
	Building Authority will determine the number
	and width of thoroughfares required if such PPE
	accommodates less than 500 people.

Requirements	Remarks
2. Fire resisting	Further investigation will be required to
construction	demonstrate the adequacy of fire-resisting
	construction of the existing building elements.
	Upgrading works may include, but not limited to,
	the provision of fire enclosure to exit staircases.
	If there is conservation requirements limiting the
	extent of upgrading works, fire engineering study
	may be adopted as an alternative approach to comply with the current safety requirements.
3. Means of access for fire	Upgrading works may include, but not limited to,
fighting and rescue	the provision of fireman's lifts. Compensatory
	measures may be required for non-provision or
	deficient EVA.
4. Barrier-free access and facilities	Various provisions for barrier-free access, such
racinues	as ramps, passenger lift or lifting platform may
	be required. For building with 2 floors or higher,
	lift is required for internal access.
5. Protection against falling from height	Existing balustrades or parapets shall be
ranning from height	upgraded to current statutory requirements unless
	access is restricted for maintenance purpose only.
6. Structural adequacy	Detail structural investigation (i.e.
	comprehensive structural appraisal) shall be
	carried out to ensure the stability of all the
	building elements. Strengthening works may be
	required depending on the findings of structural
	investigation and the proposed use. For existing
	protective barriers/parapets that need to be retained, the structural requirements of minimum
	horizontal imposed loads under Table 3 of
	Building (Construction) Regulations should be
	fulfilled.
7. Fire service installation	Sufficient fire service installation is required with
requirements	reference to the latest version of the Code of
	Practice from the Fire Services Department.
	Provision depends on future building usage in the
	site.

Requirements	<u>Remarks</u>
8. Natural lighting and ventilation	Compensatory measures may be required for any deficiency.
9. Provision of sanitary fitments	Additional toilets may be required to comply with the current requirements.
10. Plumbing System	There is no saltwater main in the vicinity of the site. The selected applicant needs to apply to WSD for Temporary Mains Fresh Water for Flushing (TMF) and provide a flushing water supply system complying with the statutory requirements.
11. Drainage Installation	The storm and foul water should be discharged to proper drainage system for the compliance of Building (Standards of Sanitary Fitments, Plumbing, Drainage Works and Latrines) Regulations.  Grease traps according to the Food and Environmental Hygiene Department are required for kitchens, if any.

- (b) Compliance with licensing requirements (for uses requiring issue of licence for their operation);
- (c) Compliance with planning requirements (Approval by TPB is required for any proposed uses not falling under Column 1 in the Notes to the OZP); and
- (d) Compliance with the Conservation Guidelines in Section VI.

The technical aspects listed above might not be exhaustive. Applicants should pay attention that they may need to address other technical considerations in preparing their proposals. They may make reference to guidelines stated in PNAP APP-69 and Practice Guidebook for Adaptive Re-use of and Alteration and Addition Works to Heritage Buildings 2012 (2019 Edition).

#### 10.3 Further Information on Possible Uses

For illustration purpose, preliminary study has been carried out for uses listed in paragraph 10.1 above. Some information that can be useful to the applicants is listed below:

### (a) Heritage Conservation

Applicant shall follow the Conservation Guidelines listed in Section VI of the Resource Kit when resolving technical issues.

#### (b) Planning

Examples of uses in paragraph 10.1 are under Column 1 of the Notes to the OZP under Government, Institution or Community (1) that are always permitted. However, please note that the nature of the proposed uses can only be ascertained when the details of the proposal are available to the TPB.

### (c) Emergency Vehicular Access (EVA)

An EVA complying with the requirements stipulated in Section 6, Part D of Code of Practice for Fire Safety in Buildings 2011 will be required. If there are genuine site constraints in the provision of a proper EVA, alternative fire safety enhancement measures may be justified using a fire engineering approach.

### (d) Licensing

- (i) If the site of this Revitalisation Project is to be used as an exhibition hall, the selected applicant should obtain a license from the Food and Environmental Hygiene Department (FEHD) if he intends to carry out:
  - Any exhibition of any one or more of the followings, namely pictures, photographs, books, manuscripts or other documents or other things;
  - A sporting exhibition;
  - A cinematograph or laser projection display.

For details on the application of places of public entertainment license for places other than cinemas and theatres and related matters, the applicant can visit the website of FEHD (<a href="http://www.fehd.gov.hk/licensing/index.html">http://www.fehd.gov.hk/licensing/index.html</a>).

(ii) If food and beverage services are to be provided, the selected applicant shall make an application to FEHD if he intends to carry out any food business which involves, generally, the sale of meals or unbolted non-alcoholic drinks other than Chinese herb tea for consumption on site.of this Revitalisation Project. Relevant information on application

procedures and forms can be downloaded from the FEHD website (http://www.fehd.gov.hk/english/licensing/index.html).

(iii) If the site of this Revitalisation Project\_is to be used as an education centre, the selected applicant is required to check whether the proposed mode of operation falls within the definition of a 'school' under the Education Ordinance (Cap. 279). If affirmative, the selected applicant shall make an application for registration of a school to the Education Bureau (EDB). Relevant information on registration procedures is available at the website of EDB (<a href="http://www.edb.gov.hk">http://www.edb.gov.hk</a>).

### (e) Structural Loading Requirement

The minimum uniformly distributed imposed loads as stipulated in the Building (Construction) Regulations by the Buildings Department for the possible uses area are as follows:

Possible Adaptive	Distributed load	(B(C)R)	Usage stated (B (C)
Re-use	to be applied uniformly on plan (kPa)	Class No.	R)
(i) Eating Place	4.0	3	- Restaurants, canteens and fast food shops
(ii) Education Institution	3.0	3	-classrooms, lecture rooms, tutorial rooms, computer rooms and reading rooms without book storage
(iii) Exhibition and Convention Hall	5.0	3	- Art galleries and exhibition
(iv) Field Study Education/ Visitor Centre	3.0	3	- Classrooms, lecture rooms, tutorial rooms, computer rooms and reading rooms without book storage

(v) Place of	3.0	3	- leisure, recreational
Recreation, Sports or			and amusement
Culture			areas that cannot be
			used for assembly
			purposes

### **10.4 Recurrent Expenditure**

To facilitate the applicants in forecasting their operation expenses and filling in the required information in Section (2) of Part D under Chapter III of the application form, we have estimated the respective expenditures on some common recurrent items including electricity fee, water and sewage charge, and rates and rent at **Appendix XIII**. Please note that the estimated expenditures have been made on the basis of some possible uses with assumptions, and are for reference only. Applicants are advised to make necessary adjustments with regard to their own proposals and specific operational requirements.

#### XI. Special Requirements of the Project

Applicants are required to take these special requirements into account in formulating their proposals and explain in their applications how the requirement has been incorporated in their proposals.

### 11.1 Environmental and Conservation Requirements

Within the site of this Revitalisation Project, the Senior Staff Quarters (Main Building and Servants' Quarters), Staff Quarters (Main building) and No. 2 Staff Quarters are declared monuments under the Antiquities and Monuments Ordinance (Cap. 53) with exceptional historical value and significance. The Staff Quarters (Store Building) is a "Grade 1 historic building". The declared monuments within the site are part of the 22 Historic Structures of Tai Tam Group of Reservoirs and form part of the Tai Tam Waterworks Heritage Trail. Any works within the declared monuments boundary will require a permit granted by the Antiquities Authority under this Ordinance.

The proposed revitalisation works may involve applications for Environmental Permit(s) under the Environmental Impact Assessment Ordinance (Cap.499) and/or planning permission under the Town Planning Ordinance (Cap.131)

Applicants shall submit a project profile that explains how the requirements mentioned in **Section 6.2** of this booklet is complied with.

### 11.2 Possible New Structure(s) within the site

Construction of above-ground and/or below ground new structure(s) to provide additional usable area within the site of this Revitalisation Project in support of the provision of services by the social enterprise and for accommodating essential building services may be allowed within the area of the unused Fuel tank and structures between the yard and access road in front of the Pumping Station as shown in **Appendix XV.** Such new structure(s), if any, should be constructed primarily for supporting the adaptive reuse of existing historic buildings with minimum intervention to these buildings. In doing so, the applicants should strive to utilise these existing historic buildings for their main social enterprise operation and observe the following requirements in designing the new structure(s):

(a) SQC being a declared monument of unique heritage value, the design of the new structures should deliver the objective of achieving compatibility with, and not being visually intrusive to, the existing buildings and setting of the Pumping Station. They should also be non-obtrusive to the surrounding natural environment. The scale of the new structures should be commensurate with the intended purpose of use and in proportion with the existing buildings without

overwhelming the latter. The ultimate height of the new structure should not be higher than the finished floor level of the access road in front of the Pumping Station at the rear and the vista from the Yard to the Pumping Station should not blocked;

- (b) The applicants should observe the building height restriction of maximum 20m above Hong Kong Principal Datum as stipulated in the Approved Hong Kong Planning Area No. 18 Tai Tam & Shek O Outline Zoning Plan No. S/H18/10. The new structures at designated area in the yard should not higher than 16m from the ground level; and
- (c) The applicants should also cross read item 4.4. of the **Appendix IX(B)**

#### 11.3 Barrier Free Provisions

The Senior Staff Quarters and No. 2 Staff Quarters are situated on the top of the cutting hillside more than 8m from the access ground level with steps of about 18m and 19m long respectively. In addition, most of the quarters are exceeding one storey in height that the provision of vertical transportation to the levels of the floors of the upper storeys should be evaluated carefully. The selected applicant should study the site conditions to provide suitable proposal fulfilling relevant barrier-free access such as lifts, ramps and elevators, etc., and complying with the requirements as mentioned in Conservation Guidelines in **Section VI**.

### 11.4 Existing Underground Drainage System

There are three septic tanks located within the site (see **Appendix VI(C)**). Septic tank 1 is located at the west side of No.2 Staff Quarters serving for No.2 Staff Quarters (Quarters and Outbuilding). Septic tank 2 is located near the Garage for collection of foul water from Senior Staff Quarters (Main Building and Servants' Quarters). Septic tank 3 is located near the Staff Quarters – Store Building as the final discharge point for foul water from Staff Quarters – Main Building and the Pumping Station. As the Pumping Station will remain in operation under WSD's purview, Septic tank 3 should be kept in function during construction and operation of the revitalisation project.

The applicants may consider to connect the new drains of the site to existing public sewage system or design and provide an appropriate sewage treatment system which shall satisfy the requirements of relevant authorities including the Architectural Services Department, Buildings Department, Drainage Services Department and Environmental Protection Department. Besides, since there is currently no connection to public storm water system for the site, discharge of the roof run-off and surface water are required to be diverted to an approved connection

outside the site boundary or alternatively, be recycled under an approved method to enhance environmental sustainability. The location of nearest public stormwater manhole and sewer manhole from the site for the consideration of drainage connections is shown in **Appendix XVI.** 

### 11.5 Upgrading and Maintenance of Slopes and Retaining Walls

The selected applicant is responsible to check the stability conditions, conduct geotechnical assessment and carry out upgrading works for all the existing slopes and retaining walls within the site boundary, no matter if they are affected by the proposed revitalisation works or not, to meet the current safety standards and the applicant's proposed use. The proposed geotechnical assessment and any proposed slope upgrading works should fulfil the requirements of the Geotechnical Engineering Office and comply with the Buildings Ordinance with approval from the Building Authority. They shall also form part of the project proposal and be included in the cost estimate as required under 2.2.6 and 2.2.7 of the Guide to Application.

Should there be any adjoining slopes or retaining walls outside the boundary of the site be affected by the revitalisation works, the selected applicant is also responsible to check their stability condition, conduct geotechnical assessment and carry out upgrading works to meet the current safety standards and the selected applicant's proposed use.

Applicants should pay particular attention to the visual appearance and landscaping treatment of all slopes / retaining walls to ensure that they are visually compatible with the overall setting of SQC, especially where slope works are to be carried out as part of the revitalisation project, as per Works Branch Technical Circular No. 25/93 "Control of Visual Impact of Slopes" or Buildings Department Practice Note for Authorised Persons, Registered Structural Engineers and Registered Geotechnical Engineers No. ADV-23 "Improvement of Visual Appearance and Landscape Treatment for Man-made Slopes and Retaining Walls". In particular, shotcrete or chunam should only be used as a last resort on the finished surface of slopes and retaining walls.

The selected applicant should be responsible at their own cost for repair and maintenance of all slopes and retaining walls affected by the revitalisation works.

For other slopes and retaining walls within the site which would not be affected by the proposed revitalisation works but upgraded necessarily to meet the current safety standard as required by this Department, the Government shall be responsible for the future repair and maintenance upon satisfactory completion of the upgrading works and handed over to relevant Government departments.

#### 11.6 Yard

The yard has been used for social events, namely dragon boat competitions and sports events, in recent years. The applicants should consider flexible design to address the need of holding social events in the yard.

### 11.7 Tai Tam Bay Pier

Tai Tam Bay Pier, adjoining to the site of this revitalisation Scheme project, is a public pier managed by WSD. The selected applicant should allow public access connecting the piers to Tai Tam Reservoir Road within the site. Based on WSD's information, the gate of the site entrance for pedestrians is open all day (except special conditions) and the other gate for vehicles is not open for public use. To facilitate the operation of the Revitalisation Project, the selected applicant shall discuss with WSD on the detailed arrangement.

### 11.8 Access for Pumping Station and Chimney Shaft and its Flue

Despite the Pumping Station and Chimney Shaft and its Flue are not included in the site area of this project, the only vehicular access road for the structures is within the site area. The Pumping Station will remain as a 24 hours working water pumping station. The selected applicant should ensure round the clock access for both WSD's vehicles and personnel for operations and maintenance of the structures during construction and operational stages of the Revitalisation Scheme is allowed.

The selected applicant is also required to provide sufficient spaces and access for WSD to maintain its meters for electricity, other utilities and their associated building services for the pumping station or to facilitate WSD's new meter installation in other locations if required.

### 11.9 Traffic

The site is located at the end of Tai Tam Reservoir Road, which is one-lane two-way traffic. For the part of the road without pedestrian pavement, vehicles share the same lane with pedestrians. The nearest bus stop for the site is Tai Tam Country Park on Tai Tam Road. Applicants are required to conduct a preliminary traffic assessment as stipulated in **Appendix XIV** and state clearly in **Section III(B)(5)** of the Application Form the findings of their preliminary traffic assessment as well as the traffic management arrangements and associated mitigation measures, etc., as specified in **Appendix XIV**.

The selected applicant would be bound by the maximum limit of the volume of traffic generated by/attracted to the site as stated in the preliminary traffic assessment above, and would be required to conduct a comprehensive traffic impact assessment and implement corresponding traffic management measures to the satisfaction of the Transport Department, after the application has been selected by the Government.

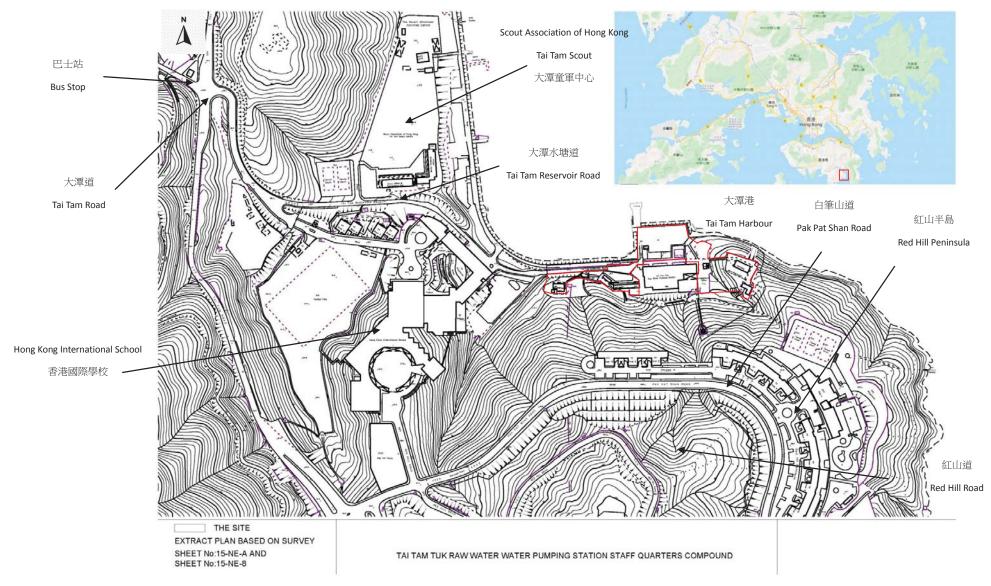
### XII. Consultation with Southern District Council

Southern District Council was consulted on the inclusion of SQC into Batch VI of the Revitalisation Scheme at its meeting on 9 May 2019. Members' view and suggestions on the adaptive re-use of SQC can be found in the minutes of the 22nd meeting of the Southern District Council which is available in the following link:

https://www.districtcouncils.gov.hk/south/doc/2016\_2019/en/dc\_meetings\_minutes/S\_2019\_Mins\_22\_EN.pdf

## Appendix I Location Plan

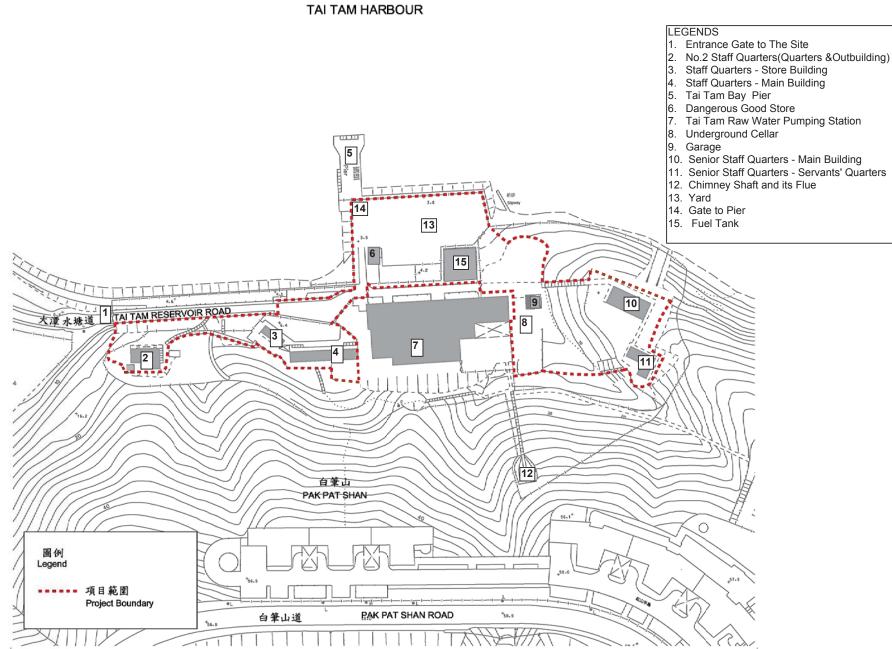
## **Location Plan**



## Appendix II (A) Site Boundary Plan



大潭港 TAI TAM HARBOUR



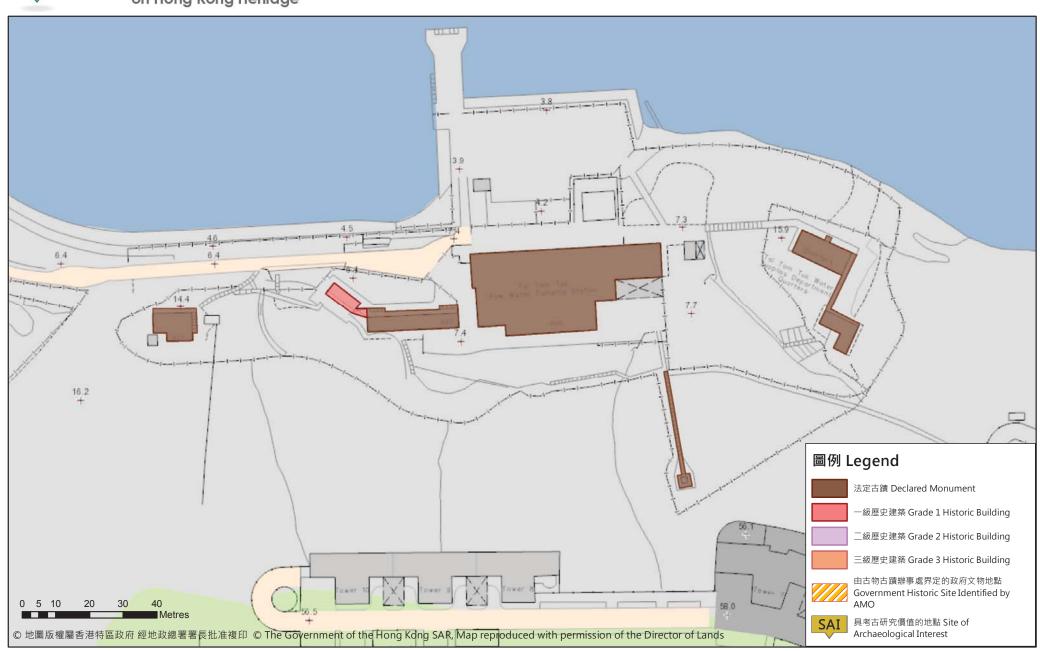
## Appendix II (B)

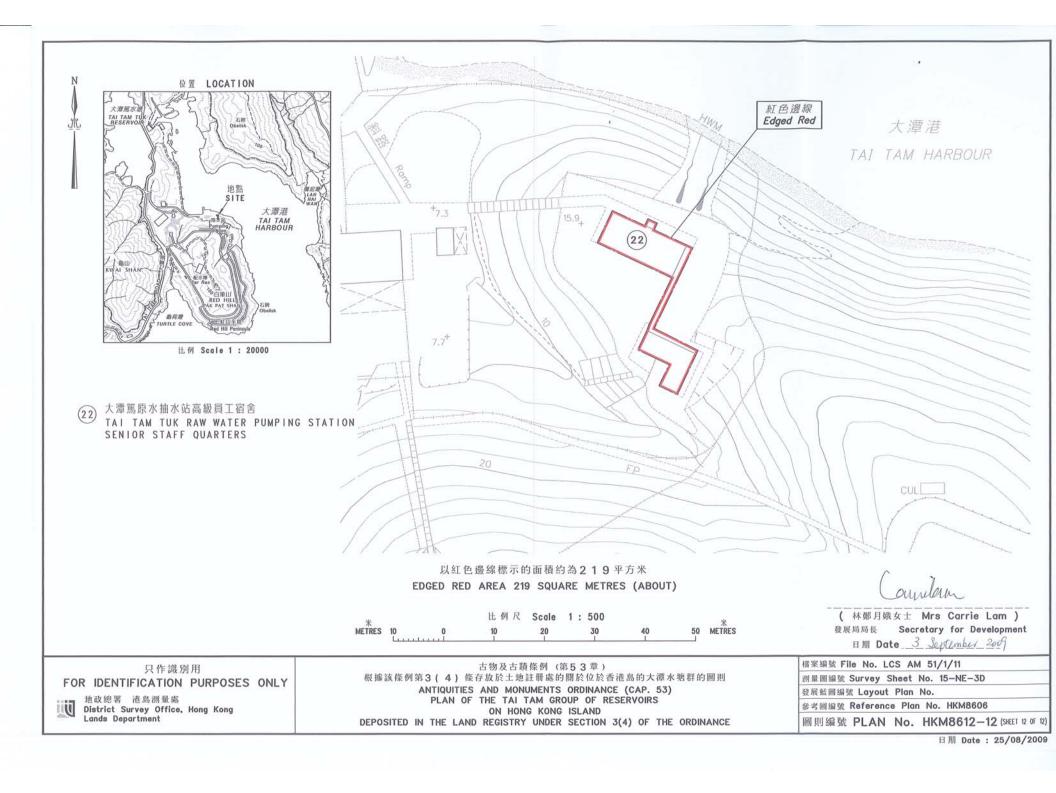
Declared Monuments and Historic Building Grading Boundary Plans

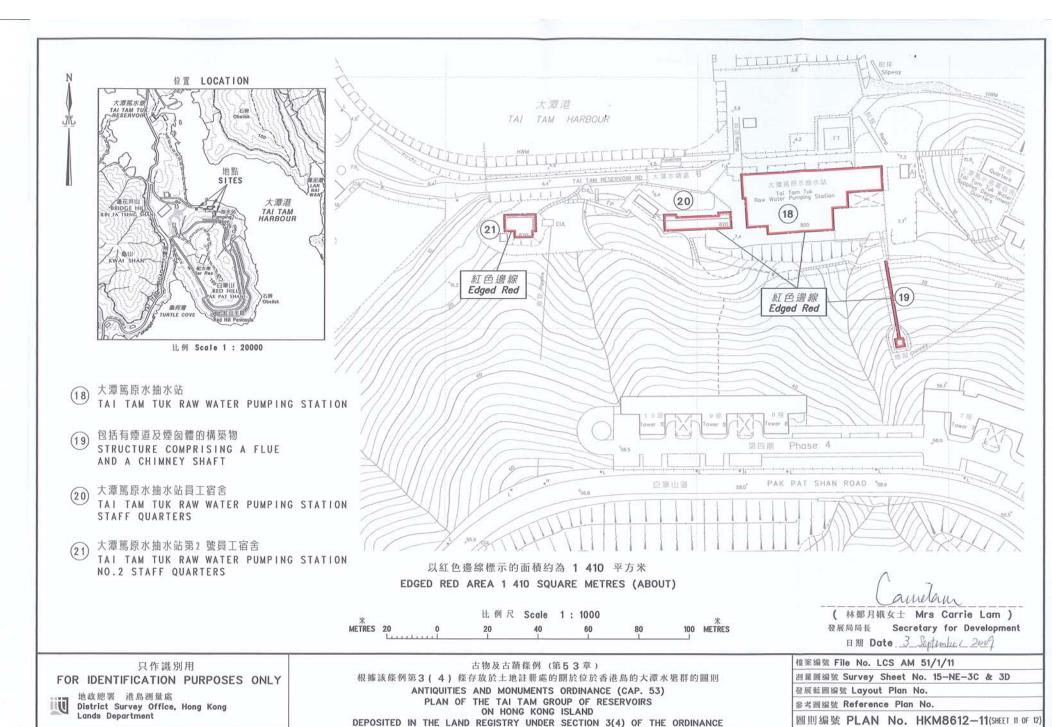


# 香港文物地理資訊系統 Geographical Information System

on Hong Kong Heritage



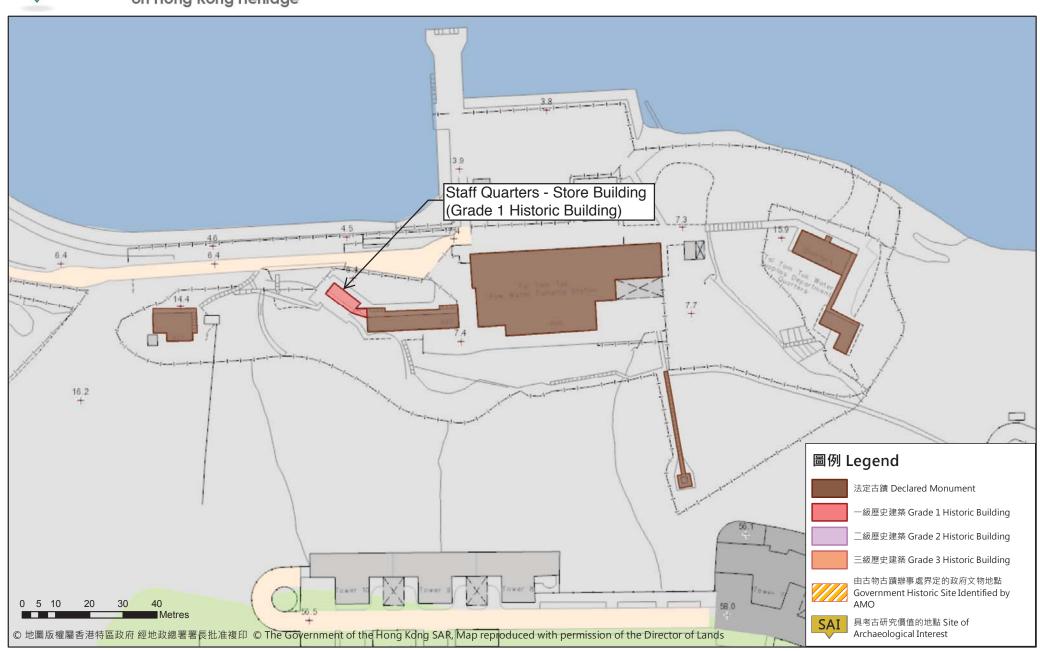




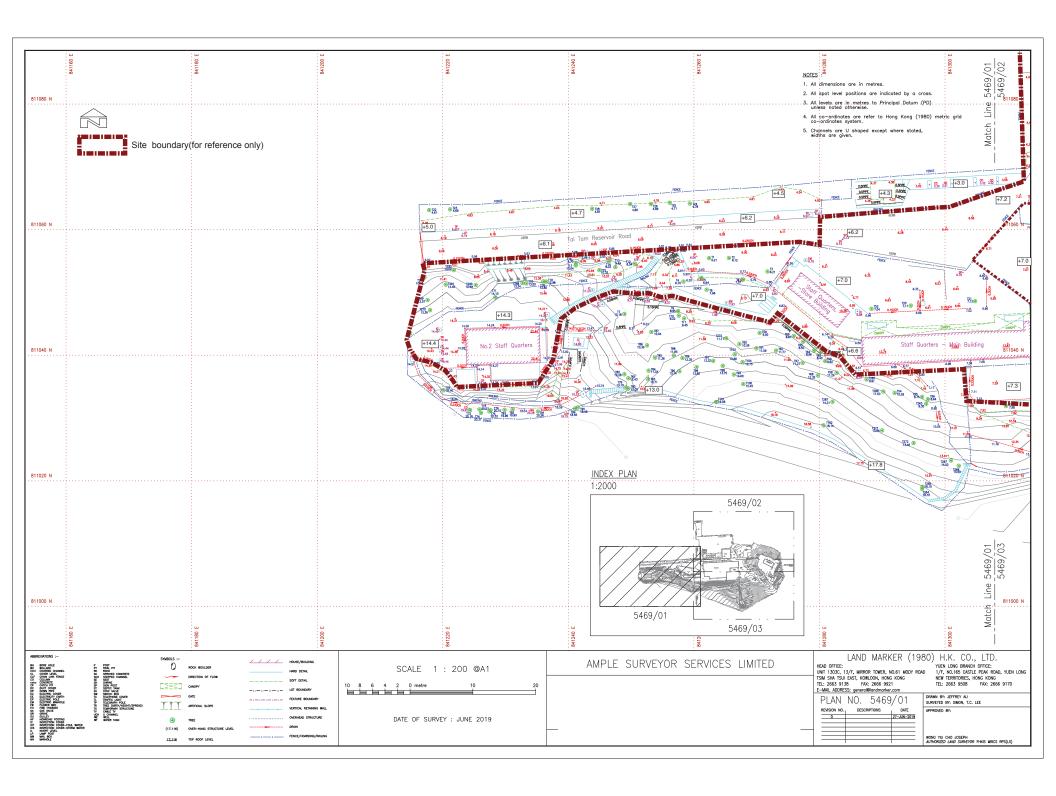


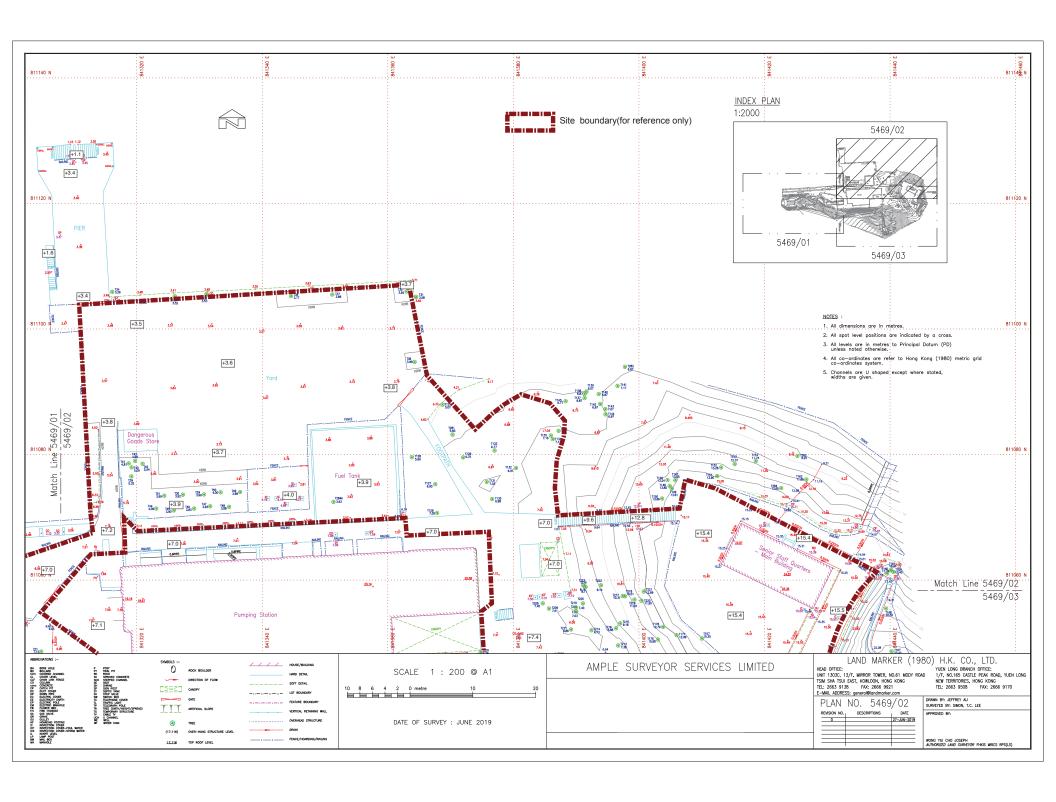
# 香港文物地理資訊系統 Geographical Information System

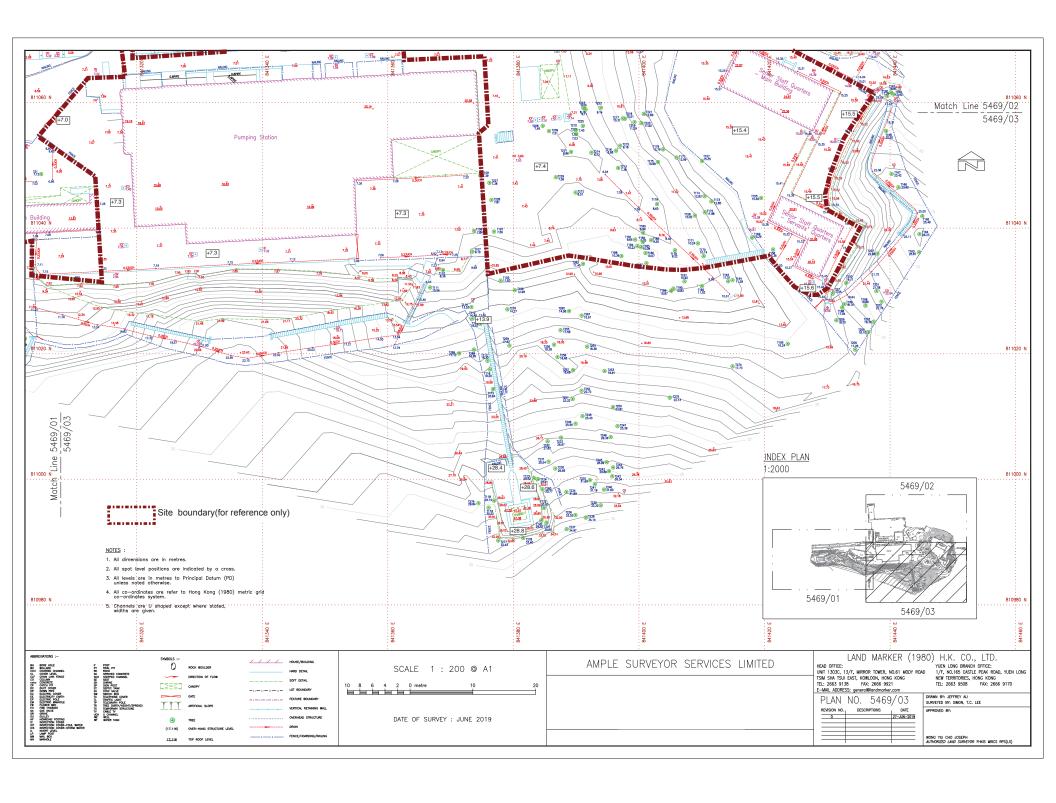
on Hong Kong Heritage



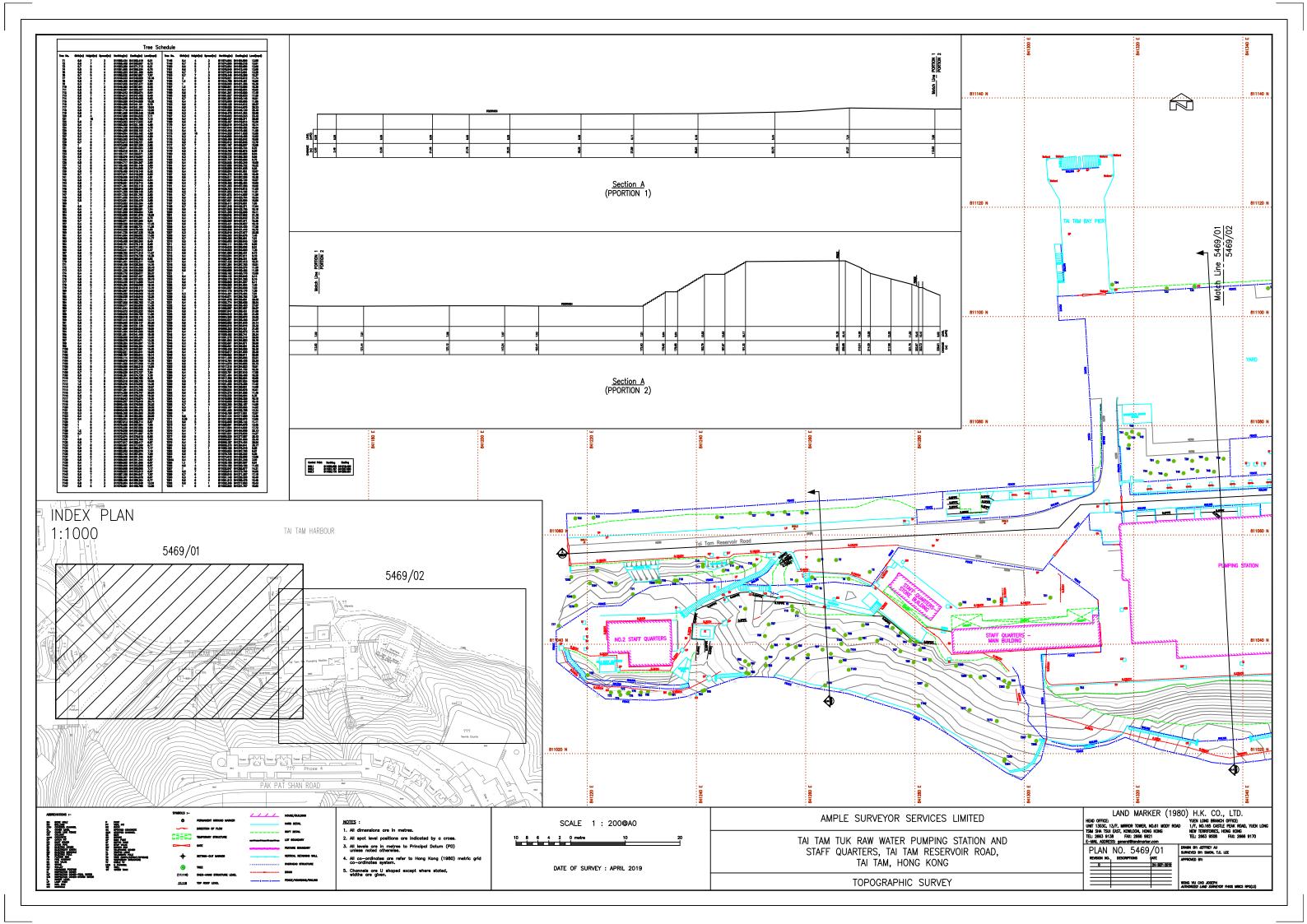
## Appendix III(A) Datum Levels Plan

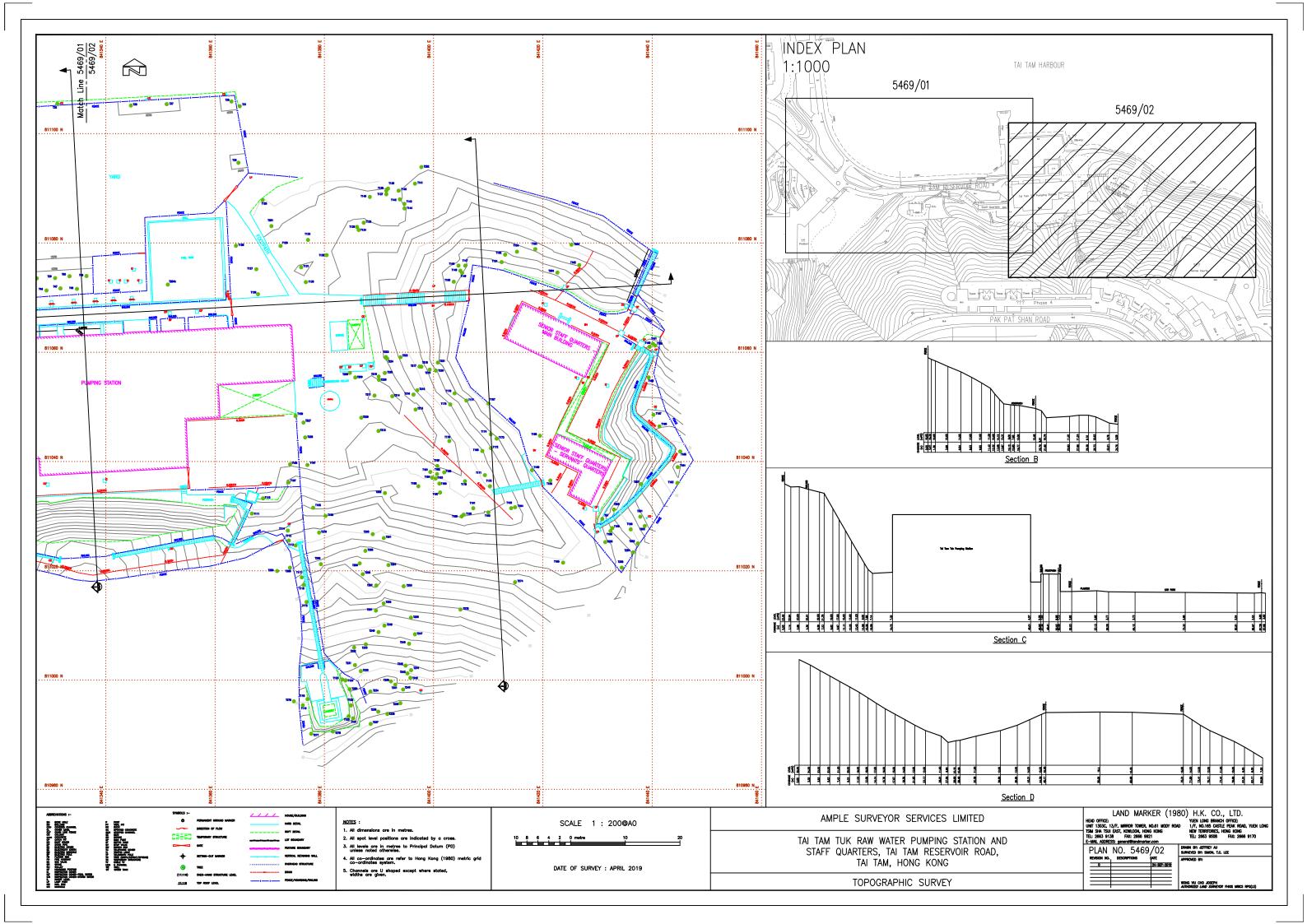




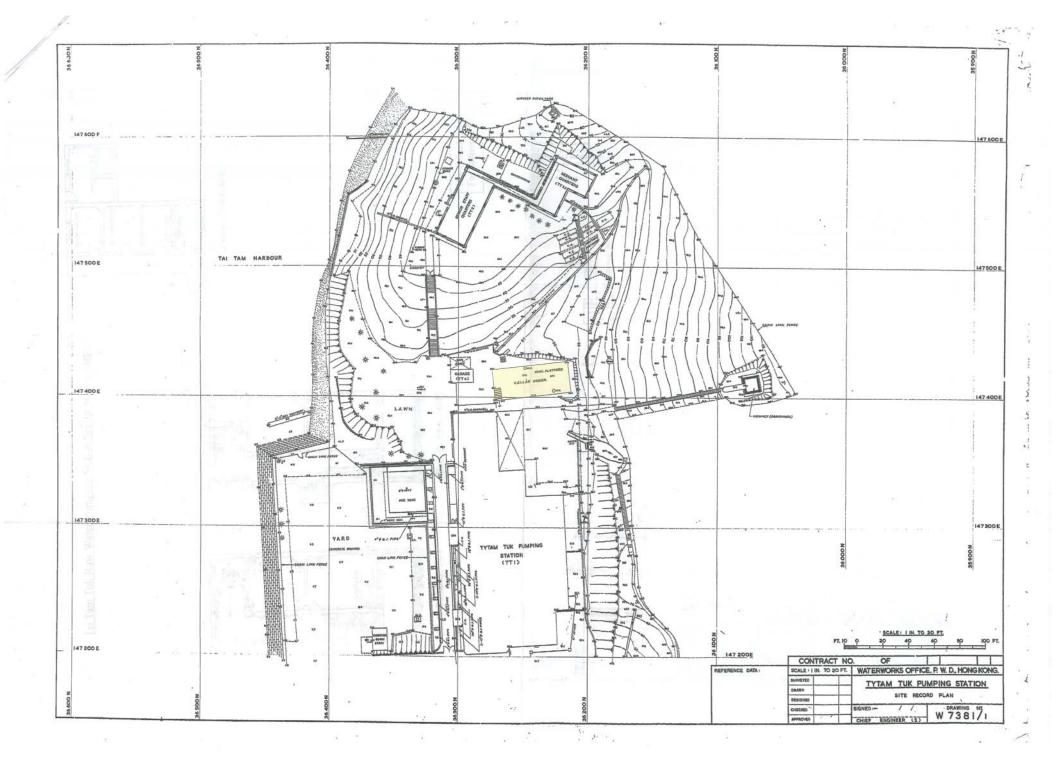


## <u>Appendix III(B)</u> Topographic Survey Plan





## <u>Appendix IV</u> Plan for Underground Cellar



# $\frac{Appendix\;V}{Summary\;of\;Site\;and\;Building\;Information}$

## **Summary of site information is listed below:**

Site	Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound
Address	Tai Tam Reservoir Road, Tai Tam, H.K.
Site Area	Approximately 6356 m <sup>2</sup> (excluding Pumping Station and Chimney
	Shaft and its Flue)
Major Datum Level	Ranges from about +3.5 mPD to +15.6mPD
Zoning	"Government, Institution or Community (1)" on Approved Hong Kong
	Planning Area No.18 – Tai Tam & Shek O – Outline Zoning Plan
	(OZP) No. S/H18/10 approved on 6 May 2008

## Summary of building information in Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound is listed below:

### (A) Senior Staff Quarters and Servants' Quarters

Year of Completion	1905
Construction Floor	Approximately 298 m <sup>2</sup>
Area	
Historic Grading	Declared Monument (Year 2009)
Original and Recent	Original: Staff Accommodation
Uses	Recent: Unused

### (B) Staff Quarters – Main Building

Year of Completion	1907
Construction Floor	Approximately 334 m <sup>2</sup>
Area	
Historic Grading	Declared Monument (Year 2009)
Original and Recent	Original: Staff Accommodation
Uses	Recent: Staff Accommodation

### (C) Staff Quarters –Store Building

Year of Completion	1912-1924
Construction Floor	Approximately 47 m <sup>2</sup>
Area	
Historic Grading	Grade 1
Original and Recent	Original: Store and Kitchen
Uses	Recent: Store

### (D) No. 2 Staff Quarters & Outbuilding

Year of Completion	Quarters: 1936	
	Outbuilding: Probably between 1949-1961	
Construction Floor	Quarters: Approximately 190 m <sup>2</sup>	
Area	Outbuilding: Approximately 8 m <sup>2</sup>	
Historic Grading	Quarters: Declared Monument (Year 2009)	
	Outbuilding: Nil	
Original and Recent	Staff Quarters: Original: Staff Accommodation	
Uses	Recent: Unused	
	Outbuilding: Original: Toilet & Bathroom	
	Recent: Unused	

## (E) Dangerous Goods Store

Year of Completion	Probably between 1924-1949
Construction Floor	Approximately 19 m <sup>2</sup>
Area	
Historic Grading	Nil
Original and Recent	Original: Dangerous Goods Store
Uses	Recent: Store

### (F) Fuel Tank

Year of Completion	Probably between 1949-1961
Site Area	Approximately 206 m <sup>2</sup>
Historic Grading	Nil
Original and Recent	Original: Fuel Tank
Uses	Recent: Unused

### (G) Garage

Year of Completion	Probably between 1924-1949
Construction Floor	Approximately 15 m <sup>2</sup>
Area	
Historic Grading	Nil
Original and Recent	Original: Garage
Uses	Recent: Store

## (H) Underground cellar

Year of Completion	Probably between 1924-1949
Construction Floor	Approximately 122 m <sup>2</sup>
Area	
Historic Grading	Nil
Original and Recent	Original: Unknown, had been used as underground cellar before
Uses	Recent: Unused

## (I) Yard

Year of Completion	Unknown
Site Area	Approximately 1280 m <sup>2</sup>
Historic Grading	Nil
Original and Recent	Original: Yard
Uses	Recent: Yard

## Buildings/structures outside site boundary:

## (J) Pumping Station

Year of Completion	1907
Construction Floor	Approximately 1119 m <sup>2</sup>
Area	
Historic Grading	Declared Monument (Year 2009)
Original and Recent	Pumping Station
Uses	
Remark:	The building do not form part of the Revitalisation Scheme nor the site
	area and will remain as Pumping Station.

