

Geotechnical Planning Review Report

on

Lot No. 126 (Part) & 128 in D.D. 128

Kai Pak Ling Road

Fung Kong Tsuen

Yuen Long

(Revision)

Philip So & Associates Consulting Civil & Geotechnical Engineers Ltd.

July 2024

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Appendix

Appendix A – Slope information retrieved from SIS of CEDD

1.0 Introduction

1.1 Background

Warehouses are proposed at Lot No. 126 (Part) & 128 in D.D. 128, Kai Pak Ling Road, Yuen Long. The proposed development calls for specific geotechnical engineering inputs for the assessment of its engineering effects on the adjacent slope, wall and natural hillside.

This Geotechnical Planning Review Report (GPRR) is made based on desk study and review of available documentary information and proposed development plan. The geology and site conditions are described. Potential geotechnical constraints are identified in the assessment.

To support the development proposal, this assessment is aimed at identifying the geotechnical feasibility of the proposed development and the existing slope, wall and hillside which may be affecting or be affected by the proposed development.

2.0 Site Location, Topography and Surrounding Environment

2.1 Site Description

The site is at a sloping ground with level platform at Yuen Long. The site layout plan of the proposed development site is presented in Figure 1.

According to the available SIMAR reports retrieved from Lands Department and SIS records obtained from Geotechnical Engineering Office (GEO), there are 6 registered geotechnical feature lies within or in the vicinity of the site.

2.1.1 Feature No. 6NW-A/C38

At the mid-portion of the site, there is a cut slope with Feature No. 6NW-A/C38. The slope is max. 3.2m high and 120m long with average angle of 48°. Non-dangerous goods storage site is situated on slope crest and lightly-used open area is situated at slope toe. The owner of Lot No. 126 in D.D. 128 is responsible for the maintenance of sub-division 1 of the Feature and Lands Department is responsible for the maintenance of sub-division 2 of the Feature. The location of the Feature is presented in Drawing No. LP - 01.

2.1.2 Feature No. 6NW-A/C39

At the mid-portion of the site, there is a cut slope with Feature No. 6NW-A/C39. The slope is max. 3m high and 70m long with average angle of 46°. Non-dangerous goods storage site is situated on slope crest and district open space is situated at slope toe. The owner of Lot No. 126 in D.D. 128 is responsible for the maintenance of sub-division 1 of the Feature, owner of Lot No. 127 in D.D. 128 is responsible for the maintenance of sub-division 2 of the Feature, and Lands Department is responsible for the maintenance of sub-division 3 of the Feature. The

location of the Feature is presented in Drawing No. LP-01.

2.1.3 Feature No. 6NW-A/C75

At the south-eastern portion of the site, there is a cut slope with Feature No. 6NW-A/C75. The slope is max. 4m high and 150m long with average angle of 65°. Cemetery is situated on slope crest and densely-used open area is situated at slope toe. The owner of Lot No. 130 in D.D. 128 is responsible for the maintenance of sub-division 1 of the Feature, and Lands Department is responsible for the maintenance of sub-division 2 of the Feature. The location of the Feature is presented in Drawing No. LP-01.

2.1.4 Feature No. 6NW-A/F67

Due north-east of the site, there is a fill slope with Feature No. 6NW-A/F67. The slope is max. 5.1m high and 90m long with average angle of 40°. A road with low traffic density is situated on slope crest and other non-crowded built-up facilities are situated at slope toe. The owner of Lot No. 130 in D.D. 128 is responsible for the maintenance of sub-division 1 of the Feature, and Lands Department is responsible for the maintenance of sub-division 2 of the Feature. The location of the Feature is presented in Drawing No, LP-01.

2.1.5 Feature No. 6NW-A/F93

At the north-western portion of the site, there is a fill slope with Feature No. 6NW-A/F93. The slope is max. 6m high and 245m long with average angle of 40°. For portion of the Feature situated within the site, carpark is situated on slope crest and district open space is situated at slope toe. The owner of Lot No. 129 s.B in D.D. 128 is responsible for the maintenance of sub-division 1 of the Feature, owner of Lot No. 126 in D.D. 128 is responsible for the maintenance of sub-division 2 of the Feature Lot No.

127 in D.D. 128 is responsible for the maintenance of sub-division 3 of the Feature, and Lands Department is responsible for the maintenance of sub-division 4 of the Feature. The location of the Feature is presented in Drawing No. LP-01.

2.1.6 Feature No. 6NW-A/F94

At the north-western portion of the site, there is a fill slope with Feature No. 6NW-A/F94. The slope is max. 4m high and 200m long with average angle of 35°. For portion of the Feature situated within the site, district open area is situated on slope crest and warehouses are situated at slope toe. The maintenance responsibility parties are given in the table below:-

Sub-division of Feature No. 6NW-A/F94	Maintenance Responsibility Parties
1	Lot 126 in D.D. 128
2	Lot 128 in D.D. 128
3	Lot 129 s.B in D.D. 128
4	Lot 270 s.A in D.D. 128
5	Lot 270 R.P. in D.D. 128
6	Lands Department

2.2 Proposed Development

The proposed development consists of the construction of a 3 warehouses, 1 open storage, 1 office and 1 lounge & toilet and 1 meter room. A layout plan and typical section of the proposed structure are attached in Dwg No. LP-01 and LP-02.

2.3 Desk Study

Desk study has been carried out, no relevant information could be retrieved from the Geotechnical Information Unit (GIU) of Geotechnical Engineering Office (GEO) Buildings Department (BD).

2.3.1 Geotechnical Map

The geology of the Study Area is shown on the Hong Kong Geological Survey (HKGS) Map Sheet 6 (Yuen Long), 1:20,000 – scale HGM20 Series: Edition II - 1988. The local geology of the Study Area is presented in Figure 1 and 2 and described below.

2.3.2 Solid Geology

The 1:20,000 scale geological maps indicated that regional area around the Site is underlain by Mesozoic Upper Jurassic Repulse Bay Volcanic Group block-bearing tuff and tuffite and andesite with tuff and tuffite, and Quaternary Pleistocene silt/sand, gravelly, clayey with cobbles and boulders.

2.3.3 Superficial Geology

Entire Site are surrounded by Quaternary Pleistocene debris flow deposits (Qpd) and terraced alluvium (Qpa).

2.4 Enhanced Natural Terrain Landslide Inventory

In 1995, the GEO compiled the Natural Terrain Landslide Inventory (NTLI) from an interpretation of high – altitude (8,000ft and above) aerial photographs dated from 1945 to 1994 (King, 1999). In 2007, the GEO produced an Enhanced Natural Terrain Landslide Inventory (ENTLI) using low-altitude (8,000ft and below) aerial photographs to update the NTLI.

In accordance with GEO Report No. 138 (GEO, 2016), landslides are classed as either “Relict” or “Recent”, depending on their appearance in aerial photographs. “Relict” landslides are defined as those where the main scarp is well-defined but vegetation has re-established on the scar on the earliest set of available aerial photographs. “Recent” landslides are defined as having occurred within the timespan of the aerial photograph coverage. These are typically identified as having a light tone on the

aerial photographs and are bare of vegetation.

The ENTLI has recorded none relict / recent landslides within and in the vicinity of the Site.