## (K) Chimney and its Flue

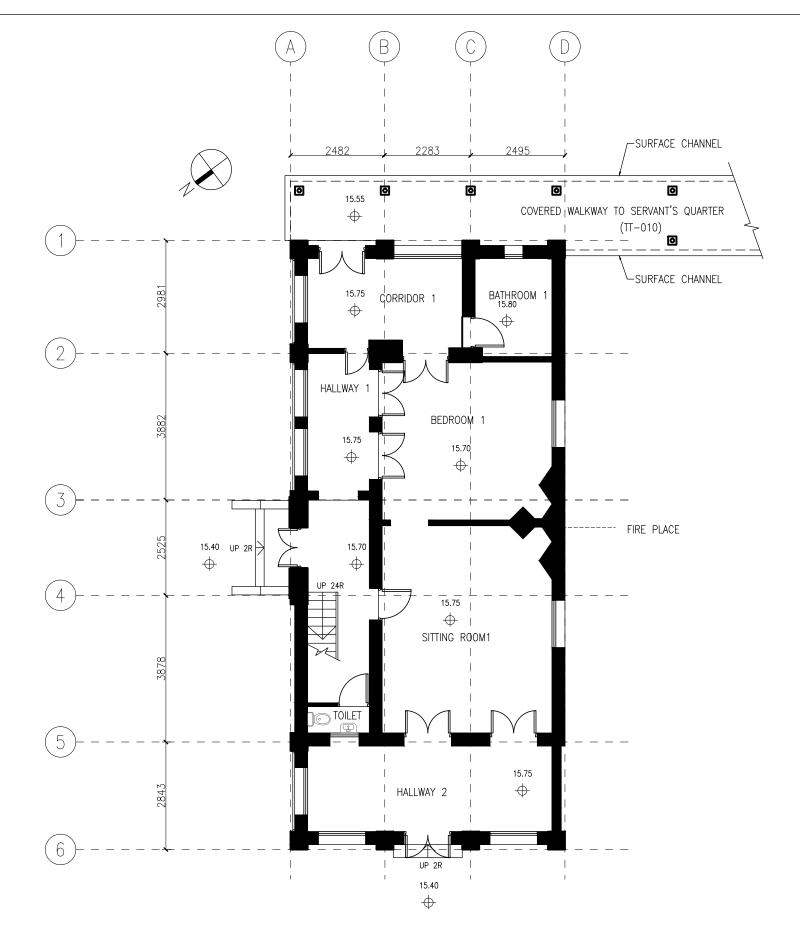
Year of Completion	1907
Site Area	N/A
Historic Grading	Declared Monument (Year 2009)
Original and Recent	Original: Chimney
Uses	Recent: Not in use
Remark:	The building do not form part of the Revitalisation Scheme nor the site
	area and will remain as Chimney Shaft and Flue.

## Appendix VI(A) Drawings and Perspectives

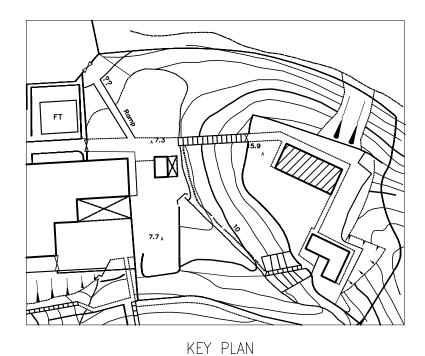
## Appendix VI(A) – Drawings and Perspectives <u>Drawing List</u>

	Drawing No.	Drawing Title
1	TT-01	Ground Floor Plan of Senior Staff Quarters – Main Building
2	TT-02	First Floor Plan of Senior Staff Quarters – Main Building
3	TT-03	Roof Floor Plan of Senior Staff Quarters – Main Building
4	TT -04	North East Elevation of Senior Staff Quarters – Main Building
5	TT -05	South West Elevation of Senior Staff Quarters – Main Building
6	TT -06	South East Elevation of Senior Staff Quarters – Main Building
7	TT -07	North West of Senior Staff Quarters – Main Building
8	TT -08	Section A-A of Senior Staff Quarters – Main Building
9	TT -09	Section B-B of Senior Staff Quarters – Main Building
10	TT -10	Ground Floor Plan of Senior Staff Quarters – Servant's Quarters
11	TT -11	Roof Floor Plan of Senior Staff Quarters – Servant's Quarters
12	TT -12	North East Elevation of Senior Staff Quarters – Servant's Quarters
13	TT -13	North West Elevation of Senior Staff Quarters – Servant's
		Quarters
14	TT -14	South West Elevation of Senior Staff Quarters – Servant's
		Quarters
15	TT -15	South East Elevation of Senior Staff Quarters – Servant's Quarters
16	TT -16	Section A-A of Senior Staff Quarters – Servant's Quarters
17	TT -17	Ground Floor Plan of Staff Quarter (Main Building and Store
		Building)
18	TT -18	First Floor Plan of Staff Quarter (Main Building and Store
		Building)
19	TT -19	North Elevation of Staff Quarter (Main Building)
20	TT -20	South Elevation of Staff Quarter (Main Building)
21	TT -21	East Elevation of Staff Quarter (Main Building)
22	TT -22	West Elevation of Staff Quarter (Main Building)
23	TT -23	South West Elevation of Staff Quarter (Store Building)
24	TT-24	North East Elevation of Staff Quarter (Store Building)
25	TT-25	South East Elevation of Staff Quarter (Store Building)
26	TT-26	North West Elevation of Staff Quarter (Store Building)
27	TT-27	Section A-A of Staff Quarter (Main Building and Store Building)
28	TT-28	Section B-B of Staff Quarter (Main Building and Store Building)

29	TT-29	Ground Floor Plan of No.2 Staff Quarters & No.2 Staff Quarters
		Outbuilding
30	TT-30	First Floor Plan of No.2 Staff Quarters & No.2 Staff Quarters
		Outbuilding
31	TT-31	South Elevation of No.2 Staff Quarters
32	TT-32	North Elevation of No.2 Staff Quarters
33	TT-33	East Elevation of No.2 Staff Quarters
34	TT-34	West Elevation of No.2 Staff Quarters
35	TT-35	West Elevation of No.2 Staff Quarters-Outbuilding
36	TT-36	North Elevation of No.2 Staff Quarters-Outbuilding
37	TT-37	East Elevation of No.2 Staff Quarters-Outbuilding
38	TT-38	South Elevation of No.2 Staff Quarters-Outbuilding
39	TT-39	Section A-A of No.2 Staff Quarters
40	TT -40	Plan of Garage
41	TT -41	North Elevation of Garage
42	TT -42	East Elevation of Garage
43	TT -43	South Elevation of Garage
44	TT -44	West Elevation of Garage
45	TT -45	Section A-A of Garage
46	TT -46	Section B-B of Garage
47	TT -47	East Elevation of Underground Cellar
48	TT -48	Ground Floor Plan of Main Building of Pumping Station
49	TT -49	Section C-C of Main Building of Pumping Station
50	TT -50	Plan (Part A) of Chimney Shaft and Its Flue
51	TT -51	Plan (Part B) of Chimney Shaft and Its Flue
52	TT -52	Sections of Chimney Shaft and Its Flue
53	TT -53	Elevation D-D Chimney Shaft and Its Flue
54	TTT-4PR-4	3D Perspective 01
	101	
55	TTT-4PR-4	3D Perspective 02
	102	
56	TTT-4PR-4	3D Perspective 03
	103	



**GROUND FLOOR PLAN** 







Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

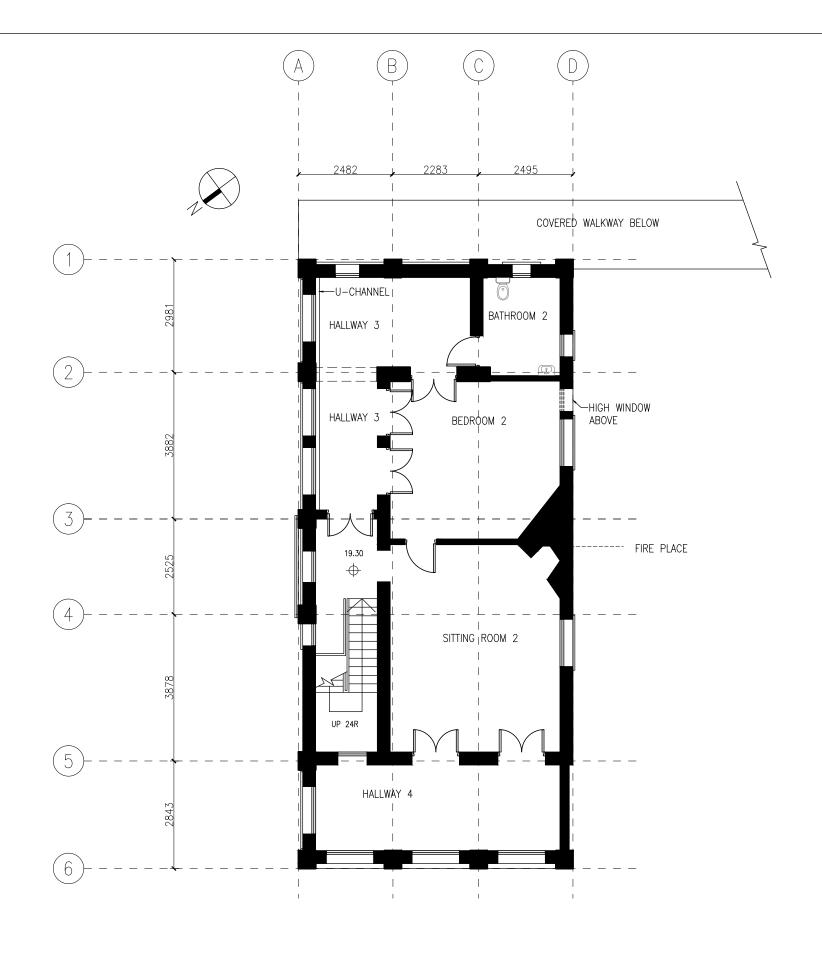
GROUND FLOOR PLAN OF SENIOR STAFF QUARTERS - MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-01





#### FIRST FLOOR PLAN



ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

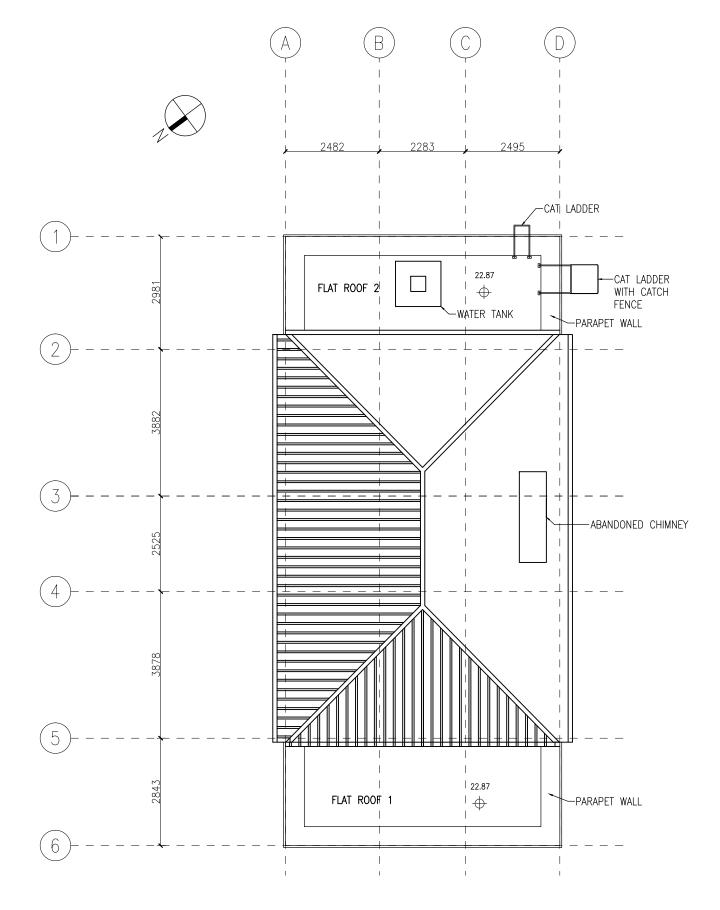
FIRST FLOOR PLAN OF SENIOR STAFF QUARTERS -MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-02





ROOF PLAN





Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

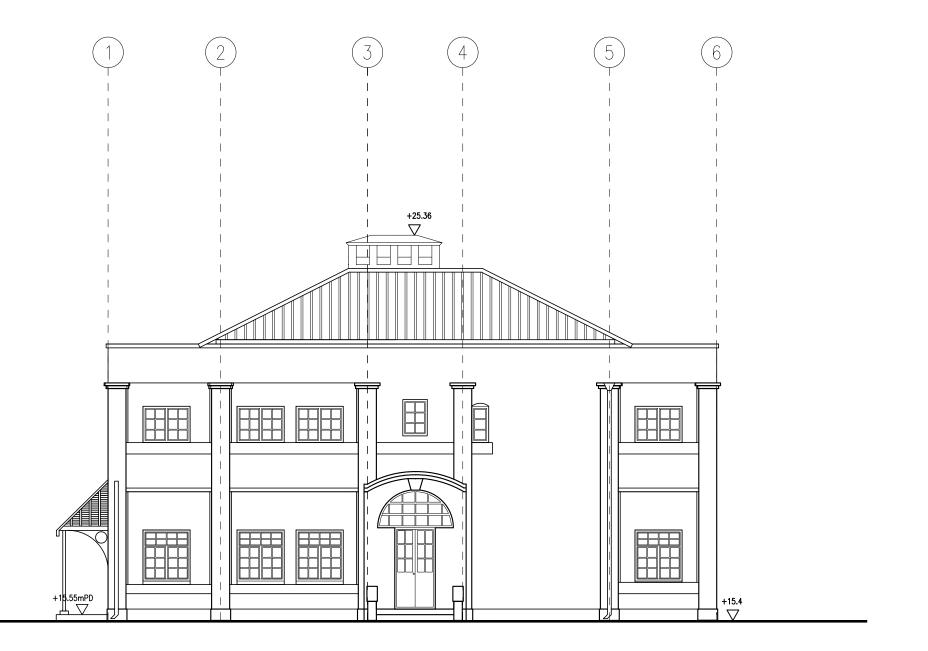
STATUS:

ROOF FLOOR PLAN OF SENIOR STAFF QUARTERS - MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

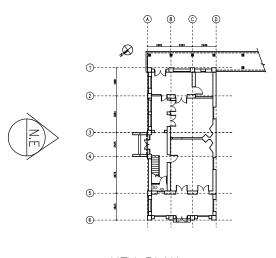
HRT-04-2019 Drawing No.





## NORTH EAST ELEVATION





KEY PLAN



ARCHITECTURAL SERVICES DEPARTMENT



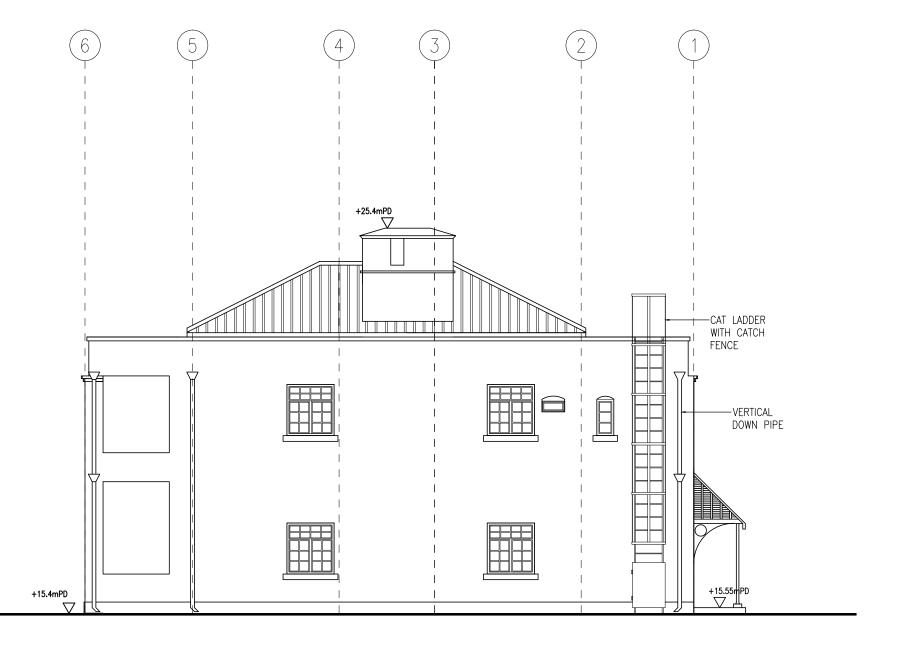
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

NORTH EAST ELEVATION OF SENIOR STAFF QUARTERS -MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

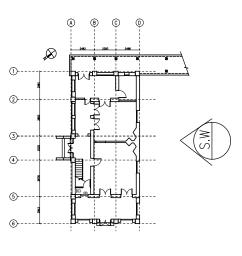
HRT-04-2019 Drawing No.

TT-04



## SOUTH WEST ELEVATION





KEY PLAN



ARCHITECTURAL SERVICES DEPARTMENT



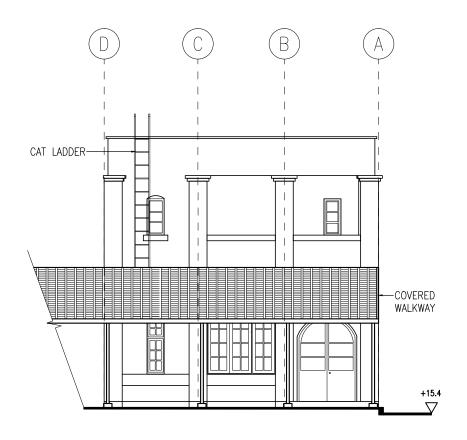
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

SOUTH WEST ELEVATION OF SENIOR STAFF QUARTERS -MAIN BUILDING

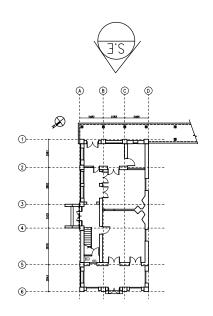
DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-05



SOUTH EAST ELEVATION



KEY PLAN





Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

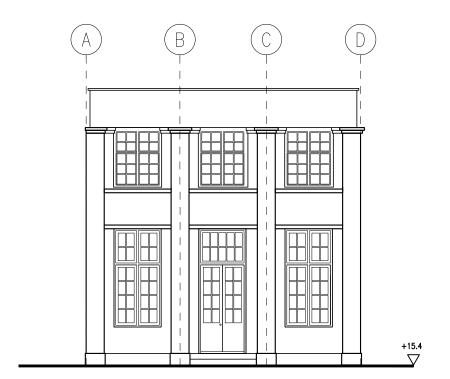
SOUTH EAST ELEVATION OF SENIOR STAFF QUARTERS - MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

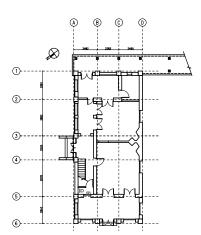
HRT-04-2019 Drawing No.

TT-06





NORTH WEST ELEVATION





KEY PLAN





Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

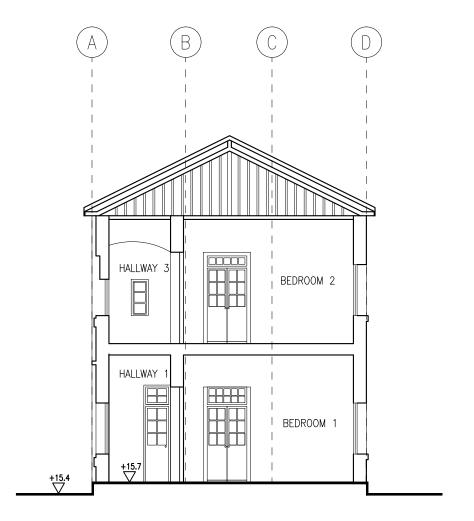
NORTH WEST ELEVATION OF SENIOR STAFF QUARTERS -MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

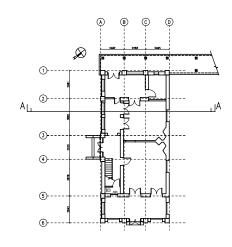
HRT-04-2019 Drawing No.

TT-07





SECTION A-A



KEY PLAN





Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

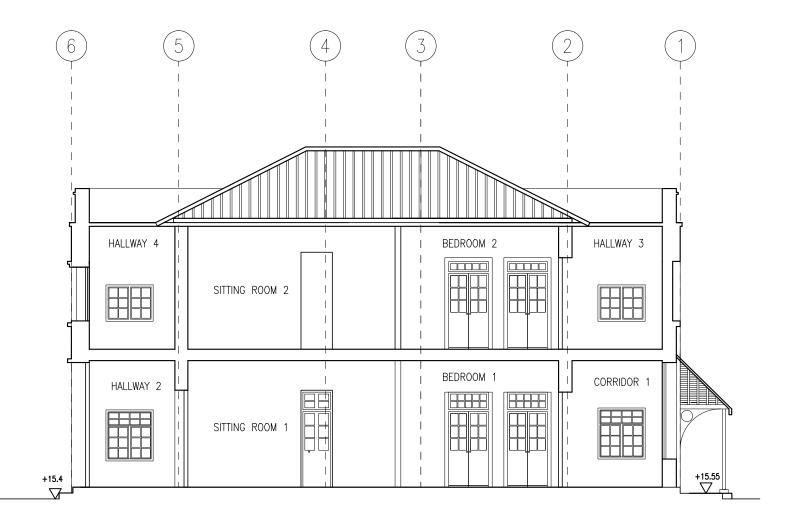
Drawing Title
SECTION A-A OF SENIOR STAFF QUARTERS MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

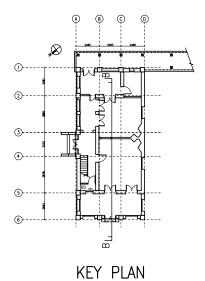
HRT-04-2019 Drawing No.

TT-08





#### SECTION B-B







ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

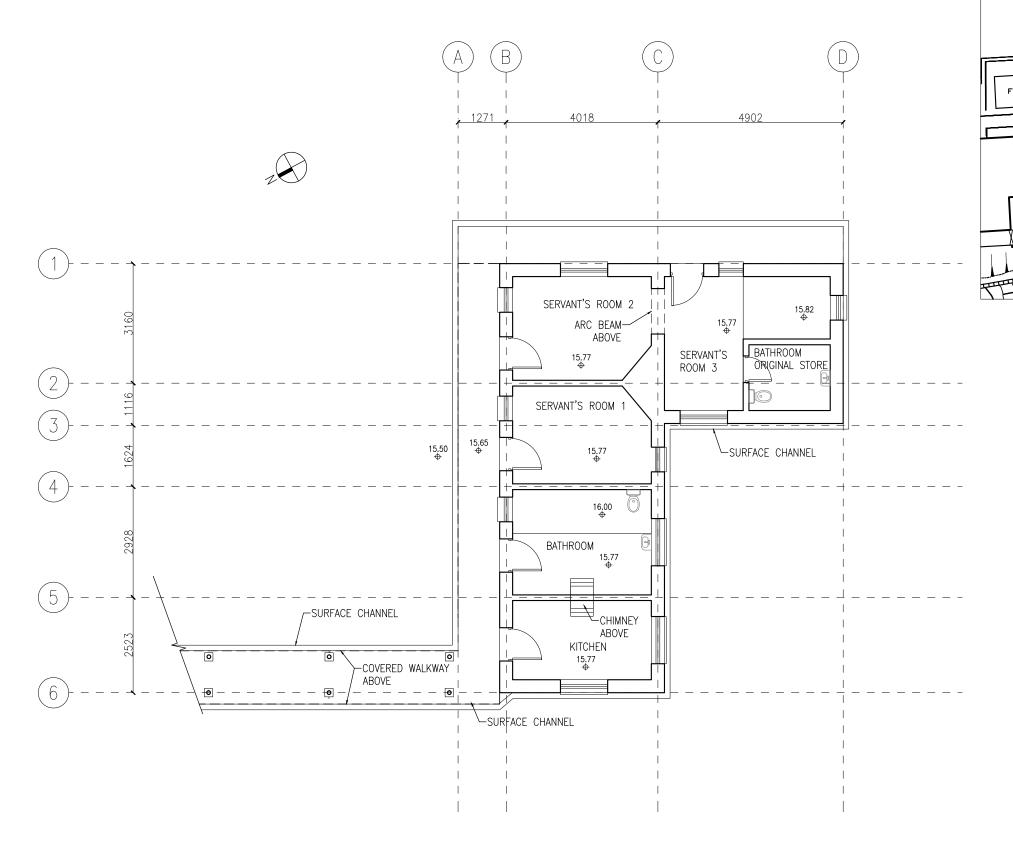
SECTION B-B OF SENIOR STAFF QUARTERS MAIN BUILDING

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-09





#### GROUND FLOOR PLAN



KEY PLAN

 $\bigotimes^{\nu}$ 

ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

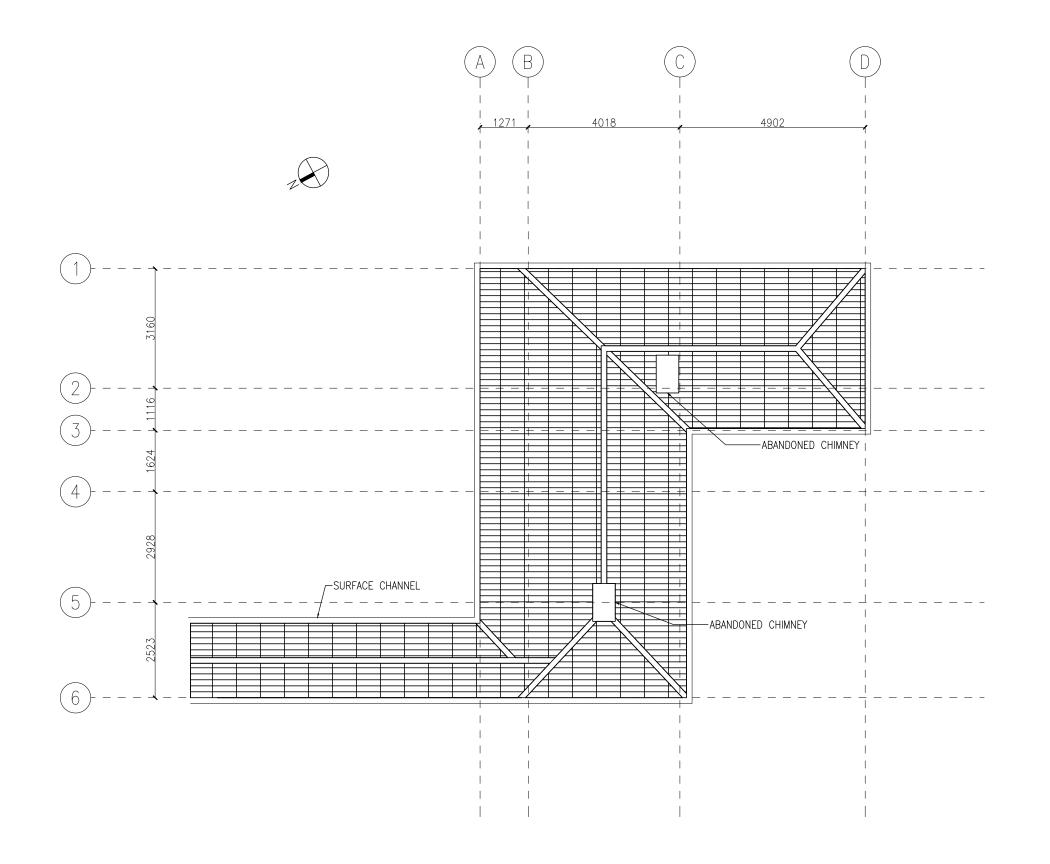
GROUND FLOOR PLAN OF SENIOR STAFF QUARTERS - SERVANTS' QUARTERS

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-10











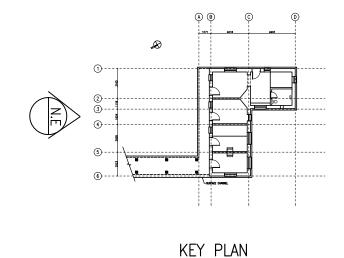
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

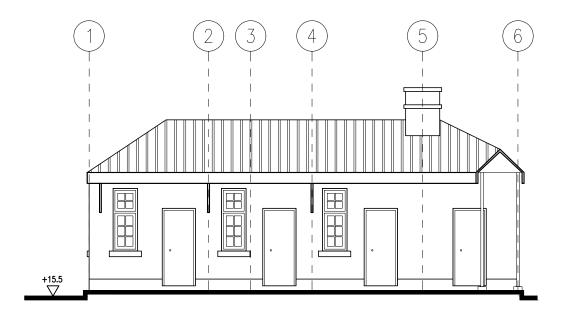
ROOF PLAN OF SENIOR STAFF QUARTERS - SERVANTS' QUARTERS

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019		DEGIGITED	NL	1:100 (A3)

HRT-04-2019 Drawing No.







## NORTH EAST ELEVATION



ARCHITECTURAL SERVICES DEPARTMENT



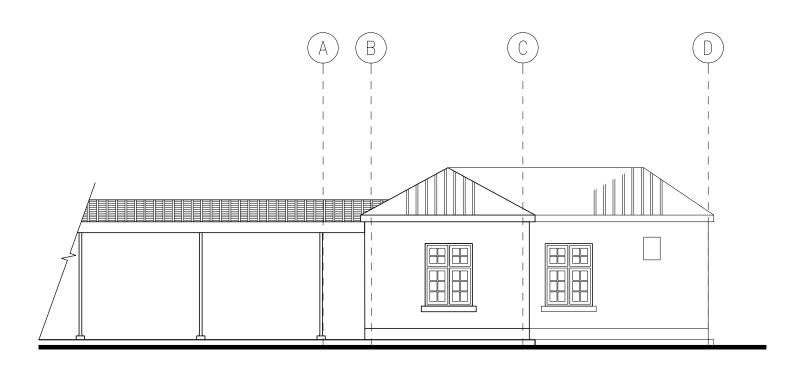
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

NORTH EAST ELEVATION OF SENIOR STAFF QUARTERS -SERVANTS' QUARTERS

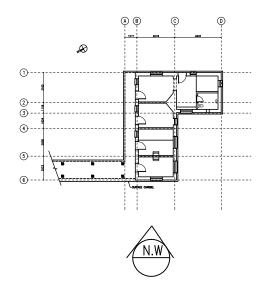
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07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.









KEY PLAN





Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

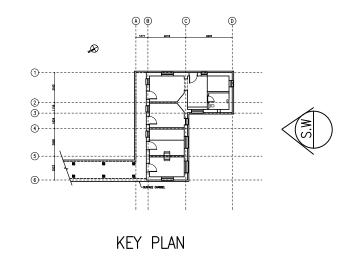
NORTH WEST ELEVATION OF SENIOR STAFF QUARTERS - SERVANTS' QUARTERS

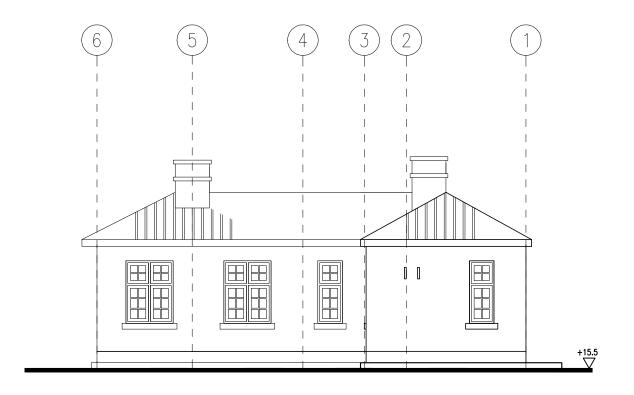
DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-13







## SOUTH WEST ELEVATION



ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

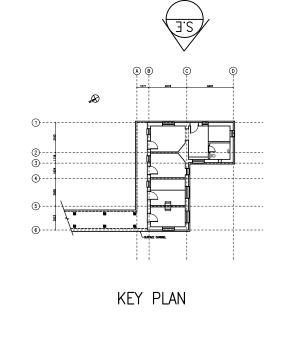
SOUTH WEST ELEVATION OF SENIOR STAFF QUARTERS - SERVANTS' QUARTERS

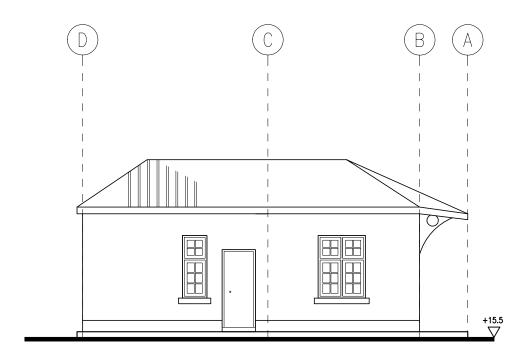
DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-14







## SOUTH EAST ELEVATION



ARCHITECTURAL SERVICES DEPARTMENT



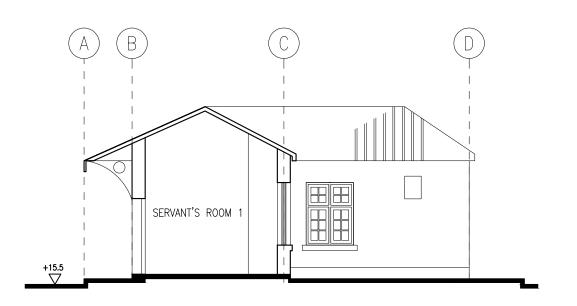
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

SOUTH EAST ELEVATION OF SENIOR STAFF QUARTERS -SERVANTS' QUARTERS

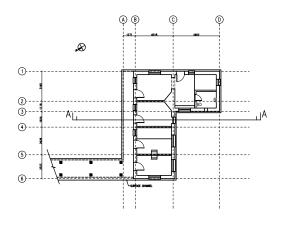
DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019		520101125	NL	1:100 (A3)

HRT-04-2019 Drawing No.





SECTION A-A



KEY PLAN





Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

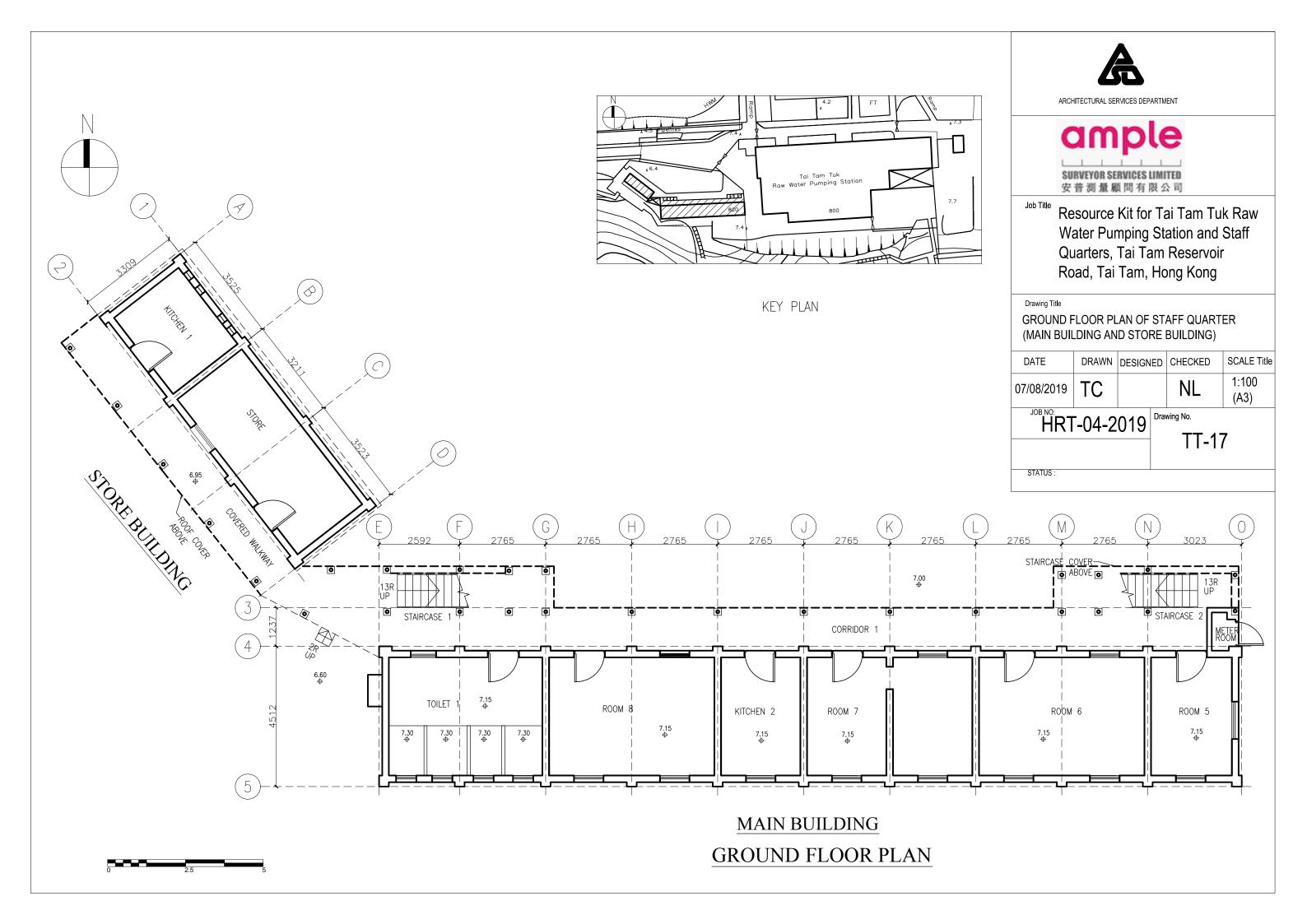
SECTION A-A OF SENIOR STAFF QUARTERS -SERVANTS' QUARTERS

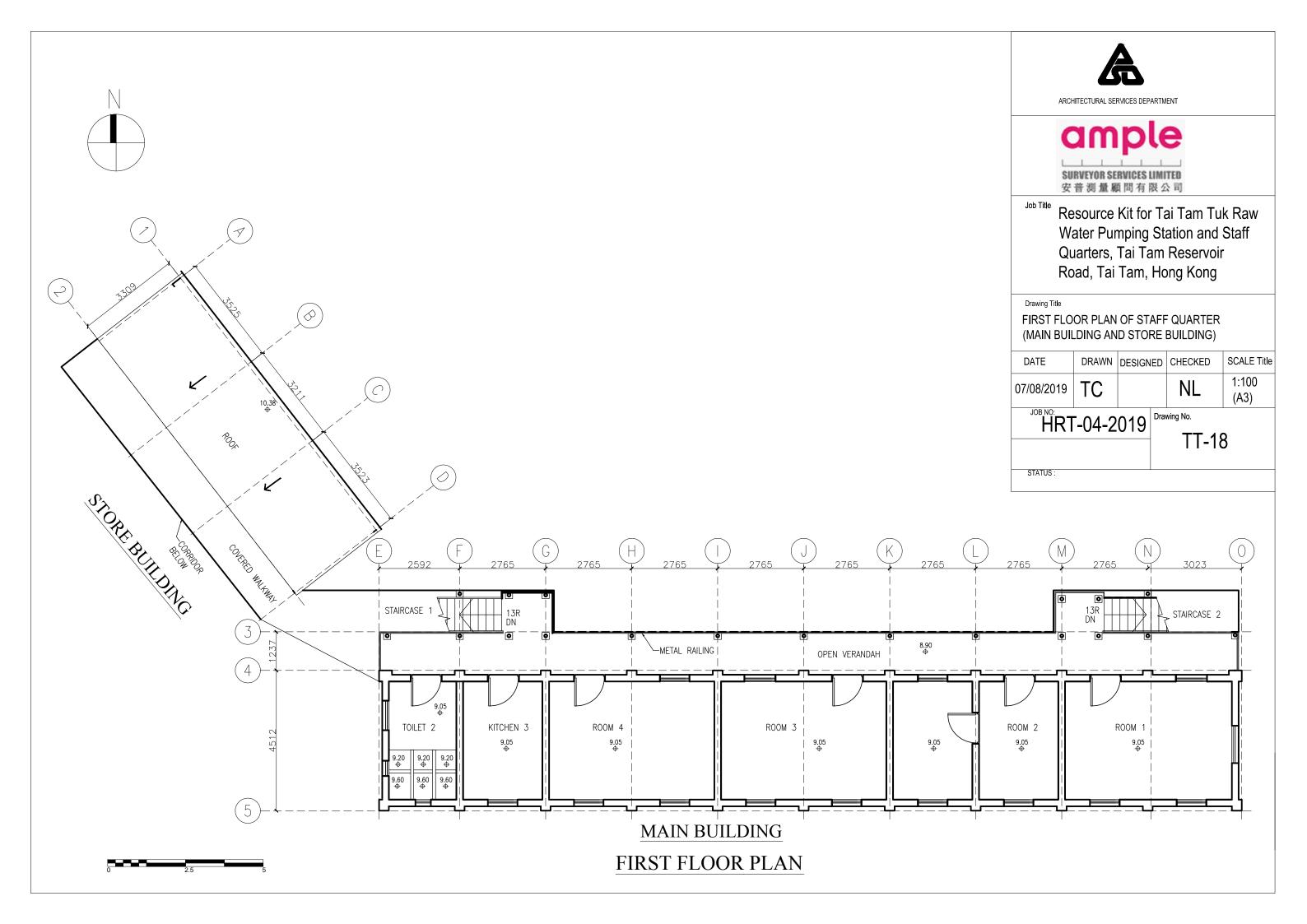
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07/08/2019	TC		NL	1:100 (A3)

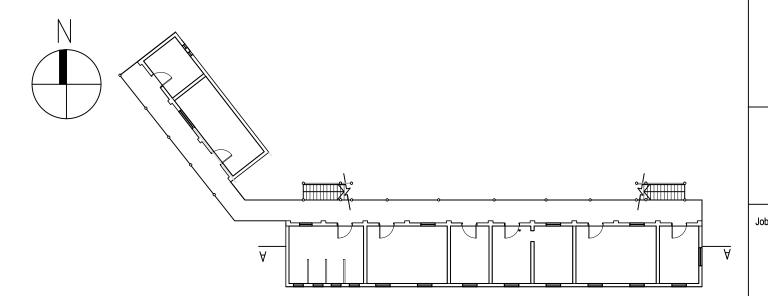
HRT-04-2019 Drawing No.

TT-16













Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

SECTION A-A OF STAFF QUARTER
(MAIN BUILDING AND STORE BUILDING)

DATE DRAWN DESIGNED CHECKED SCALE Title

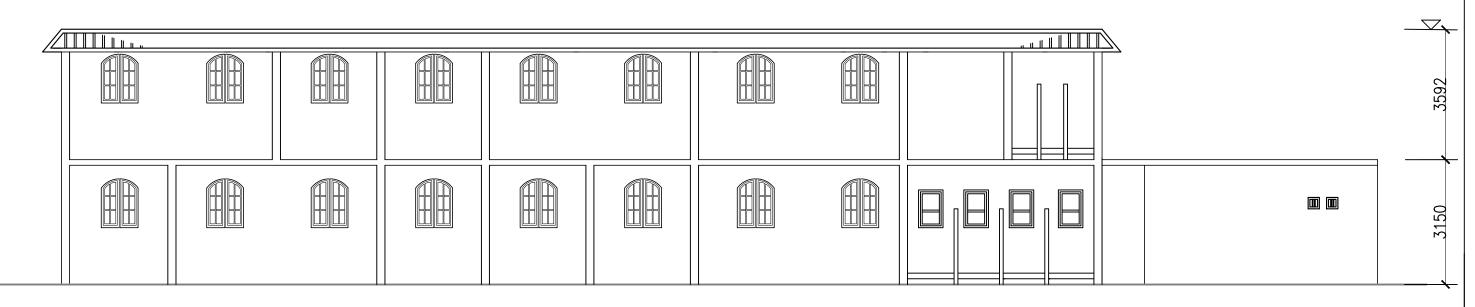
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JOB NO: HRT-04-2019

TT-18-S

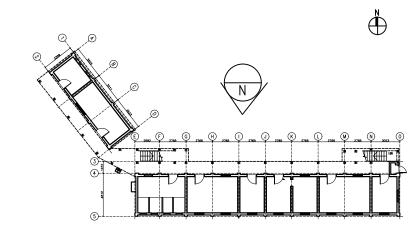
Drawing No.

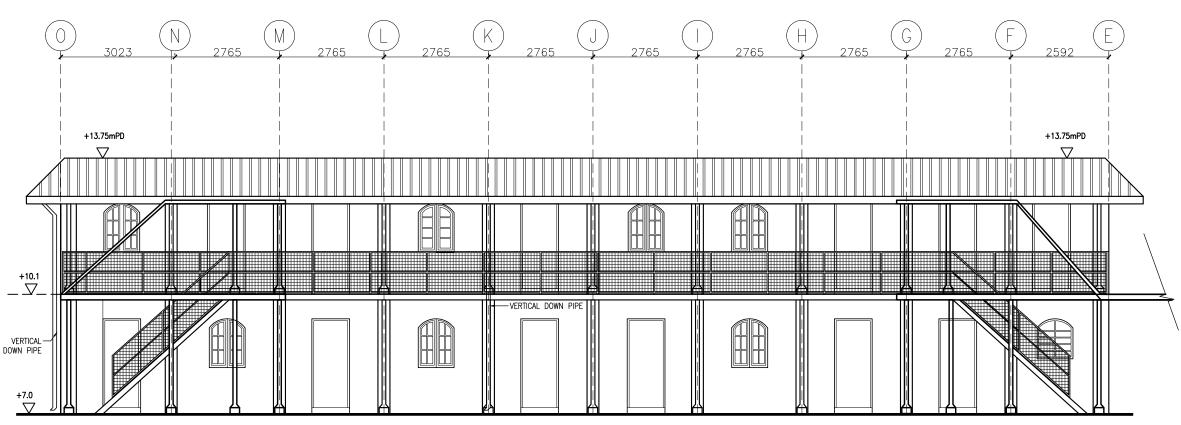
STATUS:



# SECTION A-A

SCALE: 1:100





MAIN BUILDING NORTH ELEVATION





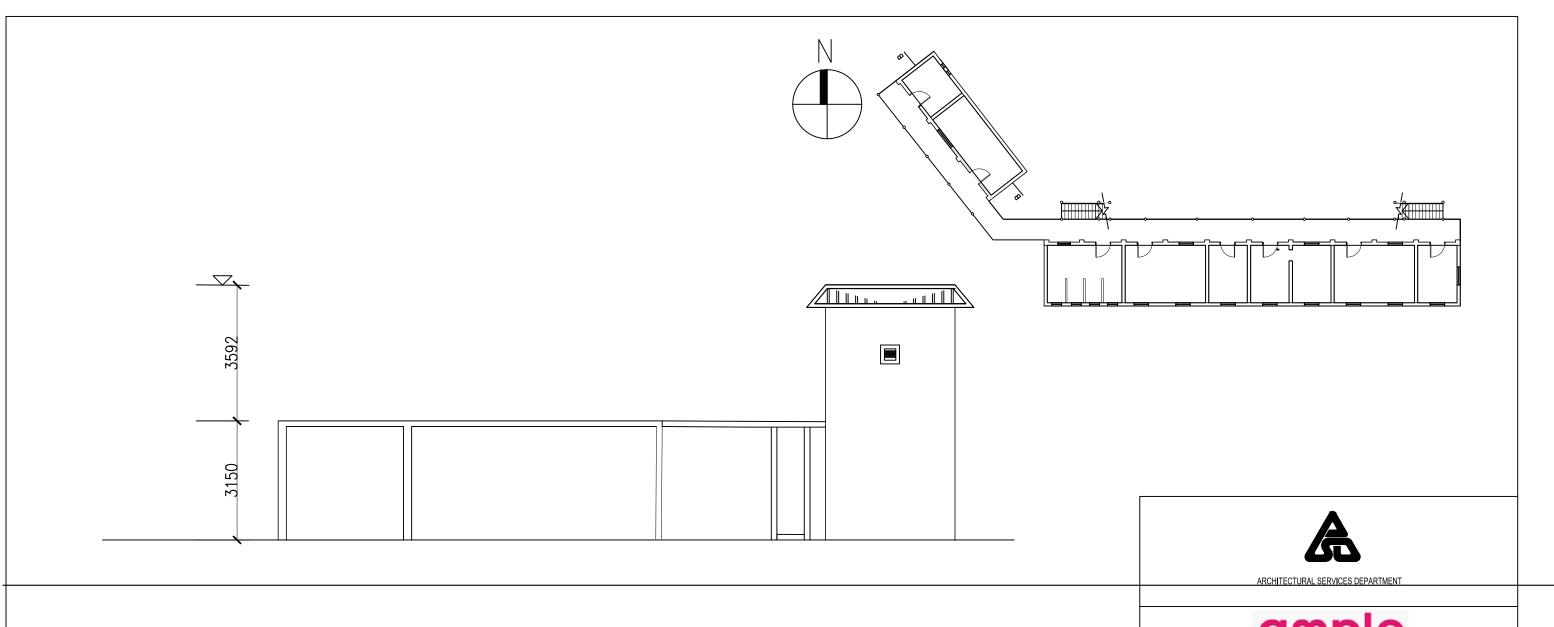
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

NORTH ELEVATION OF STAFF QUARTER (MAIN BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.