2.5 Historical Landslide Catchment (HLC) Inventory

Historical Landslide Catchments (HLCs) have been defined by GEO based on the results of the ENTLI. According to the inventory, there is no HLC within the Site.

2.6 Reported Landslide Incidents

The GEO landslide incidents database has no record of reported landslide incident within or in the vicinity of the Site.

2.7 Ground Investigation

No Ground Investigation Works within the site has been carried out. No nearby GI Information could be retrieved from GIU of CEDD nor Buildings Department.

3.0 Impacts of proposed works on existing Features and natural hillside

3.1 Feature No. 6NW-A/C38

Feature No. 6NW-A/C38 is located at mid-portion of the site. An open storage area and meter room are situated on slope crest. Warehouse, office and parking space are situated at slope toe. Stability assessment on the existing slope shall be checked to ensure the existing slope will not affect the proposed development or vice versa.

In order to fulfill the above-mentioned objectives for detailed design to be carried out in future, a comprehensive investigation programme will be implement comprising the following:-

- I Detailed ground investigation including in-situ and laboratory soil testing to identify the soil parameters together with the monitoring of groundwater table;
- II Establishment of geological and hydrogeological model based on the findings from topographic survey and the ground investigation works.

3.2 Feature No. 6NW-A/C39

Feature No. 6NW-A/C39 is located at mid-portion of the site. An office and parking space are on slope crest. Access road is situated along at slope toe. Stability assessment on the existing slope shall be checked to ensure the existing slope and toe wall will not affect the proposed development or vice versa.

In order to fulfill the above-mentioned objectives for detailed design to be carried out in future, a comprehensive investigation programme will be implement comprising the following:-

- I Detailed ground investigation including in-situ and laboratory soil testing to identify the soil parameters together with the monitoring of groundwater table;
- II Establishment of geological and hydrogeological model based on the findings from topographic survey and the ground investigation works.

3.3 Feature No. 6NW-A/C75

Feature No. 6NW-A/C75 is located at south-east portion of the site. An open storage area and meter room are situated at slope toe. Stability assessment on the existing slope shall be checked to ensure the existing slope and toe wall will not affect the proposed development or vice versa.

In order to fulfill the above-mentioned objectives for detailed design to be carried out in future, a comprehensive investigation programme will be implement comprising the following:-

- I Detailed ground investigation including in-situ and laboratory soil testing to identify the soil parameters together with the monitoring of groundwater table;
- II Establishment of geological and hydrogeological model based on the findings from topographic survey and the ground investigation works.

3.4 Feature No. 6NW-A/F67

Feature No. 6NW-A/F67 is located due north-east of the site. A staff lounge & restroom, warehouses and parking space are situated near the slope toe. Stability assessment on the existing slope shall be checked to ensure the existing slope and toe wall will not affect the proposed development or vice versa.

In order to fulfill the above-mentioned objectives for detailed design to be carried out in future, a comprehensive investigation programme will be implemented comprising the following:-

- I Detailed ground investigation including in-situ and laboratory soil testing to identify the soil parameters together with the monitoring of groundwater table;
- II Establishment of geological and hydrogeological model based on the findings from topographic survey and the ground investigation works.

3.5 Feature No. 6NW-A/F93

Feature No. 6NW-A/F93 is located at north-west portion of the site. An existing slope with Feature No. 6NW-A/F94 is situated at slope toe. For the portion of the Feature situated within the site, it is a sloping ground with maximum slope angle of 14°. It is considered that the Feature will not affect the proposed development or vice versa.

3.6 Feature No. 6NW-A/F94

Feature No. 6NW-A/F94 is located at north-west portion of the site. Warehouses and parking space are situated at slope toe. A slope with

Feature No. 6NW-A/F93 is situated on slope crest. Stability assessment on the existing slope shall be checked to ensure the existing slope and toe wall will not affect the proposed development or vice versa.

In order to fulfill the above-mentioned objectives for detailed design to be carried out in future, a comprehensive investigation programme will be implement comprising the following:-

- I Detailed ground investigation including in-situ and laboratory soil testing to identify the soil parameters together with the monitoring of groundwater table;
- II Establishment of geological and hydrogeological model based on the findings from topographic survey and the ground investigation works.

4.0 Natural Terrain Hazard Assessment

According to Clause 2 and Figure 2.1 – Graphical Presentation of the Alert Criteria of Geo Report No. 337 – Review of Alert Criteria in Respect of Natural Terrain Hazards. The Alert Criteria should be applied if the site fall under category below:-

Where there is natural terrain outside the site, but within the same catchment, that is at an angular elevation of 20° or more from the site and where there is ground sloping at more than 15° within 50m horizontally upslope of the site, provided that there is credible debris flowpath to the site.

The proposed development is situated near toe area of natural hillside is 14m high approx with slope angle range from 26° to 33° which is larger than the 20° as required in the Alert Criteria. As such, the subject site is required for a Natural Terrain Hazard Study (NTHS).

5.0 Conclusions

Based on the above discussion, it can be concluded that the proposed development is considered to be feasible from geotechnical point of view. The construction would be straight forward unlikely posting particular problems to the surrounding area under careful planning, proper execution and vigilant supervision.

Site investigation is proposed to reveal/confirm the subsoils and the ground regime within and in the vicinity of the site as well as to determine the engineering properties of subsoils and rock. The ground investigation field works should be preceded under supervision of suitably qualified engineers and technically competent persons conforming the requirements specified in the “Code of Practice for Site Supervision 2009” published by the BD.

6.0 References

Geotechnical Engineering Office (2016). Guidelines for Natural Terrain Hazard Studies. Geotechnical Engineering Office, Hong Kong. GEO Report No. 138 2nd Edition.

Geotechnical Engineering Office (2004). Technical Guidance Note 22: Guidelines on Geomorphological Mapping for Natural Terrain Hazard Studies. Geotechnical Engineering Office, Hong Kong.

Geotechnical Engineering Office (2014). Technical Guidance Note No. 36: Guidelines on Enhanced Approach for Natural Terrain Hazard Studies. Geotechnical Engineering Office, Civil Engineering Department, Hong Kong.