# SECTION B-B

SCALE: 1:100



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

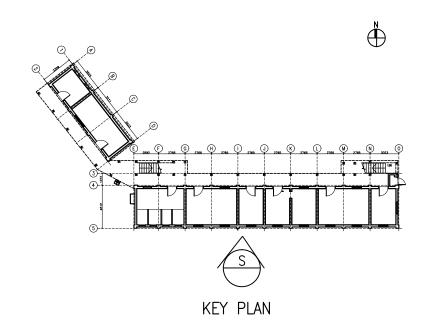
SECTION B-B OF STAFF QUARTER
(MAIN BUILDING AND STORE BUILDING

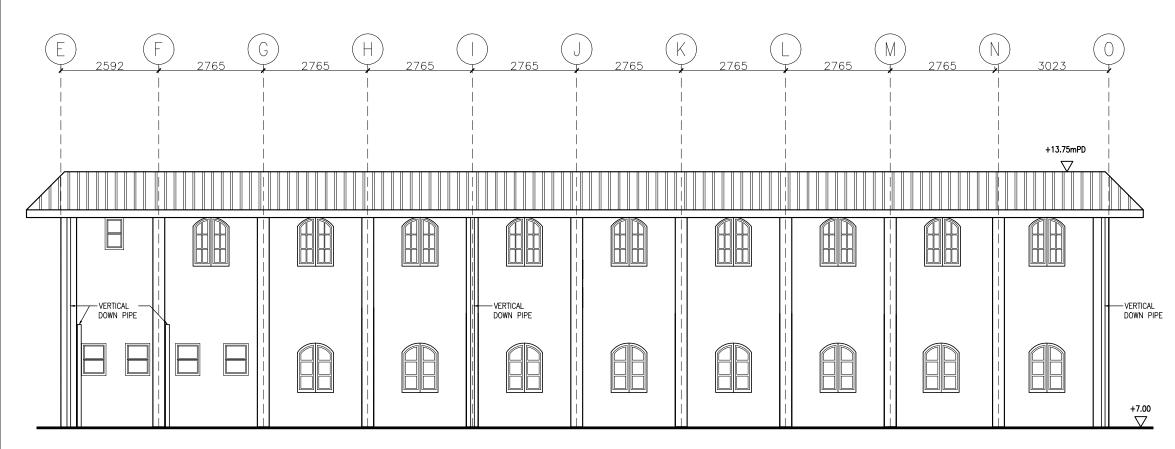
DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)
100.110				

HRT-04-2019

TT-19-S

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MAIN BUILDING SOUTH ELEVATION





ARCHITECTURAL SERVICES DEPARTMENT

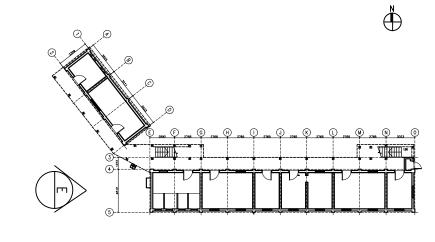


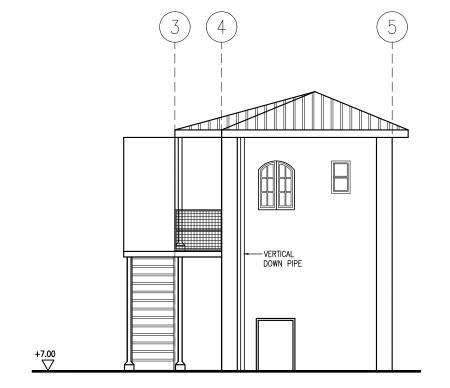
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

SOUTH ELEVATION OF STAFF QUARTER (MAIN BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)
IOD NO:				

HRT-04-2019 Drawing No.





MAIN BUILDING **EAST ELEVATION** 



ARCHITECTURAL SERVICES DEPARTMENT



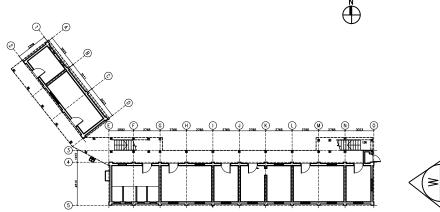
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

EAST ELEVATION OF STAFF QUARTER (MAIN BUILDING)

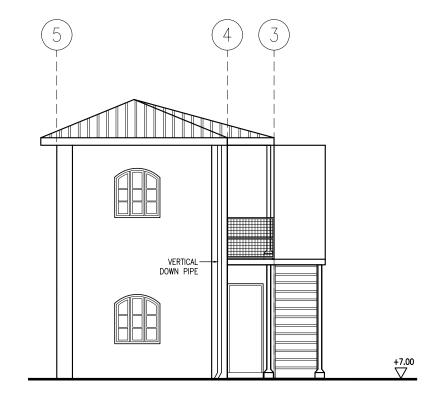
DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)
IOD NO.	•			

HRT-04-2019 Drawing No.









MAIN BUILDING WEST ELEVATION





ARCHITECTURAL SERVICES DEPARTMENT



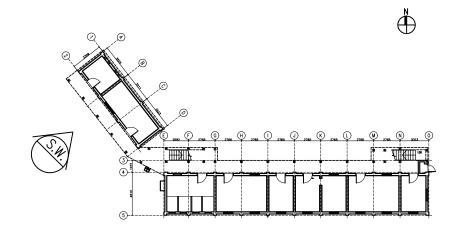
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

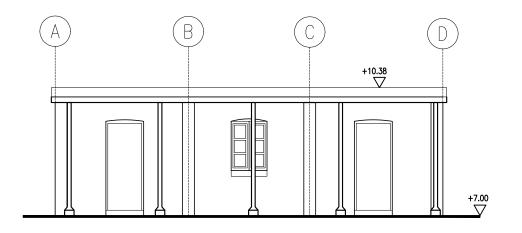
WEST ELEVATION OF STAFF QUARTER (MAIN BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.







STORE BUILDING SOUTH WEST ELEVATION





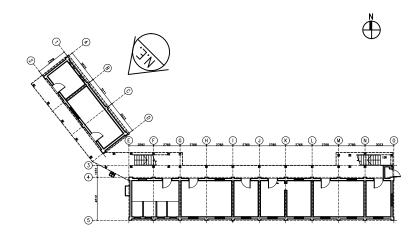
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

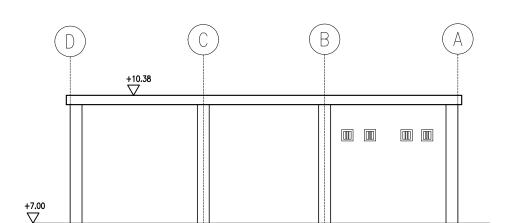
SOUTH WEST ELEVATION OF STAFF QUARTER (STORE BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.







STORE BUILDING NORHT EAST ELEVATION



ARCHITECTURAL SERVICES DEPARTMENT



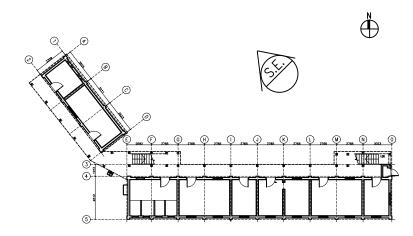
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

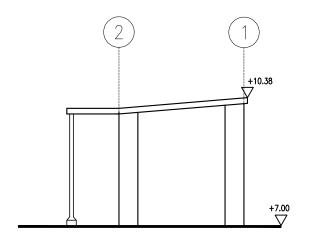
NORTH EAST ELEVATION OF STAFF QUARTER (STORE BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.







STORE BUILDING SOUTH EAST ELEVATION





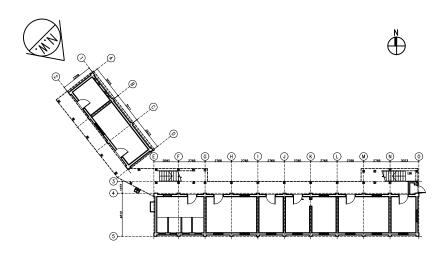
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

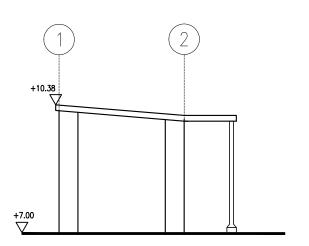
SOUTH EAST ELEVATION OF STAFF QUARTER (STORE BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.







STORE BUILDING NORHT WEST ELEVATION



ARCHITECTURAL SERVICES DEPARTMENT



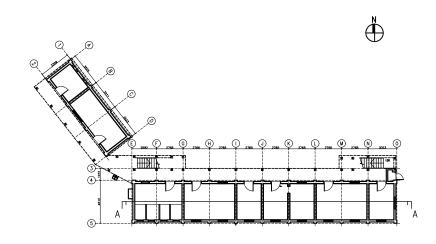
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

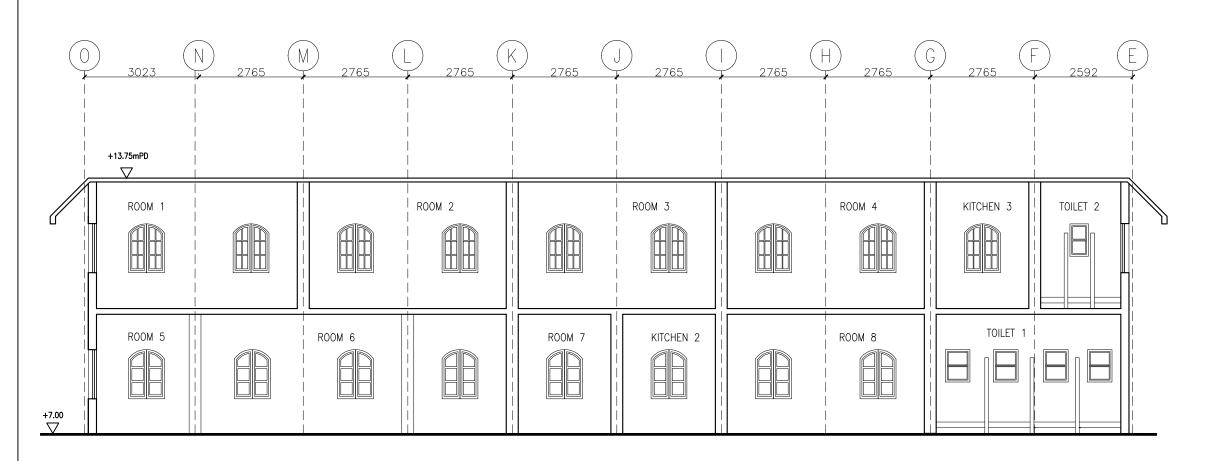
NORTH WEST ELEVATION OF STAFF QUARTER (STORE BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.







SECTION A-A



ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

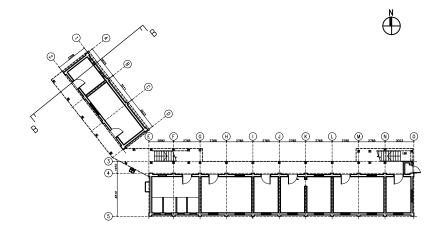
Drawing Title
SECTION A-A OF STAFF QUARTER
(MAIN BUILDING AND STORE BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)
IOB NO:				

HRT-04-2019 Drawing No.

ving No.
TT-27







SECTION B-B



ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

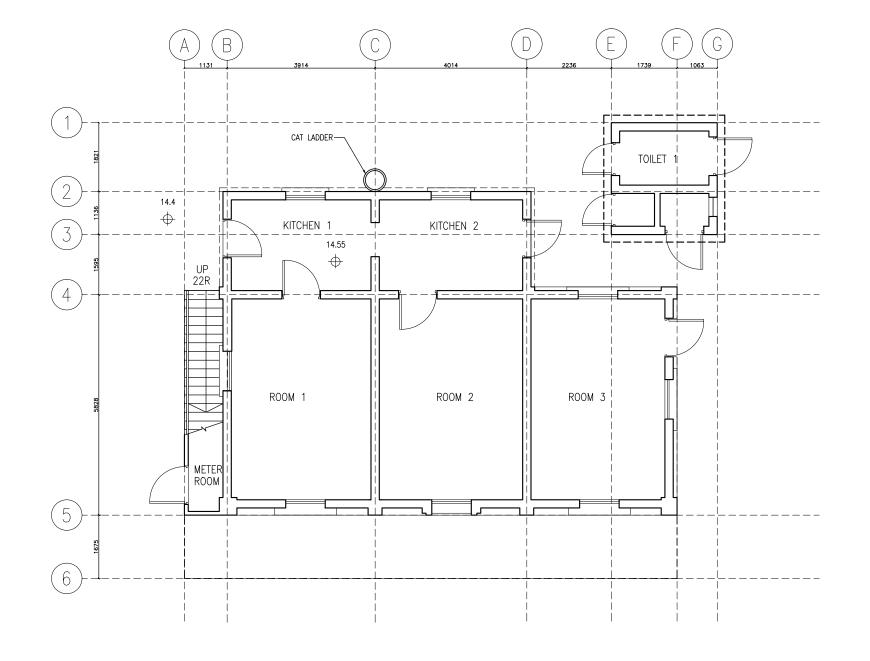
SECTION B-B OF STAFF QUARTER (MAIN BUILDING AND STORE BUILDING)

DATE	DRAWN	DESIGNED	CHECKED	SCALE Title
07/08/2019	TC		NL	1:100 (A3)

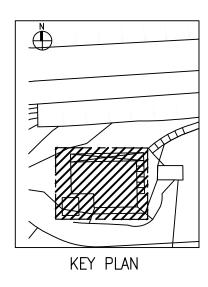
JOB NO: HRT-04-2019 Drawing No.















Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

GROUND FLOOR PLAN OF NO.2 STAFF QUARTERS & NO.2 STAFF QUARTERS-OUTBUILDING

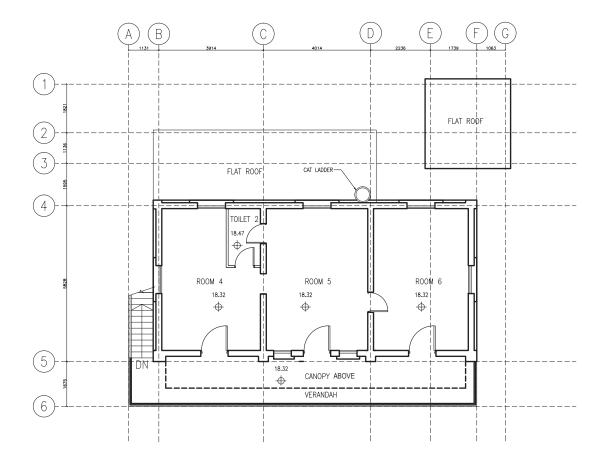
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-29







NO.2 STAFF QUARTERS
FIRST FLOOR PLAN



ARCHITECTURAL SERVICES DEPARTMENT

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

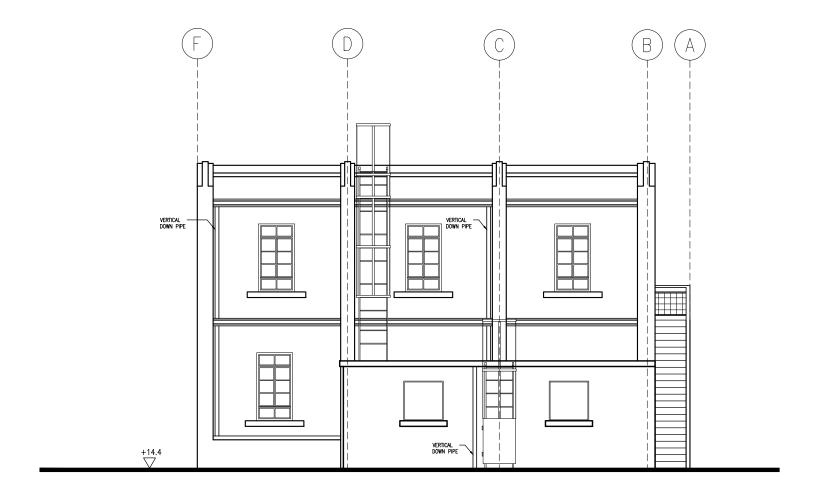
FIRST FLOOR PLAN OF NO.2 STAFF QUARTERS & NO.2 STAFF QUARTERS-OUTBUILDING

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

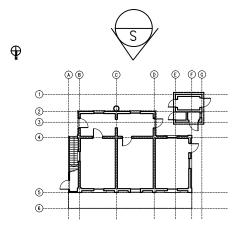
JOB NO: HRT-04-2019 Drawing No.

TT-30





NO.2 STAFF QUARTERS
SOUTH ELEVATION



KEY PLAN



ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title SOUTH ELEVATION OF NO.2 STAFF QUARTERS

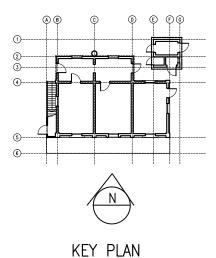
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

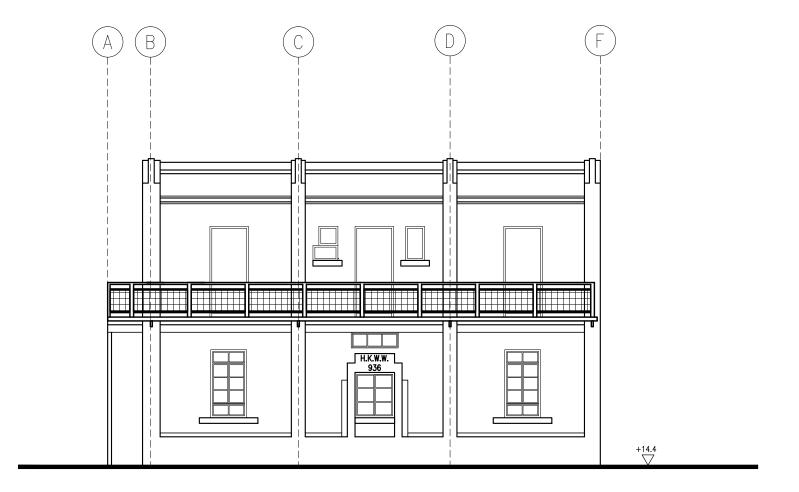
HRT-04-2019 Drawing No.

TT-31



4





NO.2 STAFF QUARTERS
NORTH ELEVATION



ARCHITECTURAL SERVICES DEPARTMENT



Resou

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

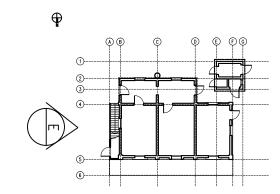
NORTH ELEVATION OF NO.2 STAFF QUARTERS

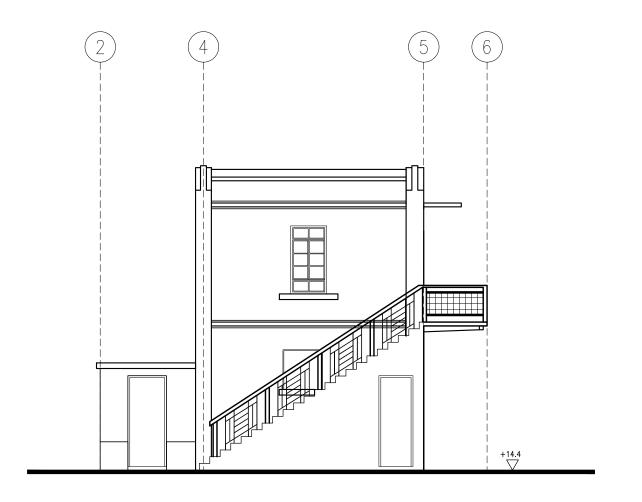
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07/08/2019	TC		NL	1:100 (A3)
IOD NO:				-

HRT-04-2019 Drawing No.

TT-32





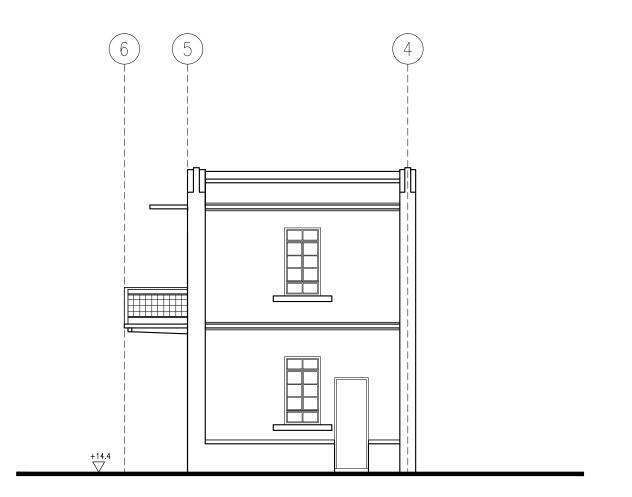


NO.2 STAFF QUARTERS
EAST ELEVATION



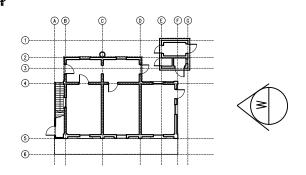
ARCHITECTURAL SERVICES DEPARTMENT





NO.2 STAFF QUARTERS WEST ELEVATION





KEY PLAN





Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

WEST ELEVATION OF NO.2 STAFF QUARTERS

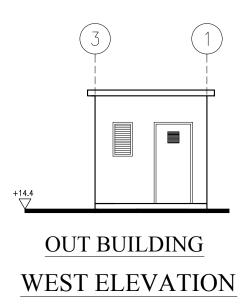
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

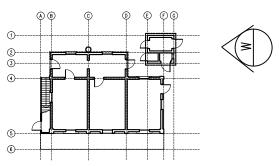
TT-34

STATU











ARCHITECTURAL SERVICES DEPARTMENT



loh Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

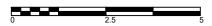
Drawing Title

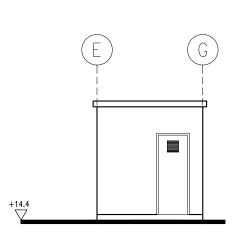
WEST ELEVATION OF NO.2 STAFF QUARTERS-OUT BUILDING

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

JOB NO: HRT-04-2019 Drawing No.

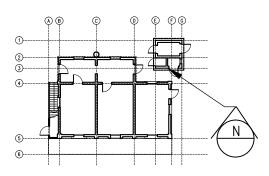
TT-35





OUT BUILDING
NORTH ELEVATION







ARCHITECTURAL SERVICES DEPARTMENT



loh Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

NORTH ELEVATION OF NO.2 STAFF QUARTERS-OUT BUILDING

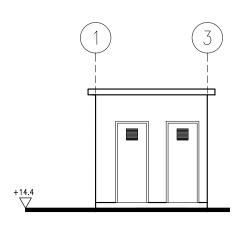
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

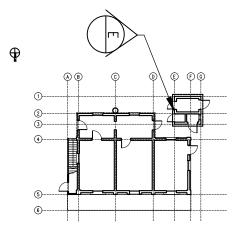
TT-36

. . .

0 2.5



OUT BUILDING
EAST ELEVATION





ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

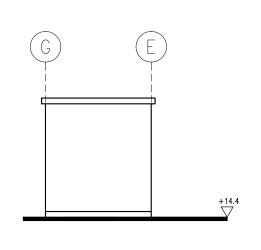
EAST ELEVATION OF NO.2 STAFF QUARTERS-OUT BUILDING

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

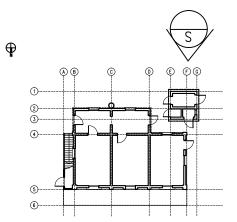
JOB NO: HRT-04-2019 Drawing No.

TT-37





OUT BUILDING SOUTH ELEVATION





ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

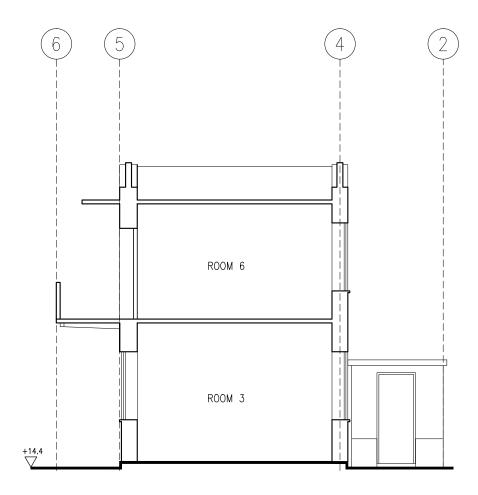
SOUTH ELEVATION OF NO.2 STAFF QUARTERS-OUT BUILDING

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

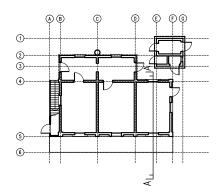
TT-38





NO.2 STAFF QUARTERS
SECTION A-A





KEY PLAN



ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

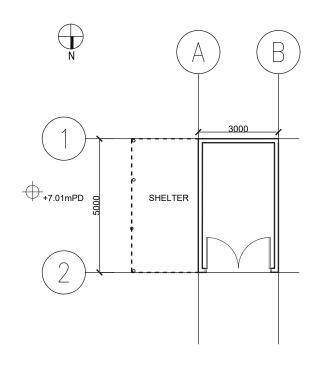
SECTION A-A OF NO.2 STAFF QUARTERS

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

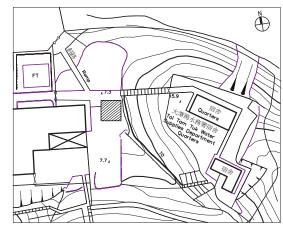
HRT-04-2019 Drawing No.

TT-39





PLAN OF GARAGE



KEY PLAN



ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

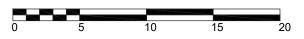
Drawing Title

#### PLAN OF GARAGE

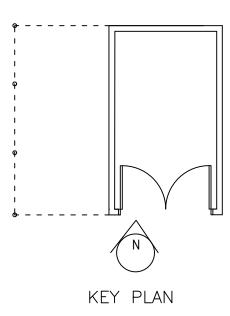
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07/08/2019	TC		NL	1:100 (A3)

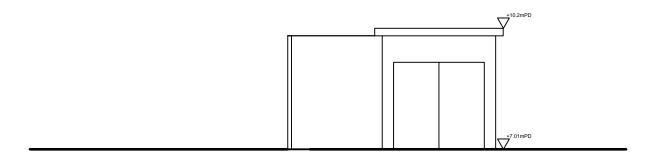
HRT-04-2019 Drawing No.

TT-40









## NORTH ELEVATION OF GARAGE



ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

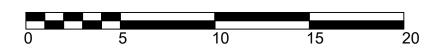
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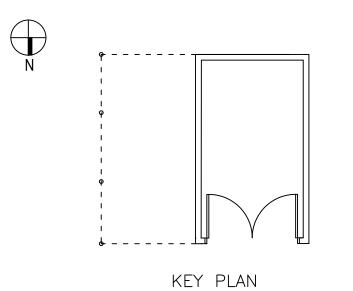
### NORTH ELEVATION OF GARAGE

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)
JOB NO:		Dea	urina Na	

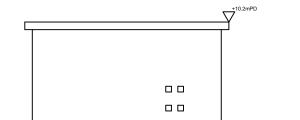
HRT-04-2019

TT-41









## EAST ELEVATION OF GARAGE



ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

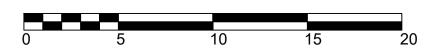
Drawing Title

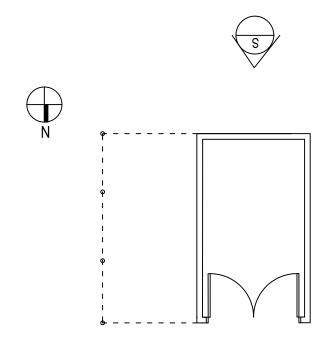
### EAST ELEVATION OF GARAGE

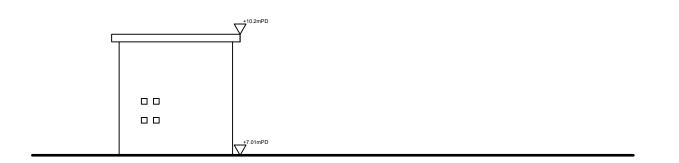
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-42







# SOUTH ELEVATION OF GARAGE



KEY PLAN

ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Ti

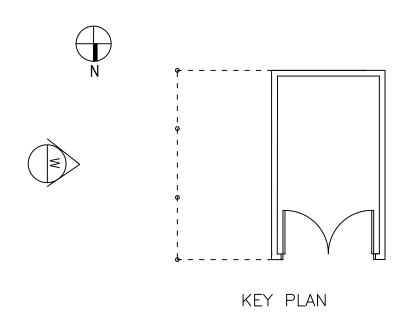
### SOUTH ELEVATION OF GARAGE

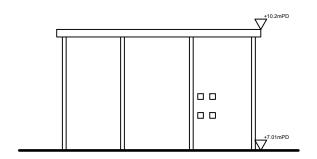
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)

HRT-04-2019 Drawing No.

TT-43







# WEST ELEVATION OF GARAGE



ARCHITECTURAL SERVICES DEPARTMENT



Job Title

Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

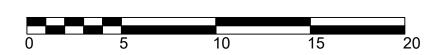
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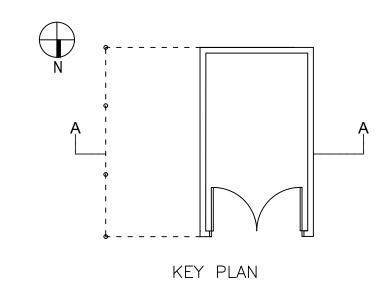
### WEST ELEVATION OF GARAGE

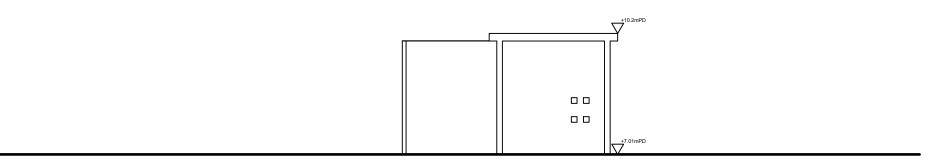
DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)
IOD NO:	•			<u> </u>

HRT-04-2019 Drawing No.

TT-44







# SECTION A-A OF GARAGE



ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

Drawing Title

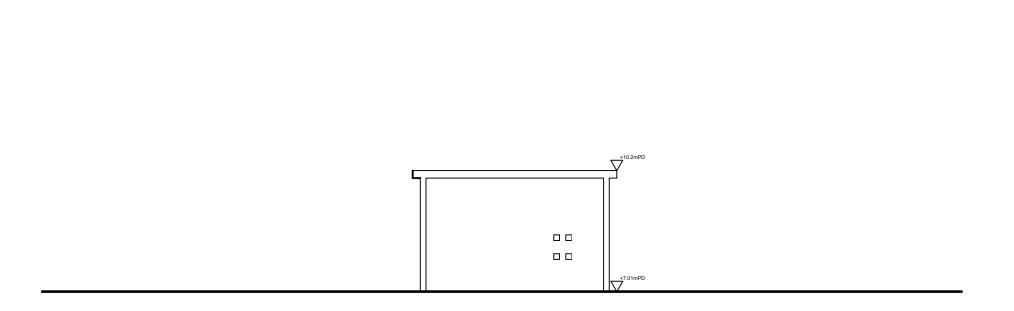
### SECTION A-A OF GARAGE

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)
IOB NO:				

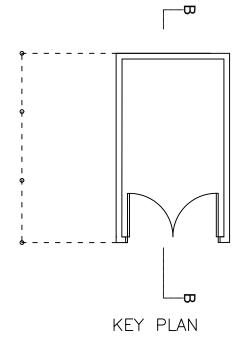
HRT-04-2019 Drawing No.

TT-45





# SECTION B-B OF GARAGE





ARCHITECTURAL SERVICES DEPARTMENT



Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

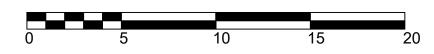
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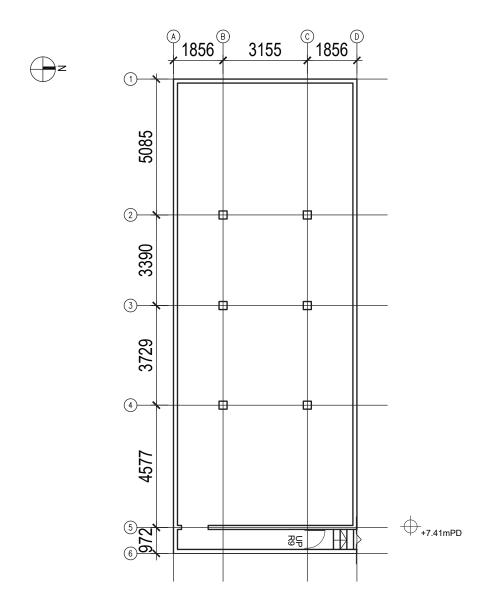
### SECTION B-B OF GARAGE

DATE	DRAWN	DESIGNED	CHECKED	
07/08/2019	TC		NL	1:100 (A3)
JOB NO:		Desi	uina Na	

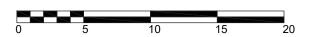
HRT-04-2019 Drawi

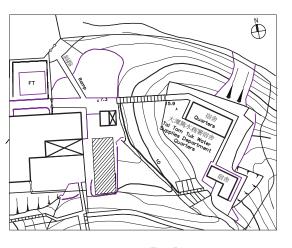
TT-46





### PLAN OF UNDERGROUND CELLAR





KEY PLAN





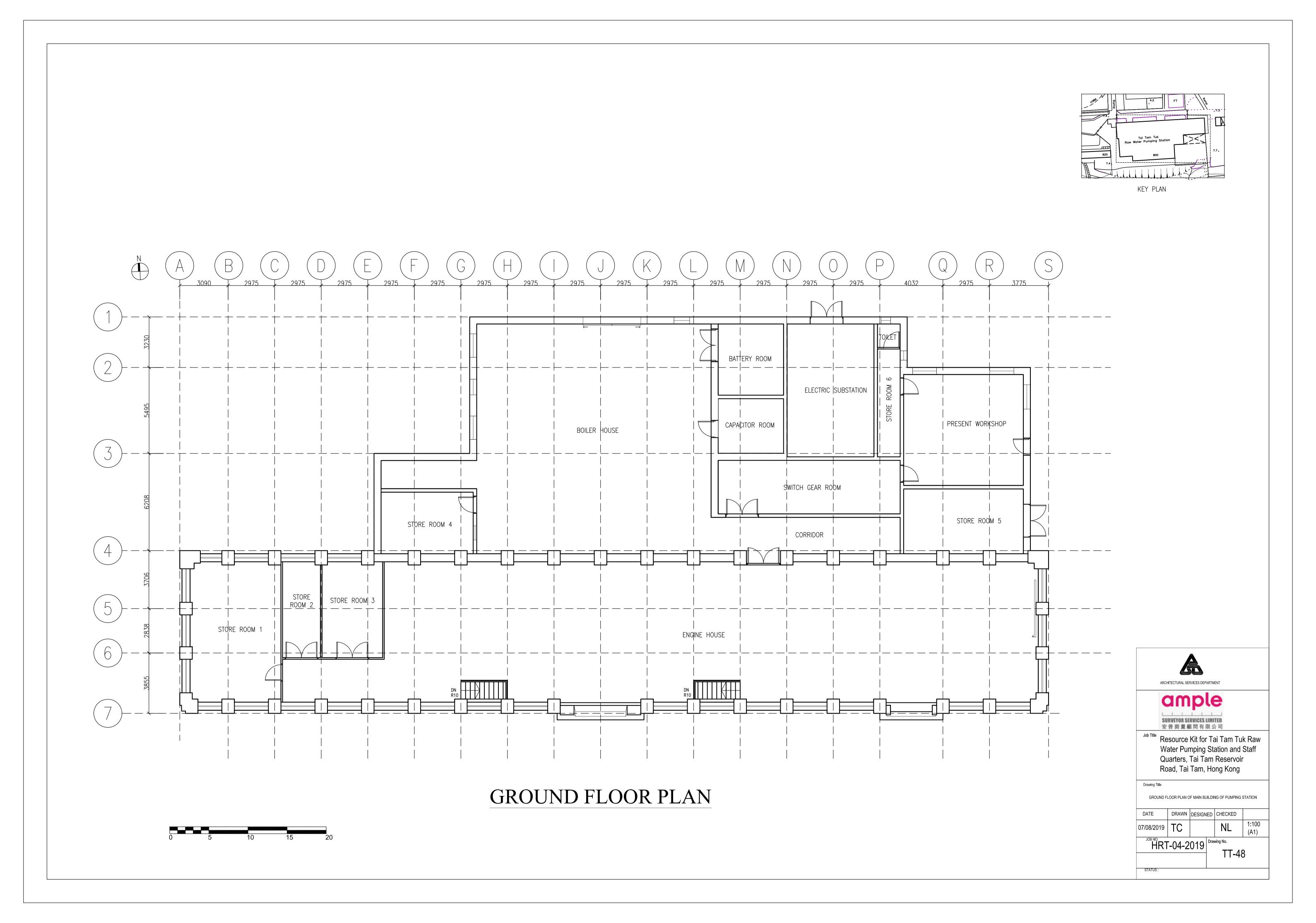
Resource Kit for Tai Tam Tuk Raw Water Pumping Station and Staff Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

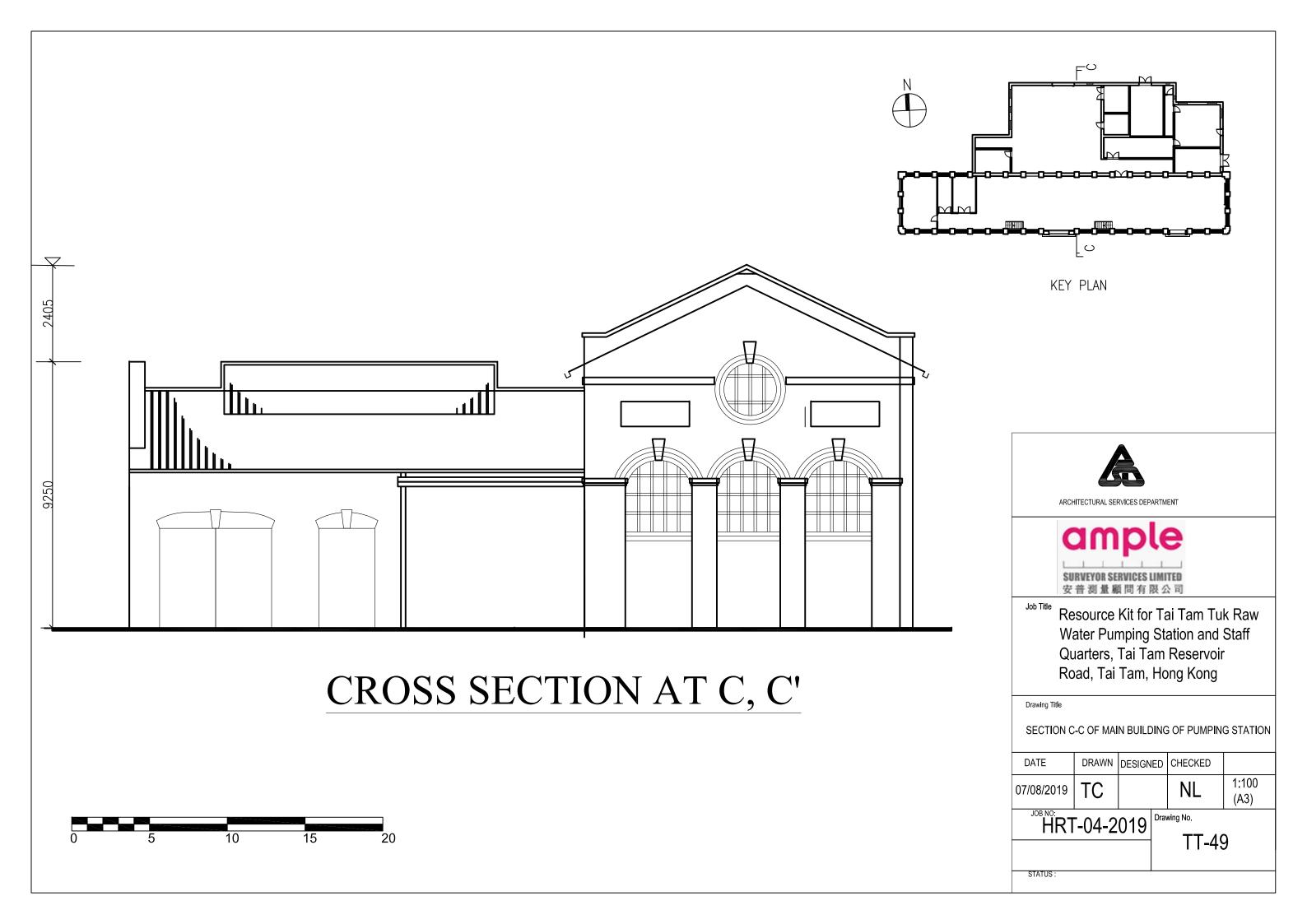
#### PLAN OF UNDERGROUND CELLAR

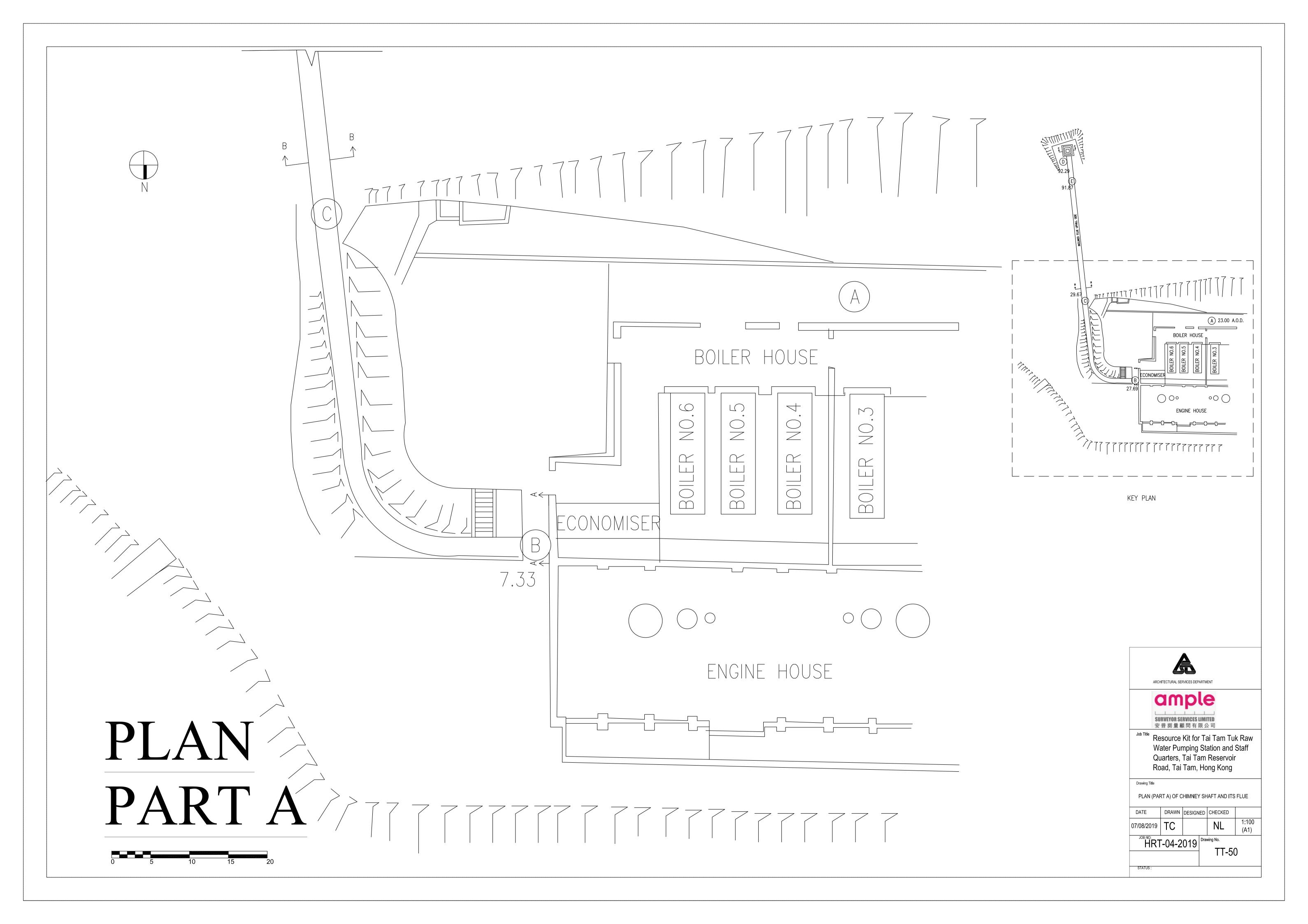
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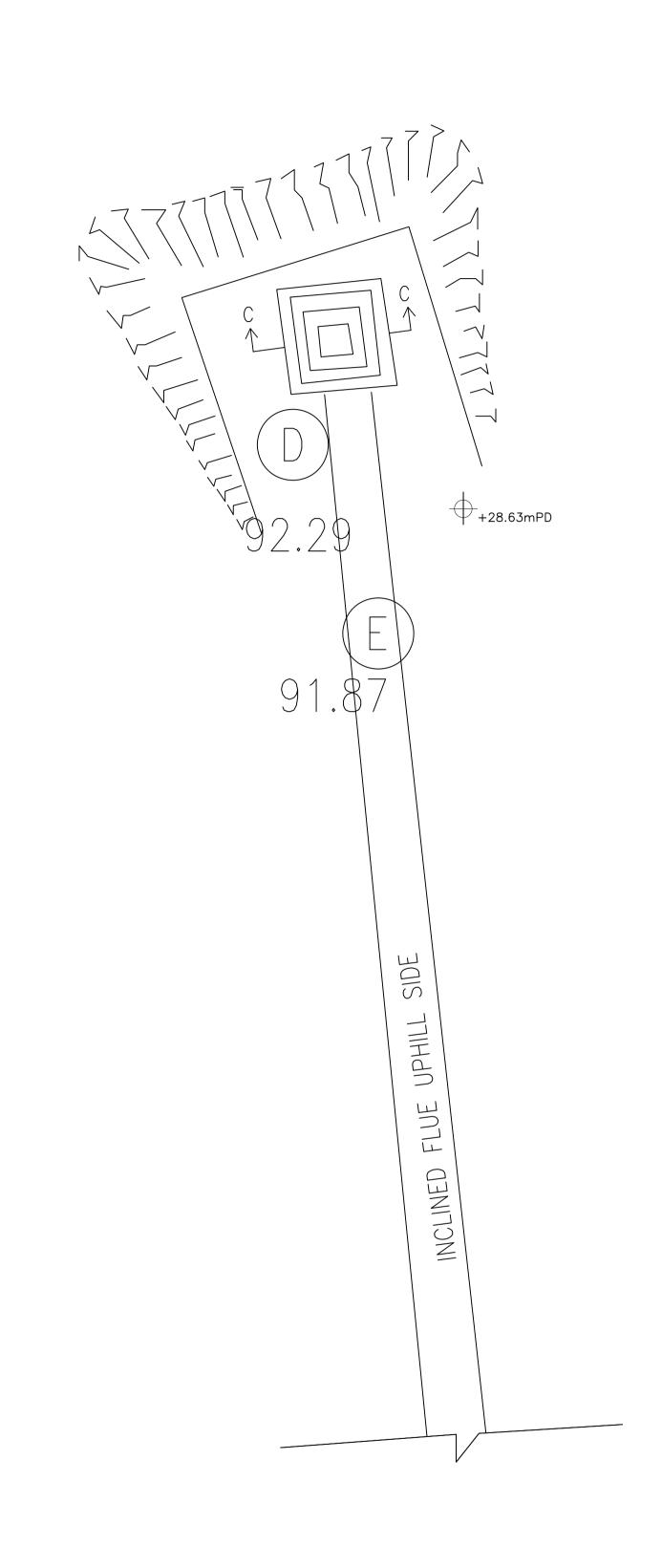
HRT-04-2019 Drawing No.

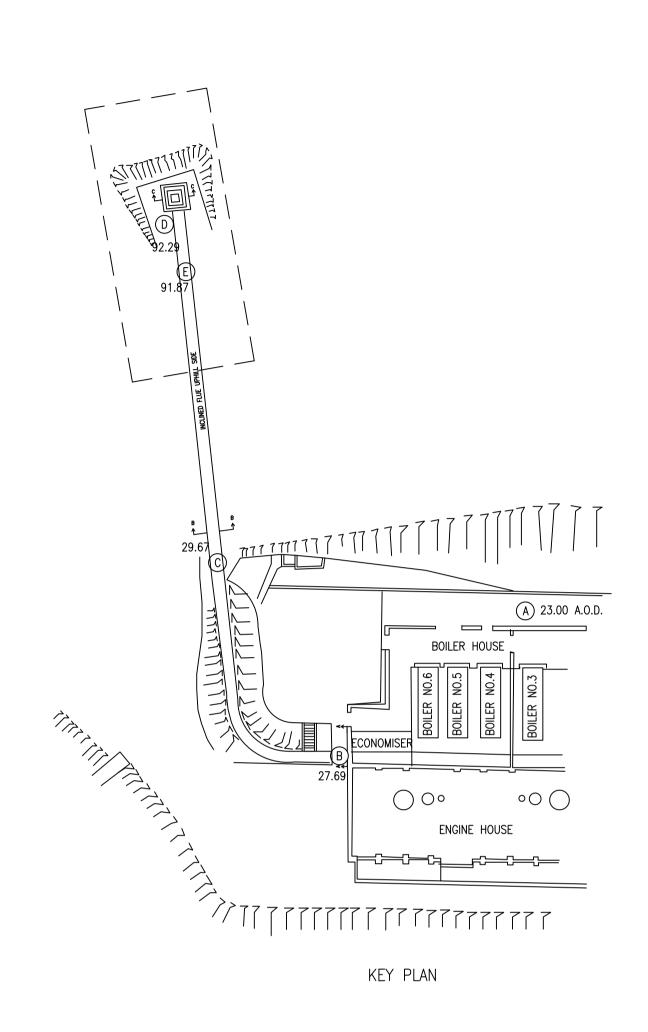
TT-47



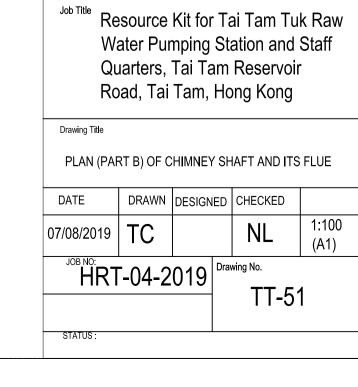








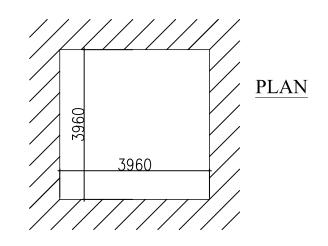




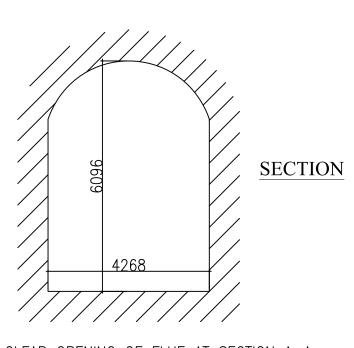
ARCHITECTURAL SERVICES DEPARTMENT

ample

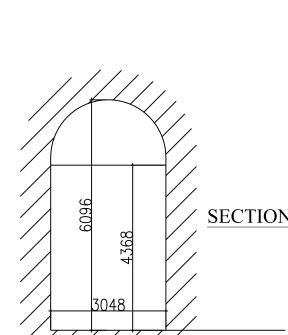
SURVEYOR SERVICES LIMITED 安普測量顧問有限公司



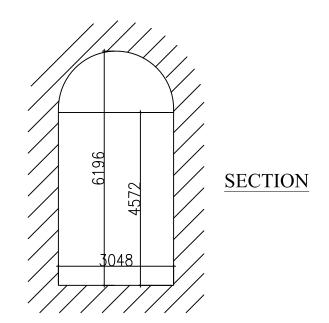
CLEAR OPENING OF SHAFT (CHIMNEY) AT BASE



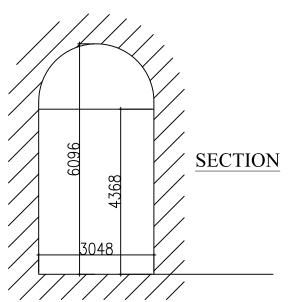
CLEAR OPENING OF FLUE AT SECTION A-A



CLEAR OPENING OF FLUE AT SECTION C-C



CLEAR OPENING OF FLUE AT SECTION B-B





KEY PLAN

DRAWN DESIGNED CHECKED DATE 1:100 NL07/08/2019 (A3)

SECTIONS OF CHIMNEY SHAFT AND ITS FLUE

ARCHITECTURAL SERVICES DEPARTMENT

ample

SURVEYOR SERVICES LIMITED

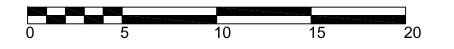
Resource Kit for Tai Tam Tuk Raw

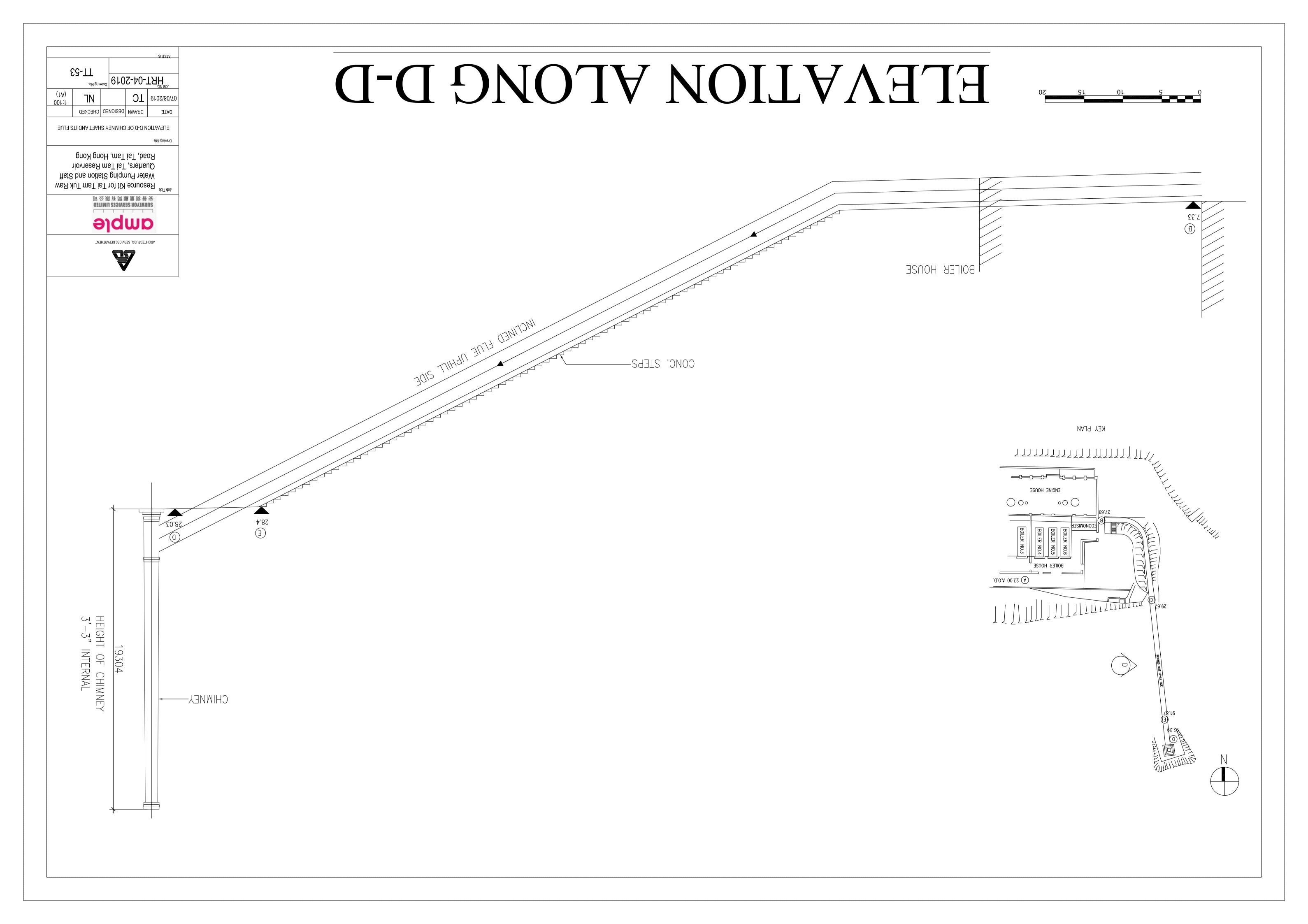
Water Pumping Station and Staff

Quarters, Tai Tam Reservoir Road, Tai Tam, Hong Kong

HRT-04-2019 Drawing No.

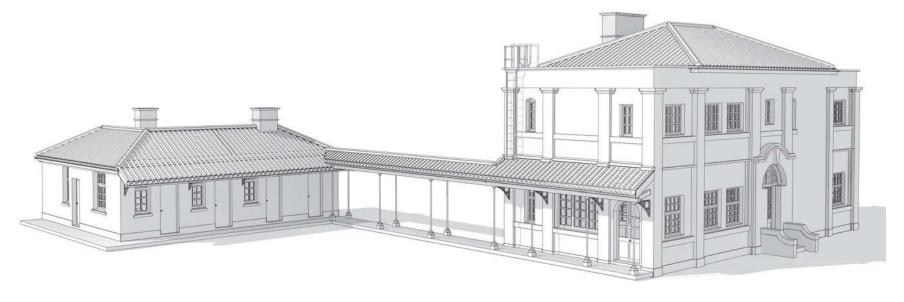
TT-52







TANG & AU LAND SURVEYORS LIMITED ROOM 502, KEADER CENTRE, NO.129 ON LOK ROAD, YUEN LONG, N.T.



0 2019.11.25 REVISIONS

DRAFT 1

PROJECT

MAKING OF COMPUTER 3D MODELS USING PHOTOGRAMMETRY / 3D LASER SCAN TAI TAM TUK RAW WATER PUMPING STATION AND STAFF QUARTERS

DRAWING TITLE
3D PERSPECTIVE 01

PROJECT NO. HRT-05/2019

SCALE CHECKED BY @ A3

APPROVED BY

DRAWING NO.

TTT-4PR-4101

ISSUE DATE 2019.11.25

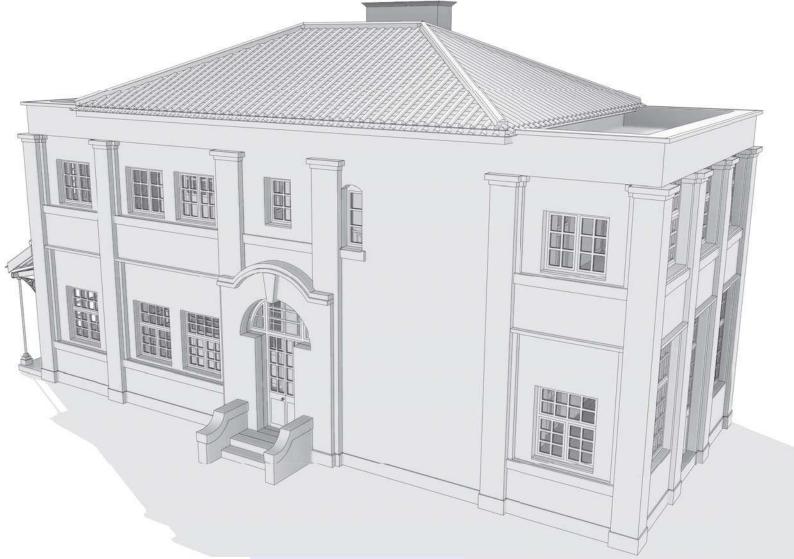
2019.11.xx

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SENIOR STAFF QUARTERS - 3D PERSPECTIVE 01



TANG & AU LAND SURVEYORS LIMITED ROOM 502, KEADER CENTRE, NO.129 ON LOK ROAD, YUEN LONG, N.T.



SENIOR STAFF QUARTERS - 3D PERSPECTIVE 02

0 2019.11.25 REVISIONS

DRAFT 1

PROJECT

MAKING OF COMPUTER 3D MODELS USING PHOTOGRAMMETRY / 3D LASER SCAN TAI TAM TUK RAW WATER PUMPING STATION AND STAFF QUARTERS

#### DRAWING TITLE 3D PERSPECTIVE 02

PROJECT NO. HRT-05/2019

2019.11.xx

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APPROVED BY

DRAWING NO.

TTT-4PR-4102

ISSUE DATE 2019.11.25

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ARCHITECTURAL SERVICES
DEPARTMENT PROPERTY SERVICES BRANCH

TANG & AU LAND SURVEYORS LIMITED ROOM 502, KEADER CENTRE, NO.129 ON LOK ROAD, YUEN LONG, N.T.

0 2019.11.26 REVISIONS

DRAFT 2

PROJECT

MAKING OF COMPUTER 3D MODELS USING PHOTOGRAMMETRY / 3D LASER SCAN TAI TAM TUK RAW WATER PUMPING STATION AND STAFF QUARTERS

DRAWING TITLE 3D PERSPECTIVE 03

PROJECT NO. HRT-05/2019

2019.11.xx

SCALE CHECKED BY @ A3

APPROVED BY

DRAWING NO.

TTT-4PR-4103

ISSUE DATE 2019.11.26

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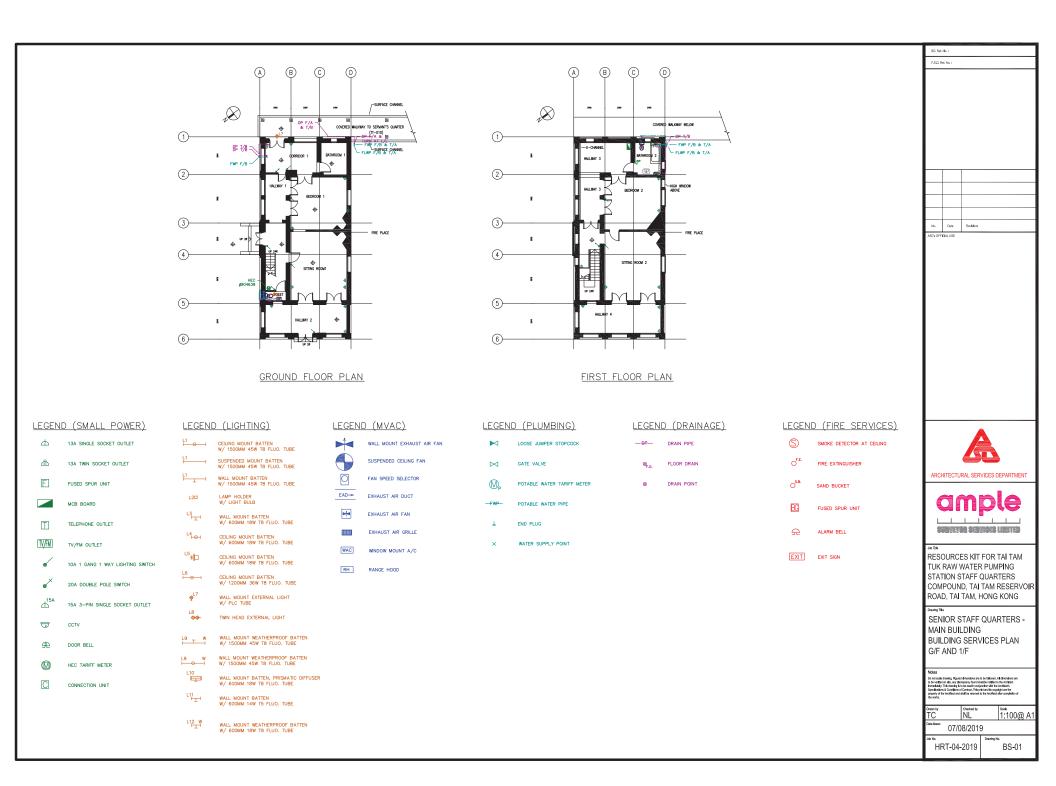
SENIOR STAFF QUARTERS - 3D PERSPECTIVE 03

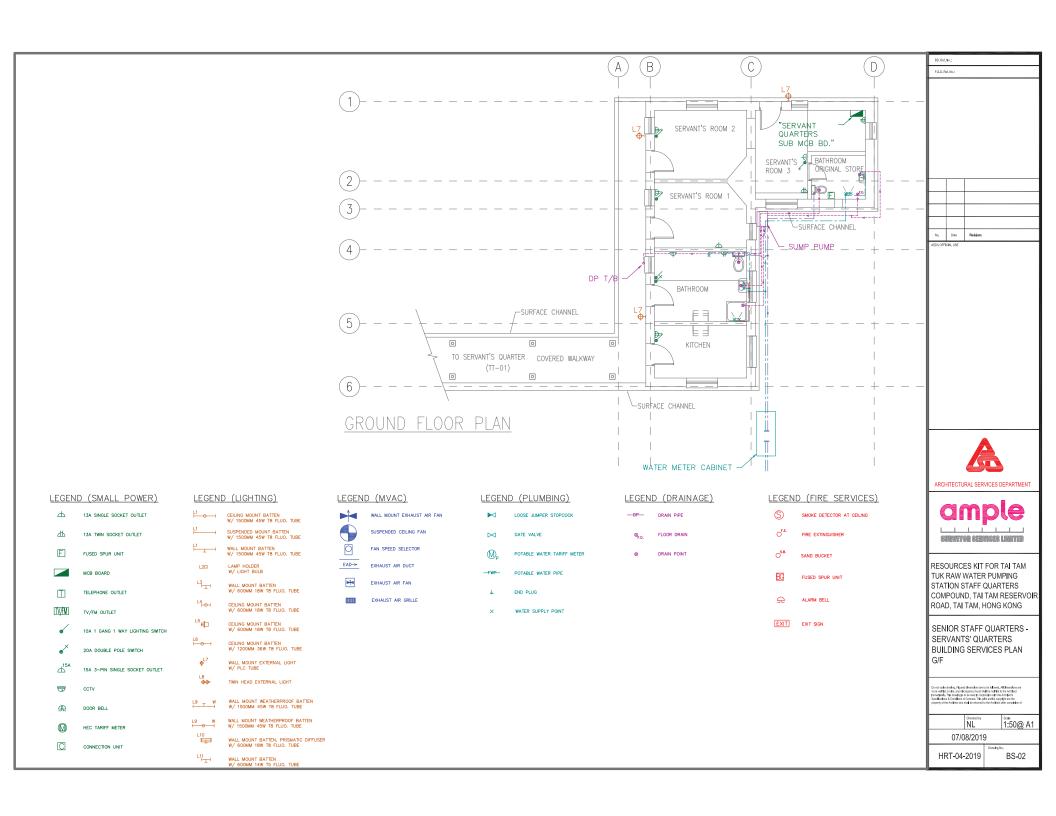
# Appendix VI(B) Building Services Uwtxg{ 'Drawings

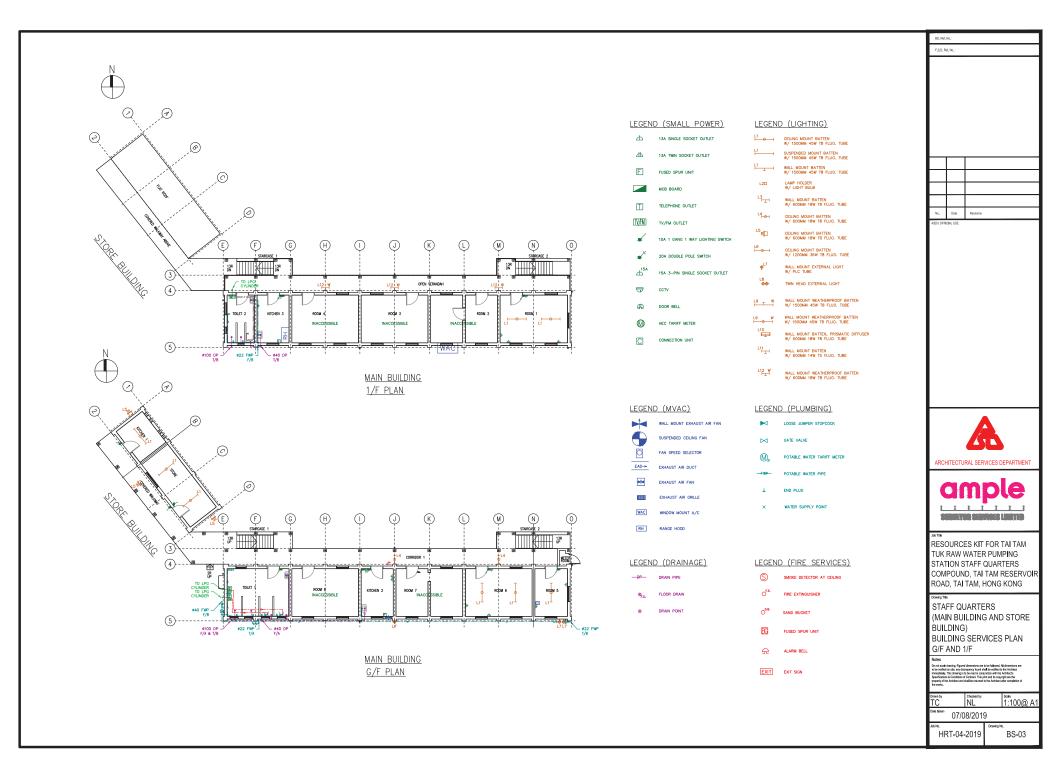
#### $Appendix\ VI(B)-Building\ Services\ Uwtxg\{\ 'Drawings$

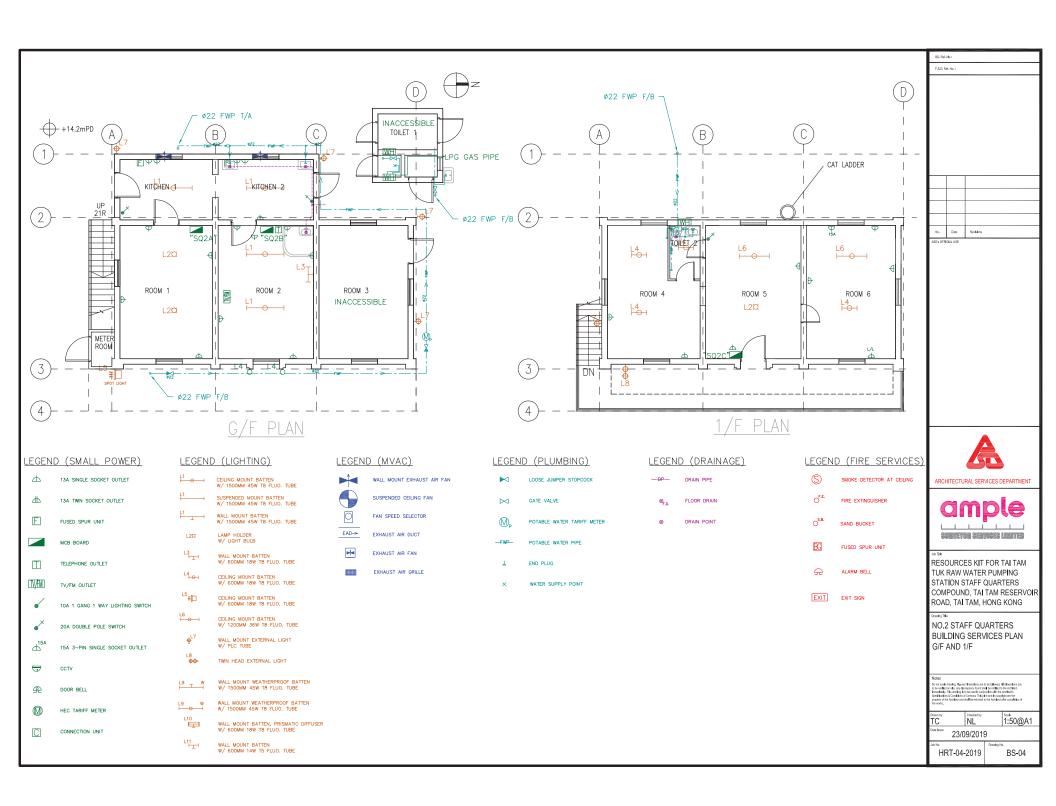
#### **Drawing List**

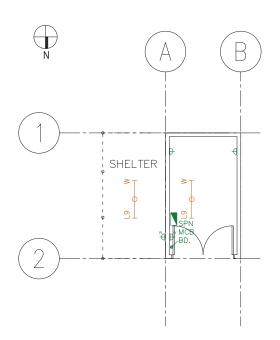
	Drawing No.	Drawing Title	
1	BS-01	Senior Staff Quarters – Main Building Building Services Plan G/F and 1/F	
2	BS-02	Senior Staff Quarters – Servants' Quarters Building Services Plan G/F	
3	BS-03	Staff Quarters (Main Building and Store Building) Building Services Plan G/F and 1/F	
4	BS-04	No.2 Staff Quarters Building Services Plan G/F and 1/F	
5	BS-05	Garage Building Services Plan	
6	BS-06	Underground Cellar Building Services Plan	
7	BS-07	Main Building of Pumping Station Building Services Plan	











PLAN OF GARAGE







ARCHITECTURAL SERVICES DEPARTMENT



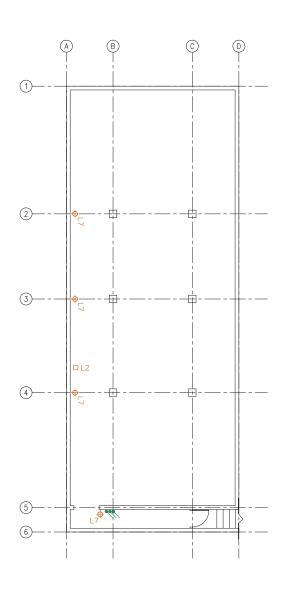
RESOURCES KIT FOR TAI TAM TUK RAW WATER PUMPING STATION STAFF QUARTERS COMPOUND, TAI TAM RESERVOIR ROAD, TAI TAM, HONG KONG

GARAGE BUILDING SERVICES PLAN

1.50@A1 NL 23/09/2019

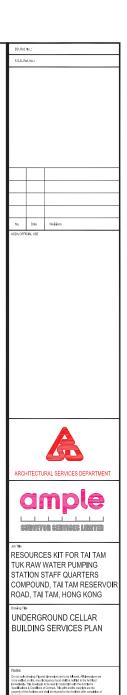
HRT-04-2019

BS-05



PLAN OF UNDERGROUND CELLAR



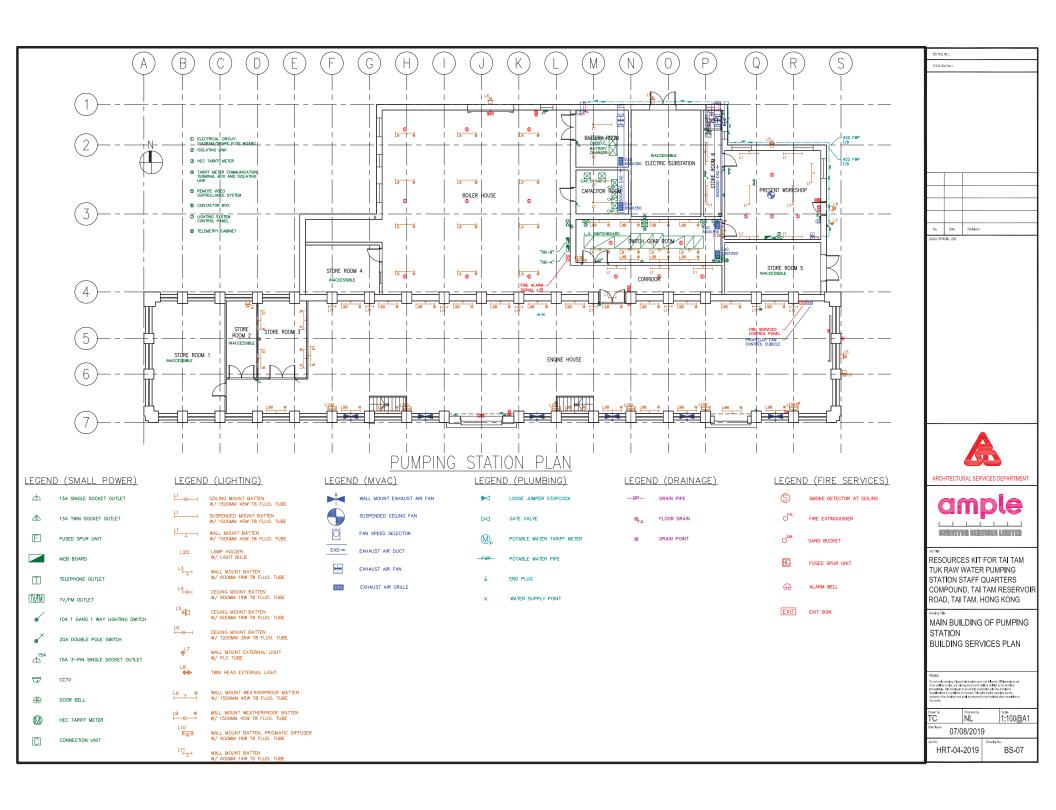


NL 1:50@A1

BS-06

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No. HRT-04-2019

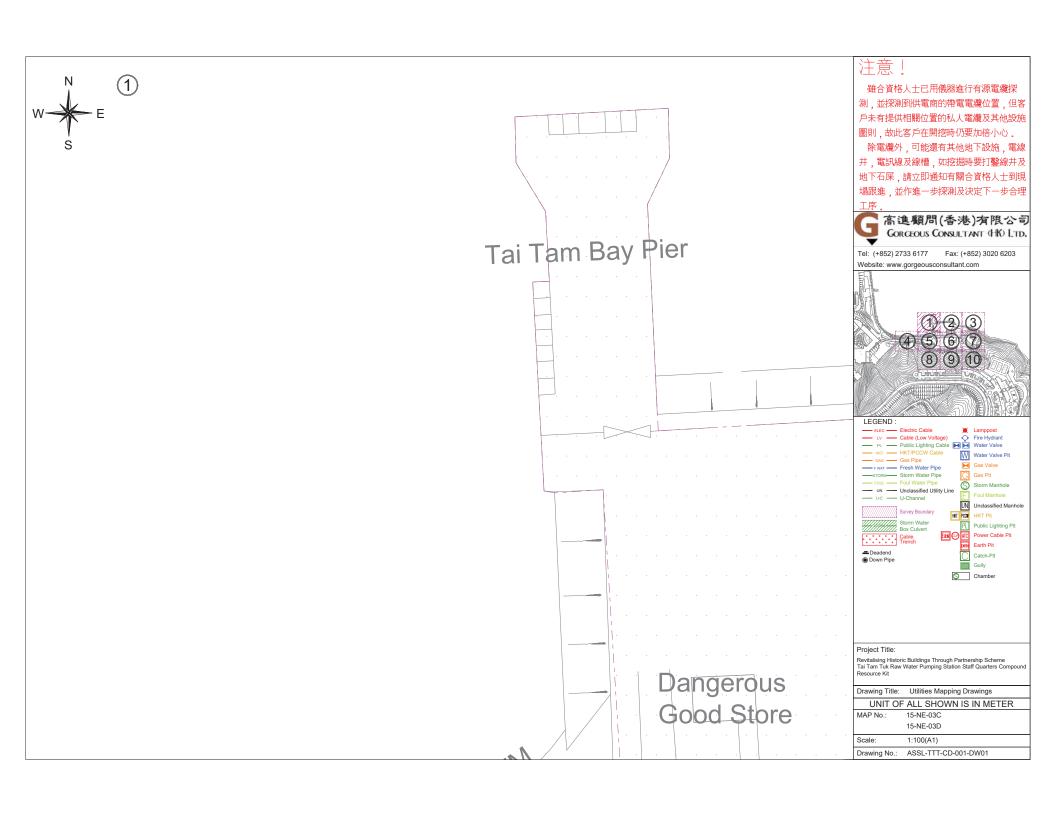


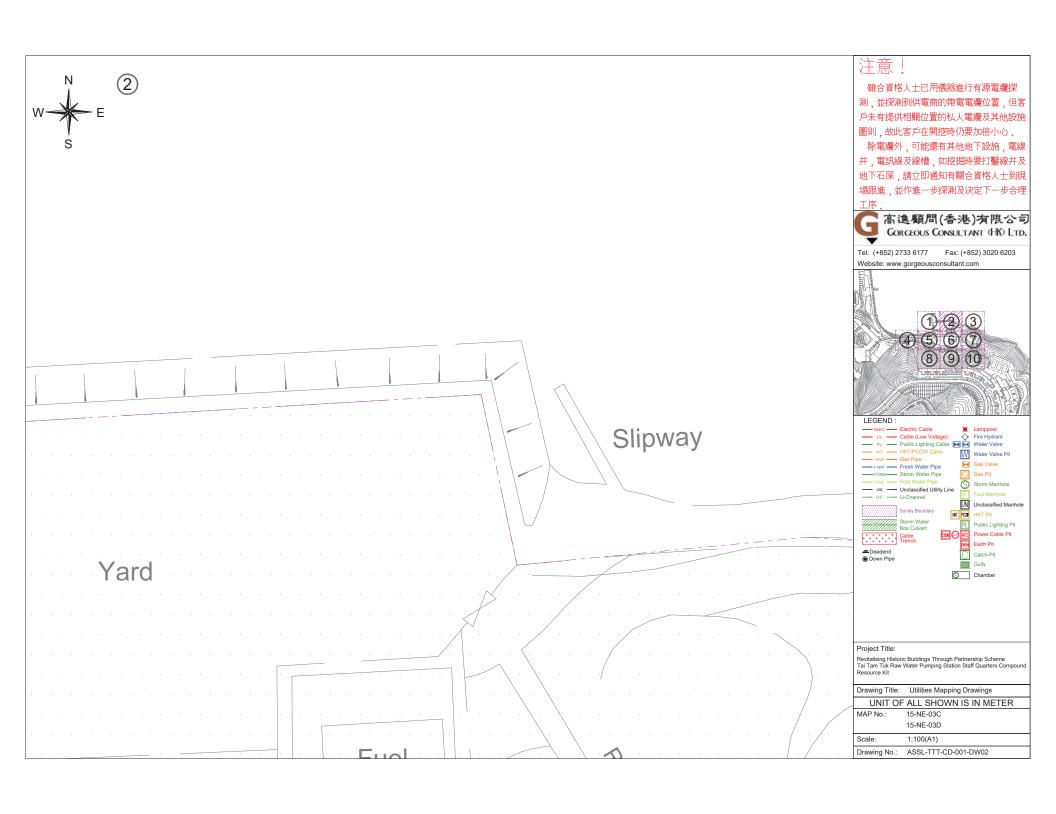
# Appendix VI(C) Underground Utilities Survey Plans

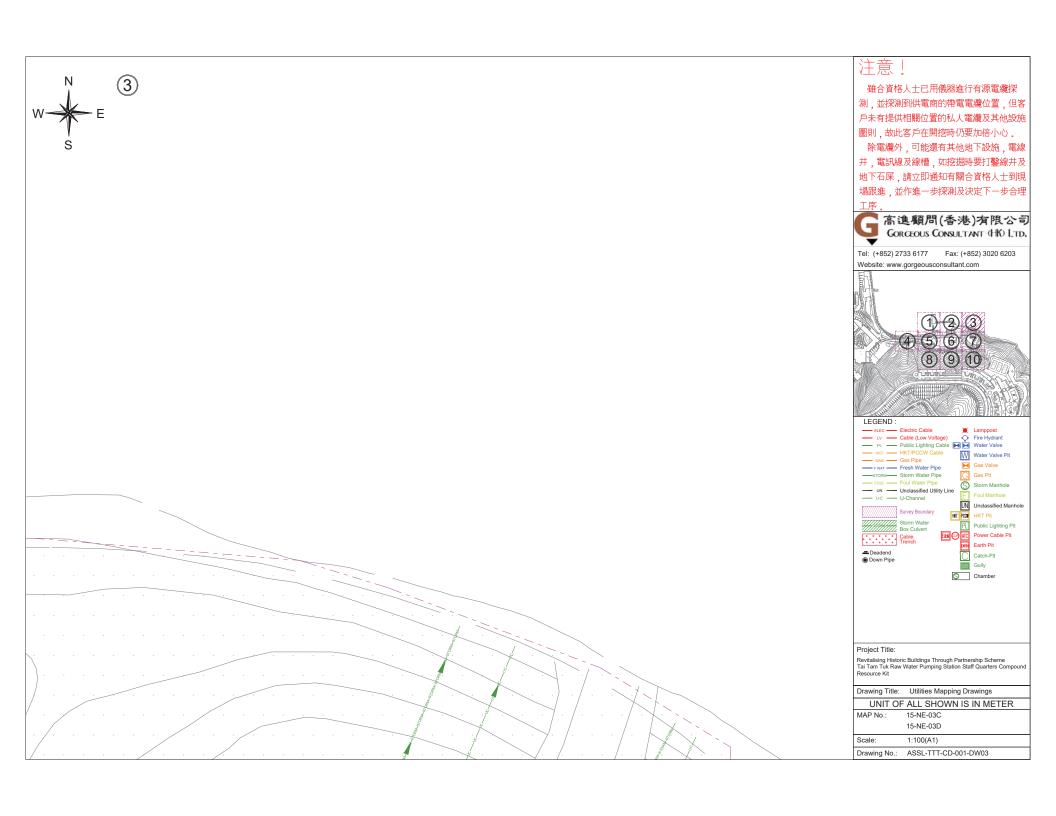
#### Appendix VI(C) – Underground Utilities Survey Plan

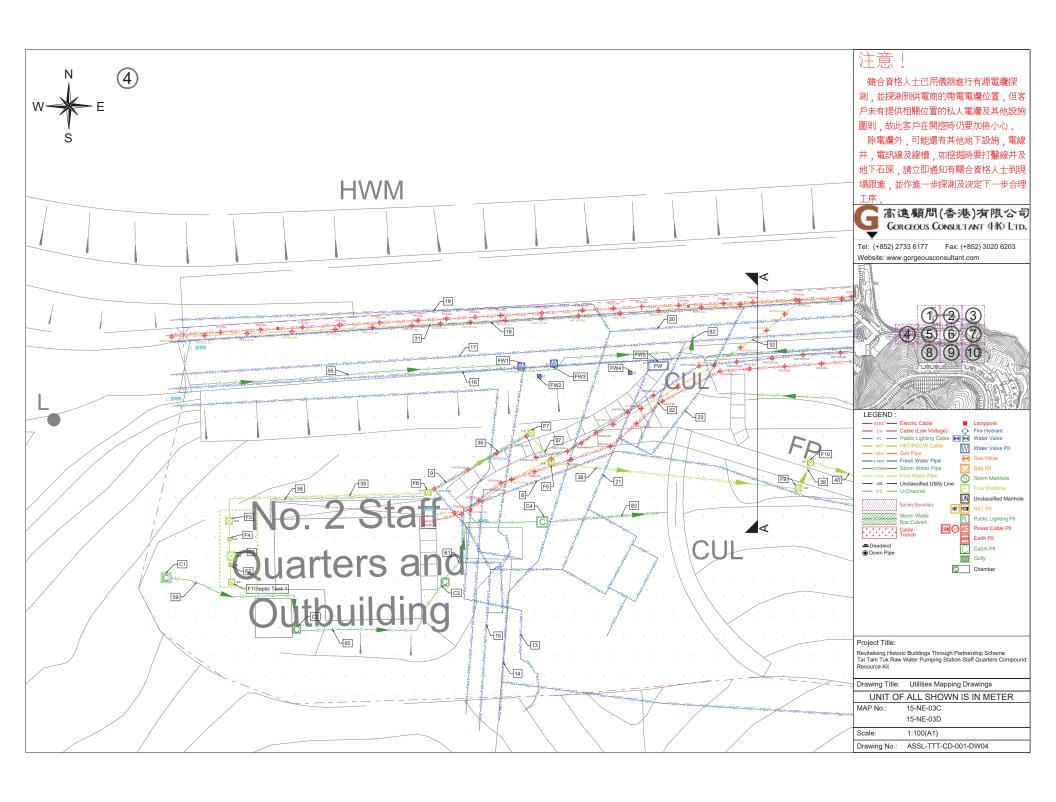
#### **Drawing List**

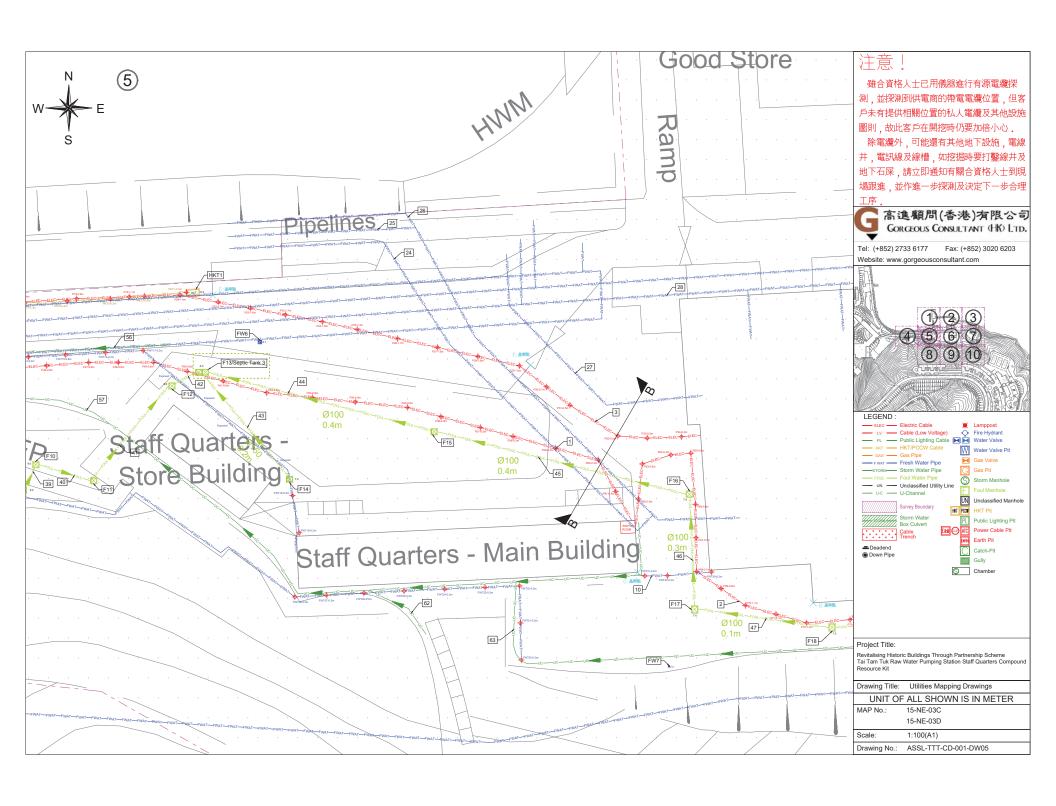
	Drawing No.	Drawing Title
1	ASSL-TTT-CD-001-DW01	Underground Utilities(1)
2	ASSL-TTT-CD-001-DW02	Underground Utilities(2)
3	ASSL-TTT-CD-001-DW03	Underground Utilities(3)
4	ASSL-TTT-CD-001-DW04	Underground Utilities(4)
5	ASSL-TTT-CD-001-DW05	Underground Utilities(5)
6	ASSL-TTT-CD-001-DW06	Underground Utilities(6)
7	ASSL-TTT-CD-001-DW07	Underground Utilities(7)
8	ASSL-TTT-CD-001-DW08	Underground Utilities(8)
9	ASSL-TTT-CD-001-DW09	Underground Utilities(9)
10	ASSL-TTT-CD-001-DW10	Underground Utilities(10)
11	ASSL-TTT-CD-001-DW11	Appendix A – Summary of Cable & Pipe
12	ASSL-TTT-CD-001-DW12	Appendix B – Summary of Manhole & Pit
13	ASSL-TTT-CD-001-DW13	Section A-A, Section B-B, Section C-C