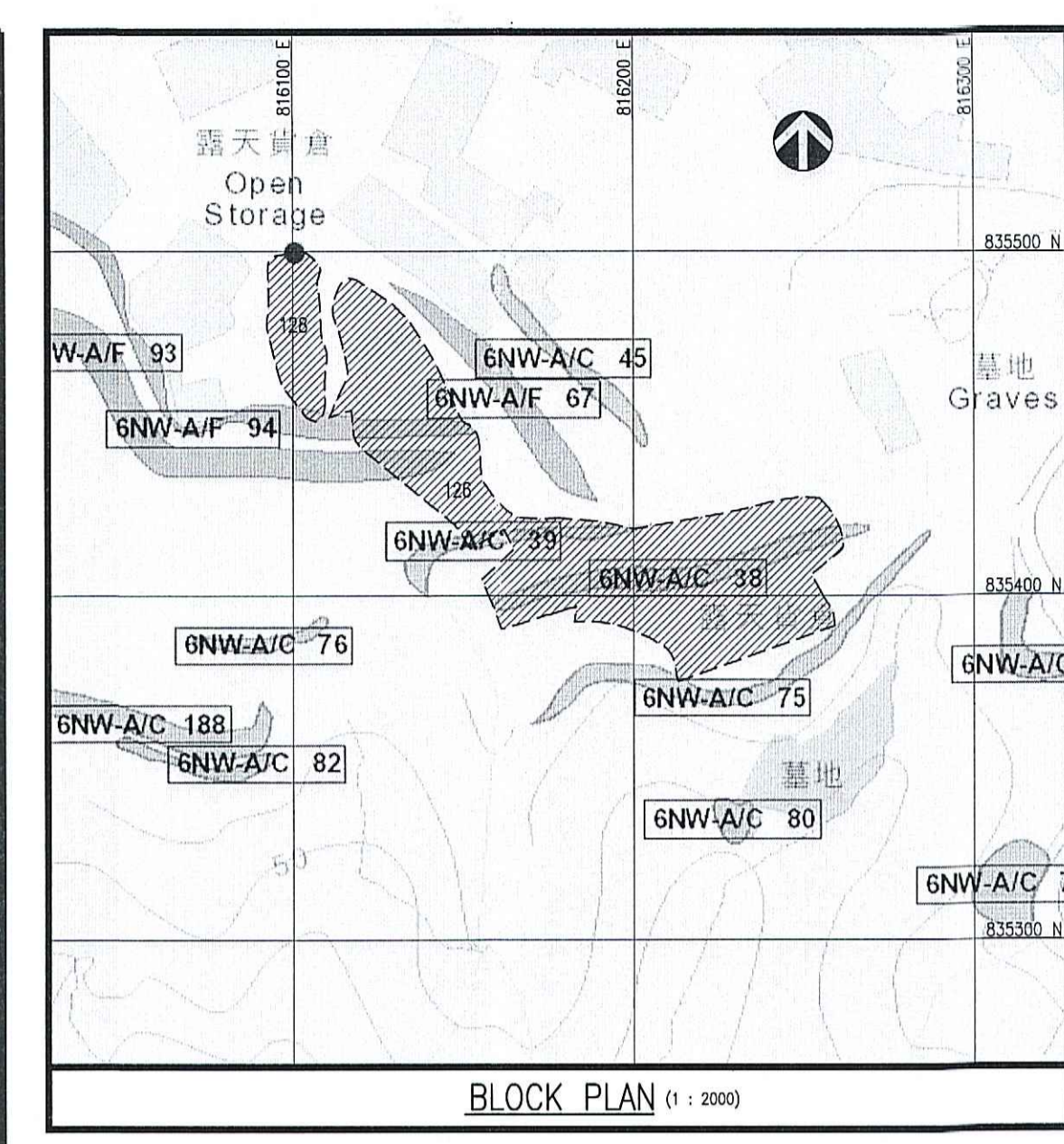
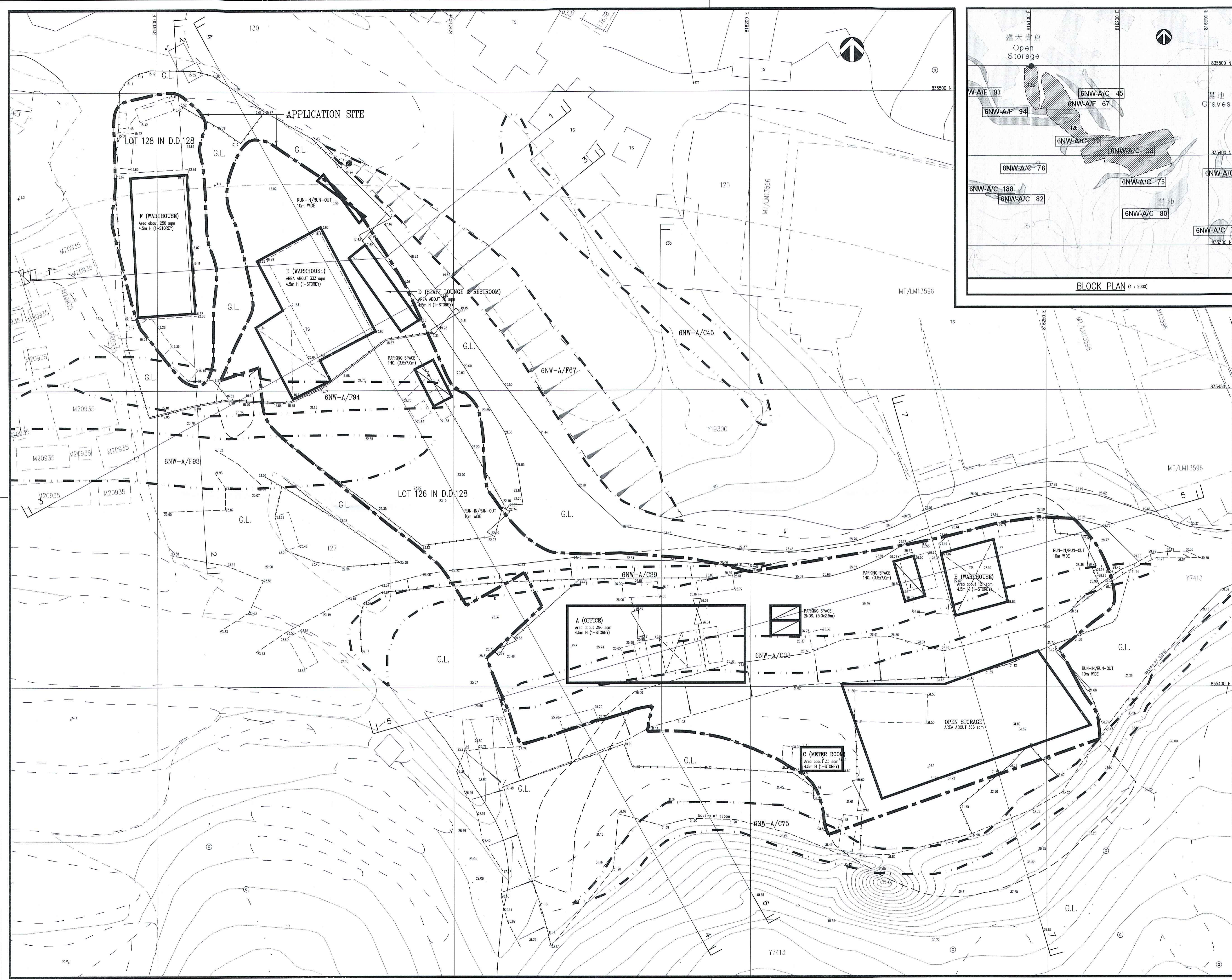
King, J.P. (1999). Natural Terrain Landslide Study The Natural Terrain Landslide Inventory. GEO Report No. 74, Geotechnical Engineering Office, Hong Kong.

Landslide data for public retrieved from Location of Landslide Incidents of CEDD.

Geotechnical Engineering Office (2007). Technical Guidance Note No. 15. Guidelines for Classification of Consequence-to-life Category for Slope Feature.

GEO Report No. 337 – Review of Alert Criteria In Respect of Natural Terrain Hazards.