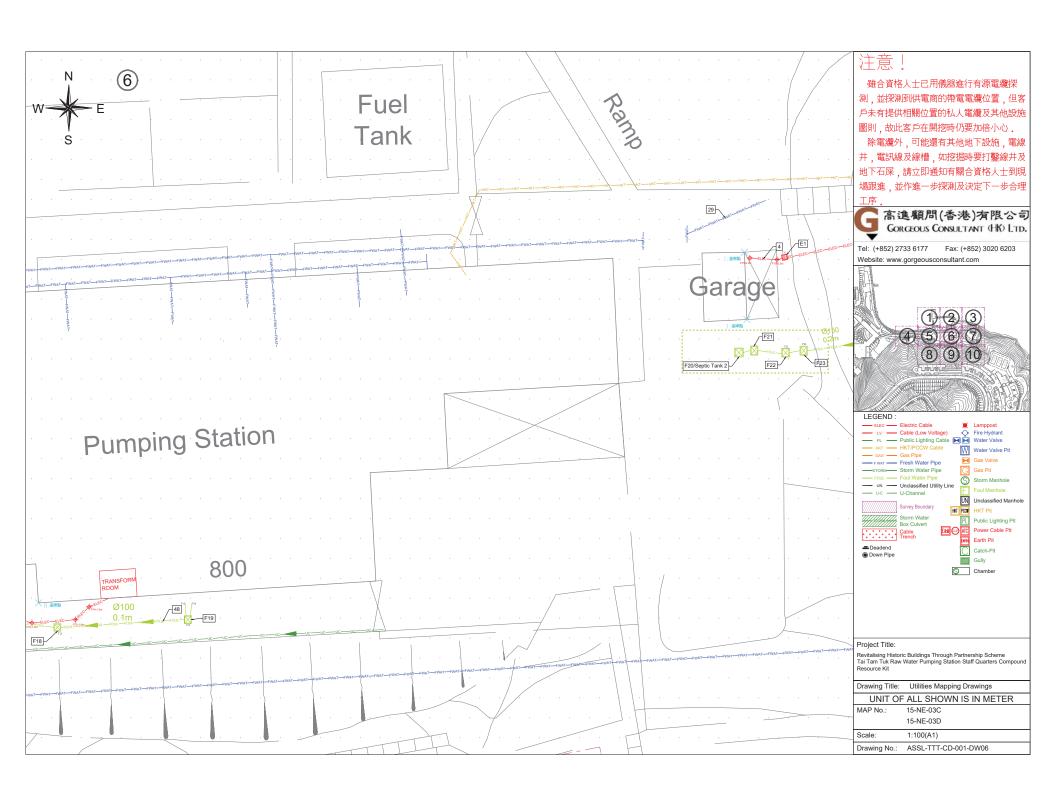


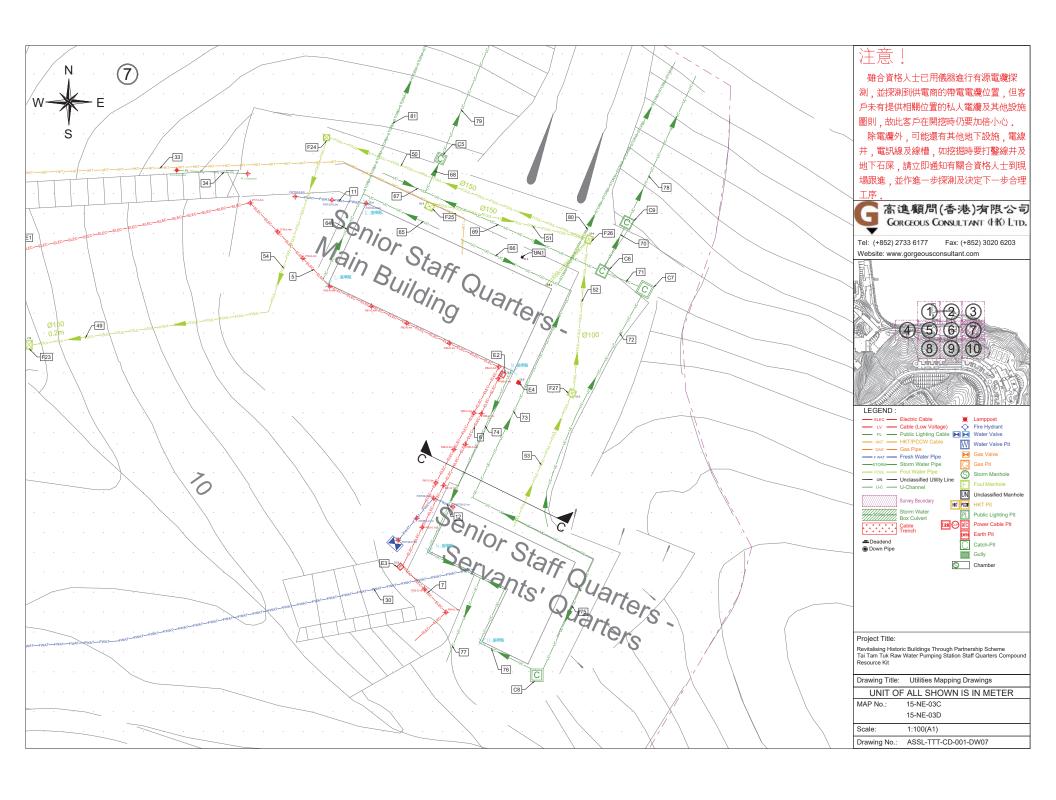


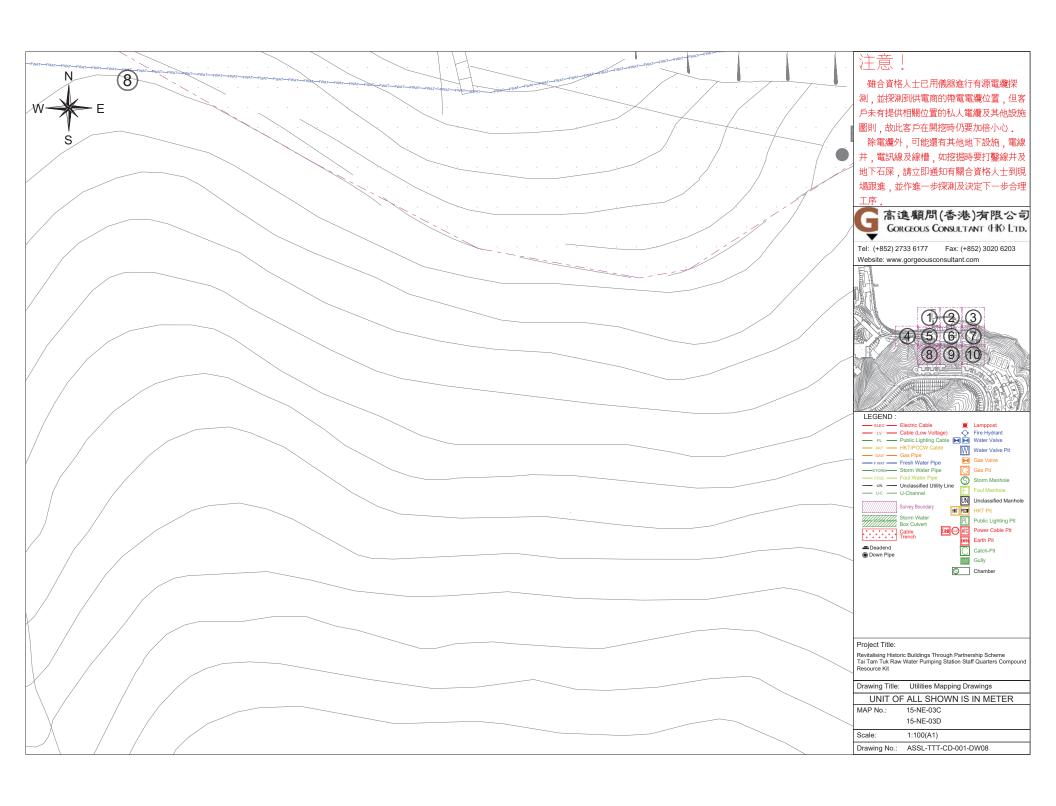


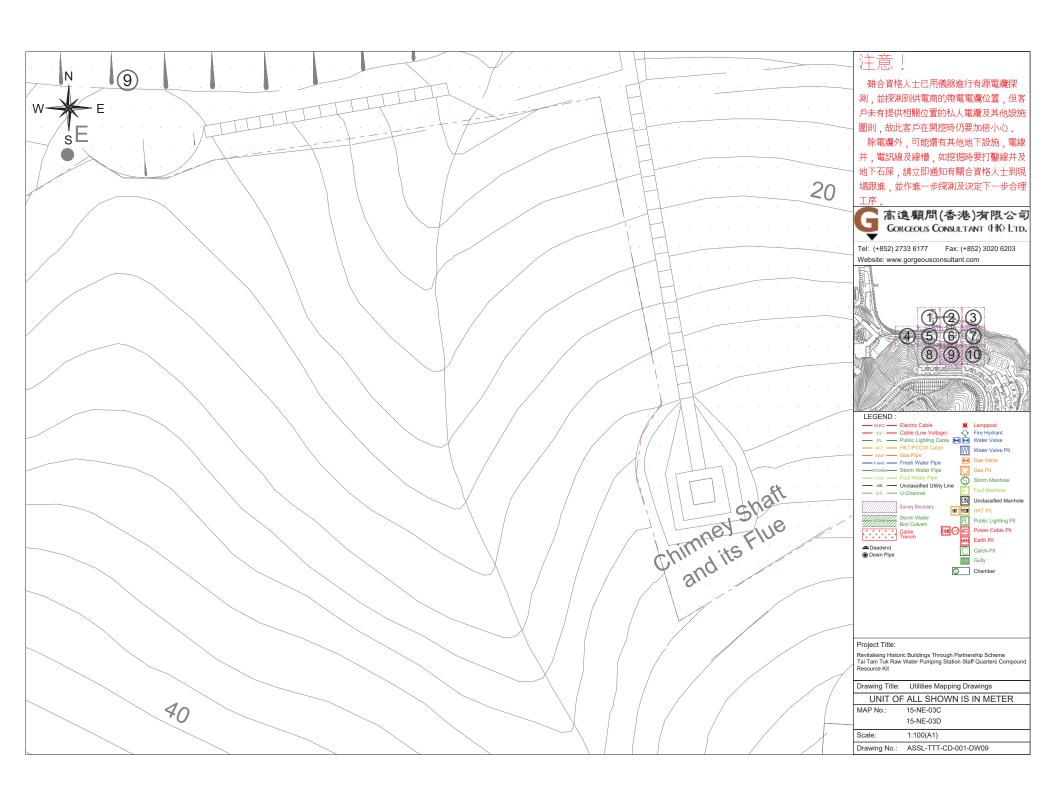


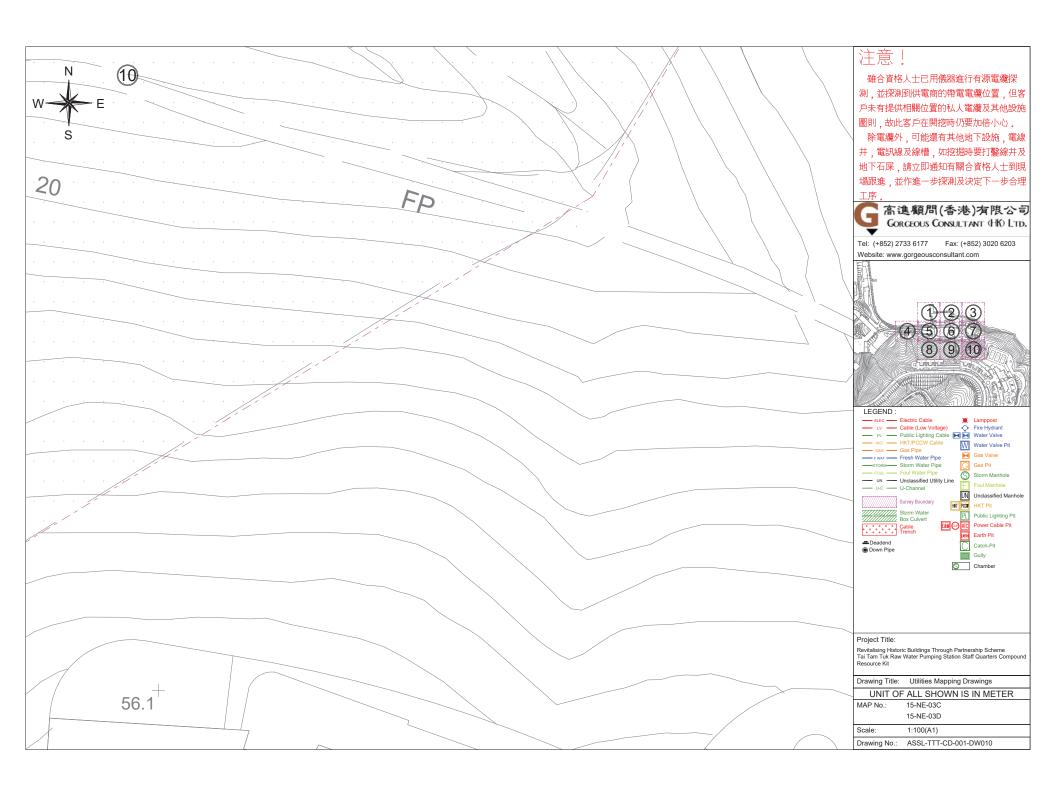














Appendix A - Summary of Cable & Pipe

No.	Utilities	Cable/Pipe Size(mm)	Depth(m)	Depth Refer to	Remarks
1	ELECTRIC CABLE	46	0.3 - 0.6	Center of Cable	-
2	ELECTRIC CABLE	46	0.4 - 1.2	Center of Cable	-
3	ELECTRIC CABLE	46	0.4 - 1.8	Center of Cable	-
4	ELECTRIC CABLE	20	0.3	Center of Cable	-
5	ELECTRIC CABLE	20	0.4	Center of Cable	-
6	ELECTRIC CABLE	20	0.1	Center of Cable	-
7	ELECTRIC CABLE	20	0.1	Center of Cable	-
8	POTABLE WATER PIPE	60 CI	Visible - 0.3	Center of Cable	-
9	POTABLE WATER PIPE	43 CI	Visible - 0.2	Center of Cable	-
10	POTABLE WATER PIPE	20 CI	Visible - 0.2	Center of Cable	-
11	POTABLE WATER PIPE	15 CI	Visible - 0.2	Center of Cable	-
12	POTABLE WATER PIPE	27 CI	Visible - 0.1	Center of Cable	-
13	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
14	POTABLE WATER PIPE	38 GIL	UNKNOWN	Center of Cable	UNRELIABLE
15	POTABLE WATER PIPE	559 CI	UNKNOWN	Center of Cable	UNRELIABLE
16	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
17	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
18	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
19	POTABLE WATER PIPE	50 uPVC	UNKNOWN	Center of Cable	UNRELIABLE
20	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
21	POTABLE WATER PIPE	152 CI	UNKNOWN	Center of Cable	UNRELIABLE
22	POTABLE WATER PIPE	152 CI	UNKNOWN	Center of Cable	UNRELIABLE
23	POTABLE WATER PIPE	152 CI	UNKNOWN	Center of Cable	UNRELIABLE
24	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
25	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
26	POTABLE WATER PIPE	457 CI	UNKNOWN	Center of Cable	UNRELIABLE
27	POTABLE WATER PIPE	305 CI	UNKNOWN	Center of Cable	UNRELIABLE
28	POTABLE WATER PIPE	762 CI	UNKNOWN	Center of Cable	UNRELIABLE
29	POTABLE WATER PIPE	25 CI	UNKNOWN	Center of Cable	UNRELIABLE
30	POTABLE WATER PIPE	40 GI	UNKNOWN	Center of Cable	UNRELIABLE
31	HKT CABLE	20	0.2 - 0.3	Center of Cable	-
32	HKT CABLE	10	0.1 - 0.7	Center of Cable	-
33	HKT CABLE	UNKNOWN	UNKNOWN	UNKNOWN	UNRELIABLE
34	PUBLIC LIGHTING	10	Visible	Center of Cable	-
35	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
36	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
37	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
38	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
39	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
40	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
41	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
42	FOUL WATER PIPE	100 VC	0.3	Invert of Pipe	-
43	FOUL WATER PIPE	150 VC	0	Invert of Pipe	-

Appendix A - Summary of Cable & Pipe

No.	Utilities	Cable/Pipe Size(mm)	Depth(m)	Depth Refer to	Remarks
44	FOUL WATER PIPE	100 VC	0.4	Invert of Pipe	-
45	FOUL WATER PIPE	100 VC	0.4	Invert of Pipe	-
46	FOUL WATER PIPE	100 VC	0.3	Invert of Pipe	-
47	FOUL WATER PIPE	100 VC	0.1	Invert of Pipe	-
48	FOUL WATER PIPE	100 VC	0.1	Invert of Pipe	-
49	FOUL WATER PIPE	150 CI	0.2	Invert of Pipe	-
50	FOUL WATER PIPE	100 VC	0.3	Invert of Pipe	-
51	FOUL WATER PIPE	100 VC	0.2	Invert of Pipe	-
52	FOUL WATER PIPE	100 VC	0.3	Invert of Pipe	-
53	FOUL WATER PIPE	100 VC	0.3	Invert of Pipe	-
54	FOUL WATER PIPE	UNKNOWN	UNKNOWN	Invert of Pipe	UNRELIABLE
55	U-Channel	150 x 150 CO	0.15	Invert of Pipe	-
56	U-Channel	250 x 150 CO	0.15	Invert of Pipe	-
57	U-Channel	350 x 500 CO	0.5	Invert of Pipe	-
58	U-Channel	200 x 50 CO	0.05	Invert of Pipe	-
59	U-Channel	300 x 250 CO	0.25	Invert of Pipe	-
60	U-Channel	300 x 350 CO	0.35	Invert of Pipe	-
61	U-Channel	300 x 500 CO	0.5	Invert of Pipe	-
62	U-Channel	450 x 300 CO	0.3	Invert of Pipe	-
63	U-Channel	250 x 150 CO	0.15	Invert of Pipe	-
64	U-Channel	300 x 150 CO	0.15	Invert of Pipe	-
65	U-Channel	300 x 50 CO	0.05	Invert of Pipe	-
66	U-Channel	300 x 200 CO	0.2	Invert of Pipe	-
67	U-Channel	250 x 150 CO	0.15	Invert of Pipe	-
68	U-Channel	250 x 150 CO	0.15	Invert of Pipe	-
69	U-Channel	150 PVC	0.2	Invert of Pipe	-
70	U-Channel	250 x 500 CO	0.5	Invert of Pipe	-
71	U-Channel	250 x 400 CO	0.4	Invert of Pipe	-
72	U-Channel	250 x 350 CO	0.35	Invert of Pipe	-
73	U-Channel	300 x 150 CO	0.15	Invert of Pipe	-
74	U-Channel	300 x 150 CO	0.15	Invert of Pipe	-
75	U-Channel	300 x 100 CO	0.1	Invert of Pipe	-
76	U-Channel	300 x 150 CO	0.15	Invert of Pipe	-
77	U-Channel	300 x 150 CO	0.15	Invert of Pipe	-
78	U-Channel	250 x 500 CO	0.5	Invert of Pipe	-
79	U-Channel	250 x 150 CO	0.15	Invert of Pipe	-
80	STORM WATER PIPE	150 PVC	0.15	Invert of Pipe	-
81	STORM WATER PIPE	100 PVC	0.1	Invert of Pipe	-
82	STORM WATER PIPE	450 CO	UNKNOWN	Invert of Pipe	-
83	STORM WATER PIPE	300 PVC	DOWNPIPE	Invert of Pipe	-

#### 注意

雖合資格人士已用儀器進行有源電纜探 測,並探測到供電商的帶電電纜位置,但客 戶未有提供相關位置的私人電纜及其他設施 圖則,故此客戶在開挖時仍要加倍小心。

除電纜外,可能還有其他地下設施,電線 井,電訊線及線槽,如挖掘時要打鑿線井及 地下石屎,請立即通知有關合資格人士到現 場跟進,並作進一步探測及決定下一步合理

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Earth Pit
Catch-Pit Gully Chamber

Project Title:

Revitalising Historic Buildings Through Partnership Scheme Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound Resource Kit

Drawing Title: Utilities Mapping Drawings

UNIT OF ALL SHOWN IS IN METER

MAP No.: 15-NE-03C 15-NE-03D

Scale: 1:100(A1)

Drawing No.: ASSL-TTT-CD-001-DW011



Appendix B - Summary of Manhole & Pit

No.	Manhole/Pit No.	Function	Size(mm)	C.L.(mPD)	I.L.(mPD)	Depth(m)	Remarks
1	El	ELECTRIC CABLE PIT	450 x 450	7.1	6.7	0.4	-
2	E2	ELECTRIC CABLE PIT	450 x 450	15.6	15.1	0.5	-
3	E3	ELECTRIC CABLE PIT	450 x 450	15.5	15.1	0.4	-
4	E4	ELECTRIC CABLE EARTH PIT	300 x 300	15.6	15.1	0.5	-
5	FW1	FRESH WATER VALVE	600 x 600	6.1	5.6	0.5	-
6	FW2	FRESH WATER VALVE	300 x 300	6.1	5.8	0.3	-
7	FW3	FRESH WATER VALVE	600 x 600	6.1	5.6	0.5	-
8	FW4	FRESH WATER VALVE	300 x 300	6.8	6.5	0.3	-
9	FW5	FRESH WATER VALVE	1650 x 700	6.1	5.5	0.6	-
10	FW6	FRESH WATER VALVE	300 x 300	6.1	5.7	0.4	-
-11	FW7	FRESH WATER VALVE	150 x 150	7.7	7.5	0.2	-
12	HKT1	PCCW CABLE PIT	1000 x 550	5.6	4.9	0.7	-
13	UN1	UNKNOWN PIT	150 x 150	15.4	UNKNOWN	UNKNOWN	-
14	F1	FOUL WATER MANHOLE	520 x 520	14.6	UNKNOWN	UNKNOWN	FOW
15	F2	FOUL WATER MANHOLE	290 x 290	14.6	UNKNOWN	UNKNOWN	FOW
16	F3	FOUL WATER MANHOLE	680 x 680	14.6	UNKNOWN	UNKNOWN	FOW
17	F4	FOUL WATER MANHOLE	290 x 290	14.6	14.3	0.3	-
18	F5	FOUL WATER MANHOLE	600 x 600	14.6	14.2	0.4	-
19	F6	FOUL WATER MANHOLE	700 x 700	14.3	UNKNOWN	UNKNOWN	UTR
20	F7	FOUL WATER MANHOLE	500 x 500	11.2	UNKNOWN	UNKNOWN	UTR
21	F8	FOUL WATER MANHOLE	700 x 700	11.4	UNKNOWN	UNKNOWN	UTR
22	F9	FOUL WATER MANHOLE	500 x 500	8.0	UNKNOWN	UNKNOWN	UTR
23	F10	FOUL WATER MANHOLE	500 x 500	8.0	UNKNOWN	UNKNOWN	UTR
24	F11	FOUL WATER MANHOLE	500 x 500	UNKNOWN	UNKNOWN	UNKNOWN	UTS
25	F12	FOUL WATER MANHOLE	500 x 500	6.6	6.3	0.3	-
26	F13	FOUL WATER MANHOLE	650 x 650	6.3	UNKNOWN	UNKNOWN	FOW
27	F14	FOUL WATER MANHOLE	650 x 650	7.0	6.8	0.2	-
28	F15	FOUL WATER MANHOLE	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UTL
29	F16	FOUL WATER MANHOLE	600 x 600	7.4	7.0	0.4	-
30	F17	FOUL WATER MANHOLE	600 x 600	7.4	7.1	0.3	-
31	F18	FOUL WATER MANHOLE	600 x 600	7.3	7.2	0.1	-
32	F19	FOUL WATER MANHOLE	600 x 600	7.3	7.2	0.1	-
33	F20	FOUL WATER MANHOLE	650 x 650	UNKNOWN	UNKNOWN	UNKNOWN	UTS
34	F21	FOUL WATER MANHOLE	650 x 650	UNKNOWN	UNKNOWN	UNKNOWN	UTS
35	F22	FOUL WATER MANHOLE	650 x 650	7.5	7.2	0.3	-
36	F23	FOUL WATER MANHOLE	650 x 650	7.8	7.6	0.2	-
37	F24	FOUL WATER MANHOLE	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	UTL
38	F25	FOUL WATER MANHOLE	500 x 600	15.4	15.2	0.2	-
39	F26	FOUL WATER MANHOLE	500 x 600	15.4	15.1	0.3	-
40	F27	FOUL WATER MANHOLE	500 x 600	15.5	15.2	0.3	-
41	C1	CATCH PIT	800 x 800	15.1	14.4	0.7	-
42	C2	CATCH PIT	650 x 650	14.9	14.1	0.8	-
43	C3	CATCH PIT	650 x 650	14.9	14.0	0.9	-
44	C4	CATCH PIT	900 x 900	13.2	12.6	0.6	-
45	C5	CATCH PIT	800 x 800	15.7	14.7	1.0	-
46	C6	CATCH PIT	900 x 900	16.0	15.0	1.0	-
47	C7	CATCH PIT	1100 x 1100	16.0	15.1	0.9	-
48	C8	CATCH PIT	1000 x 1000	16.2	15.5	0.7	-
49	C9	CATCH PIT	900 x 900	15.7	14.6	1.1	

FOW=Full of water UTR=Unable to raise UTS-Unable to survey UTL=Unable to locate

### 注意

雖合資格人士已用儀器進行有源電纜探 測,並探測到供電商的帶電電纜位置,但客 戶未有提供相關位置的私人電纜及其他設施 圖則,故此客戶在開挖時仍要加倍小心。

除電纜外,可能還有其他地下設施,電線 井、電訊線及線槽、如挖掘時要打鑿線井及 地下石屎,請立即通知有關合資格人士到現 場跟進,並作進一步探測及決定下一步合理

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Project Title:

Revitalising Historic Buildings Through Partnership Scheme Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound Resource Kit

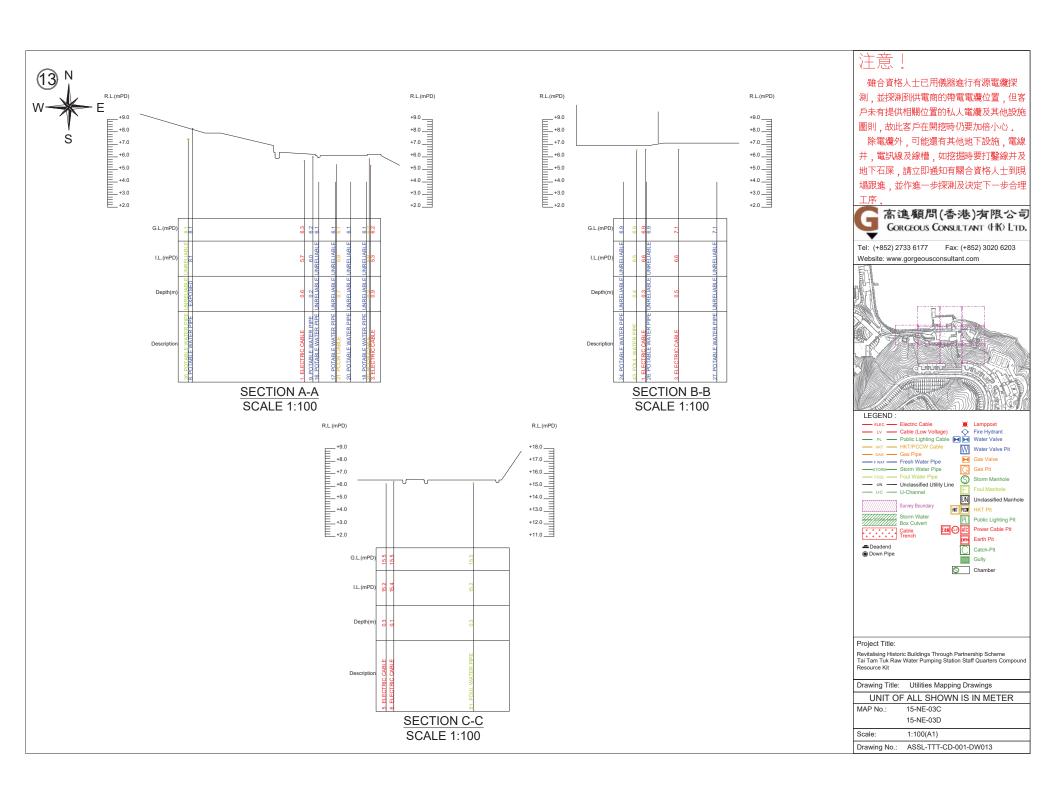
Drawing Title: Utilities Mapping Drawings

#### UNIT OF ALL SHOWN IS IN METER

MAP No.: 15-NE-03C 15-NE-03D

Scale: 1:100(A1)

Drawing No.: ASSL-TTT-CD-001-DW012



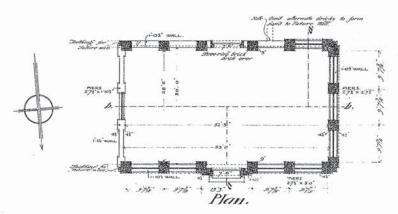
# Appendix VI(D) Old Drawings

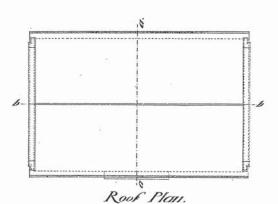
## Appendix VI(D) – Old Drawings <u>Drawing List</u>

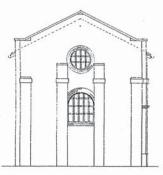
	Drawing No.	Drawing Title
1	W340	Pumping Station
2	W341	Senior Staff Quarters-Main Building
3	W342	Senior Staff Quarters-Servants' Quarters
4	W343	Senior Staff Quarters-Main Building (2)
5	W348	Pumping Station and Chimney
6	W425	No.2 Staff Quarters
7	W426	No.2 Staff Quarters – Details of Footings, Columns, Slabs, Beams
		and Stairs
8	W427	No.2 Staff Quarters – Details of Wooden Door and Partitions
9	W631	Chimney Shaft and Its Flue
10	W3155	Staff Quarters(Main Building) - Details of Lav., Kit,
		Accommodation & Septic Tanks
11	W7129/1	Senior Staff Quarters (Main Building and Servants' Quarters) -
		Electrical Rewiring
12	W7129/2	Staff Quarters (Main Building and Store Building) - Electrical
		Installation
13	W7129/3	No.2 Staff Quarters - Electrical Installation
14	W7129/4	No.2 Staff Quarters & Staff Quarters -
		Schematic Wiring Diagram

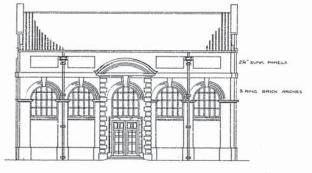
#### PUMPING STATION TAT TYTAM TUK:

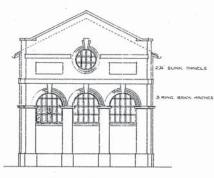
Drawing 11.º 1 Contract 11.º 23 of 1904.









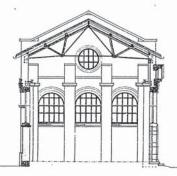


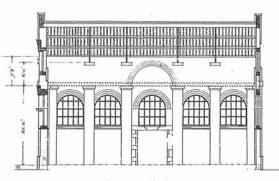
East Elevation.

North Elevation.

West Elevelion.

AT PARL





This is a photographically reduced print and only the scale(s) shown may be used for measurement.

Section. 'aa'

Section. bb'

illy consider to some

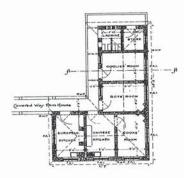
PUBLIC WORKS DEPKRT

W340

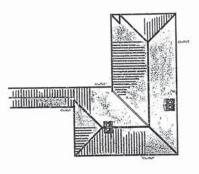
EUROPEAN TYTAM TUK. GROUND--FLOORU -PLAN . FIRST --FLOOR -PLAN . RODF -PLAN N-WEST S.EAST 0 binne a. Y. to assu.

## -Servants' Quarters at Tytam Tuk. -

Drawing 11:3 Congrad 10:25 05 1904



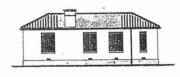
-Grand Floor Plun



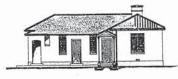
--- Roof Plan



-Section A-A-



- South West : Elevation -



-- North East Elevation



--- North West Elevation

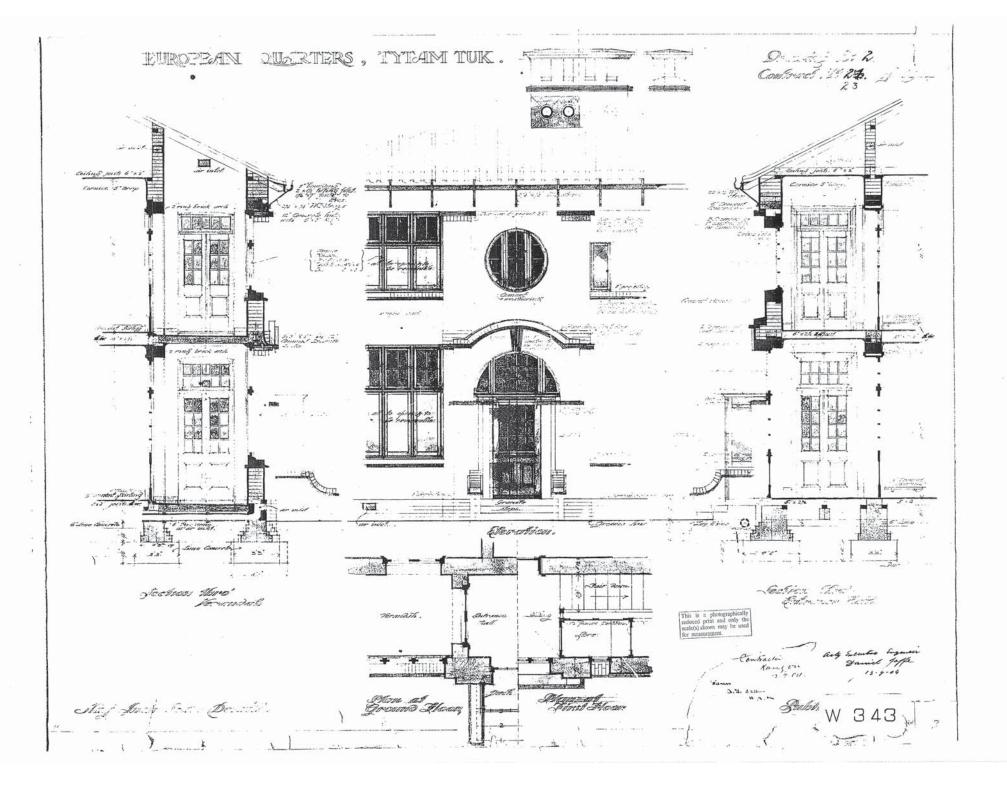
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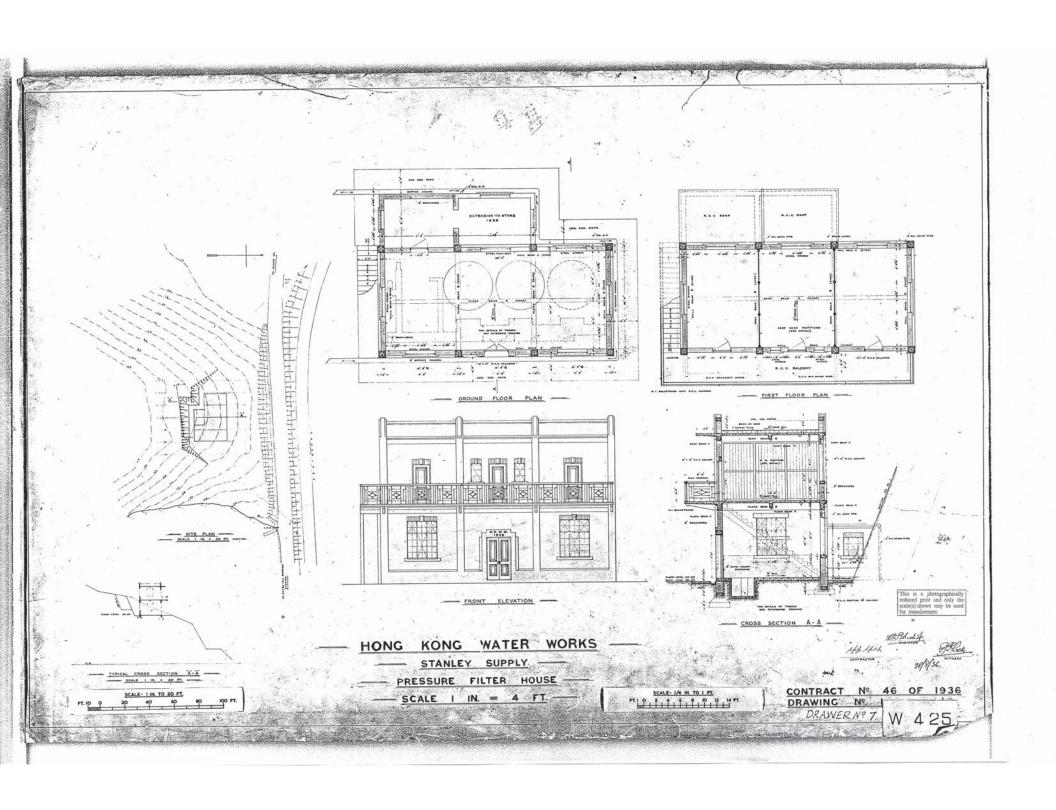
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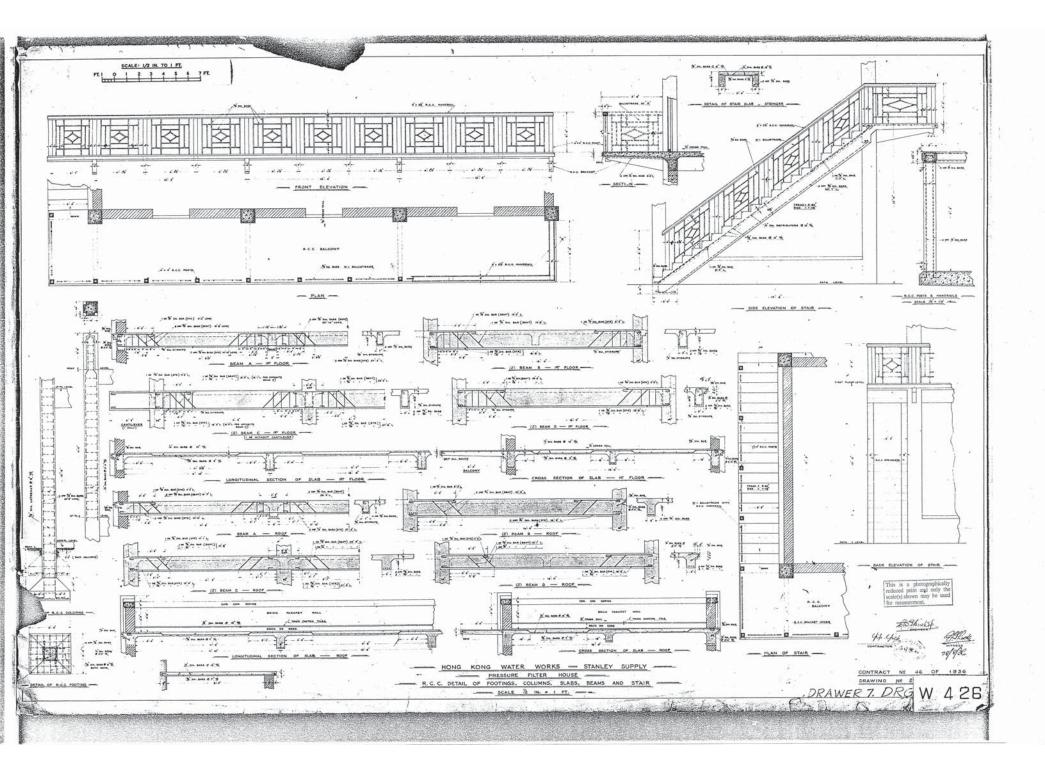
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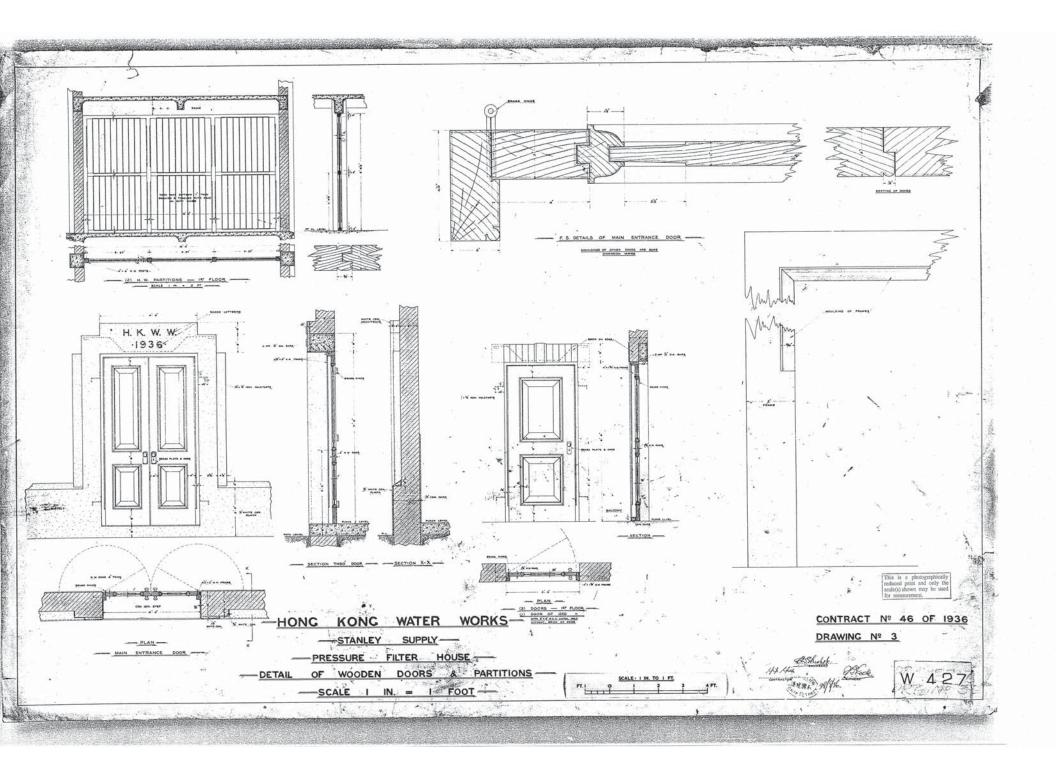
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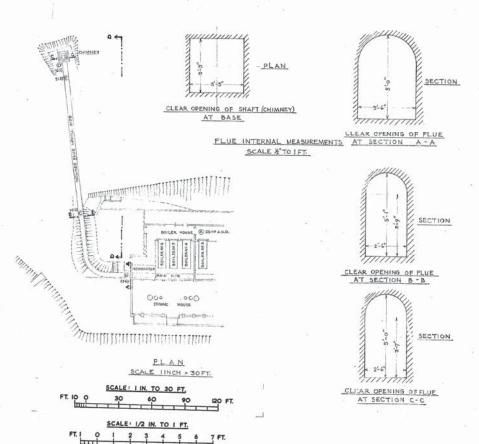




## HONG KONG WATER WORKS TYTAM TUK PUMPING STATION

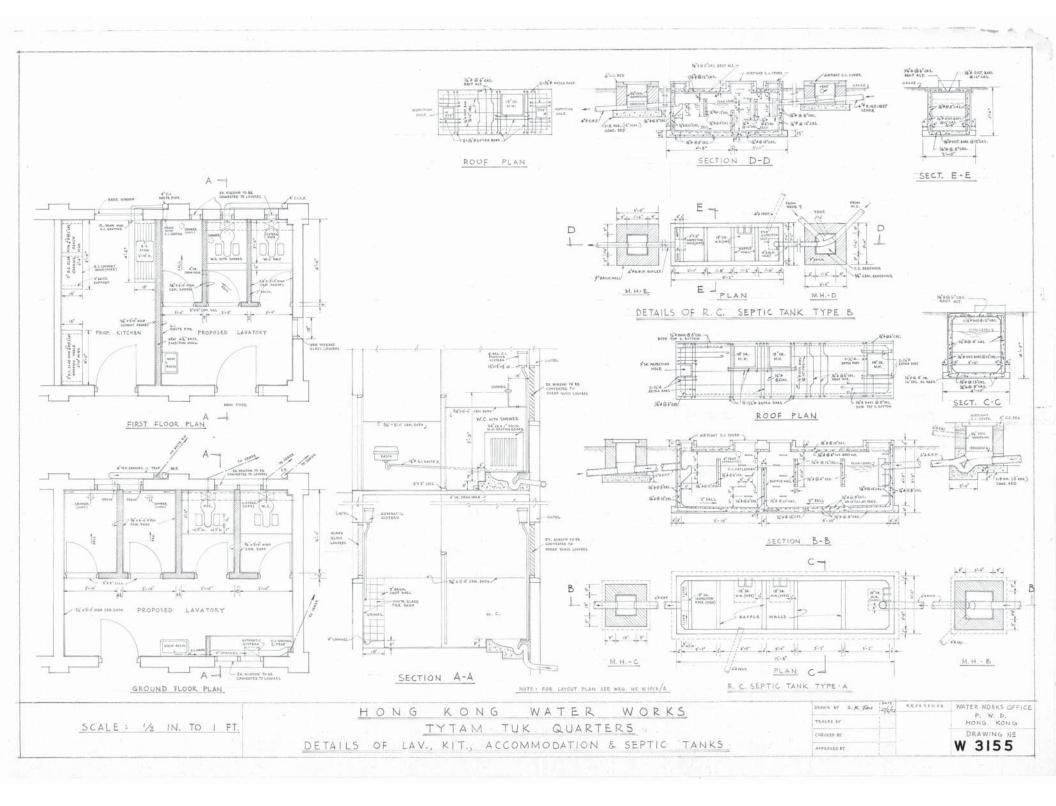
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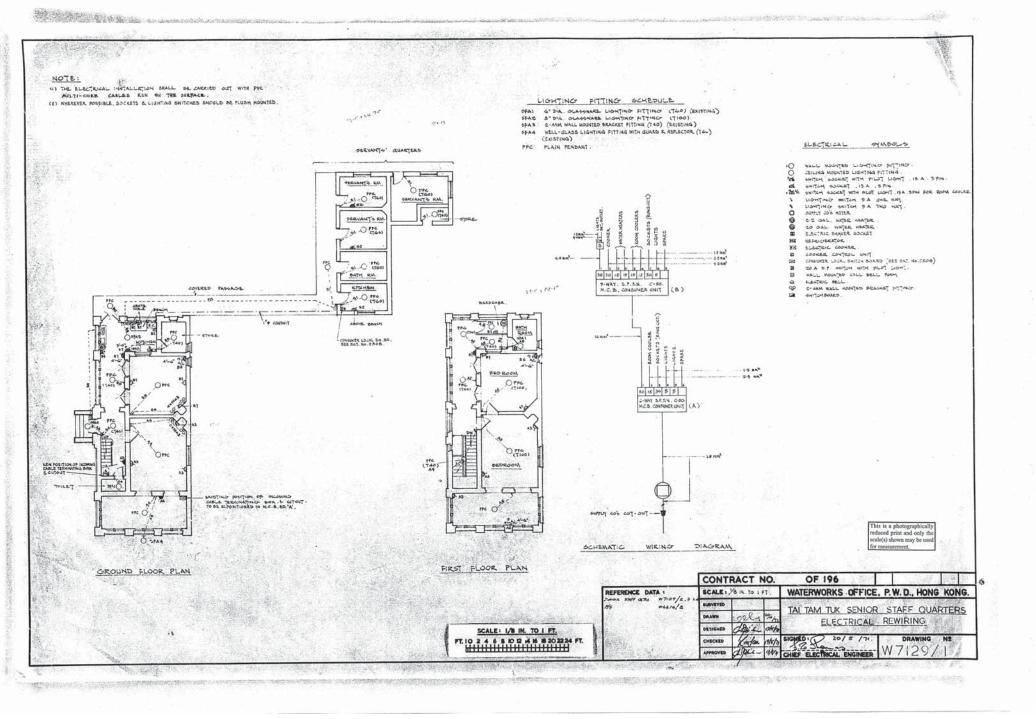
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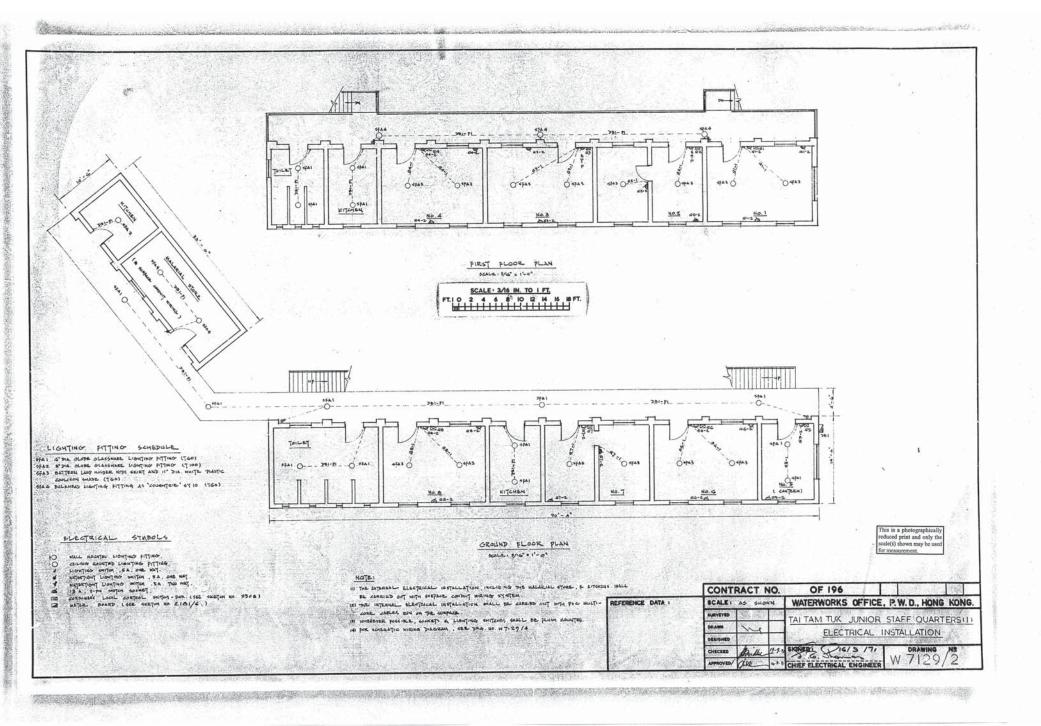


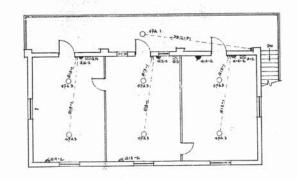
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DRG. NO. W 631









PIRST FLOOR PLAN

LIGHTING SITTING SCHEDULE

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SPAZ E" DIA OLOSE OLASSWARE LIGHTING FITTING (TIDO)

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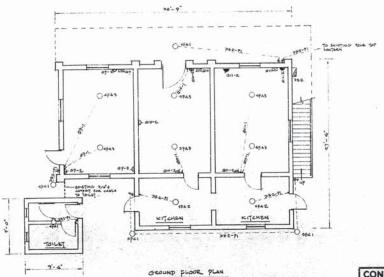
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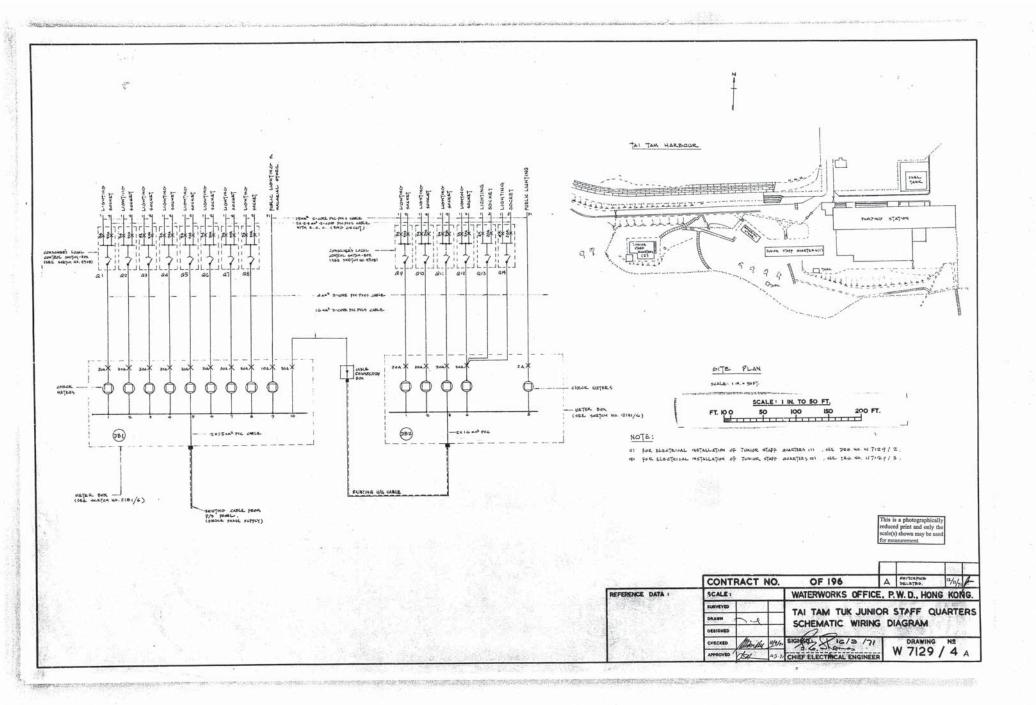
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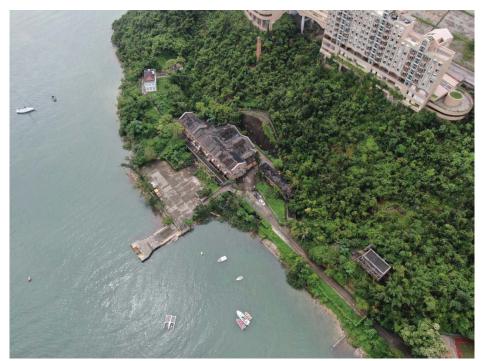
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# Appendix VII Photos of the Site and Buildings

#### 1. The site



1.1 Aerial View of Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound



1.2 Aerial View of Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound



1.3 View of Main Entrance from Tai Tam Reservoir Road



1.4 View of Interior Gate from Yard to Senior Staff Quarters (Main Building & Servant's Quarters)



1.5 View from Tai Tam Reservoir Road



1.6 View of ramp from Tai Tam Reservoir Road to Yard

2. Senior Staff Quarters - Main Building



2.1 View of Senior Staff Quarters - Main Building



2.2 View of Senior Staff Quarters – Main Building



2.3 View of 1/F Sitting Room 2



2.4 View of 1/F Hallway 4



2.5 View from 1/F Hallway 3



2.6 View of staircase



2.7 View of G/F Sitting Room 1



2.8 View of G/F Bed Room 1



2.9 View from main entrance

3. Senior Staff Quarters - Servants' Quarters



3.1 View of Senior Staff Quarters - Servants' Quarters



3.2 View of Senior Staff Quarters - Servants' Quarters



3.3 View of Kitchen



3.4 View of Bathroom



3.5 View of Servant's Room 3

4. Staff Quarters – Main Building



4.1 View of Staff Quarters - Main Building



4.2 View of Staff Quarters - Main Building



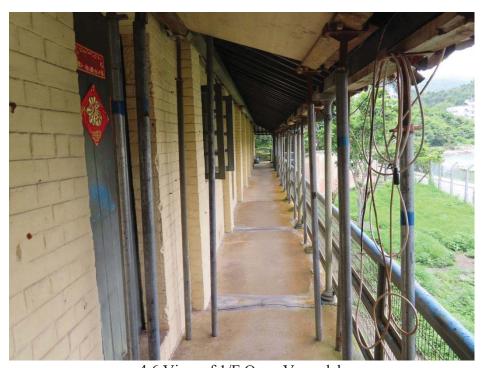
4.3 View of G/F Toilet 1



4.4 View of G/F Kitchen 2



4.5 View of G/F Room 7



4.6 View of 1/F Open Verandah



4.7 View of 1/F Kitchen 3



4.8 View of 1/F Toilet 2

5. Staff Quarters – Store Building



5.1 View of Store Building



5.2 View of Store Building



5.3 View of Store

## 6. No. 2 Staff Quarters



6.1 View of No. 2 Staff Quarters



6.2 View of G/F Room 1



6.3 View of 1/F Room 5



6.4 View from Balcony of 1/F



6.5 View from Balcony of 1/F

# 7. No. 2 Staff Quarters - Outbuilding



7.1 View of No. 2 Staff Quarters - Outbuilding

## 8. Dangerous Goods Store



8.1 View of Dangerous Goods Store

## 9. Yard



9.1 View of Yard



9.2 Aerial view of Yard



9.3 View of Yard

## 10. Fuel Tank



10.1 Aerial view of Fuel Tank



# 11. Garage



11.1 View of Garage

12. Underground Cellar



12.1 View of Entrance of Underground Cellar

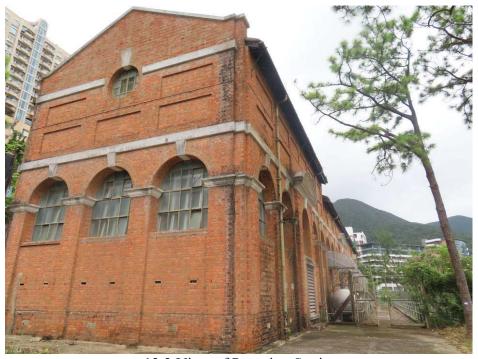
# 13. Main Building of Pumping Station



13.1 View of Pumping Station



13.2 View of Pumping Station



13.3 View of Pumping Station



13.4 View of Pumping Station

## 14. Chimney Shaft and its Flue



14.1 View of Chimney Shaft



14.2 View of Chimney Shaft and its Flue

# 15. Tai Tam Bay Pier

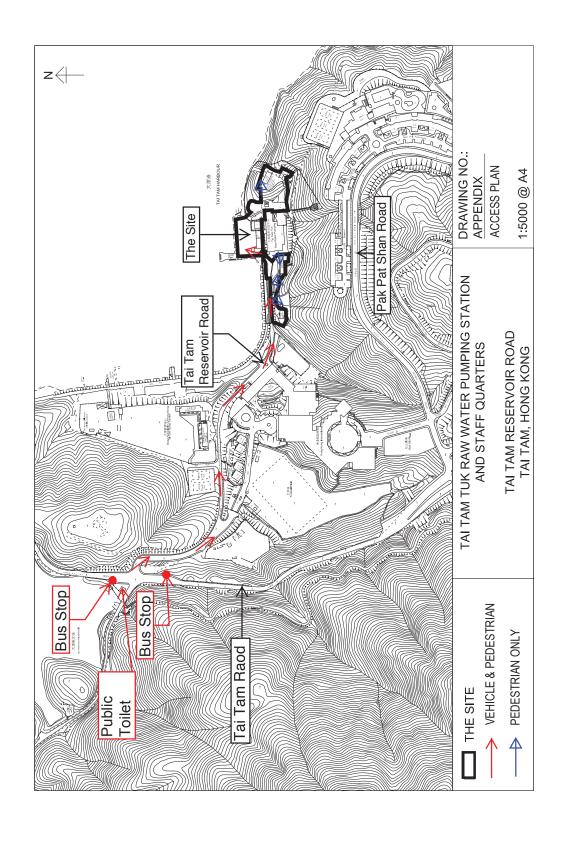


15.1 View of Tai Tam Bay Pier



15.2 View of Tai Tam Bay Pier

# Appendix VIII Access Plan



# Appendix IX(A) List of Architectural Features to be Preserved

## Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound List of Architectural Features to be Preserved

#### 1A. SENIOR STAFF QUARTERS – MAIN BUILDING

# Item Architectural Feature 1A.1 Building Facades All building facades in symmetrical design with rendered walls painted in white and with horizontal features highlighted, including all classical architectural features such as pilasters, centrally placed entrance porch and doorway with semi-circular arched fanlight above and arched windows etc.

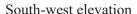


North-east elevation



North-west elevation







South-east elevation

## Item Architectural Feature

## 1A.2 Wooden Windows

Wooden casement windows and arched windows, including the original openings, window frames with mouldings at interior, grid glazing patterns, original ironmongeries, protruded window heads and window sills. (Some of the windows openings have been altered.)



Wooden casement window



Arched window



Original ironmongeries

Item Architectural Feature
----------------------------

## 1A.3 Entrance Porch and Main Entrance Door

The entrance porch and main entrance door including the steps and the patterned floor finishes, door threshold, the parapet walls, the arched fin and the keystone. The original wooden French door with semi-circular arched fanlight including the door frame, grid glazing patterns and the original ironmongeries.





#### Item Architectural Feature

## 1A.4 Side Entrance Door and Internal French Doors

External and internal timber French doors to the hallways (some of the doors are not original and have been replaced), including door panels with grid glazing patterns, door frames, top hung fanlight, original ironmongeries and arched opening at side entrance.



Side entrance door



French doors to hallways on 1/F



Original French doors to hallways on  $$\operatorname{G/F}$$ 



Original ironmongery

Item	Architectural Feature
1A.5	Hipped Roof at the Middle and Flat Roof at the Sides
	Flat roofs at two sides with parapet walls. Hipped roof structure at the middle laid with
	double-layered Chinese pan and roll tiles including all timber rafter and fascia boards.



Hipped roof at the central and flat roofs at two sides



Timber rafter

Item	Architectural Feature
1A.6	Chimney Stack The Chimney stack at both exterior and interior connecting to the fireplaces at the rooms of G/F and 1/F.

Item	Architectural Feature	
1A.7		

Item	Architectural Feature			
1A.8	Original ventilation grilles			
	All historical cast iron ventilation grilles at G/F.			
	The state of the s			

Item	Architectural Feature
1A.9	<u>Fireplaces</u>
	Fireplaces at rooms on G/F and 1/F including the tiling, shanghai plaster finishes, surrounds,
	grates hearths and mantel shelves and the old firenlace mark on timber floor finishes on 1/F



Fireplace at Bedroom 1 on G/F



Fireplace at Sitting Room 1 on G/F



Fireplace at Sitting Room 2 on 1/F



Old fireplace mark on timber floor finishes on 1/F

Item	Architectural Feature  Mosaic Tiled Finishes Original mosaic tiled finishes at the original hallways at G/F and 1/F including the drainage channels.		
1A.10			
	Hallway 1 on G/F	Hallway 3 on 1/F	
	The same of the sa		



Hallway 2 on G/F



Hallway 4 on 1/F

Item	Architectural l	Feature
1A.11	Timber Floor Cover Timber floor cover of the original staircase void.	
	Timber Floor Cover on 1/F	Timber floor cover on 1/F (view from G/F)

Item	Architectural Feature	
1A.12	<u>Timber Floor System</u> Timber floor system including timber floor joists hidden above the suspended ceilin timber column, timber floor finishes and mouldings at the side.	ıg,
	Mouldings at the side Timber floor finishes	

Timber column

Item	Architectural Feature
1A.13	Timber Suspended Ceiling
	Timber suspended ceiling with crown mouldings on G/F and 1/F.
	Crown moulded timber suspended ceiling on G/F
	Crown moulded timber suspended ceiling on 1/F

Item	Architectural Feature
1A.14	
	Moulded cement skirting on G/F and 1/F.
1	
ĺ	

Item	Architectural Feature
	Internal Arched Doorway and Opening
	Segmental arched doorway at Hallway 3 on 1/F and arched opening between Bedroom 1 and Sitting Room 1 on G/F.



Arched doorway at Hallway 3 on 1/F



Arched opening between Bedroom 1 and Sitting Room 1 on G/F

Idama	A valida atuwa Leaduwa
Item	Architectural Feature
1A.16	Original Timber Staircase
	Original timber staircase with timber balustrades, railings and steps.

Item	Architectural Feature
1A.17	<u>Vistas to Tai Tam Harbour and the Pumping Station</u>
	Vistas to Tai Tam Harbour and the Pumping Station.



Vistas from the Senior Staff Quarters to the Tai Tam Harbour



Vistas from the Senior Staff Quarters to the Pumping Station

### 1B. SENIOR STAFF QUARTERS – SERVANTS' QUARTERS

Item	Architectural Feature
1B.1	Building Facades
	All building facades with painted rendered walls.
ı	

North-east and north-west elevations



South-west and north-west elevations



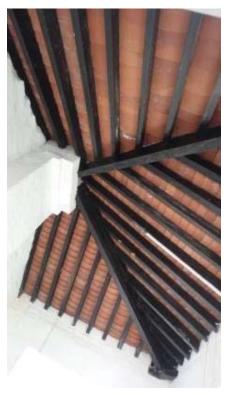
Southwest and south-east elevations

Item	Architectural Feature
1B.2	Wooden Casement Windows Wooden casement windows including all window frames, ironmongeries, grid glazing patterns and protruded windows sills.

Item	Architectural Feature
1B.3	Hipped Roof with Double-layered Chinese Pan and Roll tiles
	Hipped roof laid with double-layered Chinese pan and roll tiles including all timber rafter,
	fascia hoards and ornamental cast iron brackets



Hipped roof laid with double-layered pan and roll tiles



Timber rafter



Cast Iron brackets

Item Architectural Feature
----------------------------

# 1B.4 Chimney Stacks

Chimney stacks at both exterior and interior connecting to the fireplace and the remains of chimney stacks at interior.



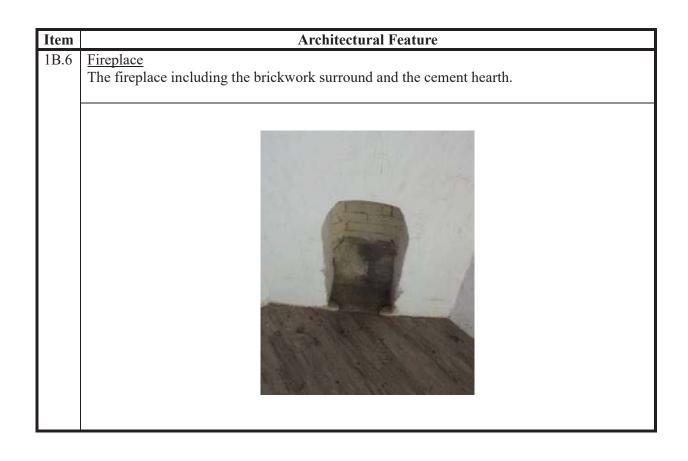
Chimney stacks at roof





Remains of chimney stacks at interior

Item	Architectural Feature
1B.5	Original Ventilation Grilles
	All historical cast iron ventilation grilles at low level of walls



Item	Architectural Feature	
1B.7		ns at
	Segmental arched doorway  Segmental arched brickworks remains	

# 1C. SENIOR STAFF QUARTERS – COVERED WALKWAY

em	Architectural Feature
.C.1	Structure and Extent of Covered Walkway  The covered walkway connecting the south-east façade of Main Building to the south-wes façade of Servants' Quarters supported by cast iron columns with granite stone bases ornamental cast iron brackets, cast iron bracings and rods.

Item	Architectural Feature
1C.2	Pitched Roof with Double-layered Chinese Pan and Roll Tiles Pitched roof laid with double-layered Chinese Pan and Roll Tiles including the timber rafter, purlins and fascia boards.

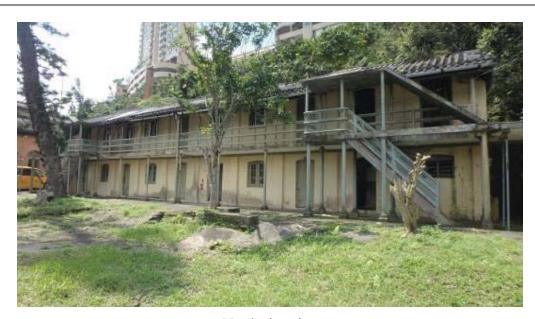
# 1D. SENIOR STAFF QUARTERS – SURROUNDING AREAS

Item	Architectural Feature
1D.1	Open Space and Lawn around the Main Building and Servants' Quarters
	The open space and lawn around the Main Building and the Servants' Quarters.

Item	Architectural Feature
1D.2	Classic cast iron lamp post The classic cast iron lamp post beside the access stairs to the Senior Staff Quarters.

### 2A. STAFF QUARTERS – MAIN BUILDING

### 



North elevation



South elevation

Item	Architec	etural Feature
2A.2	Verandahs on the North Elevation	
	Open verandahs supported by cast iron rostones bases on G/F, concrete slab and tubul	ound columns on G/F and 1/F including granite lar metal balustrades on 1/F.
	Verandah on G/F	Verandah on 1/F

Item	Architectural Feature
2A.3	Open Staircases Open Staircases at east and west ends of the north elevation, connecting to the verandahs on 1/F including the cast iron round columns, concrete roof slabs, steps with granolithic finishes and tubular metal balustrades
	Open staircase on the east end

Open staircase on the west end

Item	Architectural Feature
2A.4	Segmental Arched Wooden Casement Windows
	All original segmental arched wooden casement windows including the segmental arched
	brickworks, grid glazing patterns, rounded edge window sills and all ironmongeries.
	78 8 81 7 8

Item	Architectural Feature
2A.5	Segmental Arched Wooden Doors All original segmental arched wooden panel door including the original ironmongeries, the grid glazing pattern, the segmental arched brickworks, and granite stones for the fixing of the hinges and granite thresholds.

Item	Architectural Feature
2A.6	Hipped Roof with Double-layered Chinese Pan and Roll tiles
	Hipped roof laid with double-layered Chinese pan and roll tiles including all timber rafter, timber trusses, timber purlins, metal beams and bracings, and timber fascia boards.
	Double-layered Chinese pan and roll tiles



Timber truss, steel beams and bracings

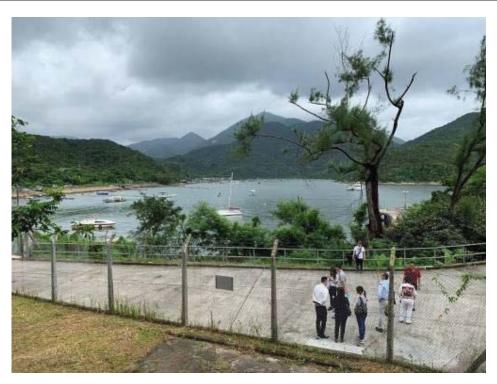
Architectural Feature
Original Ventilation Grilles
All historical cast iron ventilation grilles at G/F and 1/F.
Automic Committee of the committee of th

Item	Architectural Feature
2A.8	Stencilled Signages All stenciled signages at external walls including those above or beside door openings showing the room nos. and the usage of the rooms.
	(A)
	Nº 7

Item	Architectural Feature
2A.9	Original Cast Iron Rainwater Pipe All historical cast iron rainwater pipes including hopper, pipe works and their associated parts.

Item	Architectural Feature
2A.10	Jack arch slabs All jack arch slabs on 1/F floor slab with bottom of metal beams exposed including brick corbels.

# ItemArchitectural Feature2A.11Vistas to the Tai Tam Harbour and the Pumping Station<br/>Vistas from the Staff Quarters to the Tai Tam Harbour and the Pumping Station.



Vista from the Staff Quarters to the Tai Tam Harbour



Vista from the Staff Quarters to the Pumping Station

### 2B. STAFF QUARTERS – STORE BUILDING

#### 



South-west elevation



North-east and North-west elevations

Item	Architectural Feature
2B.2	Verandah on South-west Elevation and Covered walkway
	Open verandah and covered walkway linking the Store Building and the Main Building supported by metal round columns with granite stones bases.



Verandah on the South-west elevation



Covered Walkway linking the Store and the Main Building

T4	A 1. F 4
Item	Architectural Feature
2B.3	Segmental Arched Wooden Casement Windows All original segmental arched wooden casement windows including the segmental arched brickworks, grid glazing patterns, rounded edge window sills and all ironmongeries.

Item		ctural Feature
2B.4	Segmental Arched Wooden Doors All original segmental arched wooden pasegmental arched brickworks, and granite thresholds.	nel door including the original ironmongery, the e stones for the fixing of the hinges and granite
	Segmental Arched Wooden Door	Granite threshold

<b>.</b>	
Item	Architectural Feature
2B.5	<u>Ventilation Openings</u>
	All ventilation openings on the north-east elevation with metal grilles.
	Ventilation openings view from exterior
	Ventilation openings view from interior

Architectural Feature
Mono-pitched Roof
Concrete mono-pitched roof.

Item	Architectural Feature
2B.7	Stencilled Signages All stencilled signages at external walls.
	21 19 70 6 70 8
	T.T.S.

# 2C. STAFF QUARTERS – OPEN SPACE

Item	Architectural Feature
2C.1	Lawn The lawn in front of the Main Building and the Store Building.

## 3. NO. 2 STAFF QUARTERS

Item	Architectural Feature
3.1	Building Facades
	All elevations including fair-faced red bricks, Shanghai plaster finishes on exposed
	columns and along the bottom of walls.



North and East Elevations



South and West Elevations

#### 



Open verandah at 1/F



Metal balustrades with concrete railings and posts

Item	Architectural Feature
3.3	Open Staircase Concrete open staircase connecting to the verandah on 1/F including the stairs, balustrad with concrete posts and railings and granolithic floor finishes.

Item	Architectural Feature
3.4	
3.4	Doorcase of Original Main Entrance Geometric doorcase of the original main entrance, including the Shanghai plaster finishes, and the signs of "H.K.W.W." and "1936".
	H. K. W. W. 936

tem	Architectural Feature
.5	Window Head and Window Sill.  Brick window head and concrete window sill including the old ironmongeries at the sides. (Topenings of the windows have been altered.)

Item	Architectural Feature
3.6	Door Openings Door openings with brick door heads on 1/F.

Item	Architectural Feature
3.7	Concrete Beams All concrete beams with sloping corners on G/F and 1/F.

Itom	A vahitaatuval Eaatuva
Item	Architectural Feature
3.8	Coved Ceiling
	Coved Ceiling All coved ceilings on G/F and 1/F.
	The same of the sa

Item	Architectural Feature
3.9	Wooden partitions on 1/F Wooden partitions on 1/F.

Item	Architectural Feature
3.10	Original Cast Iron Rainwater Pipe All historical cast iron rainwater pipes including hopper, pipe works and their associated
	parts.

Item	Architectural Feature
3.11	Historical wall lamp
	The historical wall lamp at external wall.

Item	Architectural Feature
3.12	Flat Roofs All flat roofs.

Item	Architectural Feature
3.13	Vistas to Tai Tam Harbour and Pumping Station
	Vistas to Tai Tam Harbour and Pumping Station.



Vistas to the Tai Tam Harbour



Vistas to the Pumping Station

#### 4. SURROUNDING AREAS

Item	Architectural Feature
4.1	Existing Underground Cellar/ Air Raid Shelters
	The existing Underground Cellar/ air raid shelters and all the associated staircase and tunnels, if any.



Access to the Underground Cellar



Interior of the Underground Cellar

Item
4.2

Item	Architectural Feature
4.3	Garage The garage building beside the Pumping Station including the shelter.

# Appendix IX(B) List of Required Treatments to Architectural Features

# Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound Required Treatments to Architectural Features

## 1A. SENIOR STAFF QUARTERS – MAIN BUILDING

Item	Architectural Feature		Required Treatments
1A.1	Building Facades	a.	All elevations including classical architectural features should
			be generally kept intact except for restoration works and
			necessary alteration and addition works to meet current
			statutory requirements, subjected to Antiquities Authority's
			approval.
		b.	Any restoration works should be based on further research
			and/or site investigations with sufficient evidence.
		c.	Any alteration and addition works should be fully justified
			and carried out at less prominent area at the rear side in order
			to keep their visual impact on the declared monument and the
			landscape nearby to minimal and subjected to AMO and/or
			Antiquities Authority's approval as necessary if the Declared
			Monument is affected.
		d.	Apart from Item 1A.1 b & 1A.1 c, no new structures, awning,
			additional shading fins, equipment etc. should be installed on
			the building facades.
		e.	Installation of new signage on the facade may be permitted
			provided that it will not overwhelm the existing elevation
			design and should be submitted to Antiquities Authority for
			approval.
		f.	No alteration to the existing opening or blockage to openings
			or formation of new opening should be made unless approved
			by Antiquities Authority.
		g.	Rendered walls and the features are to be repaired as
			necessary to match existing and repaint with reversible
			painting system and colour approved by Antiquities
			Authority.









Item	<b>Architectural Feature</b>	Required Treatments
1A.2	Wooden Windows	<ul> <li>a. A research study on the window openings is to be conducted to find out if some of the window openings has been altered and the original design of the wooden windows. The study should be based on archival research and site investigations, and supplemented with photos, drawings, etc. for AMO's record.</li> <li>b. The window openings which have been altered should be restored to the original size with new wooden windows following the original design or similar design of the period, subjected to Antiquities Authority's approval.</li> <li>c. Other wooden windows with original openings including the window frames with mouldings at interior, grid glazing patterns, original ironmongeries, protruded window heads and window sills should be preserved in-situ as far as practicable with necessary repair works to match existing. If the wooden windows and ironmongeries are beyond repair, they are to be replaced with new wooden windows and ironmongeries based on the existing design, subjected to Antiquities Authority's approval.</li> <li>d. Wood preservative treatment are to be provided to all the timber elements.</li> </ul>







Item	<b>Architectural Feature</b>	Required Treatments
1A.3	Entrance Porch and Main Entrance Door	<ul> <li>a. The entrance porch and main entrance door including the steps and the patterned floor finishes, door threshold, the parapet walls, the arched fin and the keystone should be preserved in-situ.</li> <li>b. The original wooden French door with semi-circular arched fanlight including the door frame, grid glazing patterns and the original ironmongeries should be preserved in-situ.</li> <li>c. Any defective floor finishes, parapet walls, steps are to be repaired as necessary to match existing.</li> <li>d. If the wooden French door are beyond repair, they are to be replaced with new wooden door and ironmongeries based on existing design, subjected to Antiquities Authority's approval.</li> <li>e. Wood preservative treatment to all the timber elements is to be provided.</li> </ul>





Item	Architectural Feature	Required Treatments
1A.4	Side Entrance Door and Internal French Doors	a. A research study on the original door openings and the original French door design is to be conducted. The study should be based on archival research and site investigations, and supplemented with photos, drawings, etc. for AMO's record.
		b. For external doors, any later formed door openings at the external walls and any French doors replaced with altered design should be restored as far as practicable based on the research.
		c. For internal doors, the original French doors with original design door panels including the grid glazing patterns, door frames, top hung fanlight, original ironmongeries and arched opening should be preserved in-situ, while the French doors which have been replaced with altered design at original openings should be restored to the original design as far as practicable.
		d. If the wooden French doors are beyond repair, they are to be replaced with new wooden doors and ironmongeries based on the original design as far as practicable and subjected to Antiquities Authority's approval.
		e. Wood preservative treatment is to be provided to all the timber elements.









Item	Architectural Feature	Required Treatments
1A.5	Hipped Roof at the Middle and Flat Roof at the Sides	<ul> <li>a. The form and the materials of the roofs are not to be changed.</li> <li>b. The hipped roof with the double-layered Chinese pan and roll tiles are to be checked and repaired as necessary to maintain waterproof matching with existing.</li> <li>c. The structural condition is to be checked, the defective timber trusses, rafters and purlins are to be repaired as necessary. New replacement of the timber elements is acceptable if the elements are beyond repair and the replacements should follow the existing materials and design.</li> <li>d. Termite eradication and monitoring system is to be installed.</li> <li>e. The defective roofing membrane at flat roof is to be repaired as necessary.</li> <li>f. No construction of additional storey at roof is permitted.</li> <li>g. Installation of building services equipment, ductwork, pipeworks, etc. on the flat roof could be considered, provided that the new installations should be setback from the facades with no visual impact created to the declared monument and subjected to Registered Structural Engineer's confirmation that no structural strengthening works is necessary, and is subjected to Antiquities Authority's approval.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
1A.6	Chimney Stack	<ul> <li>a. The chimneys on roof together with the chimney stack in the interior should be preserved in-situ</li> <li>b. Any defective brickworks are to be repaired as necessary and repaint to match existing.</li> <li>c. Blocking the openings of chimney at roof to prevent water seepage in a reversible manner may be considered provided that the appearance of the chimney is not affected.</li> </ul>



Item	<b>Architectural Feature</b>	Required Treatments
1A.7	Original Cast Iron Rainwater pipe	<ul> <li>a. All historical cast iron rainwater pipes, including hopper, pipe works and their associated parts, should be preserved insitu as far as practical.</li> <li>b. Any defective part(s) of the drainage system are to be repaired and replaced as necessary. Any blockage in the drainage system is to be cleared to restore its function.</li> <li>c. If defective pipework is beyond repair, they should be replaced with cast iron pipework and to be painted to match existing.</li> </ul>



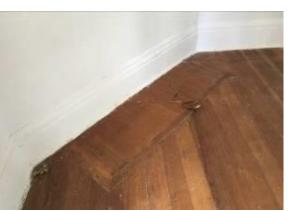
Item	Architectural Feature	Required Treatments
1A.8 Original ventilation grilles		<ul><li>a. All original ventilation grilles should be preserved in-situ.</li><li>b. The grilles should not be blocked to maintain its function.</li><li>c. Any defective grilles are to be repaired, de-rusted and repainted as necessary.</li></ul>

Item	<b>Architectural Feature</b>	Required Treatments
1A.9	Fireplaces	<ul> <li>a. The existing fireplaces including the tiling, shanghai plaster finishes, surrounds, grates, hearths and mantel shelves should be preserved in-situ and exposed to public for appreciation.</li> <li>b. The old fireplace mark on timber floor finishes should be preserved in-situ.</li> <li>c. Restoration of the fireplaces may be considered if sufficient evidence of the original design and appearance could be provided, subjected to the Antiquities Authority's approval.</li> <li>d. The fireplace is to be repaired as necessary and wood preservative treatment is to be provided to all the timber elements.</li> </ul>



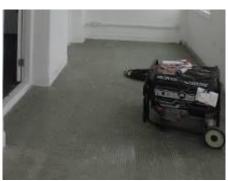






Item	<b>Architectural Feature</b>	Required Treatments
1A.10	Mosaic Tiled Finishes	The green mosaic tiles including the drainage channels should be preserved in situ.  The mosaic tiled finishes are to be cleaned and defective tiles are to be repaired as necessary for public appreciation.







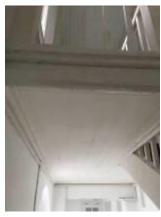


Item	<b>Architectural Feature</b>	Required Treatments
1A.11	<u>Timber Floor Cover</u>	a. The timber floor cover should be preserved in-situ as far as practicable.
		<ul><li>b. The timber floor cover is to be repaired and wood preservative treatment is to be provided to all the timber elements and the existing defective elements is to be replaced based on the existing materials as necessary.</li><li>c. Covering the timber floor cover in a reversible manner may be permitted, subjected to Antiquities Authority's approval.</li></ul>





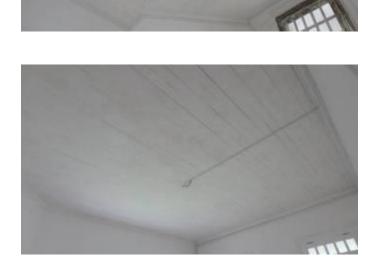
Item	<b>Architectural Feature</b>	Required Treatments
1A.12	Timber Floor System	<ul> <li>a. The timber floor system including the timber floor joists, timber column and timber floor finishes should be preserved in-situ.</li> <li>b. The timber floor system is to be repaired as necessary and wood preservative treatment is to be provided to all the timber elements.</li> <li>c. New replacement of the elements is acceptable if the elements are beyond repair and the replacements should follow the existing structural systems and materials.</li> <li>d. Upgrading of timber floor system to suit modern statutory requirements and operation needs in a reversible manner may be permitted, subjected to the advice from the Registered Structural Engineer, and is subjected to Antiquities Authority's approval.</li> <li>e. Covering the timber floor finishes in a reversible manner may be considered, and is subjected to Antiquities Authority's approval.</li> </ul>



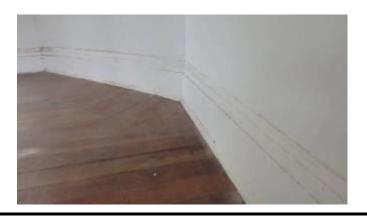




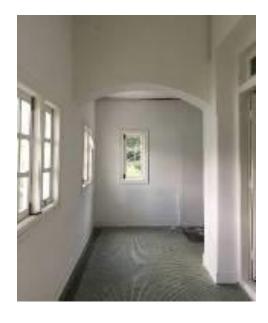
Item	<b>Architectural Feature</b>	Required Treatments
1A.13	Timber Suspended Ceiling	<ul> <li>a. The timber suspended ceiling including crown moulding on G/F and 1/F should be preserved in-situ.</li> <li>b. The timber suspended ceiling is to be repaired as necessary and wood preservative treatment is to be provided to all the timber elements.</li> <li>c. New replacement of the elements is acceptable if the elements are beyond repair and the replacements should follow the existing materials and design.</li> <li>d. If upgrading works of 1/F timber floor system is necessary upon the advice from the Registered Structural Engineer, dismantle and reinstatement of the timber suspended ceiling for the upgrading works may be permitted, subjected to Antiquities Authority's approval.</li> </ul>



Item	<b>Architectural Feature</b>		Required Treatments
1A.14	Cement Skirting	a.	Moulded cement skirting on G/F and 1/F should be preserved in-
			situ and repaired as necessary.



Item	Architectural Feature	Required Treatments
1A.15	Internal Arched Doorway and Opening	<ul> <li>a. The segmental arched doorway at Hallway 3 on 1/F and arched opening between Bedroom 1 and Sitting Room 1 on G/F are not to be altered.</li> <li>b. Blocking of the opening by glass door or glass panel in a reversible manner to suit operation needs may be permitted, subjected to Antiquities Authority's approval.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
1A.16	Original Timber Staircase	<ul> <li>a. The original timber staircase, including the timber balustrades, railings and steps, should be preserved in-situ.</li> <li>b. The original timber staircase is to be repaired as necessary and wood preservative treatment is to be provided to all the timber elements.</li> <li>c. New replacement of the elements is acceptable if the elements are beyond repair and the replacements should follow the existing materials and design.</li> <li>d. Upgrading works to the existing handrails and balustrades as required by statutory requirements that are installed in a reversible manner may be considered. The design should be distinguishable from and compatible with the existing handrails and balustrades and is subjected to Antiquities Authority's approval.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
1A.17	Vistas to Tai Tam Harbour and the Pumping Station	a. Any new structure or installation should not block the vistas from the Main Building to Tai Tam Harbour and the Pumping Station





Item	<b>Architectural Feature</b>		Required Treatments
1A.18	Internal walls	a. b.	Any damage sections of the walls is to be repaired by using materials matching existing as necessary.  The existing interior planning should be kept intact in general. Alteration to the existing walls or addition of new partitions is not allowed unless approved by Antiquities Authority, and is subjected to the advice of a Registered Structural Engineer.

# 1B. SENIOR STAFF QUARTERS – SERVANTS' QUARTERS

Item	Architectural Feature	Required Treatments
1B.1	Building Facades	<ul> <li>a. All elevations with painted rendered walls should be generally kept intact except for restoration works, subjected to Antiquities Authority's approval.</li> <li>b. Any restoration works should be based on further research and/or site investigations with sufficient evidence.</li> <li>c. No new structures, awning, additional shading fins, equipment etc. should be installed on the building facades.</li> <li>d. Installation of new signage on the facade may be permitted provided that it will not overwhelm the existing elevation design and should be submitted to Antiquities Authority for approval.</li> <li>e. No alteration to the existing opening or blockage to openings or formation of new opening should be made unless approved by Antiquities Authority.</li> <li>f. The rendered walls and the features are to be repaired as necessary to match existing and to be repainted with reversible painting system and colour approved by Antiquities Authority.</li> </ul>







Item	Architectural Featu	re	Required Treatments
1B.2	Wooden Casem Windows	ent a. b.	All wooden windows with original openings including all window frames, ironmongeries, grid glazing patterns and protruded windows sills should be preserved in-situ as far as practical with necessary repair works to match existing. If the wooden windows and ironmongeries are beyond repair, they are to be replaced with new wooden windows and ironmongeries based on the existing design, subjected to Antiquities Authority's approval.  Wood preservative treatment is to be provided to all the timber elements.





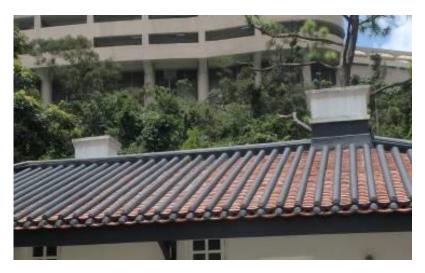
Item	<b>Architectural Feature</b>	Required Treatments
1B.3	Hipped Roof with  Double-layered Chinese Pan and Roll tiles	<ul> <li>a. The form and the materials of the roofs are not to be changed.</li> <li>b. The hipped roofs with the double-layered Chinese pan and roll tiles are to be checked and repaired to maintain waterproof matching existing.</li> <li>c. Structural condition is to be checked and the defective timber trusses, rafters and purlins are to be repaired as necessary.</li> <li>d. The ornamental cast iron brackets are to be repaired and repainted as necessary.</li> <li>e. Wood preservative treatment is to be provided to all the timber elements and termite eradication and monitoring system is to be installed.</li> <li>f. At least part of the timber structure should be exposed for public appreciation.</li> </ul>







Item	<b>Architectural Feature</b>	Required Treatments
1B.4	Chimney Stacks	<ul> <li>a. The chimneys on roof together with the chimney stack in the interior connecting to fireplace and the remains should be preserved in-situ.</li> <li>b. Any defective brickworks are to be repaired as necessary and repaint to match existing.</li> <li>c. Blocking the openings of chimney at roof to prevent water seepage in a reversible manner may be considered provided that the appearance of the chimney is not affected.</li> </ul>







Item	<b>Architectural Feature</b>	Required Treatments
1B.5	Original Ventilation Grilles	<ul><li>a. All original ventilation grilles should be preserved in-situ.</li><li>b. The grilles should not be blocked to maintain its function.</li><li>c. Any defective grilles are to be repaired, de-rusted and repainted as necessary.</li></ul>



Item	<b>Architectural Feature</b>	Required Treatments
1B.6	<u>Fireplace</u>	<ul> <li>a. The existing fireplaces including brickwork surrounds and the cement hearth should be preserved in-situ and exposed to public for appreciation.</li> <li>b. Restoration of the fireplaces may be considered if sufficient evidence of the original design and appearance could be provided, subjected to the Antiquities Authority's approval.</li> </ul>

Item	Architectural Feature	Required Treatments
1B.7	Internal Arched Doorway	<ul> <li>a. The segmental arched doorway are not to be altered.</li> <li>b. All segmental arched brickworks remains at walls should be preserved in-situ</li> <li>c. Blocking of the opening by glass door or glass panel in a reversible manner to suit operation needs may be permitted, subjected to Antiquities Authority's approval.</li> </ul>
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Item	Architectural Feature	Required Treatments
1B.8	Internal Walls	<ul> <li>a. Any damage sections of the walls are to be repaired by using materials matching existing as necessary.</li> <li>b. The existing interior planning should be kept intact in general. Alteration to the existing walls or addition of new partitions is not allowed unless approved by Antiquities Authority, and is subjected to the advice of a Registered Structural Engineer.</li> <li>c. Plaster should not be applied on walls.</li> </ul>

## 1C. SENIOR STAFF QUARTERS – COVERED WALKWAY

Item	Architectural Feature	Required Treatments
1C.1	Structure and Extent of Covered Walkway	<ul> <li>a. The form and the materials of the covered walkway are not to be altered.</li> <li>b. The covered walkway should maintain open at the sides.</li> <li>c. All the structural elements including the cast iron columns with granite stone bases, ornamental cast iron brackets and cast iron bracings and rods should be preserved in-situ, repaired and repainted as necessary.</li> </ul>

Item	Architectural Feature	Required Treatments
1C.2	Pitched roof with Double-layered Chinese Pan and Roll Tiles	<ul> <li>a. The pitched roofs is to be checked and repaired with the double-layered Chinese pan and roll tiles to maintain waterproof matching existing.</li> <li>b. Structural condition is to be checked and the defective timber trusses, rafters and purlins are to be repaired as necessary.</li> <li>c. The ornamental cast iron brackets are to be repaired and repainted as necessary.</li> <li>d. Wood preservative treatment is to be provided to all the timber elements and termite eradication and monitoring system is to be installed.</li> </ul>

### 1D. SENIOR STAFF QUARTERS – SURROUNDING AREAS

Item	Architectural Feature		Required Treatments
Item 1D.1	Architectural Feature  Open Space and Lawn around the Main Building and Servants' Quarters.	a. b. c.	Required Treatments  The open space and lawn around the Main Building and Servants' Quarters should be remained as open as possible to allow the general public to pay due respect to the declared monuments.  No above-ground structure or installation at the north-eastern side of the Main Building and the Servants' Quarters (refer to the open spaces as shown in the photos below) is allowed.  Erection of above-ground new access facilities i.e. lift and means of escape staircase, and installation of building
		d.	services with proper screening ("Proposed Works A") at the south-western lawn behind the Main Building and open space behind the Servants' Quarters to meet current statutory requirements for new use could be considered, and are subjected to the approval from Antiquities Authority. Other than the proposed access facilities, the existing lawn should be maintain as lawn.  The Proposed Works A should be compatible with and
		e.	distinguishable from the declared monuments with minimal size to minimize the visual impact on the declared monuments.  The Proposed Works A should be structurally independent and should not adversely affect the structure of declared monuments.
		f.	Unless approved by the Antiquities Authority, the ultimate height of the new lift and staircase should be lower than the top level of the parapet wall of roof.  Any new underground structure at the open spaces and lawn to meet the current statutory requirements could be considered provided that no adverse impact would cause to
			the structure and foundation of the declared monuments, subjected to the advice from a Registered Structural Engineer and is subjected to the Antiquities Authority's approval.





South-western lawn and open space at the rear side of the declared monuments





North-eastern open spaces in front of the declared monuments

Item	Architectural Feature	Required Treatments
1D.2	Classic cast iron lamp post	<ul><li>a. The classic cast iron lamp post should be preserved in-situ.</li><li>b. The cast iron lamp post is to be repaired and its function is to be restored as far as practicable.</li></ul>

# 2A. STAFF QUARTERS – MAIN BUILDING

Item	Architectural Feature	Required Treatments
2A.1	Building Facades	<ul> <li>a. All elevations with exposed columns should be generally kept intact except for restoration works and necessary alteration and addition works to meet current statutory requirements, subjected to Antiquities Authority's approval.</li> <li>b. Any restoration works should be based on further research and/or site investigations with sufficient evidence.</li> <li>c. Any alteration and addition works should be carried out at less prominent area at the rear side in order to keep their visual impact on the Main Building and the Store Building to minimal.</li> <li>d. Apart from Item 2A.1b &amp; 2A.1c no new structures, awning, additional shading fins, equipment etc. should be installed on the building facades.</li> <li>e. Installation of new signage on the facade may be permitted provided that it will not overwhelm the existing elevation design and should be submitted to Antiquities Authority for approval.</li> <li>f. No alteration to the existing opening or blockage to openings or formation of new opening should be made unless approved by Antiquities Authority.</li> <li>g. The rendered walls and the features are to be repaired as necessary to match existing and repaint with reversible painting system and colour approved by Antiquities Authority.</li> <li>h. No plaster should be applied on walls.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
2A.2	Verandahs on North Elevation	<ul> <li>a. The open verandahs including the cast iron metal round columns on G/F and 1/F and granite stones bases should be preserved in-situ.</li> <li>b. No enclosure of the verandah, wholly or partially is permitted.</li> <li>c. The existing slab is to be repaired based on existing structural system as necessary.</li> <li>d. The existing tubular metal balustrade should be preserved as far as practicable, upgrading of existing balustrade to meet current statutory requirements in a reversible manner and with minimum disturbance to the balustrades may be considered, subjected to the Antiquities Authority's approval.</li> <li>e. A research study on the authenticity of the existing metal balustrade is to be conducted. The study should be based on archival research and site investigations, and supplemented with photos, drawings, etc. for AMO's record. If sufficient evidence could be provided that the balustrade is not original, replacement of balustrade with similar design of simple tubular metal balustrade which is compatible with the building design may be considered, subjected to the Antiquities Authority's approval.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
Item 2A.3	Architectural Feature Open Staircases	a. The open staircases including the cast iron round columns, concrete roof slabs and steps with granolithic finishes should be preserved in situ.  b. The staircase should be kept open, no enclosure of open staircase is permitted.  c. The existing tubular metal balustrade should be preserved as far as practicable, upgrading of existing balustrade to meet current statutory requirements in a reversible manner and with minimum disturbance to the balustrades may be considered, subjected to the Antiquities Authority's approval.  d. A research study on the authenticity of the existing metal balustrade is to be conducted. The study should be based on archival research and site investigations, and supplemented with photos, drawings, etc. for AMO's record. If sufficient evidence could be provided that the balustrade is not original,
		replacement of balustrade with similar design of simple tubular metal balustrade which is compatible with the building design may be considered, subjected to the Antiquities Authority's approval.





Item	Architectural Feature	Required Treatments
2A.4	Segmental Arched Wooden Casement Windows	a. All original segmental arched wooden casement windows including the segmental arched brickworks, grid glazing patterns, rounded edge window sills and all ironmongeries should be preserved in-situ.
		<ul> <li>b. The wooden windows are to be repaired to match existing as necessary. If the wooden windows and ironmongeries are beyond repair, replace the windows with new wooden windows and ironmongeries following the existing design, subjected to Antiquities Authority's approval.</li> <li>c. Wood preservative treatment is to be provided to all the timber elements.</li> <li>d. Modification of the window openings into door openings to meet the current statutory requirements may be considered, provided that the modification works would be carried out at the rear side of the Main Building at less prominent area, and is subjected to the Antiquities Authority's approval.</li> </ul>



Item   Architectural Feature	Required Treatments
Wooden Doors	<ul> <li>a. All original segmental arched wooden panel door including the original ironmongeries, the grid glazing pattern, the segmental arched brickworks, and granite stones for the fixing of the hinges and granite thresholds should be preserved in-situ.</li> <li>b. The wooden doors are to be repaired to match existing as necessary. If the wooden windows and ironmongeries are beyond repair, they are to be replaced with new wooden doors and ironmongeries based on the existing design, subjected to Antiquities Authority's approval.</li> <li>c. Wood preservative treatment is to be provided to all the timber elements.</li> </ul>





Item	Architectural Feature	Required Treatments
2A.6	Hipped Roof with Double-layered Chinese Pan and Roll tiles	<ul> <li>a. The form and the materials of the roofs are not to be changed.</li> <li>b. The hipped roofs are to be checked and repaired with the double-layered pan and roll tiles to maintain waterproof matching existing.</li> <li>c. Structural condition is to be checked and the defective timber trusses, rafters, purlins and metal beams and bracings are to be repaired as necessary to match existing. Termite eradication and monitoring system is to be installed.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
2A.7	Original Ventilation Grilles	<ul><li>a. All original ventilation grilles should be preserved in-situ.</li><li>b. The grilles should not be blocked to maintain its function.</li></ul>
	Simes	c. Repair, de-rust and repaint any defective grilles as necessary.
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Item	<b>Architectural Feature</b>	Required Treatments
2A.8	Stencilled Signages	a. All stencilled signages at external walls including those above
		or beside door openings showing the room nos. and the
		function of the rooms should be preserved in-situ.
		b. The stencilled signage are not to be covered and should be
		displayed for public appreciation.









Item	<b>Architectural Feature</b>	Required Treatments
2A.9	Original Cast Iron Rainwater Pipe	<ul> <li>a. Some of the rainwater pipes and the gutters have been altered or replaced with new materials. A research study on the original rainwater drainage system is to be conducted and the drainage system is to be restored by using the materials of the period as far as practicable.</li> <li>b. All historical cast iron rainwater pipes, including hopper, pipe works and their associated parts, should be preserved insitu as far as practicable.</li> <li>c. Historical cast iron rainwater pipes and any defective part(s) of are to be repaired to restore its function. If defective pipework is beyond repair, the replacement pipework should be cast iron and painted to match existing.</li> </ul>

Item	Architectural Feature	Required Treatments
2A.10	Jack Arch slabs	<ul> <li>a. The jack arch slabs on 1/F with bottom of metal beams exposed and the supporting brick corbels should be preserved in-situ.</li> <li>b. The condition of the Jack arch slabs are to be checked and they are to be repaired as necessary following the existing structural system. New replacement of the elements is acceptable if the elements are beyond repair and the replacements should follow the existing structural system, materials and design.</li> <li>c. If upgrading works of the slab to meet current statutory requirements is necessary upon the advice from the Registered Structural Engineer, upgrading works may be permitted, subjected to Antiquities Authority's approval.</li> <li>d. Any upgrading works should be reversible in manner with the metal beams and arched ceiling to be exposed for public appreciation as far as practicable.</li> </ul>





Harbour  and the Pumping Station should be maintained.  b. Erection of new structure at the north side in front of the State Quarters and at the east side between the Staff Quarters and	Item	<b>Architectural Feature</b>	Required Treatments
the Pumping Station should be avoided.	2A.11		





# 2B. STAFF QUARTERS – STORE BUILDING

Item	Architectural Feature	Required Treatments
2B.1	Building Facades	<ul> <li>a. All elevations with exposed columns should be generally kept intact, subjected to Antiquities Authority's approval.</li> <li>b. No new structures, awning, additional shading fins, equipment etc. should be installed on the building facades.</li> <li>c. Installation of new signage on the facade may be permitted provided that it will not overwhelm the existing elevation design and should be submitted to AMO for approval.</li> <li>d. No alteration to the existing opening or blockage to openings or formation of new opening should be made unless approved by AMO.</li> <li>e. The rendered walls and the features are to be repaired as necessary to match existing and repaint with reversible painting system and colour approved by AMO.</li> <li>f. No plaster should be applied on walls.</li> </ul>

Item	Architectural Feature	Required Treatments
2B.2	Verandah on South- west Elevation and Covered walkway	<ul> <li>a. The open verandah and the covered walkway linking the Store Building and the Main Building including the cast iron metal round columns with granite stones bases should be preserved in-situ.</li> <li>b. No enclosure of the verandah, wholly or partially is permitted.</li> <li>c. The existing roof slab is to be repaired following existing structural system as necessary.</li> </ul>

Item	Architectural Feature	Required Treatments
2B.3	Segmental Arched Wooden Casement Windows	<ul> <li>a. All original segmental arched wooden casement windows including the segmental arched brickworks, grid glazing patterns, rounded edge window sills and all ironmongeries should be preserved in-situ.</li> <li>b. The wooden windows are to be repaired to match existing as necessary. If the wooden windows and ironmongeries are beyond repair, they are to be replaced with new following</li> </ul>
		the existing design. c. Wood preservative treatment is to be provided to all the timber elements.