Figures



B.D. REF. -

LEGENDS

- LOT BOUNDARY LINE
- - - FEATURE BOUNDARY LINE
- - - APPLICATION SITE
- +23.10 - EXISTING SPOT LEVEL (mPD)
- - - EXISTING RETAINING WALL
- - - EXISTING FENCING/RAILING
- - - EXISTING GATE
- - - EXISTING SLOPE

REV.	DATE	DESCRIPTION
A	17/06/24	GENERAL REVISION

ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWINGS - ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS, AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.

Philip C.W. So
RPE (Civil & Geotechnical)
Registered Structural Engineer
Registered Geotechnical Engineer

CONTRACT NO.	
PROJECT NO.	D.M.
CHECKED BY:	C.L.
APPROVED BY:	
SCALE:	1 : 300
DATE:	12/06/2024

PROJECT :

LOT 126 (PART) AND 128
IN D.D.128, KAI PAK LING ROAD,
YUEN LONG.

DRAWING TITLE :

SITE LAYOUT PLAN

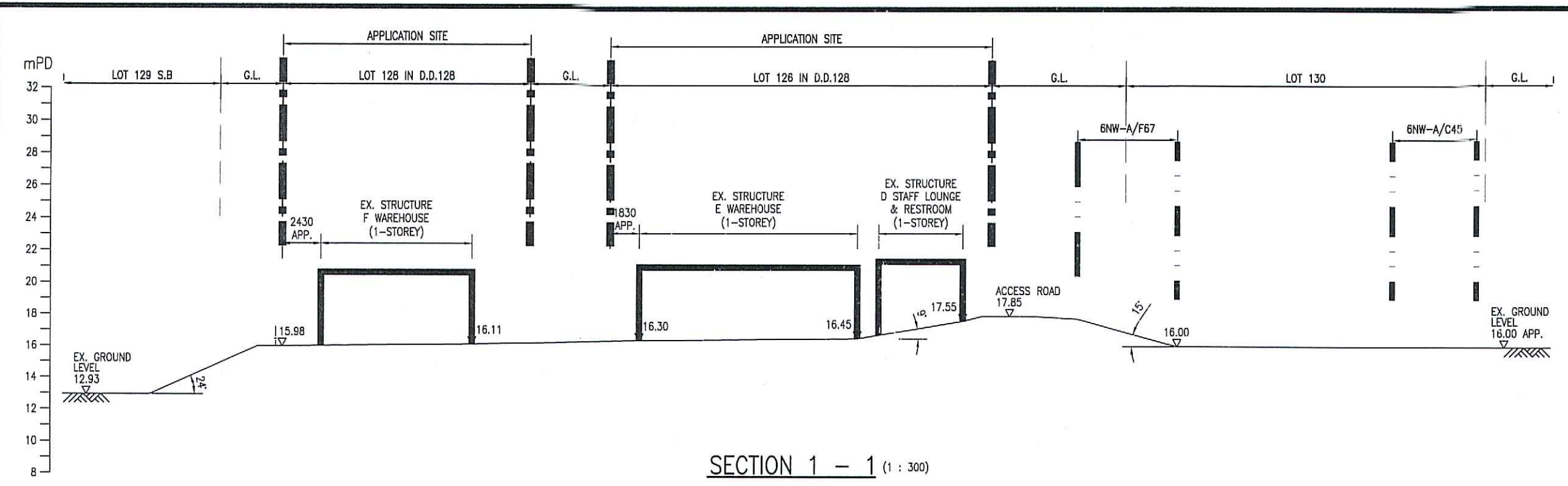
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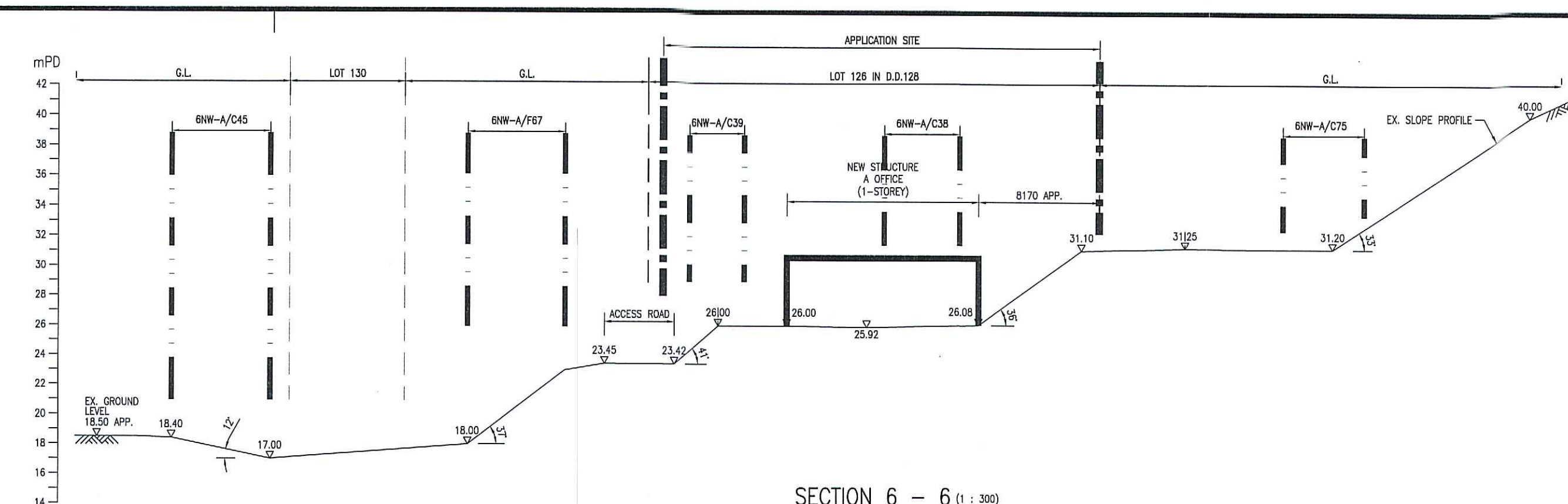
GEOTECHNICAL CONSULTANT :