Item	Architectural Feature	Required Treatments
2B.4	Segmental Arched Wooden Doors	<ul> <li>a. All original segmental arched wooden panel door including the original ironmongeries, the segmental arched brickworks, and granite stones for the fixing of the hinges and granite thresholds should be preserved in-situ.</li> <li>b. The wooden doors are to be repaired to match existing as necessary. If the wooden windows and ironmongeries are beyond repair, they are to be replaced with new following the existing design.</li> <li>c. Wood preservative treatment is to be provided to all the timber elements.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
2B.5	Ventilation Openings	<ul><li>a. The wall openings on the north-east elevation with metal grilles should be preserved in-situ.</li><li>b. Blockage of the openings in a reversible manner may be considered to meet statutory requirement, and is subjected to AMO's approval.</li></ul>





Item	Architectural Feature	Required Treatments
2B.6	Mono-pitched Roof	<ul> <li>a. The form and the materials of the roof are not to be changed.</li> <li>b. The roof slab is to be checked and repaired following existing material and design as necessary.</li> <li>c. Roofing membrane at flat roof is to be applied in a reversible-manner to improve the waterproof as necessary.</li> </ul>



Item	<b>Architectural Feature</b>	Required Treatments
2B.7	Stencilled Signages	a. All stenciled signages at external walls should be preserved in-situ.
		TI.5

### 2C. STAFF QUARTERS – OPEN SPACE

Item	Architectural Feature	Required Treatments
2C.1	Lawn	<ul><li>a. The lawn in front of the Staff Quarters should be remained as open as possible with the existing lawn to be maintained as a lawn.</li><li>b. Erection of above-ground or underground new structures or installation of building services equipment at the lawn should be avoided.</li></ul>

Item	Architectural Feature		Required Treatments
2C.2	Open Space at the rear side of Staff Quarters	a. b. c. d.	Erection of above-ground new access facilities such as lift and means of escape staircase, and installation of building services equipment underground or above-aground with proper screening ("Proposed Works B") at the rear side of the Staff Quarters to meet current statutory requirements for new use could be considered, and are subjected to the approval from Antiquities Authority.  The Proposed Works B should be compatible with and distinguishable from the Main Building and the Store Building with minimal size to minimize the visual impact on the declared monuments.  The Proposed Works B should be structurally independent and should not adversely affect the structure and foundation of the Main Building and the Store Building, subjected to the advice from a Registered Structural Engineer.  Unless approved by the Antiquities Authority, the ultimate height of the new lift and staircase should be lower than the top level of the existing hipped roof.





# 3. NO. 2 STAFF QUARTERS

Item	<b>Architectural Feature</b>		Required Treatments
3.1	Architectural Feature  Building Facades	a. b. c. d.	All elevations including fair-faced red bricks, Shanghai plaster finishes on exposed columns and along the bottom of walls should be generally kept intact except for restoration works and necessary alteration and addition works to meet current statutory requirements, subjected to Antiquities Authority's approval.  Any restoration works should be based on further research and/or site investigations with sufficient evidence.  Any alteration and addition works should be carried out at less prominent area at the south and west side of building in order to keep their visual impact on the declared monument to minimal.  Apart from Item 3.1b & 3.1c, no new structures, awning, additional shading fins, equipment etc. should be installed on the building facades.  Installation of new signage on the facade may be permitted
		e.	Installation of new signage on the facade may be permitted provided that it will not overwhelm the existing elevation design and should be submitted to Antiquities Authority for approval.
		f.	No alteration to the existing opening or blockage to openings or formation of new opening should be made unless approved by Antiquities Authority.
,		g.	The walls and the finishes are to be repaired as necessary to match existing.
		h.	No painting should be applied on walls.





Item	Architectural Feature	Required Treatments
3.2	Verandahs on North Elevation	<ul> <li>a. The open verandahs including the concrete railings and posts of balustrades should be preserved in-situ.</li> <li>b. No enclosure of the verandah, wholly or partially is permitted.</li> <li>c. The existing slab and canopy is to be repaired following existing structural system as necessary.</li> <li>d. The existing metal balustrade is not original. A research study on the original design of the metal balustrade is to be conducted and the metal balustrade is to be restored to the original design. The study should be based on archival research and site investigations, and supplemented with photos, drawings, etc. for AMO's record.</li> <li>e. Upgrading of the balustrade to meet current statutory requirements in a reversible manner and with minimum disturbance to the concrete railings and posts of balustrades may be considered, subjected to the Antiquities Authority's approval.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
3.3	Open Staircase	a. The concrete open staircase connecting to the verandah on 1/F should be preserved in-situ.
		<ul> <li>b. The existing metal balustrade is not original. A research study is to be conducted on the original design of the metal balustrade and the metal balustrade is to be restored to the original design. The study should be based on archival research and site investigations, and supplemented with photos, drawings, etc. for AMO's record.</li> <li>c. Upgrading of the balustrade to meet current statutory requirements in a reversible manner and with minimum disturbance to the concrete railings and posts of balustrades may be considered, subjected to the Antiquities Authority's approval.</li> </ul>



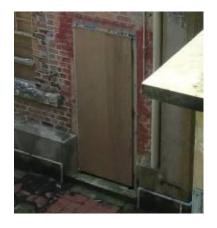
Item	Architectural Feature	Required Treatments
3.4	Doorcase of Original Main Entrance	<ul> <li>a. The geometric doorcase of the original main entrance including the shanghai plaster finishes and the signs of "H.K.W.W." and "1936" should be preserved in-situ.</li> <li>b. The original door opening which have been altered into window opening should be restored and the surrounding should be made good.</li> <li>c. The doorcase Shanghai plaster finishes is to be repaired to match existing as necessary.</li> </ul>
		N. S. J. S.

Item	Architectural Feature	Required Treatments
3.5	Window Head and Window Sill	<ul> <li>a. All brick window head and concrete window sill including the old ironmongeries at the sides should be preserved in-situ and repaired as necessary.</li> <li>b. A research study on the original design of the steel windows is to be conducted. The study should be based on archival research and site investigations, supplemented with photos, drawings, etc. for AMO's record.</li> <li>c. The altered window openings should be restored to the original size and replaced with new steel windows following the original design.</li> </ul>



Item	<b>Architectural Feature</b>	Required Treatments
3.6	Door Openings	<ul> <li>a. A research study and site investigation is to be conducted to identify the original door openings and later-formed door openings, and the original design of the doors. The study should be based on archival research and site investigations, supplemented with photos, drawings, etc. for AMO's record.</li> <li>b. The brick door heads on 1/F should be preserved in-situ and repaired as necessary.</li> <li>c. The original door openings are to be restored with new doors following the original design or the design of the period.</li> <li>d. Altered door openings or later-formed door openings should be restored to window openings or reinstated with brickworks to match with existing walls, unless with justifications approved by the Antiquities Authority.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
3.7	Concrete Beams	<ul> <li>a. All concrete beams with sloping corners on G/F and 1/F should be preserved in-situ and be exposed for public appreciation as far as practicable.</li> <li>b. The concrete beams are to be repaired as necessary following the existing profile.</li> </ul>

Item	<b>Architectural Feature</b>	Required Treatments
3.8	Coved Ceiling	<ul><li>a. All coved ceiling on G/F and 1/F should be preserved in-situ and be exposed for public appreciation as far as practicable.</li><li>b. The coved moulding is to be reinstated to match existing after any ceiling repair work as necessary.</li></ul>

Item	<b>Architectural Feature</b>	Required Treatments
3.9	Wooden Partitions on 1/F	<ul> <li>a. The wooden partitions on 1/F, though have been altered, should be preserved as far as practicable.</li> <li>b. The defective elements of wooden partitions are to be repaired and replaced with new following the existing design and materials as necessary. Wood preservative treatment is to be provided to all the timber elements.</li> </ul>





Item	<b>Architectural Feature</b>	Required Treatments
3.10	Original Cast Iron Rainwater Pipe	<ul> <li>a. All historical cast iron rainwater pipes, including hopper, pipe works and their associated parts, should be preserved in-situ as far as practicable.</li> <li>b. Any defective part(s) of the drainage system are to be repaired and replaced with new as necessary. Clear any blockage in the drainage system to restore its function.</li> <li>c. If defective pipework is beyond repair, the replacement pipework should be cast iron and painted to match existing.</li> </ul>

Item	Architectural Feature Historical Wall Lamp	Required Treatments		
3.11		<ul><li>a. The historic wall lamp should be preserved in-situ.</li><li>b. It is to be repaired and its function is to be restored as far as practicable.</li></ul>		

Item	<b>Architectural Feature</b>	Required Treatments
3.12	Flat Roofs	<ul> <li>a. The form and the materials of the roof are not to be changed</li> <li>b. The roof slab is to be checked and repaired following existing material and design as necessary.</li> <li>c. Roofing membrane at flat roof is to be applied in a reversible-manner to improve the waterproof as necessary.</li> </ul>



Item	Architectural Feature		Required Treatments
3.13	Vistas to Tam Tam Harbour and Pumping Station	a.	Any new structure or installation should not block the vistas from the Main Building to Tai Tam Harbour and the Pumping Station





Item	<b>Architectural Feature</b>	Required Treatments
3.14	Outbuilding	<ul> <li>a. The outbuilding (used as bathroom) at the southern side of the No. 2 Staff Quarters is a later addition.</li> <li>b. No objection to demolish to make way for new access facilities if necessary, subjected to the approval by the AMO.</li> </ul>

Item	Architectural Feature	Required Treatments
3.15	Open Spaces surrounding the No. 2 Staff Quarters	<ul> <li>a. The open spaces around the No. 2 Staff Quarters should be remained as open as possible and the existing lawn should maintain as lawn to allow the general public to pay due respect to the declared monument.</li> <li>b. No above-ground structure or installation should erect at the northern side of the No. 2 Servants' Quarters.</li> <li>c. Erection of above-ground new access facilities i.e. lift and means of escape staircase, and installation of building services equipment with proper screening ("Proposed Works C") at the southern and western side to meet current statutory requirements for new use could be considered, and are subjected to the approval from Antiquities Authority.</li> <li>d. The Proposed Works C should be compatible with and distinguishable from the declared monument with minimal size to minimize the visual impact on the declared monument.</li> <li>e. The Proposed Works C should be structurally independent and should not adversely affect the structure of declared monument.</li> <li>f. Unless approved by the Antiquities Authority, the ultimate height of the new lift and staircase should be lower than the top level of the parapet wall of roof.</li> <li>g. Any new underground structure at the open spaces to meet the current statutory requirements could be considered provided that no adverse impact would cause to the structure and foundation of the declared monuments, subjected to the advice from a Registered Structural Engineer and is subjected to the Antiquities Authority's approval.</li> </ul>
I		







Northern side

#### 4. SURROUNDING AREAS

Item	Architectural Feature	Required Treatments
4.1	Underground Structures within the Site	<ul> <li>a. A research study and site investigation are to be conducted on the Underground Cellar/ air raid shelter to find out the extent and locations of the air raid shelter and the associated staircase (and tunnels if any). The study should be based on archival research and site investigations, supplemented with photos, drawings, etc. for AMO's record.</li> <li>b. All the Underground Cellar/ air raid shelter (and tunnels if any) should be preserved in-situ and repaired with materials matching existing as necessary.</li> <li>c. No erection of new structure at the land above the existing Underground Cellar except for lift facilities as mentioned in Item 4.5 below will be permitted. Any new structure or strengthening works for proposed new use of the land above should not cause any damage on the underground structures.</li> <li>d. All new above-ground or underground structure, alteration works or strengthening works to the existing underground structures should be subjected to the advice from a Registered Structural Engineer and is subjected to the Antiquities Authority's approval.</li> <li>e. The Underground Cellar is to be re-used as far as practicable. Any formation of new openings to the Underground Cellar should be approved by the AMO.</li> </ul>



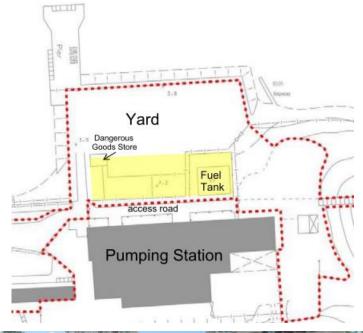


Underground Cellar

Item	Architectural Feature	Required Treatments
4.2	Old Tracks	a. The old tracks along the road should be preserved in-situ and exposed for public appreciation.

Item	Architectural Feature	Required Treatments
4.3	Garage	<ul> <li>a. A research study on the Garage to be conducted to find out its history. The study should be based on archival research and site investigations, supplemented with photos, drawings, etc. for AMO's record.</li> <li>b. The Garage and the shelter should be preserved in-situ.</li> <li>c. The Garage and the shelter is to be repaired and repainted to match existing and is to be reused as far as practicable.</li> <li>d. Roofing membrane is to be applied at flat roof in a reversible-manner to improve the waterproof as necessary.</li> </ul>

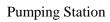
Item	Architectural Feature	Required Treatments
4.4	Yard	<ul> <li>a. Construction of new structure(s) within the site for ancillary use ("Proposed Works D") may be considered in area highlighted as yellow on part plan below which the design and extent is subjected to AMO's approval.</li> <li>b. No above-ground or underground structure should be built outside the yellow area in the Yard.</li> <li>c. The Proposed Works D should be compatible with and distinguishable from the declared monuments. The overall building mass of the Proposed Works D should be as small as practicable and not overwhelm the Pumping Station at the rear to minimize the visual impact on the declared monuments.</li> <li>d. The Proposed Works D should be structurally independent and should not adversely affect the structure of other nearby buildings.</li> <li>e. The ultimate building height of the Proposed Works D should not be higher than the finishes floor level of the access road in front of the Pumping Station at the rear and the vista from the Yard to the Pumping Station should not be blocked.</li> <li>f. No objection to demolish the Fuel Tank and the Dangerous Goods Store in the Yard to facilitate the Proposed Works D.</li> </ul>
		· · · · · · · · · · · · · · · · · · ·





Fuel Tank







Dangerous Goods Store

Item	Architectural Feature	Required Treatments
4.5	Slopes at the West Side of Senior Staff Quarters and Slopes/ Retaining Walls at the North Side of No. 2 Staff Quarters	<ul> <li>a. For provision of barrier free access, construction of ramp(s) or lift facilities may be required from the vehicular road level to the higher platforms of the Senior Staff Quarters and the No. 2 Staff Quarters.</li> <li>b. Construction of ramp(s) or lift facilities should match the existing topography as far as practicable in order to keep the overall visual impact to a minimum.</li> <li>c. The lift facilities if any should be of minimal size, and the design should be compatible and distinguishable from the declared monuments to minimize the visual impact on the declared monuments.</li> <li>d. The design and materials of the ramp(s), lift facilities if any and related landscaping or sloping works should be submitted to AMO for approval.</li> </ul>



Slope at the west side of Senior Staff Quarters



Slopes/ retaining walls at the north side of No. 2 Staff Quarters

Item	<b>Architectural Feature</b>	Required Treatments
4.6	Natural Landscape and Natural Terrain of the Surrounding Areas	a. The existing natural landscape and natural terrain at the surrounding areas should be maintained. Any proposed improvement works at the surrounding areas of declared monuments should be made compatible with the existing natural landscape and natural terrain to avoid creating adverse visual impact on the natural environment.



# Appendix IX(C) List of Recommended Treatments to Architectural Features

## Tai Tam Tuk Raw Water Pumping Station Staff Quarters Compound Recommended Treatments to Architectural Features

#### 1. STAFF QUARTERS

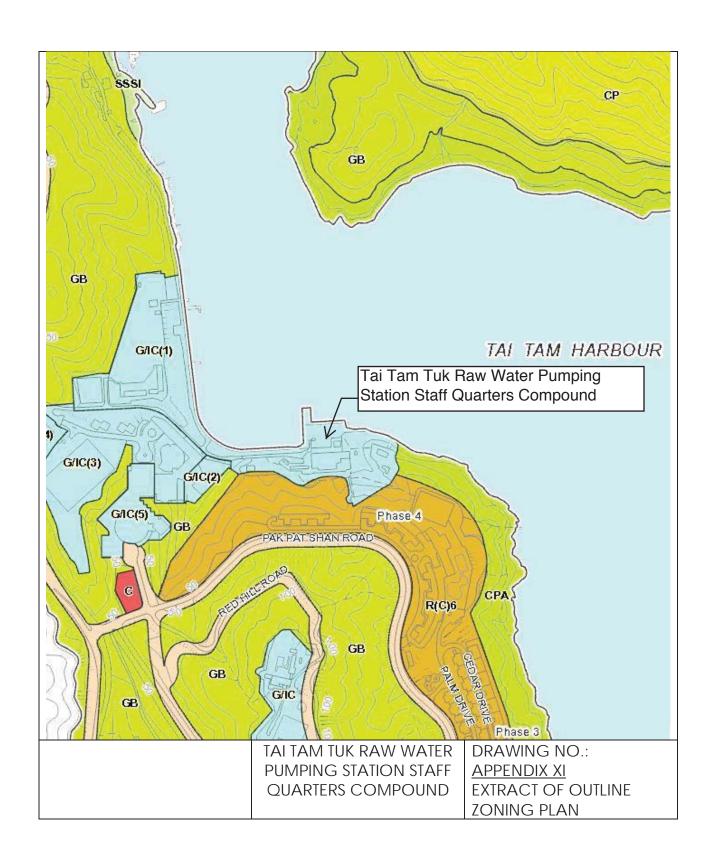
Item	Architectural Feature	Recommended Treatments
1.1	Segmental Arched Wooden Casement Windows	a. Original door openings which have been altered into window openings should be restored to segmental arched wooden panel doors matching existing design.

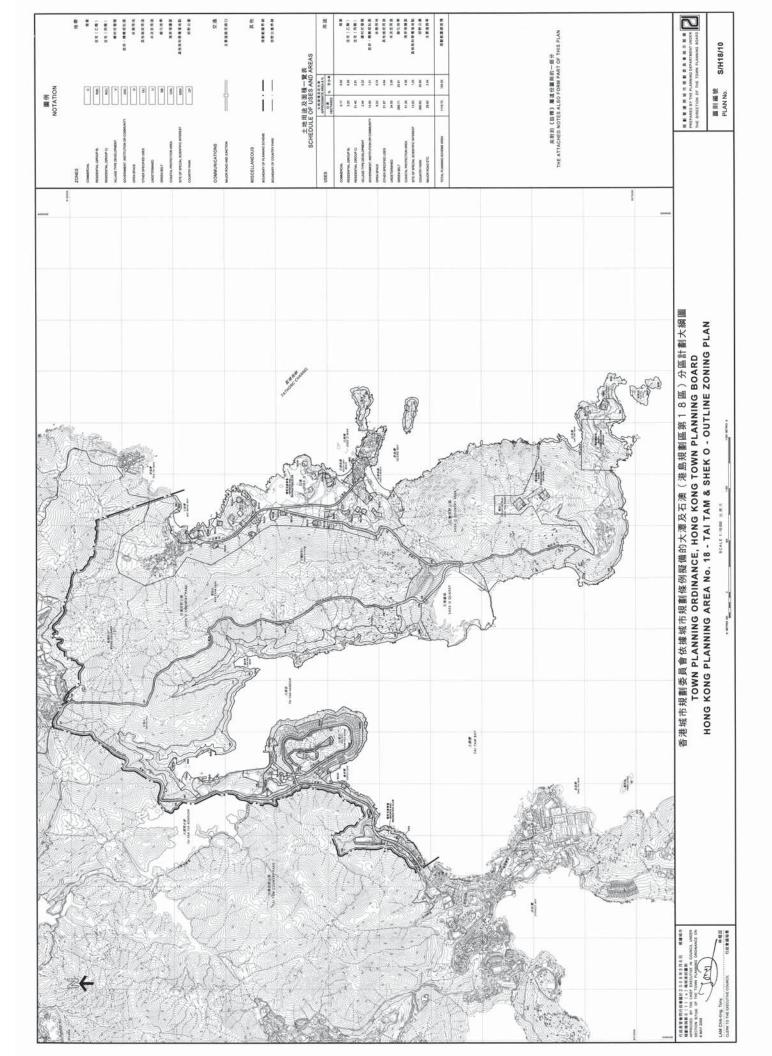
#### 2. NO. 2 STAFF QUARTERS

Item	Architectural Feature	Recommended Treatments
2.1	Room under Open Staircase	b. The room under the open staircase is later-addition. The later-added room is to be demolished to restore the appearance of the side elevation of Building.

Item	<b>Architectural Feature</b>		Required Treatments
2.2	Wooden partitions on	a.	The altered wooden partitions are to be restored to original
	<u>1/F</u>		design without door openings.

# Appendix X Outline Zoning Plan





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#### GOVERNMENT, INSTITUTION OR COMMUNITY

Column 1 Uses always permitted Column 2
Uses that may be permitted with or without conditions on application to the Town Planning Board

Ambulance Depot

Animal Quarantine Centre

(in Government building only)

Broadcasting, Television and/or Film Studio

Cable Car Route and Terminal Building

Eating Place (Canteen,

Cooked Food Centre only)

**Educational Institution** 

**Exhibition or Convention Hall** 

Field Study/Education/Visitor Centre

Government Refuse Collection Point

Government Use (not elsewhere specified)

Hospital

Institutional Use (not elsewhere specified)

Library Market Pier

Place of Recreation, Sports or Culture

Public Clinic

Public Convenience

Public Transport Terminus or Station

Public Utility Installation

Public Vehicle Park

(excluding container vehicle)

Recyclable Collection Centre

**Religious Institution** 

Research, Design and Development

Centre

School

Service Reservoir

Social Welfare Facility

**Training Centre** 

Wholesale Trade

Animal Boarding Establishment

Animal Quarantine Centre (not elsewhere

specified)

Correctional Institution

**Driving School** 

Eating Place (not elsewhere specified)

Flat

Helicopter Landing Pad

Helipad Fuelling Station

Holiday Camp

Hotel House

Marine Fuelling Station

Off-course Betting Centre

Office

Petrol Filling Station

Place of Entertainment

Private Club

Radar, Telecommunications Electronic

Microwave Repeater, Television

and/or Radio Transmitter Installation

Refuse Disposal Installation

(Refuse Transfer Station only)

Residential Institution

Sewage Treatment/Screening Plant

Shop and Services

Utility Installation for Private Project

(Please see next page)

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#### GOVERNMENT, INSTITUTION OR COMMUNITY (Cont'd)

#### **Planning Intention**

This zone is intended primarily for the provision of Government, Institution or Community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

#### Remarks

(a) On land designated "Government, Institution or Community (1)", "Government, Institution or Community (2)", "Government, Institution or Community (3)", "Government, Institution or Community (5)", no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building height set out below or the height of the existing building, whichever is the greater:

Sub-area "Government, Institution or Community (1)"	Restriction Maximum 20 metres above Hong Kong Principal Datum
"Government, Institution or Community (2)"	Maximum 40 metres above Hong Kong Principal Datum
"Government, Institution or Community (3)"	Maximum 40 metres above Hong Kong Principal Datum
"Government, Institution or Community (4)"	Maximum 48 metres above Hong Kong Principal Datum
"Government, Institution or Community (5)"	Maximum 73 metres above Hong Kong Principal Datum

- (b) For any new development or redevelopment, except alteration and/or modification to an existing building, on land designated "Government, Institution or Community (2)" and "Government, Institution or Community (4)", planning permission from the Town Planning Board under section 16 of the Town Planning Ordinance is required.
- (c) Based on the individual merits of a development or redevelopment proposal, minor relaxation of building height restrictions stated in paragraph (a) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.

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- 7.3.3 There is a general intention to maintain the established character and amenity of the Area. The "R(C)" zone is further divided into six sub-areas, each with its own height restriction. The maximum building height permitted in the sub-areas ranges from three to seven storeys with the exception of the sub-area "R(C)6" which permits a maximum of 19 storeys. The sub-area "R(C)6" covers part of a lot at the Red Hill area where the form of development was committed prior to the first exhibition of the OZP. The appropriate site coverage and plot ratio restrictions are shown in the Notes attached to the Plan. However, to provide flexibility for innovative design adapted to the characteristic of particular sites, minor relaxation of the plot ratio, site coverage and building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.
- 7.3.4 The majority of the residential developments in the Area located along Tai Tam Road and at Red Hill, Big Wave Bay and Shek O are under this zoning.

#### 7.4 <u>Village Type Development ("V")</u>: Total Area 2.44 ha

- 7.4.1 The planning intention of this zone is primarily for the provision of land for the retention and expansion of existing villages as well as reservation of land for the reprovisioning of village houses affected by Government projects. Selected commercial and community uses serving the needs of the villagers and in support of the village development are always permitted on the ground floor of a house. Other commercial, community and recreational uses may be permitted on application to the Board.
- 7.4.2 This zoning covers the existing Shek O Village which is a long-established village settlement. Some shops have been established within the village to serve local residents and beachgoers.
- 7.4.3 In order to ensure that any future development or redevelopment within Shek O Village would be compatible with the existing character of the area, a building height restriction is incorporated into the Notes for the "V" zone. However, to provide flexibility for innovative design adapted to the characteristic of particular sites, minor relaxation of the building height restriction may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

#### 7.5 Government, Institution or Community ("G/IC"): Total Area 13.50 ha

7.5.1 This zone is intended primarily for the provision of Government, Institution or Community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

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- 7.5.2 There are three major "G/IC" sites in the Area. The one next to Rocky Bay Beach abutting Shek O Road includes a telephone exchange, a health centre, a bus terminus and a proposed fire station. These facilities mainly serve the residents of Shek O Village and Shek O Headland and the beachgoers to Shek O Beach and Rocky Bay Beach. Another one at the Inner Cove of Tai Tam Harbour in the vicinity of Red Hill covers other major existing facilities, including a pumping station, the camping ground and hostel of the Boy Scouts Association of Hong Kong and the Hong Kong International School. A "G/IC" site to the northwest of Shek O Beach is proposed for the development of a public transport terminus, car and coach parking areas to cater for the increasing number of visitors to the Shek O area.
- 7.5.3 To maintain the general amenity and existing character of the area, the "G/IC" site at the Inner Cove of Tai Tam Harbour is divided into 5 sub-areas, each subject to specific control on building height ranging from 20 to 73 metres above Principal Datum. This "G/IC" site is located on a sloping area running down from Tai Tam Road to Tai Tam Harbour, which is a greenery and scenic area with low to medium-rise development. The restriction on building height is to respect the natural topography and maintain the existing character of the "G/IC" development at the site. Furthermore, to ensure that future new development in the "G/IC" site will be in keeping with the character of the surrounding area, planning permission from the Board under section 16 of the Ordinance is required for new development in the "G/IC(2)" and "G/IC(4)" sub-areas.
- 7.5.4 To provide flexibility for innovative design adapted to the characteristic of particular sites, minor relaxation of the building height restriction for development in the 5 sub-areas of the "G/IC" zone may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

#### 7.6 Open Space ("O"): Total Area 8.23 ha

- 7.6.1 This zone is intended primarily for the provision of outdoor open-air space for active and/or passive recreational uses serving the needs of local residents as well as the general public.
- 7.6.2 The existing open spaces include Turtle Cove Beach, Big Wave Bay Beach, Shek O Beach and Rocky Bay Beach. These beaches are of territorial significance and are well visited by people from other parts of the Territory, particularly during summer.
- 7.6.3 The existing car park and its adjacent area to the north of Shek O Beach is also under this zoning where the Shek O Obstacle Golf Course and an open space including a children's playground, barbecue areas and some ancillary beach facilities such as changing rooms and shower facilities are found.

# Appendix XI Tree Schedule

3.530

811105.516 841331.115

Medium hanger, defective branch

Medium Medium

Fair

0.9

Celtis sinensis

T0032

ground level at the trunk base (mpd) 4.710 6.210 6.120 6.210 6.700 6.940 7.070 10.180 7.960 8.950 9.220 8.040 9.490 9.030 10.320 9.700 10.040 12.800 12.980 7.110 7.120 4.610 4.690 4.780 4.890 4.800 4.810 3.920 3.580 3.990 841236.014 841294.533 841253.162 841243.783 841262.419 841265.567 841271.712 841258.334 841261.155 841267.857 841257.477 841258.427 841250.574 841247.483 841246.460 841244.928 841241.182 841236.448 841304.790 841217.833 841221.168 841259.358 841256.152 841249.832 841330.721 841327.360 811105.071 841364.524 841248.920 841262.027 841241.191 841257.591 Easting (m) 811046.533 811054.013 811051.718 811051.689 811055.458 811047.005 811054.938 811053.526 811054.658 811054.264 811047.859 811048.575 811063.083 811063.203 811064.120 811064.250 811064.064 811063.293 811073.613 811073.568 811055.434 811053.289 811051.690 811052.293 811052.032 811050.402 811046.283 811045.827 811054.543 811064.040 Northing (m) abnormal bark crack, cavity, exposed dead wood exposed dead wood, dead stub dehydrated, dead branches wound, dead branches leaning, sparse crown broken trunk Remarks leaning leaning leaning leaning leaning leaning topped leaning after transplantin g (High / Med / Low) survival rate Anticipated Medium Medium Medium Medium Medium Medium Medium Medium Medium Low Low Low Low Low Low LowLow Low Low  $\Gamma$ ow Low Low Γow Low Low Low Low LowLow Low Low (High / Medium / Medium Amenity Low Γow Low Low Low Γow Γow Low Γow Low Γow Low Low Low Γow Low Low Low Low Low Value Low) (Good / Medium / Medium Low Form Low) Fair / Nithering / L Condition (Healthy / Withering Withering Withering Withering Dead Fair 2 0 0 7 7 Average Spread 15 Overall Height (m) Girth at 1.3m above 0.9 0.8 9.0 9.0 0.5 9.0 9.0 2.0 0.7 9.0 0.7 9.0 0.3 0.5 0.8 0.7 9.0 0.4 0.5 0.8 0.5 0.4 4.0 4.0 0.3 0.3 0.4 0.7 0.4 ground (m) 小果鐵冬青 小果鐵冬青 小果鐵冬青 枯死樹木) 異葉南洋杉 Chinese 鴨腦木 對葉榕 假蘋婆 鴨腳木 筆管榕 對葉榕 番木瓜 銀合歡 假蘋婆 假蘋婆 假蘋婆 番木瓜 name 白楸 血桐 白楸 血桐 血桐 黃皮 菌布 开禁 血桐 血桐 菌物 计称 开禁 llex rotunda Thunb. var. microcarpa Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa llex rotunda Thunb. var. microcarpa Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa microcarpa Macaranga tanarius var. tomentosa Leucaena leucocephala llex rotunda Thunb. var. Liquidambar formosana Liquidambar formosana Araucaria heterophylla Schefflera heptaphylla Schefflera heptaphylla Mallotus paniculatus Mallotus paniculatus Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Ficus subpisocarpa Clausena lansium Roystonea regia Roystonea regia Roystonea regia **Botanical Name** Roystonea regia Carica papaya Carica papaya Ficus hispida Ficus hispida (Dead tree) Tree ID T0011 T0012 T0004 T0005 T0006 T0008 T0009 T0010 T0013 T0014 T0015 T0016 T0018 T0019 T0023 T0024 T0025 T0029 T0030 T0001 T0002 T0003 T0007 T0020 T0021 T0022 T0026 T0027 T0028 T0031 T0017

Tree Assessment Schedule

10.261

811041.735

11.086

9.497

841270.468 841267.238 841269.952 841273.095 841280.203

811043.520

dead branches

 $\mathsf{Low}$ 

Low

Low

Fair

0.6 4.0 6.0 6.0 6.0

假蘋婆

Sterculia lanceolata Sterculia lanceolata

T0059 T0060

假蘋婆

水回木

假蘋婆 假蘋婆 假蘋婆

Low Low

Low

Low

Withering

က

Low

Low

Fair Fair 8.399

811040.695

811040.458

841279.119

Low

Medium Medium

Fair

7

0.4

Sterculia lanceolata

T0064

Sterculia lanceolata

T0063

Sterculia lanceolata

T0062

Ficus fistulosa

 $\mathsf{Low}$ 

Medium

Medium

Fair

Low

Low

ground level at the trunk base (mpd) 5.315 4.812 7.978 3.520 3.260 3.960 3.865 3.767 5.095 5.539 4.088 3.895 3.827 3.935 3.879 3.978 3.986 7.043 10.290 8.745 8.645 17.453 11.258 3.920 4.004 841329.148 841334.719 841316.097 841363.002 841364.267 841351.149 841344.598 841319.146 841319.200 841318.722 841320.944 841319.712 841323.110 841325.915 841331.702 841336.470 841333.364 841291.976 841296.341 841297.266 841430.864 841282.731 841326.071 841324.387 841288.281 841309.694 Easting (m) 811105.879 811105.452 811073.400 811047.358 811076.485 811078.555 811078.494 811071.068 811071.350 811071.723 811071.635 811073.953 811032.971 811037.168 811105.177 811105.934 811094.717 811105.198 811077.917 811078.961 811071.361 811073.991 811031.860 811033.955 811033.335 811029.529 Northing (m) asymmetric canopy, dead branches, broken branch, decayed wound asymmetric canopy, dead branches, hanger asymmetric canopy, dead branches, dead asymmetric canopy, topped trunk leaning, asymmetric canopy hard pruned, sparse crown asymmetric canopy defective branch broken branch topped trunk dead fronds dead fronds dead fronds dead fronds Remarks leaning after transplantin g (High / Med / Low) survival rate Anticipated Medium Medium Medium Medium Medium Medium Low LowLow Low Low Low Low (High / Medium / Medium Medium Medium Medium Medium Medium Medium Medium Medium Amenity Low Γow Γow Pow Low Value (WO: (Good / Medium / Medium Low Fair / Mediun Withering / Low) Dead) Form Withering Withering Condition (Healthy / Withering Withering Withering Withering Withering Withering Healthy Fair က 7 7 0 က 2 7 Average Spread Overall Height (m) Girth at 1.3m above 0.8 1.2 0.8 1.0 0.8 0.5 9.0 1.2 1.2 0.9 0.7 0.3 9.0 0.5 0.8 0.7 0.8 0.8 0.8 9.4 9.0 4.0 0.5 0.7 ground (m) Chinese 紅膠木 紅腦木 紅膠木 質勵大 假蘋婆 九里香 木騎黃 **木麻**埔 **木騒噛** 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 name 出 田禁 計 王標 王特 计标 计亦 黃權 h 樹 田称 Lophostemon confertus Lophostemon confertus Lophostemon confertus Lophostemon confertus Casuarina equisetifolia Casuarina equisetifolia Casuarina equisetifolia Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Murraya paniculata Hibiscus tiliaceus Roystonea regia Botanical Name Celtis sinensis Celtis sinensis Morus alba Tree ID T0035 T0036 T0037 T0038 T0039 T0040 T0041 T0042 T0043 T0044 T0045 T0046 T0047 T0048 T0050 T0051 T0052 T0053 T0054 T0055 T0033 T0056 T0057 T0058 T0034 T0049

Tree Assessment Schedule

ground level at the trunk base (mpd) 8.502 8.666 12.348 9.820 13.497 14.098 20.183 20.067 20.516 20.103 14.437 18.165 13.191 12.999 12.435 10.705 11.329 11.363 10.358 10.039 11.849 12.350 13.137 19.898 18.547 18.482 13.596 11.269 20.367 12.281 20.257 19.987 841248.916 841275.912 841249.570 841256.789 841231.138 841277.380 841277.313 841279.738 841280.912 841233.311 841228.356 841224.350 841225.856 841227.427 841227.623 841214.805 841220.099 841249.117 841249.560 841252.703 841252.783 841253.805 841252.532 841253.222 841258.172 841257.695 841235.147 841229.844 841241.086 811031.651 841241.496 841260.426 841226.077 Easting (m) 811039.049 811049.189 811031.484 811043.041 811031.215 811031.335 811030.776 811031.032 811043.435 811034.394 811036.938 811036.141 811037.506 811039.577 811043.673 811039.933 811037.412 811031.366 811031.269 811042.114 811038.752 811036.733 811051.401 811031.198 811034.816 811034.667 811036.292 811041.544 811039.518 811030.990 811038.093 Northing (m) leaning, cracks on trunk, root plate movement epicormics, exposed dead wood sparse crown dead branch dead stub Remarks leaning leaning leaning leaning leaning leaning punow vined after transplantin g (High / Med / Low) survival rate Anticipated Medium Low LowLow Low Low Low LowLow Low Low LowLow LowLow Low Low Low(High / Medium / Medium Medium Medium Medium Medium Medium Medium Amenity Low Low Γow Low Low Low Γow Low Low Γo Low Low Low Low Low Low Low Low Γo Value Pow Low Γow Low Low Low .ow) (Good / Medium / Medium Low Γow Form Low) Fair / N Withering / L Dead) Condition (Healthy / Withering Withering Withering Withering Fair က က က 2 Average Spread Overall Height (m) Girth at 1.3m above 0.8 9.0 0.5 0.5 0.5 0.3 0.5 9.0 9.0 0.5 0.3 4.0 9.0 0.5 0.8 0.4 0.3 0.3 9.4 0.5 0.3 9.0 0.4 0.8 4.0 0.3 0.5 0.4 0.5 0.4 ground (m) **煉葉吳茱萸** Chinese 五十十五 鴨腳木 對葉榕 鴨腦木 假蘋婆 對葉榕 name 外樹 出 朴樹 血桐 白楸 血桐 血桐 自制 血桐 白樉 山獭 血桐 Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa tomentosa tomentosa tomentosa Macaranga tanarius var. tomentosa Macaranga tanarius var. Macaranga tanarius var. Macaranga tanarius var. Schefflera heptaphylla Schefflera heptaphylla Tetradium glabrifolium Aleurites moluccana Mallotus paniculatus Mallotus paniculatus Mallotus paniculatus Mallotus paniculatus Sterculia lanceolata Phyllanthus emblica Sterculia lanceolata Botanical Name Celtis sinensis Celtis sinensis Ficus hispida Ficus hispida Tree ID T0068 T0069 T0070 T0071 T0072 T0073 T0074 T0075 T0076 T0078 T0079 T0080 T0083 T0085 T0089 T0094 70096 T0065 T0077 T0082 T0084 T0086 T0087 T0088 T0090 T0091 T0092 T0093 T0095 T0066 T0067 T0081 9

Tree Assessment Schedule

ground level at the trunk base (mpd) 29.016 13.318 14.595 15.455 16.076 18.136 12.657 12.750 11.826 9.185 7.835 7.393 8.357 10.557 15.566 13.531 20.841 19.195 18.299 29.740 30.217 30.495 30.003 29.518 6.999 5.690 13.751 12.987 14.491 29.907 5.069 6.897 841280.644 841384.456 841383.900 841264.597 841266.503 841267.756 841377.958 841380.215 841373.465 841374.729 841368.782 841366.735 841373.502 841374.745 841373.305 841376.747 841376.238 841375.874 841376.919 841376.056 841385.272 841384.863 841383.284 841368.714 841367.854 841367.555 841363.822 841263.071 841266.364 841267.861 841263.541 841373.727 Easting (m) 811040.114 811033.314 811025.575 811017.460 811018.843 810993.425 811070.665 811038.284 811038.879 811031.589 811036.229 811039.539 811030.516 811024.691 811027.391 810993.048 810995.398 811000.004 811075.239 811079.538 811039.070 811036.892 811035.373 811032.521 811028.787 811030.086 811048.351 811014.329 810996.567 810995.435 811000.138 811087.913 Northing (m) leaning, abnormal bark cracks, exposed dead wood, sparse crown Classified as "VU" in IUCN Red List of Threatened Species Classified as "VU" in IUCN Red List of Threatened Species Classified as "VU" in IUCN Red List of Threatened Species dehydrated crown, dehydrated trunk asymmetric canopy asymmetric canopy broken branch Remarks leaning cavity after transplantin g (High / Med / Low) survival rate Anticipated Medium Medium Medium Medium Medium Medium Low  $\Gamma$  $\mathsf{Low}$ Low Po Low Low Low  $\mathsf{Low}$ Low(High / Medium / Medium Medium Medium Medium Medium Medium Amenity Low High Low Low Low Low Low High Low Low Low Low Γo Low Low Low Ρo Low Low Low High Low Low Low Low Low Value Low) (Good / Medium / Medium Low Form Low) Fair / N Withering / L Dead) Condition (Healthy / Withering Withering Withering Withering Withering Withering Withering Dead Dead Fair က 0 က 9 Average Spread Overall Height (m) Girth at 1.3m above 0.5 6. 9.0 0.5 0.5 1.0 1.0 1.2 0.4 0.4 0.5 4.0 9.0 0.4 0.5 0.8 0.8 0.7 0.5 9.0 1.5 9.0 0.7 9.0 0.7 9.0 0.3 0.3 4.0 0.4 ground (m) 枯死樹木) 枯死樹木) 香港算盤子 **榛葉吳茱萸** 浙江灣楠 Chinese 白桂木 鴨腦木 老鼠刺 白桂木 細葉榕 细葉榕 **組業格** 鴨腦木 白桂木 假頻婆 假蘋婆 銀合歡 電腦木 假蘋婆 三商店 馬尾松 name 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 馬尾松 血桐 血桐 血桐 tomentosa Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa Macaranga tanarius var. Machilus chekiangensis Artocarpus hypargyreus Leucaena leucocephala Artocarpus hypargyreus Artocarpus hypargyreus Schefflera heptaphylla Schefflera heptaphylla Tetradium glabrifolium Glochidion zeylanicum Schefflera heptaphylla Sterculia lanceolata Melicope pteleifolia Pinus massoniana Pinus massoniana Ficus microcarpa Ficus microcarpa Ficus microcarpa **Botanical Name** Itea chinensis (Dead tree) (Dead tree) Tree ID T0113 T0115 T0100 T0101 T0102 T0103 T0104 T0105 T0106 T0108 T0109 T0110 T0111 T0112 T0114 T0116 T0117 T0118 T0119 T0120 T0121 T0122 T0123 T0124 T0125 T0126 T0128 6600T T0107 T0097 T0098 T0127 9

Tree Assessment Schedule

10.915

841408.904

811041.962

15.353

841410.056

811050.661

17.405

811061.261 841440.520

suppressed growth asymmetric canopy

Low

Low

Low

Fair

0.8

Low

Fair

dead branches

Low Low

Low Low

Low

Withering

0

Low

Low

Medium

Fair

1.0

1.2 4.0 0.5

馬尾松 假蘋婆 對葉榕 潺槁樹

Sterculia lanceolata

T0158

T0157

Litsea glutinosa

T0160

Ficus hispida

T0159

1.2

馬尾松 馬尾松

體問

Dimocarpus longar

T0154 T0155 T0156

Pinus massoniana Pinus massoniana

Pinus massoniana

Low

Low

Fair

Low

Low

Medium

Fair

Low

Low

Medium Medium

Fair

2.0

15.622 15.365

841419.461

841418.612

811078.921 811044.768 841421.365

811036.560

17.288

841439.533

811061.027

ground level at the trunk base (mpd) 6.980 6.970 6.770 7.169 7.160 7.046 998.9 6.866 996.9 7.166 996.9 7.066 996.9 6.772 13.648 13.803 13.914 13.656 13.902 13.283 12.373 6.751 7.027 13.241 841376.615 841377.009 841391.345 841393.813 841404.548 841375.758 841380.417 841386.279 841385.970 841387.204 841391.344 841391.656 841393.598 841396.595 841394.647 841394.678 841388.324 841405.785 841404.896 841405.218 841403.689 841412.449 841415.256 841371.987 841413.091 Easting (m) 811072.874 811082.983 811083.743 811086.367 811078.448 811080.597 811088.956 811089.602 811089.992 811088.023 811088.466 811075.904 811074.964 811072.954 811076.540 811077.910 811079.503 811075.598 811077.817 811082.421 811089.609 811090.898 811087.196 811075.891 811074.550 Northing (m) sparse crown, dead branches topped, exposed dead wood leaning, dead branches leaning, wound broken branch sparse crown Remarks leaning topped wound after transplantin g (High / Med / Low) survival rate Anticipated Medium Low Low Low Low Low Low Low LowLowLow LowLow $\mathsf{Low}$ Low Γow Low Low Low LowLow Low  $\Gamma$ ow Low Low(High / Medium / Medium Amenity Γow Low Γow Low Low Low Low Low Γow Low Low Low Γow Low Γo Low Γow Value Pow Low Low Low Low Low Low (wo-(Good / Medium / Medium Medium Medium Medium Medium Medium Medium Medium Medium Low Fair / Mediun Withering / Low) Dead) Form Condition (Healthy / Withering Withering Withering Withering Withering Fair Dead Fair က Average Spread Overall Height (E) Girth at 1.3m above 1.0 9.0 9.0 0.5 9.0 0.9 0.9 0.4 9.0 0.5 4.0 0.4 9.0 9.0 9.0 9.0 0.7 0.8 9.4 0.7 9.0 0.7 0.7 0.7 ground (m) 枯死樹木) Chinese 馬尾松 馬尾松 銀合歡 對葉榕 對葉榕 馬尾松 馬尾松 銀合歡 銀合歡 銀合歡 銀合歡 對葉榕 青果榕 name 血桐 血桐 朴樹 血桐 血桐 斯黎 血桐 血桐 血桐 血桐 Macaranga tanarius var. tomentosa Leucaena leucocephala Leucaena leucocephala Leucaena leucocephala Leucaena leucocephala Leucaena leucocephala Leucaena leucocephala Livistona chinensis Pinus massoniana Pinus massoniana Pinus massoniana Pinus massoniana **Botanical Name** Ficus variegata Celtis sinensis Ficus hispida Ficus hispida Ficus hispida (Dead tree) Tree ID T0135 T0130 T0132 T0133 T0134 T0136 T0138 T0139 T0140 T0142 T0143 T0144 T0145 T0146 T0147 T0148 T0149 T0150 T0153 T0131 T0137 T0141 T0151 T0152

Tree Assessment Schedule

ground level at the trunk base (mpd) 16.910 11.849 26.232 25.489 23.423 20.503 15.264 10.136 10.239 11.982 12.853 12.833 12.788 12.988 9.217 8.599 8.937 9.663 9.750 10.076 10.217 9.264 10.572 10.489 10.359 10.834 10.924 11.029 25.866 23.924 10.981 10.871 841418.014 841400.346 841410.012 841440.146 841426.655 841444.612 841444.675 841445.130 841441.324 841440.243 841410.318 841409.382 841410.492 841411.538 841410.458 841403.042 811052.512 841403.845 841405.734 841402.872 841400.669 841399.393 841400.626 841399.732 841401.938 841401.051 841401.188 841397.206 841405.129 841405.494 811031.493 841407.256 841406.007 841439.371 Easting (m) 811039.232 811030.322 811046.475 811048.603 811037.544 811044.229 811045.050 811036.443 811043.790 811037.747 811037.085 811038.058 811036.004 811035.511 811030.721 811061.591 811075.990 811036.128 811039.025 811041.883 811055.437 811035.519 811042.492 811050.489 811051.197 811038.136 811036.932 811034.372 811029.997 Northing (m) leaning asymmetric canopy, diseased branch asymmetric canopy, dead stub leaning, asymmetric canopy leaning, asymmetric canopy broken trunk, epicormics asymmetric canopy topped, cavity cracked trunk Remarks topped topped vined vined after transplantin g (High / Med / Low) survival rate Anticipated Medium Medium Medium Medium Low  $\mathsf{Low}$ Low  $\Gamma_{\text{OW}}$ Low  $\Gamma$ ow Low  $\mathsf{Low}$ LowLow Γow Low Low Low Low Low LowLow Low (High / Medium / Medium Amenity Low Γo Low Low Low Γow Low Low Low Pow Low Γo Value (wo-(Good / Medium / Medium Low Low) Fair / N Withering / L Dead) Condition (Healthy / Withering Withering Withering Withering Withering Dead Fair က Average Spread 10 က Overall Height (m) Girth at 1.3m above 9.0 2.5 0.5 0.5 0.4 0.4 9.0 0.3 0.3 0.3 0.4 0.5 4.0 9.0 0.4 0.3 0.3 0.5 0.7 0.9 0.5 0.3 0.3 0.4 4.0 4.0 9.0 0.3 9.4 0.3 0.4 ground (m) **榛葉吳茱萸** 枯死樹木) 浙川浦楠 Chinese 對葉榕 對葉榕 對葉榕 對葉榕 鴨腦木 對葉榕 假蘋婆 假蘋婆 對葉榕 對葉榕 假蘋婆 對葉榕 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 假蘋婆 對葉榕 name 白楸 血桐 電問 自制 Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa Machilus chekiangensis Schefflera heptaphylla Tetradium glabrifolium Mallotus paniculatus Sterculia lanceolata Dimocarpus longar Botanical Name Ficus hispida (Dead tree) Tree ID T0162 T0164 T0165 T0166 T0167 T0169 T0170 T0171 T0172 T0173 T0174 T0175 T0176 T0178 T0179 T0180 T0181 T0182 T0183 T0184 T0185 T0186 T0188 T0189 T0190 T0192 T0163 T0168 T0187 T0191 T0177

Tree Assessment Schedule

ground level at the trunk base (mpd) 11.513 11.588 15.240 19.856 7.559 17.939 18.187 19.111 21.780 21.755 18.104 16.700 22.884 7.451 7.510 6.995 6.855 8.514 7.380 9.180 8.879 10.309 10.509 11.896 9.135 8.159 8.109 7.402 19.351 17.283 6.731 11.287 12.887 841436.069 841384.675 841414.192 841414.909 841423.704 841432.705 841432.998 841437.822 841438.642 841434.430 841431.419 841437.977 841389.945 841389.178 841389.909 841396.693 841392.431 841397.011 841397.413 841397.763 841399.279 841400.402 841400.770 841393.940 841391.268 841391.507 841391.064 841376.901 841432.371 841436.527 841385.661 841437.371 841396.331 Easting (m) 811031.672 811027.868 811035.919 811058.860 811031.503 811021.536 811027.621 811039.411 811027.318 811031.250 811029.942 811028.242 811023.431 811020.625 811025.296 811056.263 811055.426 811055.603 811052.111 811045.639 811049.553 811051.983 811053.094 811057.432 811056.685 811058.152 811059.175 811056.250 811052.294 811057.394 811056.868 811059.140 811025.050 Northing (m) exposed dead wood, wound asymmetric canopy, vined asymmetric canopy asymmetric canopy asymmetric canopy asymmetric canopy Remarks leaning vined vined vined after transplantin g (High / Med / Low) survival rate Anticipated Medium Low Γow Low Low Low LowLow LowLow Low Low Low Low Low Low Low (High / Medium / Medium Medium Medium Medium Medium Medium Amenity Low Low Low Low Low Low Low Γow Γow Γow Low Low Low Low Γow Γow Low Γow Low Value Pow Low Low Low Low Pow Low Low (wo-(Good / Medium / Medium Low Low Low Low Low Low Low Low Γow Low Fair / Mediun Withering / Low) Dead) Form Condition (Healthy / Withering Withering Withering Withering Fair က 7 Average Spread Overall Height (m) Girth at 1.3m above 9.0 0.5 9.0 0.5 0.3 0.7 9.0 0.3 0.8 0.7 0.5 0.4 0.3 4.0 0.3 4.0 0.3 9.0 0.5 0.3 0.4 0.5 0.5 4.0 4.0 0.5 0.5 4.0 0.7 4.0 ground (m) 国粉羊器甲 **榛葉吳茱萸** Chinese 馬蹈木 **後羅樹** 假蘋婆 對葉榕 電腦木 青果榕 青果榕 米碎花 青果榕 對葉榕 對葉榕 對葉榕 青果榕 假蘋婆 假蘋婆 青果榕 馬尾松 假蘋婆 假蘋婆 假蘋婆 對葉榕 假蘋婆 name 血桐 山検 荔枝 自制 自制 血桐 血桐 血桐 tomentosa Macaranga tanarius var. Schefflera heptaphylla Schefflera heptaphylla Tetradium glabrifolium Reevesia thyrsoidea Mallotus paniculatus Sterculia lanceolata Bauhinia variegata Pinus massoniana Eurya chinensis **Botanical Name** Ficus variegata Ficus variegata Ficus variegata Litchi chinensis Ficus variegata Ficus variegata Ficus hispida Ficus hispida Ficus hispida Ficus hispida Ficus hispida Ficus hispida Tree ID T0196 T0202 T0205 T0206 T0208 T0210 T0211 T0212 T0213 T0214 T0215 T0216 T0218 T0219 T0220 T0223 T0225 T0194 T0195 T0197 T0198 T0199 T0200 T0201 T0203 T0207 T0209 T0221 T0222 T0224 T0204 T0217

Tree Assessment Schedule

Tai Tam Tuk Tree Assessment Schedule

Tree ID no.	Botanical Name	Chinese name	Girth at 1.3m above ground (m)	Overall Height (m)	Average Spread (m)	Health Condition (Healthy / Fair / Withering / I	Form (Good / Medium / Low)	Amenity Value (High / Medium / Low)	Anticipated survival rate after transplantin g (High / Med / Low)	Remarks	Northing (m)	Easting (m)	Existing ground level at the trunk base (mpd)
T0226	Macaranga tanarius var. tomentosa	血桐	0.4	4	3	Fair	Low	Low	Low		811054.987	841390.008	7.026
T0227	Pinus massoniana	馬尾松	1.0	6	4	Fair	Medium	Low	Low	dead branches	811047.173	841376.179	7.383
T0228	Michelia x alba	白鸝	0.3	5	8	Fair	Low	Low	Low		811044.451	841376.494	7.809
T0229	Ficus hispida	對葉榕	0.8	5	3	Withering	Low	Low	Low	vined, topped	811048.071	841386.762	7.595
T0230	Mallotus paniculatus	白楸	0.5	4	3	Withering	Low	Low	Low	-	811001.678	841386.681	29.688
T0231	Artocarpus hypargyreus	白桂木	0.4	9	8	Withering	Low	High	Low	Classified as "VU" in IUCN Red List of Threatened Species	811002.774	841385.608	28.542
T0232	(Dead tree)	(枯死樹木)	0.4	5	8	Dead	Low	Low	Low		811006.009	841385.453	27.872
T0233	Schefflera heptaphylla	鴨腳木	9.0	7	4	Withering	Low	Low	Low		811006.587	841387.587	26.972
T0234	Schefflera heptaphylla	鳴腳木	0.5	5	3	Withering	Low	Low	Low		810997.947	841388.431	31.891
T0235	Sterculia lanceolata	假蘋婆	0.5	5	3	Withering	Low	Low	Low	topped, epicormics	810999.815	841392.189	31.690
T0236	Schefflera heptaphylla	鴨腳木	0.5	5	3	Fair	Low	Low	Low	leaning	810994.258	841389.870	33.522
T0237	Schefflera heptaphylla	鴨腳木	0.4	5	3	Withering	Low	Low	Low	-	810992.021	841388.488	34.965
T0238	Mallotus paniculatus	白楸	0.5	4	3	Withering	Low	Low	Low	leaning	810993.852	841391.540	34.135
T0239	Sterculia lanceolata	假蘋婆	0.5	9	3	Fair	Medium	Medium	Low	vined	810995.810	841393.919	33.319
T0240	Machilus chekiangensis	浙江潤楠	9.0	4	3	Withering	Low	Low	Low	leaning	810998.323	841394.421	31.602
T0241	Machilus chekiangensis	浙江潤楠	0.4	4	2	Withering	Low	Low	Low	broken trunk, exposed dead wood	810999.200	841392.972	31.190
T0242	Artocarpus hypargyreus	白桂木	0.4	9	3	Withering	Low	High	Low	Classified as "VU" in IUCN Red List of Threatened Species	811000.452	841395.741	30.336
T0243	Machilus chekiangensis	浙江潤楠	0.4	4	2	Withering	Low	Low	Low	-	811001.270	841395.219	29.859
T0244	Ficus hispida	對葉榕	0.4	4	2	Withering	Low	Low	Low		811001.853	841395.883	29.760
T0245	Mallotus paniculatus	白楸	0.3	5	3	Withering	Low	Low	Low		811002.691	841394.871	28.987
T0246	Artocarpus hypargyreus	白桂木	0.4	9	3	Withering	Low	High	Low	Classified as "VU" in IUCN Red List of Threatened Species	811006.691	841395.501	26.358
T0247	Sterculia lanceolata	假蘋婆	0.0	4	3	Withering	Low	Low	Low		811008.429	841396.586	25.388
T0248	Antirhea chinensis	毛茶	0.4	5	3	Fair	Low	Low	Low		811010.017	841391.000	25.400
T0249	Schefflera heptaphylla	鴨腳木	0.4	4	3	Fair	Low	Low	Low		811008.823	841389.911	25.549
T0250	Schefflera heptaphylla	鴨腳木	0.5	6	3	Fair	Low	Low	Low		811011.469	841395.855	23.812
T0251	Schefflera heptaphylla	鴨腳木	0.5	5	3	Withering	Low	Low	Low	leaning, vined	811012.754	841389.438	23.329
T0252	Artocarpus hypargyreus	白桂木	0.5	5	3	Withering	Low	High	Low	Classified as "VU" in IUCN Red List of Threatened Species	811014.070	841390.865	22.723
T0253	Sterculia lanceolata	假蘋婆	0.5	5	3	Withering	Low	Low	Low		811017.219	841394.523	19.912
T0254	Artocarpus hypargyreus	白桂木	0.5	5	1	Withering	Low	High	Low	Classified as "VU" in IUCN Red List of Threatened Species	811021.089	841391.739	18.364
T0255	Artocarpus hypargyreus	白桂木	0.4	5	3	Withering	Low	High	Low	Classified as "VU" in IUCN Red List of Threatened Species	811023.701	841387.510	17.576
T0256	Schefflera heptaphylla	鳴腳木	0.4	5	3	Fair	Medium	Medium	Medium		811021.404	841386.468	18.276
	(Dead tree)	(枯死樹木)	0.7	5	4	Dead	Low	Low	Low		811017.359	841389.504	18.676
T0258	Schefflera heptaphylla	鴨腳木	0.8	5	4	Fair	Medium	Medium	Medium	-	811019.428	841387.024	18.676

3.930 9.908 11.029 14.313 16.949 17.096 10.492

841351.348

841290.166

811034.186

841287.507

841373.709 841371.357 841225.250

811020.613

811020.010 811051.148

841282.077

811032.547

13.647

841422.659

811074.616 811072.423 811036.108

841370.310 841397.760 841425.232

811083.129

811093.933 811079.738

841384.641

810998.373

broken branch, vined

Low Low

Low Low

7

 $\Gamma$ ow

vined, topped

 $\Gamma$ ow

Ρo Low Γow Γow Low

Low Low

Dead Fair

枯死樹木)

鴨蹈木

Schefflera heptaphylla

Litchi chinensis

T0280 T0281

銀合歡

荔枝

Withering Withering Withering

က

Medium

Medium Medium

Medium

Medium

Fair

假蘋婆

馬蹈木

Schefflera heptaphylla

T0277

(Dead tree)

T0278 T0279

假頻婆

Sterculia lanceolata

Sterculia lanceolata

Sterculia lanceolata

Sterculia lanceolata

Withering

Low

Low Low Low

Γow Low Low

> Low Low

Fair

Low

Ρow

Low Low

Fair Fair

9.0 4.0 0.3 0.4 9.0 0.5 9.0 9.0 0.3 0.5 0.8 0.5 4.0 9.0 7

假蘋婆 假蘋婆 假蘋婆

Sterculia lanceolata

T0272 T0273 T0274 T0275 T0276 dead branches

broken branch

Low

Low

Low

Low Low

Fair

Fair Fair leaning

Γow Low

Medium

Medium

Fair

Γow

Low Low

Withering

က

0.5

對葉榕

假蘋婆

假蘋婆

Sterculia lanceolata

T0285

Celtis sinensis

T0284A

Ficus hispida

T0284

Low Low Low

Low Low

Low

Withering

0.8

浙江灣楠

Machilus chekiangensis

T0288

T0289

Sterculia lanceolata

Ficus hispida

T0286 T0287 0.7

血桐

血桐

Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa

T0290

Fair

Low

Medium

0.3

Low

Fair Fair

Low

Low

Medium

Medium

Medium

Fair

Low

Γo

Medium

對葉榕

血桐

血桐

Macaranga tanarius var. tomentosa

T0282 T0283

Leucaena leucocephala

Macaranga tanarius var. tomentosa

朴樹

810996.157

810990.621

ground level at the trunk base (mpd) 841379.368 841390.878 841391.085 841296.994 841296.328 841296.426 841300.955 841232.708 841217.581 841217.980 841289.979 841388.861 841302.187 Easting (m) 811026.749 811032.230 811018.688 811018.999 811051.462 811048.759 811047.134 811027.992 811034.279 811022.350 811023.197 811021.265 811026.034 Northing (m) Classified as "VU" in IUCN Red List of Threatened Species pest infestation wounded trunk broken trunk Remarks leaning after transplantin g (High / Med / Low) survival rate Anticipated Low Low Low Low Low Low Low  $\mathsf{Low}$ Γow Low Low Low Low (High / Medium / Medium Amenity High Γow Low Low Low Ρo Γow Low Low Γow Low Low Value \_owo\_ (Good / Medium / Medium Low Form Low) Fair / N Withering / L Dead) Withering Condition (Healthy / Withering Withering Withering Withering Withering 1 Withering Fair Fair Fair Fair Fair Fair က က Average Spread Overall Height (m) Girth at 1.3m above 0.5 1.0 0.8 4.0 9.0 9.0 9.0 0.3 0.3 9.0 0.7 ground (m) Chinese 對葉榕 假蘋婆 細葉榕 白桂木 假蘋婆 假蘋婆 假蘋婆 假蘋婆 name 竹樹 朴樹 血桐 自制 1乗 Macaranga tanarius var. tomentosa Macaranga tanarius var. tomentosa Artocarpus hypargyreus Mallotus paniculatus Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Sterculia lanceolata Tree Assessment Schedule Sterculia lanceolata Ficus microcarpa Botanical Name Celtis sinensis Celtis sinensis Ficus hispida Tree ID T0262 T0266 T0270 T0271 T0259 T0260 T0261 T0263 T0264 T0265 T0267 T0269 T0268

Tai Tam Tuk

9.345

18.102 18.102 14.595 14.517 12.570 13.385 13.655 11.105 13.452

13.337

22.130 14.274 32.426 33.399 29.837 30.774 5.802 998.9 9.250

> 811027.031 810990.220

17.727

811017.954 811012.954

841265.142 841294.978 841414.909 841404.908 841379.039 841377.587 841381.566 841374.424

811042.660

811025.991

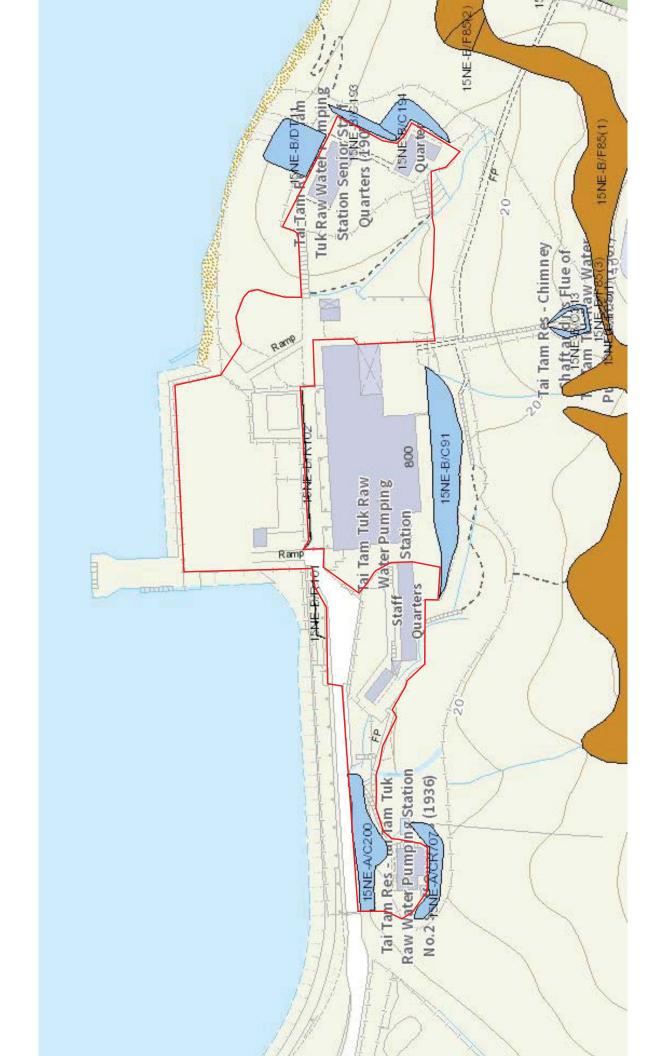
14.983 15.613 11.450

17.423

Tai Tam Tuk Tree Assessment Schedule

Tree ID no.	Botanical Name	Chinese name	Girth at Overall Average 1.3m above Height Spread ground (m) (m) (m)	Overall A Height S (m) (		Health Condition I (Healthy / (Fair / I Withering / I Dead)	Form (Good / Medium / Low)	Form Amenity si (Good / Value ar Medium / (High / tr / Low) Low) M	Anticipated survival rate after transplantin g (High / Med / Low)	Remarks	Northing (m)	Northing (m) Easting (m)	Existing ground level at the trunk base (mpd)
T0291	T0291   Ilex rotunda	鐵冬青	9.0	9	4	Fair	Medium	Medium Medium	Low	•	811051.213	811051.213 841220.476 12.453	12.453
T0292	T0292 Sterculia lanceolata	假蘋婆	0.8	9	1	Withering	Low	Low	Low	Low branch, topped	811052.345	811052.345 841217.083 10.426	10.426
T0293	T0293 Celtis sinensis	朴樹	1.0	9	4	Fair	Low	Low	Low	leaning, topped	811053.522	811053.522 841221.767 10.024	10.024

# Appendix XII Slope Features



(15NE-B/R102)



#### List of Slope Maintenance Responsibility Area(s)

1	15NE-B/R102		<b>Sub-Division</b>	Not Applicable
	Location	WITHIN GLA-HK109		
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent	Water Supplies Department
	Remarks	For enquiries about the mainten	ance of this slope / sub-division of	of the slope, please contact the
	Kemarks	Maintenance Agent direct.		

- End of Report -

#### **Notes:**

- (i) The location plan in Annex is for identification purposes of slope(s) only.
- (ii) The slope(s) as listed in the Slope Maintenance Responsibility Report may not be shown on the location plan in Annex.

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#### **Location Plan**



#### Legend

Slope Area(s)

Search Location

Slope(s) Maintained by Government

Slope(s) Maintained by Private Party/Parties

Slope(s) Maintained by Government and Private Party/Parties



## ESTATE MANAGEMENT SECTION LANDS DEPARTMENT

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(15NE-B/R101)



#### List of Slope Maintenance Responsibility Area(s)

1	15NE-B/R101		<b>Sub-Division</b>	Not Applicable
	Location	Within GLA-HK 109, Tai Tam	Tuk Pumping Station	
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent	Water Supplies Department
	Remarks	For enquiries about the mainten	ance of this slope / sub-division of	of the slope, please contact the
	Kemarks	Maintenance Agent direct.		

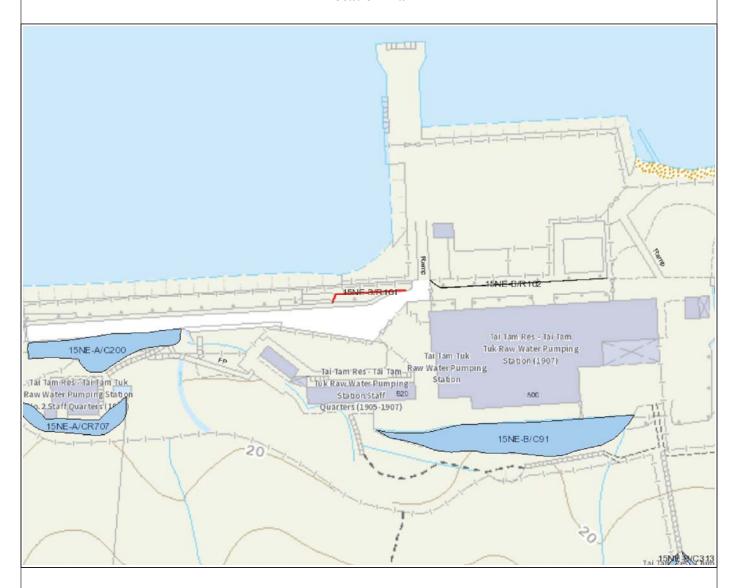
- End of Report -

#### **Notes:**

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#### **Location Plan**



#### Legend

Slope Area(s)

Search Location

Slope(s) Maintained by Government

Slope(s) Maintained by Private Party/Parties

Slope(s) Maintained by Government and Private Party/Parties



## ESTATE MANAGEMENT SECTION LANDS DEPARTMENT

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(15NE-B/F85)



#### List of Slope Maintenance Responsibility Area(s)

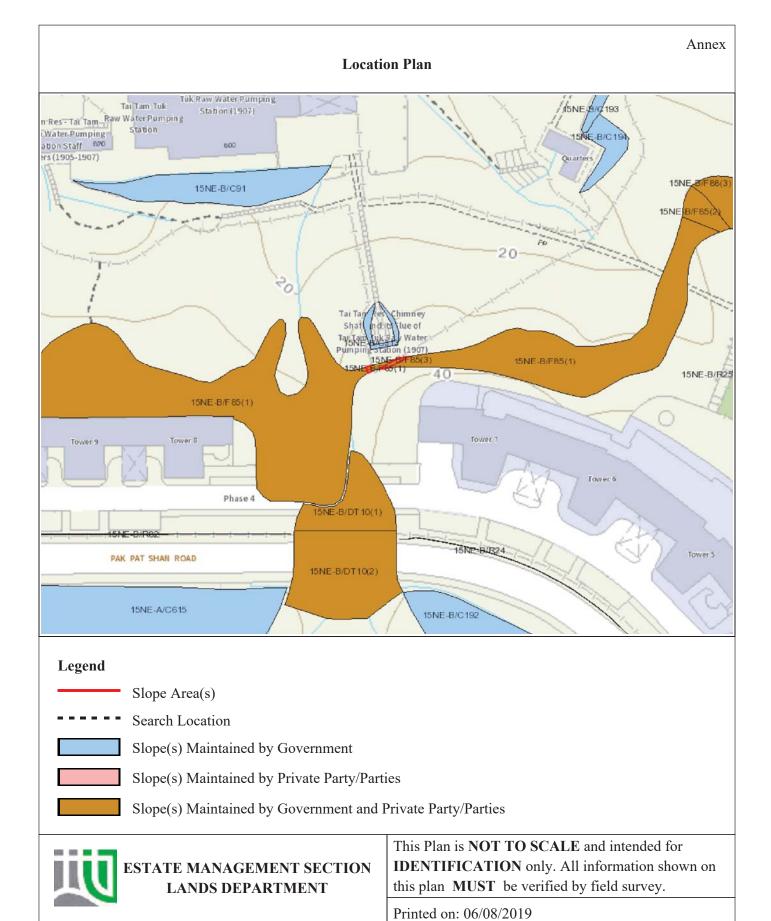
1	15NE-B/F85		Sub-Division	3
	Location	ADJOINING AND WITHIN R	BL1050RP	
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent	Lands Department
	Remarks	For enquiries about the mainten	ance of this slope / sub-division of	of the slope, please contact the
	Kemarks	Maintenance Agent direct.		

- End of Report -

#### **Notes:**

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(15NE-B/F85)



#### List of Slope Maintenance Responsibility Area(s)

1	15NE-B/F85		<b>Sub-Division</b>	2
	Location	ADJOINING AND WITHIN R	BL1050RP	
	Responsible Lot/Party	Lands Department	Maintenance Agent	Lands Department
	Remarks	For enquiries about the mainten	ance of this slope / sub-division of	of the slope, please contact the
	Kemarks	Maintenance Agent direct.		

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# Slope(s) Maintained by Private Party/Parties





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(15NE-B/F85)



#### List of Slope Maintenance Responsibility Area(s)

1	15NE-B/F85		<b>Sub-Division</b>	1
	Location	ADJOINING AND WITHIN R	BL1050RP	
	Responsible Lot/Party	RBL1050RP	Maintenance Agent	Not Applicable
	Remarks	Not Applicable		

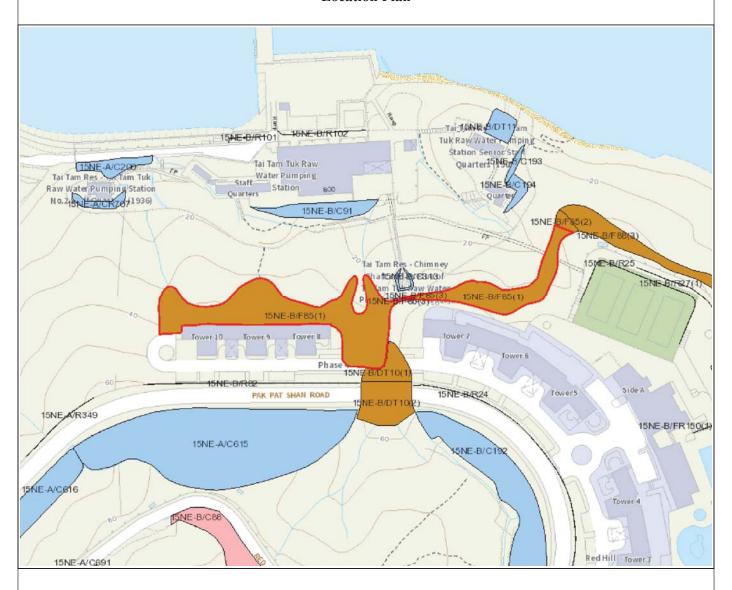
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#### **Location Plan**



#### Legend

Slope Area(s)

Search Location

Slope(s) Maintained by Government

Slope(s) Maintained by Private Party/Parties

Slope(s) Maintained by Government and Private Party/Parties



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(15NE-B/DT11)



#### List of Slope Maintenance Responsibility Area(s)

1	15NE-B/DT11		Sub-Division	Not Applicable
	Location	ADJOINING GOVERNMENT	QUARTERS TO THE EAST O	F GOVERNMENT LAND
	Location	ALLOCATION-HK109		
	Degrangible Lat/Deuty	Cayammant Duamanty Aganay	Maintanana Agant	Architectural Services
	Responsible Lot/Party	Government Property Agency	Maintenance Agent	Department
	Domonles	For enquiries about the mainten	ance of this slope / sub-division	of the slope, please contact the
	Remarks	Maintenance Agent direct.		

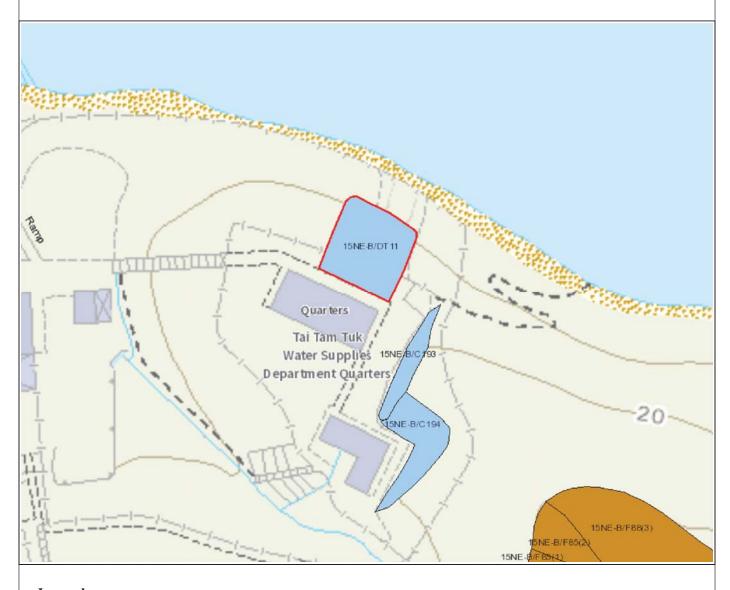
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#### **Location Plan**



#### Legend

Slope Area(s)

Search Location

Slope(s) Maintained by Government

Slope(s) Maintained by Private Party/Parties

Slope(s) Maintained by Government and Private Party/Parties



## ESTATE MANAGEMENT SECTION LANDS DEPARTMENT

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(15NE-B/C313)



#### List of Slope Maintenance Responsibility Area(s)

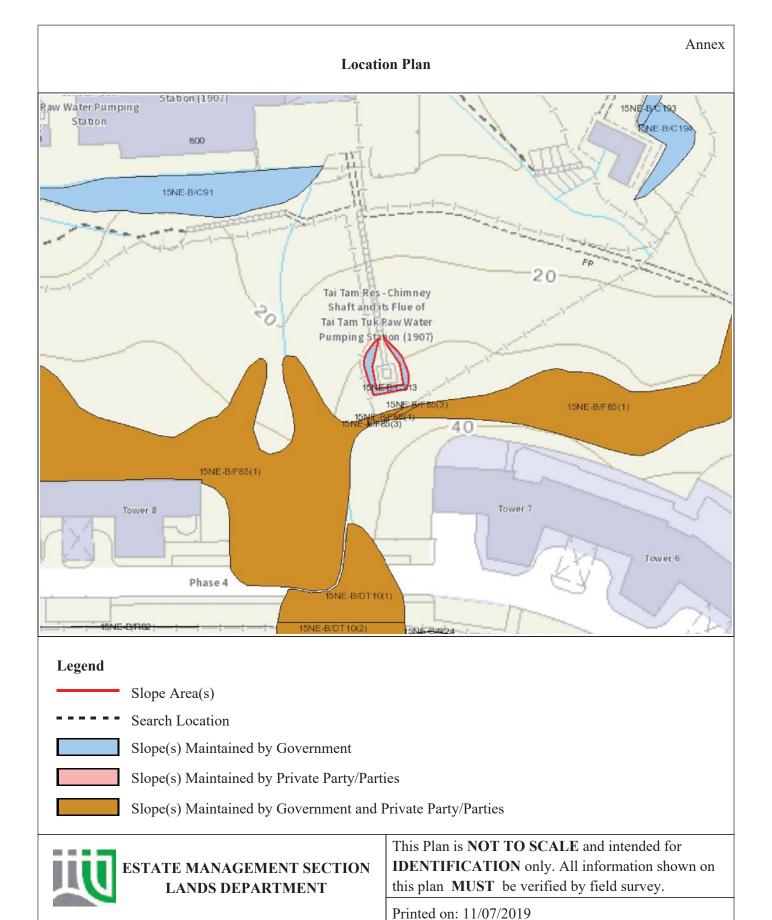
1	15NE-B/C313		Sub-Division	Not Applicable
	Location	WITHIN GLA-HK109		
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent	Water Supplies Department
	Remarks	For enquiries about the mainten	ance of this slope / sub-division of	of the slope, please contact the
	Kemarks	Maintenance Agent direct.		

- End of Report -

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(15NE-B/C194)



#### List of Slope Maintenance Responsibility Area(s)

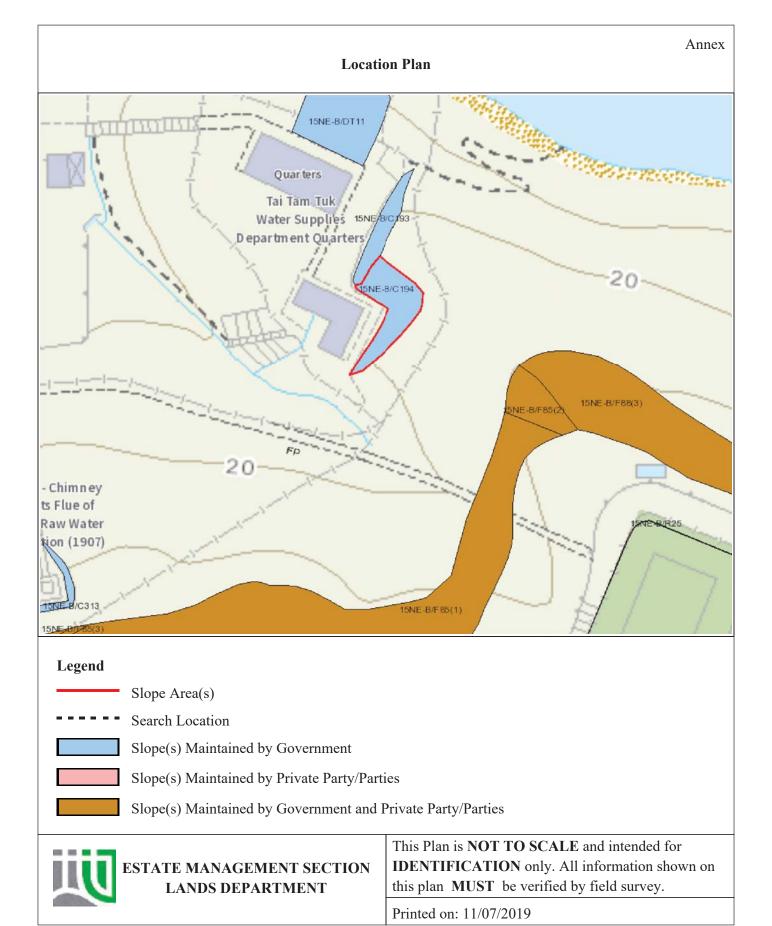
1	15NE-B/C194		Sub-Division	Not Applicable
	Location	Within GLA-HK 1085, Tai Tam Tuk Water Supplies Department Quarters		
	Responsible Lot/Party	Government Property Agency	Maintenance Agent	Architectural Services Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent direct.		

#### - End of Report -

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(15NE-B/C193)



### List of Slope Maintenance Responsibility Area(s)

1	15NE-B/C193		Sub-Division	Not Applicable		
	Location	Within GLA-HK 1085, Tai Tan	n Tuk Water Supplies Department Quarters			
	Responsible Lot/Party	Government Property Agency	Maintenance Agent	Architectural Services		
			Wiaintenance Agent	Department		
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the				
		Maintenance Agent direct.				

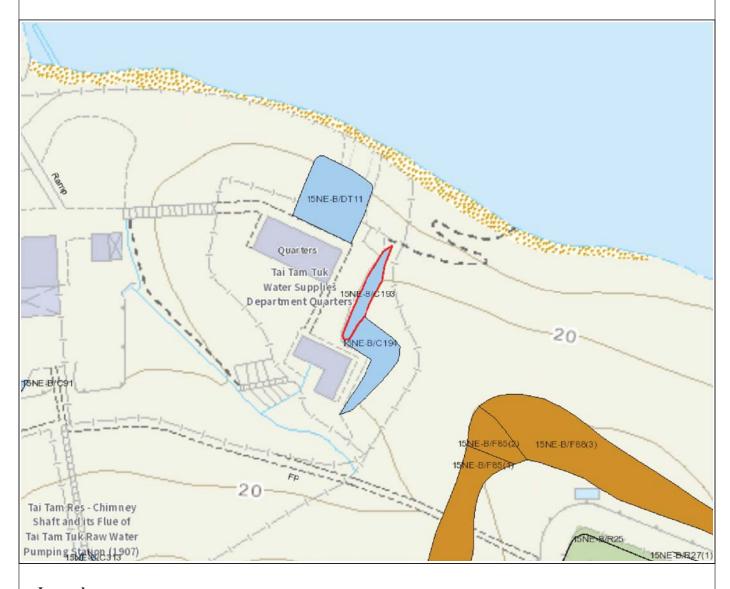
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### **Location Plan**



### Legend

Slope Area(s)

Search Location

Slope(s) Maintained by Government

Slope(s) Maintained by Private Party/Parties

Slope(s) Maintained by Government and Private Party/Parties



## ESTATE MANAGEMENT SECTION LANDS DEPARTMENT

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(15NE-B/C91)



### List of Slope Maintenance Responsibility Area(s)

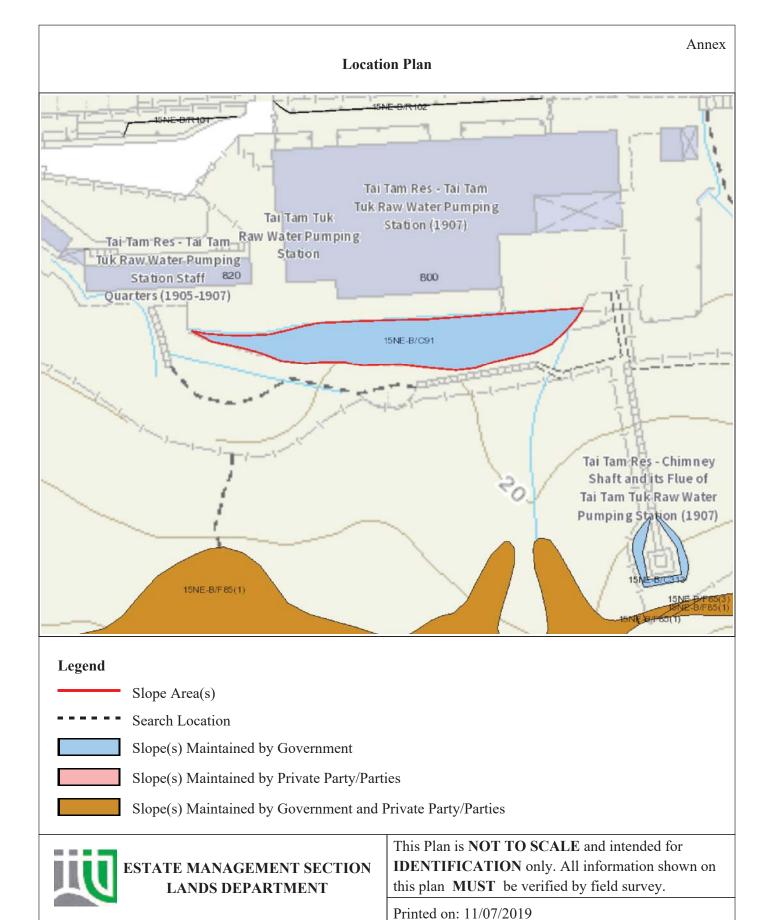
1	15NE-B/C91		Sub-Division	Not Applicable		
	Location	WITHIN GLA-HK109				
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent	Water Supplies Department		
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the				
	Kemarks	Maintenance Agent direct.				

- End of Report -

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(15NE-A/CR707)



### List of Slope Maintenance Responsibility Area(s)

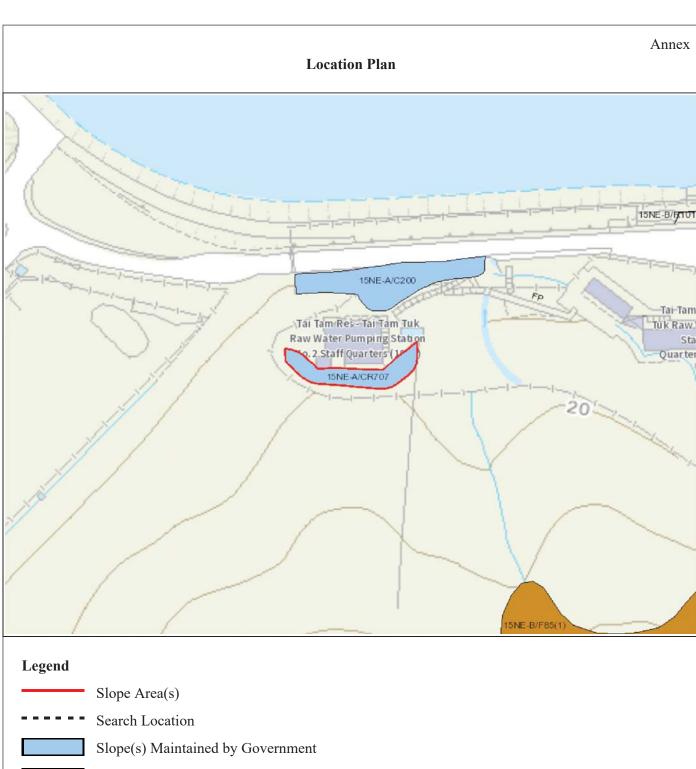
1	15NE-A/CR707		Sub-Division	Not Applicable		
	Location	WITHIN GLA-HK109				
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent	Water Supplies Department		
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the				
	Kemarks	Maintenance Agent direct.				

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(15NE-A/C200)



### List of Slope Maintenance Responsibility Area(s)

1	15NE-A/C200		<b>Sub-Division</b>	Not Applicable		
	Location	WITHIN W PORTION OF GLA	LA-HK109			
	Responsible Lot/Party	Water Supplies Department	Maintenance Agent Water Supplies Departr			
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the				
	Remarks	Maintenance Agent direct.				

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Search Location

Slope(s) Maintained by Government

Slope(s) Maintained by Private Party/Parties

Slope(s) Maintained by Government and Private Party/Parties



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# Appendix XIII Recurrent Expenditure

### **Recurrent Expenditure**

### A. Electricity Fee

Possible Use(s) <sup>(1)</sup>	GFA (m <sup>2</sup> ) (a) <sup>(5)</sup>	Net Gross Ratio (b)	IFA (m <sup>2</sup> ) (c)=(a)x( b)	Energy Consumption Indicator (MJ/m²/annu m) (d)	Energy Consumption per annum (kWh/annum) <sup>(3)</sup> (e)=(c)x(d)x0.277 8	Estimated Electricit y Fee (\$) (4) per annum	Energy Consumptio n is based on the following Groups of Uses on EMSD's website (2)
Eating Place				5729	1,774,540	3,144,196	Other Eating and Drinking Place
Educational Institution				630	195,141	337,604	Adult Education / Tutorial / Vocational Course
Exhibition or Convention Hall	1239	90%	1115	1009	312,535	546,213	Government Office
Field Study Education/ Visitor Centre				630	195,141	337,604	Adult Education / Tutorial / Vocational Course
Place of Recreation, Sports or Culture				1479	458,116	804,910	Arcade / Basement / Upper Floor Shop

### Notes:

- (1) It is assumed the length of operation hours is in line with the normal mode of operations, e.g. 9 hours for exhibition or convention hall, cultural facilities and educational institution.
- (2) The respective "Energy Consumption Indicators@ can be found at <a href="http://www.emsd.gov.hk/emsd/eng/pee/ecib.shtml">http://www.emsd.gov.hk/emsd/eng/pee/ecib.shtml</a>
- (3)  $1MJ \times 0.2778 = 1kWh$
- (4) Electricity fee of Hong Kong side is based on the tariff charged by Hong Kong Electric Holdings Limited (HEH). HEH: @0.980 for first 500 units, @\$1.020 for the next 1,000 units, @ 1.131 for next 18,500 units and @1.158 thereafter. Fuel clause adjustment charge is @0.197.

1 Unit = 1 kWh.

The estimated electricity fee is for the projection in the application only. The actual fee will be subject to the then tariff and actual demand and consumption.

The calculation based on an assumption of average consumption on every month during the 1 year period.

Only the area for Senior Staff Quarters (Main Building and Servants' Quarters), Staff Quarters (Main Building and Store Building), No. 2 Staff Quarters (Main Building and Outbuilding), Dangerous Goods Store, Garage, Fuel Tank and Underground Cellar are calculated. Yard and other external area are not included.

### **B.** Water and Sewage Charge

Possible Use(s) <sup>(1)</sup>	GFA (m <sup>2</sup> ) (a) <sup>(4)</sup>	Net Gross Ratio (b)	IFA (m <sup>2</sup> ) (c)=(a)x(b)	Estimated Water & Sewage Charge(\$)/month (d)=(c)x\$0.3	Estimated Water & Sewage Charge per annum(\$)
Eating Place				11,664 <sup>(2)</sup>	139,968
Educational Institution				335	4,020
Exhibition or Convention Hall				335	4,020
Field Study Education/ Visitor Centre	1239	90%	1115	335	4,020
Place of Recreation, Sports or Culture				335	4,020

### Notes:

- (1) According to the standard accommodation rate issue by the Government Property Agency, the estimated monthly water & sewage charges of Government-owned offices is \$0.3 per m³.
  Based on the above estimate, it is assumed that the use of water per m³ of:
  Exhibition or Convention Hall, Educational Institution, Education/ Visitor Centre, Place of Recreation, Research,
  Design and Development Centre and Social Welfare Facility = Offices
- (2) The estimated water and sewage charge per month for Eating Place =
  [No. of sink x Operation Time (hours)] x Liter per second x Nos. of Seconds per hour x Estimated Water & Sewage
  Charge per m<sup>2</sup> x nos of days the eating place operates per months =
  (i) x (ii) x 3600 x (iii) x (iv) = 90 x 0.00016 x 3600 x (4.58+2.92) x 30 = \$11,664
  - (i) Say 15 nos. of sink operate in 6 hours in total per day = 90hrs
  - (ii) The water tap of sink flows 0.161/s (According to Members of Intuition of Plumbing Engineers Guide), therefore the water tap of sink flows  $= 0.00016m^3/s$
  - (iii) According to the standard accommodation rate issued by the Water Supplies Department, the estimated monthly water charge of trade is \$4.58 per m<sup>3</sup>. The sewage charges of Food and Beverage services are \$2.92 per m<sup>3</sup>.
  - (iv) Nos. of days the food and beverage services operate (say 30 days for month)
- (3) The estimated water and sewage charge is for cost projection in the application only. The applicants are free to make reference to other sources as appropriate. The actual water and sewage charge will be subject to the then tariff and actual consumption.
- (4) Only the area for Senior Staff Quarters (Main Building and Servants' Quarters), Staff Quarters (Main Building and Store Building), No. 2 Staff Quarters (Main Building and Outbuilding), Dangerous Goods Store, Garage, Fuel Tank and Underground Cellar are calculated. Yard and other external area are not included.

### C. Rate and Rent

Possible Use(s) <sup>(1)</sup>	GFA (m <sup>2</sup> ) (a)	Site Area (m²)	Rateable Value (1) (\$) (a)	Rent/annum (\$) (b)=(a)x5%	Rate/annum (\$) (c)=(a)x3%	Rates & Rent/annum (\$) (d)=(b)+(c)
Eating Place Educational Institution Exhibition or Convention Hall Field Study Education/ Visitor Centre Place of Recreation, Sports or Culture	1239	6,356	3,053,280	152,664	91,598	244,262

### Notes:

(1) The above rateable values are rough estimate based on the possible uses and are for the cost projection in the application only. The actual assessment of rateable values will depend on the actual use, operating mode, extent of renovation, actual floor area, etc. of each historic building.

The rateable value will be subject to annual revaluation by the Rating and Valuation Department.

## Appendix XIV Requirements for Preliminary Traffic Assessment

### **Requirements for Preliminary Traffic Assessment**

1. The selected applicant would be required to provide parking spaces and loading / unloading areas within the site for all parking, loading / unloading needs arising from the operation of the project. However, the number of parking spaces should be limited to avoid attracting traffic loads that may adversely affect the existing road networks. The selected applicant would also be required to design and implement traffic measures to ensure that no vehicles attracted to/generated from the project will carry out such activities (parking, loading/unloading) or waiting on public roads to enter the site.

The applicants are required to demonstrate in detail in the submission how he can fulfill these requirements. The details shall include, inter alia, the location and the layout of the parking, loading / unloading areas.

2. The selected applicant would be required to design and construct the vehicular access with associated signage, and implement management measures in such a way that (a) it will be safe for vehicles to pass through the access safely, and (b) traffic on a public road will not be adversely affected by vehicles coming into or out of the project site.

The applicants are required to demonstrate in the submission how he can provide the vehicular access to fulfil these requirements.

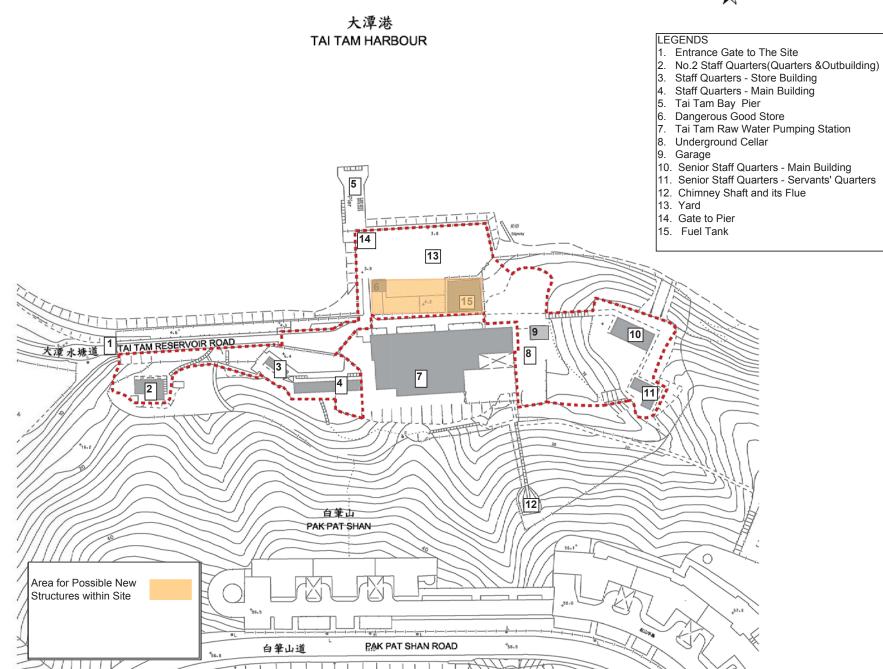
3. It is desirable for the project to spread out the traffic generated by or attracted to the project so that as few vehicles per hour as possible will be generated/attracted, particularly during 8 a.m. – 10 a.m. and 4 p.m. – 7 p.m. on weekdays; and it is essential that the selected applicant is familiar with the characteristics of the traffic pattern on Tai Tam Road and Tai Tam Reservoir Road, with respect to both vehicular and pedestrian traffic. Minimal vehicular traffic intensity generated by the operation of the project, particularly during the above- quoted hours, will be taken as a favourable factor when the proposal is assessed. It is also necessary that there is sufficient capacity of walkway for the pedestrians generated by/attracted to the project to walk on safely.

Hence, the applicant shall describe in the submission how the project can be managed in such a way as to minimise adverse traffic impact on Tai Tam Road and Tai Tam Reservoir Road during the construction and operation of the project,

with respect to both vehicular traffic and pedestrian traffic. In addition, the applicant shall submit in the proposal a schedule showing the vehicle types (with sizes), estimated numbers, routing, and the time of coming to and leaving the site during the construction stage and the operation stage. The applicant shall also submit the estimated number of pedestrians, routing and the time of coming to and leaving the site on foot.

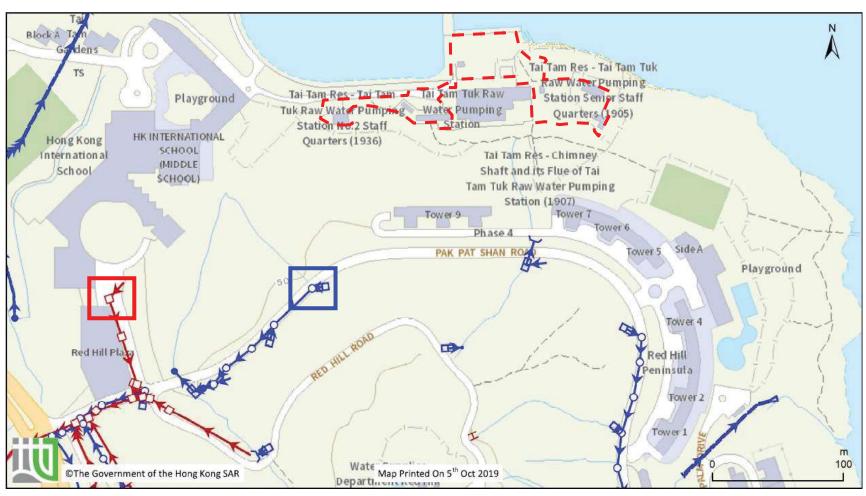
## Appendix XV Possible New Structure(s) within the site





### **Appendix XVI**

**Location of Nearest Public Storm Water Manhole and Sewer Manhole** 



### (DSD's record extracted from GeoInfo Map)