PSA PHILIP SO & ASSOCIATES LTD.
CONSULTING CIVIL AND GEOTECHNICAL ENGINEERS

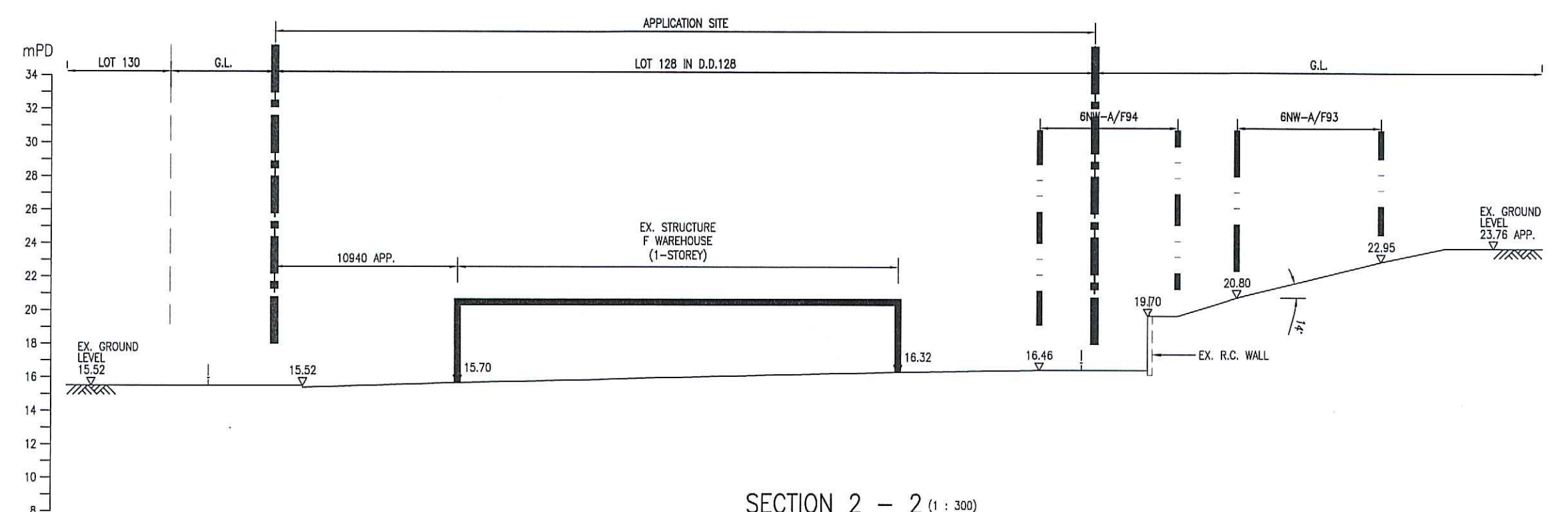
Flat C, 8/F., On Ho Industrial Building, TSL (850) 2739 9333
No. 17-19, Shing Wan Road, Tai Wai, Sha Tin, N.T. FAX: (850) 2732 2660



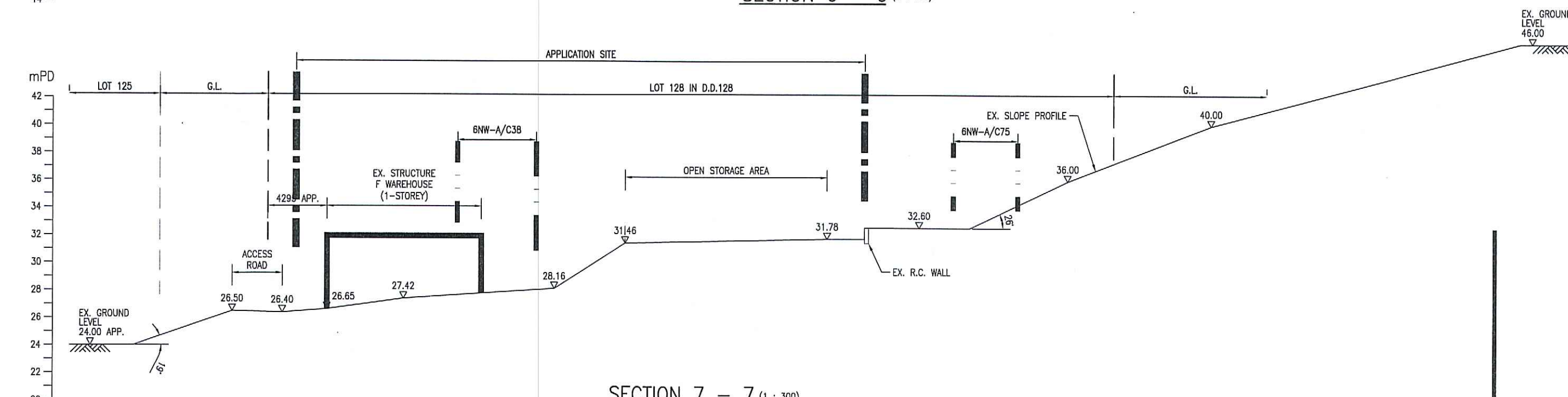
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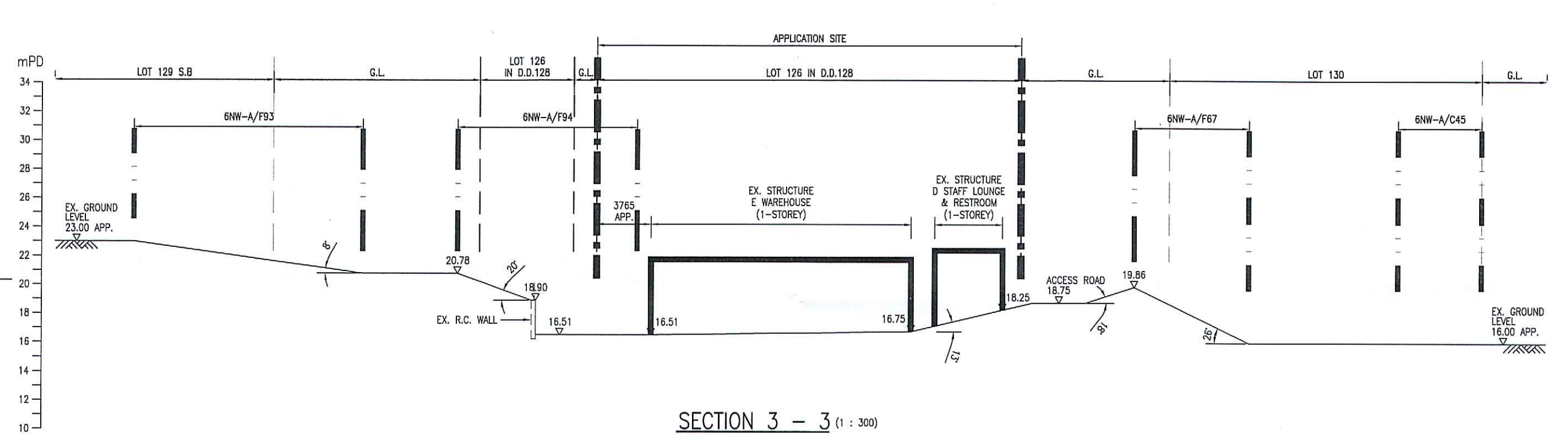
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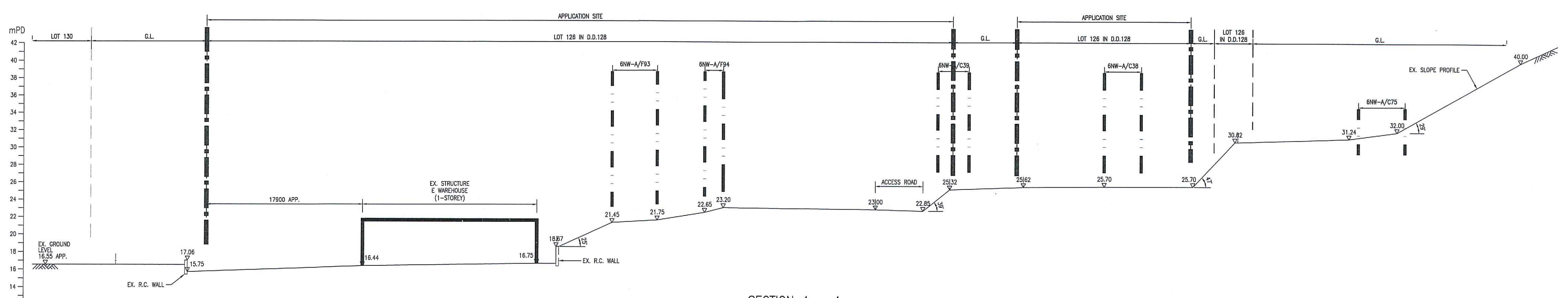
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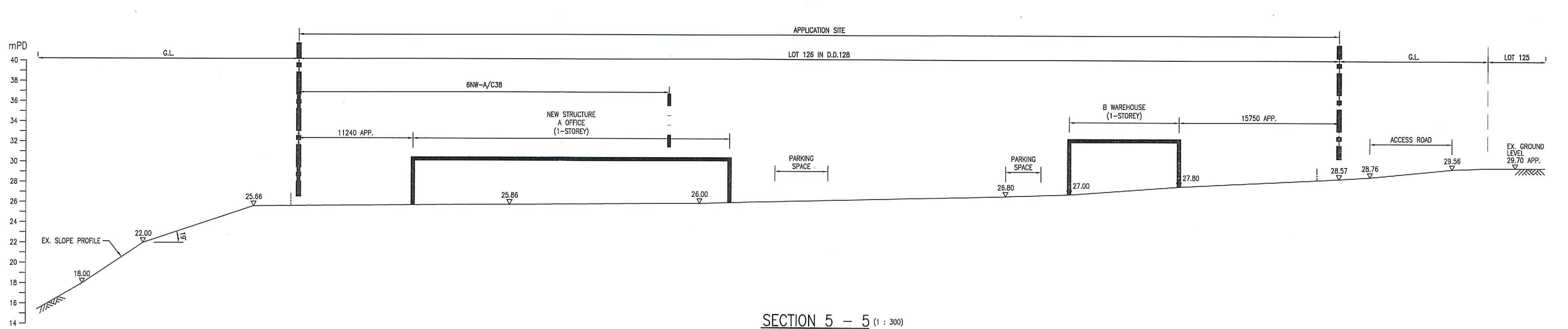
SECTION 7 - 7 (1 : 300)



SECTION 3 - 3 (1 : 300)



SECTION 4 - 4 (1 : 300)



SECTION 5 - 5 (1 : 300)

B.D. REF. -

LEGENDS

- LOT BOUNDARY LINE
- FEATURE BOUNDARY LINE
- APPLICATION SITE

REV.	DATE	DESCRIPTION
A	17/06/24	GENERAL REVISION

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Philip C.W. So
 RPE (Civil & Geotechnical)
 Registered Structural Engineer
 Registered Geotechnical Engineer

CONTRACT NO.	
PROJECT NO.	D.M.
CHECKED BY :	C.L.
APPROVED BY :	
SCALE :	1 : 300
DATE :	12/06/2024

PROJECT :

LOT 126 (PART), 127 & 128
 IN D.D.128, KAI PAK LING ROAD,
 YUEN LONG.

DRAWING TITLE :

SECTIONS

DRAWING NO.	LP-02	REV.	A
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ARCHITECT :

GEOTECHNICAL CONSULTANT :

PSA PHILIP SO & ASSOCIATES LTD.
 CONSULTING CIVIL AND GEOTECHNICAL ENGINEERS
 Flat C, B/F., On Ho Industrial Building, TEL: (852) 2739 9333
 No. 17-19, Shing Wan Road, Tai Wai, Sha Tin, N.T. FAX: (852) 2732 2663

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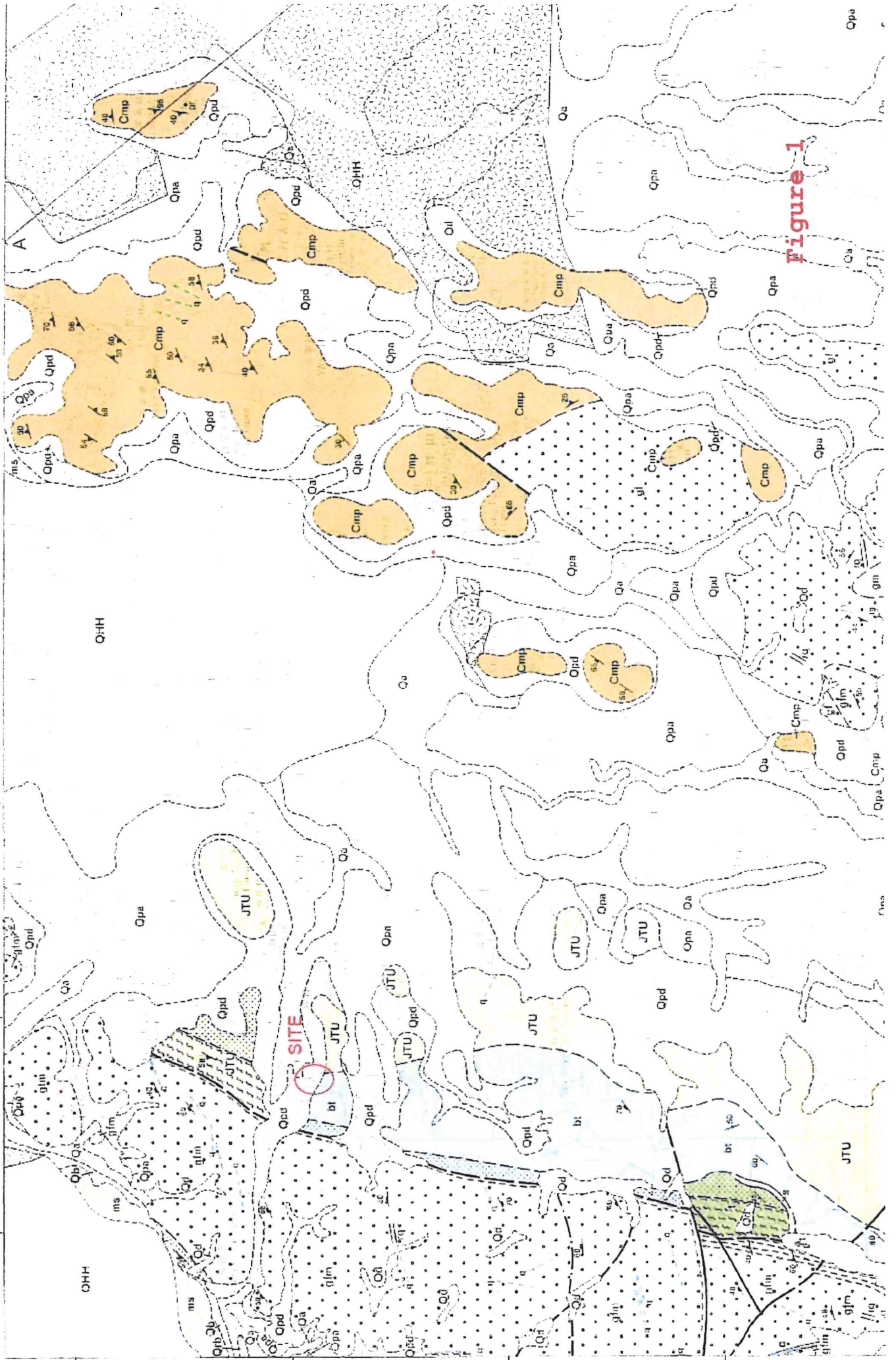


Figure 1

HONG KONG GEOLOGICAL SURVEY

香港地質調查

YUEN LONG 元朗

Sheet 6 編號

SOLID AND SUPERFICIAL GEOLOGY 基岩和表土地質圖

Series HGM20 組別

Scale 1:20 000 比例

SUPERFICIAL DEPOSITS 地表沉積

GENETIC CLASSIFICATION 成因類型		主要物質成分	PRINCIPAL MATERIALS
QUATERNARY 第四系	HOLOCENE 全新統	Fs 腐土	腐土和廢物
		Alfue an 沖積物	沖積物 (包括沖積扇、沖積平原、扇形沖積平原、扇形沖積平原)
		Beach deposits 海濱沉積物	砂
		Raised beach deposits 高灘沉積物	砂
PLUSTOCENE AND HOLOCENE 更新統和全新統	MANG LIU-J 馬角咀	QMH 未分選的粉砂、粘土和泥	Unsorted, mainly dark grey marine mud
		ms 砂	Sand, part silty
PHISTOCENE 漸新統	CHEK LAP KOK 赤立角	Qu 未分選的砂、粉砂、泥、礫石和泥炭	Unsorted sand, gravel, cobbles and boulders; clay silt matrix
		Qt 礫石、砂、粉砂和泥	Gravel, cobbles and boulders
		Qnu 未分選的粉砂、泥、礫石和泥炭	Clay silt, gravelly sandy, well-sorted to semi-sorted
		Qpd 未分選的粉砂、泥、礫石和泥炭	Silt sand, gravelly clay with cobbles and boulders, unsorted
QUATERNARY 第四系	CHEN LAP KOK 陳立角	QCK 紅色、黃色和灰色的粉砂、泥、礫石和泥炭	Unsorted, red, yellow and grey silt, sand and gravel

SOLID GEOLOGY 基岩地質

SEDIMENTARY AND VOLCANIC ROCKS 沉積岩和火山岩

NAMED ROCK DIVISIONS 地層單位名稱		主要岩石類型/特徵	PRINCIPAL ROCK TYPES/CHARACTERS			
MESOZOIC 中生界	UPPER JURASSIC 上侏羅統	Tai Mo Shan Formation, undivided 大帽山組 (未分)	JTM 粗粒火山灰質凝灰岩	Coarse ash crystal tuff		
		Lo Lei Chau Formation, undivided 鴉藍洲組 (未分)	JAC 細粒火山灰質凝灰岩	Fine ash tuff		
		Shek Mun Formation, undivided 石門組 (未分)	Undivided 未分	JSM 細粒至粗粒火山灰質凝灰岩	Fine ash to coarse ash tuffs, tuffaceous sandstone and tuffite	
			Ngai Liu Member 牛車水段	Jni 高粒凝灰岩	Crystal and vitric tuff	
			Shek Lung Kung Member 石龍崗段	Jsl 粗粒凝灰岩	Tuff-breccia	
		Yan Tin Tsai Formation, undivided 鹽田仔組 (未分)	JYT 粗粒火山灰質凝灰岩	Coarse ash crystal tuff		
		WEST 西貢	REPUBLIC BAY VOLCANIC GROUP 共和灣火山岩群	Tsui Mun Formation, undivided 屯門組 (未分)	JTU 噴山岩、凝灰岩和凝灰岩	Andesite with tuff and tuffite
				t 未分選的凝灰岩凝灰岩	Unsorted tuff and tuffite	
				bt 粗粒火山凝灰岩和凝灰岩	Blocky basaltic tuff and tuffite	
				s 砂岩	Sandstone	
sl 粉砂岩和泥岩	Siltstone and mudstone					
br 凝灰岩碎屑岩	Sedimentary breccia					
PALAEOZOIC 古生界	CARBONIFEROUS 石炭系	SAR YIN GROUP 沙田組	Lok Ma Chau Member, undivided 落馬洲段 (未分)	Cmp 變質凝灰岩和千枚岩質凝灰岩	Metasiltstone and phyllite, with metaandstone	
			Mai Po Member, undivided 埋波段 (未分)	CYL 大理石	Marble	

MAJOR INTRUSIVE IGNEOUS ROCKS 主要侵入火成岩

Mesozytic 中生代		JURASSIC-CRETACEOUS 侏羅-白堊統	
Megalocrystic 具大晶體的	gl	粗粒花崗岩 < 2 毫米	Coarse-grained granite < 2mm
	glm	中粒花崗岩	Fine to med. un-grained granite
	gm	中粒花崗岩 > 2 - 5 毫米	Medium-grained granite, 2-5mm
	gc	粗粒花崗岩 > 5 毫米	Coarse-grained granite > 5mm
	gfb	常規化粗粒花崗岩	Coarsened fine-grained granite
	d	斑岩	Dacite
	gdf	粗粒花崗閃長岩 < 2 毫米	Fine-grained granodiorite < 2mm
gdm	中粒花崗閃長岩 > 2 - 5 毫米	Medium-grained granodiorite, 2-5mm	

MINOR INTRUSIVE IGNEOUS ROCKS 次要侵入火成岩 (脈岩)

TERTIARY 第三紀			
Mesozytic 中生代	JURASSIC-CRETACEOUS 侏羅-白堊統	b 輝石岩	Basalt
		a 閃石岩	Andesite
		f 輝石岩	Diabase
Mesozytic 中生代	JURASSIC-CRETACEOUS 侏羅-白堊統	rl 長石岩	Feldspathic rhyolite
		rq 石英岩	Quartzphyric rhyolite
		ap 閃石岩	Andesite
		p 輝石岩	Diorite
		q 石英岩	Quartz vein

METAMORPHIC ROCKS 變質岩

my	糜棱岩	Mylonite
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Figure 2

Appendix A

Slope Information retrieved from SIS of CEDD



BASIC INFORMATION

Location: Storage area near Ngau Hom Shek, Yuen Long

Date of Formation: pre-1977

**Date of Construction/
Modification:**

Approximate Coordinates: Easting : 816212 Northing : 835405

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest: Non-dangerous goods storage site

Distance of Facility from Crest (m): 0

Facility at Toe: Lightly-used open area/facilities

Distance of Facility from Toe (m): 0.3

Consequence-to-life Category: 3

Remarks: TGN 15 case - provided by SP Division (31 MAR 2004)

SLOPE PART

(1) **Max. Height (m):** 3.2 **Length (m):** 120 **Average Angle (deg):** 48

WALL PART

N/A



MAINTENANCE RESPONSIBILITY

Mixed Feature Party: DD128 Lot126 Agent: N/A
Mixed Feature Party: Lands D Agent: Lands D

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection: 14-06-2001
Data Source: EI(Lands D)
Slope Part Drainage: N/A

Wall Part Drainage: N/A

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 100 Chunam: 0 Shotcrete: 0 Other Cover: 0
Material Description: Material type: Soil Geology: Decomposed granite
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): N/A Spacing (m): N/A



STAGE 1 STUDY REPORT

Inspected On: 02-09-1997

Weather: Mainly Fine

District: MW

Section No: 1-1

Height(m): H1 : 3 , H2 : 0

Type of Toe Facility: Lightly-used open area/facilities

Distance from Toe(m): 0.3

Type of Crest Facility: Non-dangerous goods storage site

Distance from Crest(m): 0

Consequence Category: 1

Engineering Judgement: U

Section No: 2-2

Type of Toe Facility: N/A

Distance from Toe(m): 0

Type of Crest Facility: N/A

Distance from Crest(m): 0

Consequence Category: 1

Engineering Judgement: U



Sign of Seepage: Slope : No signs of seepage
Wall : N/A

Criterion A satisfied: N

Sign of Distress: Slope : N/A
Wall : N/A

Criterion D satisfied: N

Non-routine maintenance required: N

Note: N/A

Masonry wall/Masonry facing: N

Note: N/A

Consequence category (for critical section): 1

Observations: TGN 15 case - provided by SP Division (31 MAR 2004)

Emergency Action Required: N

Action By: N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D: N/A

Action By: N/A

Further Study: N

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services: N

Action By: N/A

Non-routine Maintenance: N

Action By: N/A

PHOTO

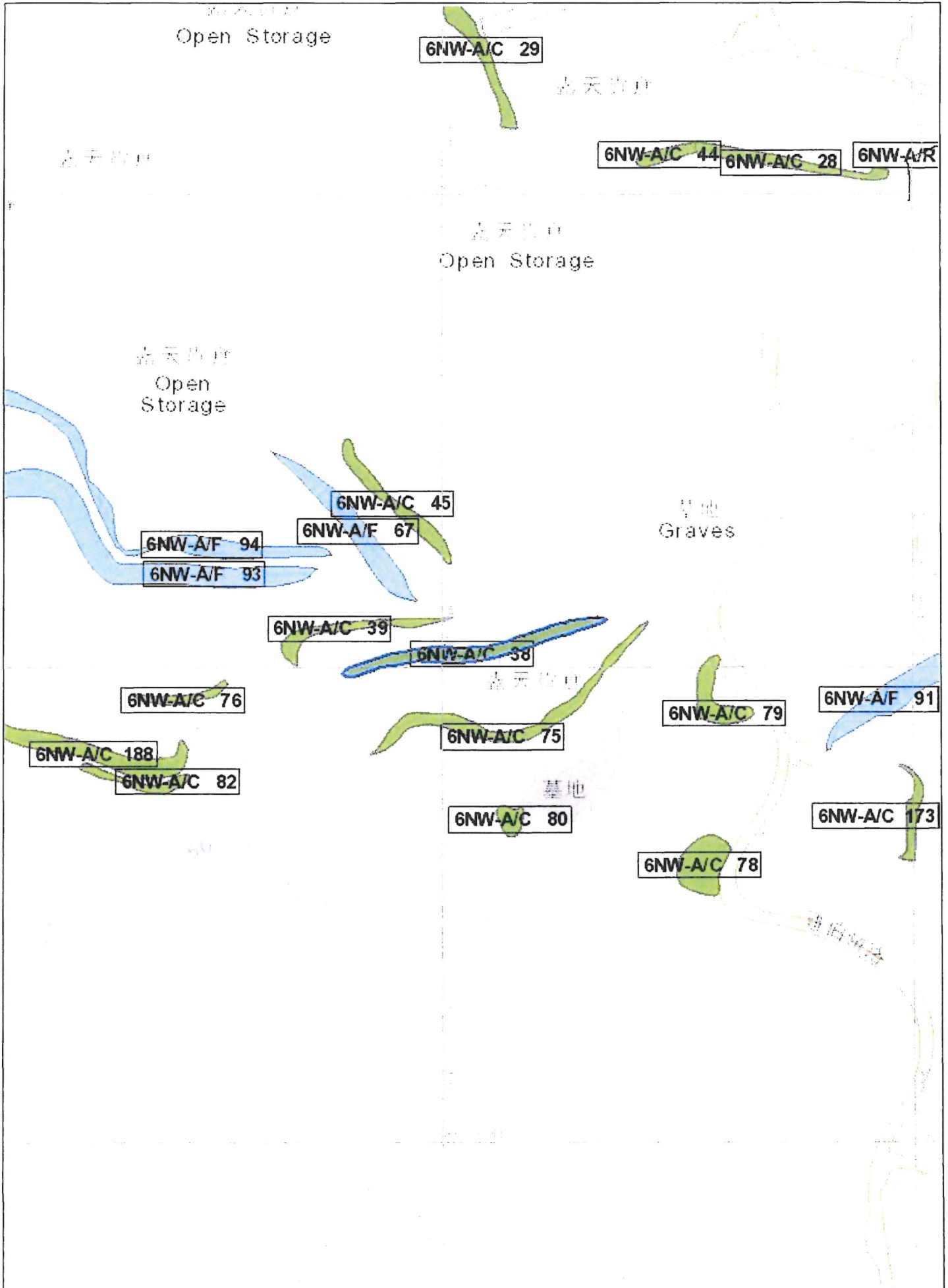




SLOPE INFORMATION SYSTEM

GEOTECHNICAL ENGINEERING OFFICE
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Feature No. 6NW-A/C 38





BASIC INFORMATION

Location: Storage area near Ngau Hom Shek, Yuen Long

Date of Formation: post-1977

Date of Construction/
Modification:

Approximate Coordinates: Easting : 816162 Northing : 835418

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest: Non-dangerous goods storage site

Distance of Facility from Crest (m): 0

Facility at Toe: District open space

Distance of Facility from Toe (m): 0

Consequence-to-life Category: 3

Remarks: N/A

SLOPE PART

(1) Max. Height (m): 3 Length (m): 70 Average Angle (deg): 46

WALL PART

N/A



MAINTENANCE RESPONSIBILITY

Mixed Feature Party: DD128 LOT126 Agent: N/A
Mixed Feature Party: DD128 LOT127 Agent: N/A
Mixed Feature Party: Lands D Agent: Lands D

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection: 14-06-2001
Data Source: E(Lands D)
Slope Part Drainage: N/A

Wall Part Drainage: N/A

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 100 Chunam: 0 Shotcrete: 0 Other Cover: 0
Material Description: Material type: Soil Geology: Decomposed granite
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): N/A Spacing (m): N/A



WALL PART

N/A

SERVICES

N/A



STAGE 1 STUDY REPORT

Inspected On:

Weather:

District: MW

Section No: 1-1

Height(m):

Type of Toe Facility: District open space

Distance from Toe(m): 0

Type of Crest Facility: Non-dangerous goods storage site

Distance from Crest(m): 0

Consequence Category:

Engineering Judgement:

Section No: 2-2

Type of Toe Facility:

Distance from Toe(m):

Type of Crest Facility:

Distance from Crest(m):

Consequence Category:

Engineering Judgement:



Sign of Seepage:

Criterion A satisfied:

Sign of Distress:

Criterion D satisfied:

Non-routine maintenance required:

Note:

Masonry wall/Masonry facing:

Note:

Consequence category (for critical section):

Observations: N/A

Emergency Action Required:

Action By: N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D: N/A

Action By: N/A

Further Study:

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services:

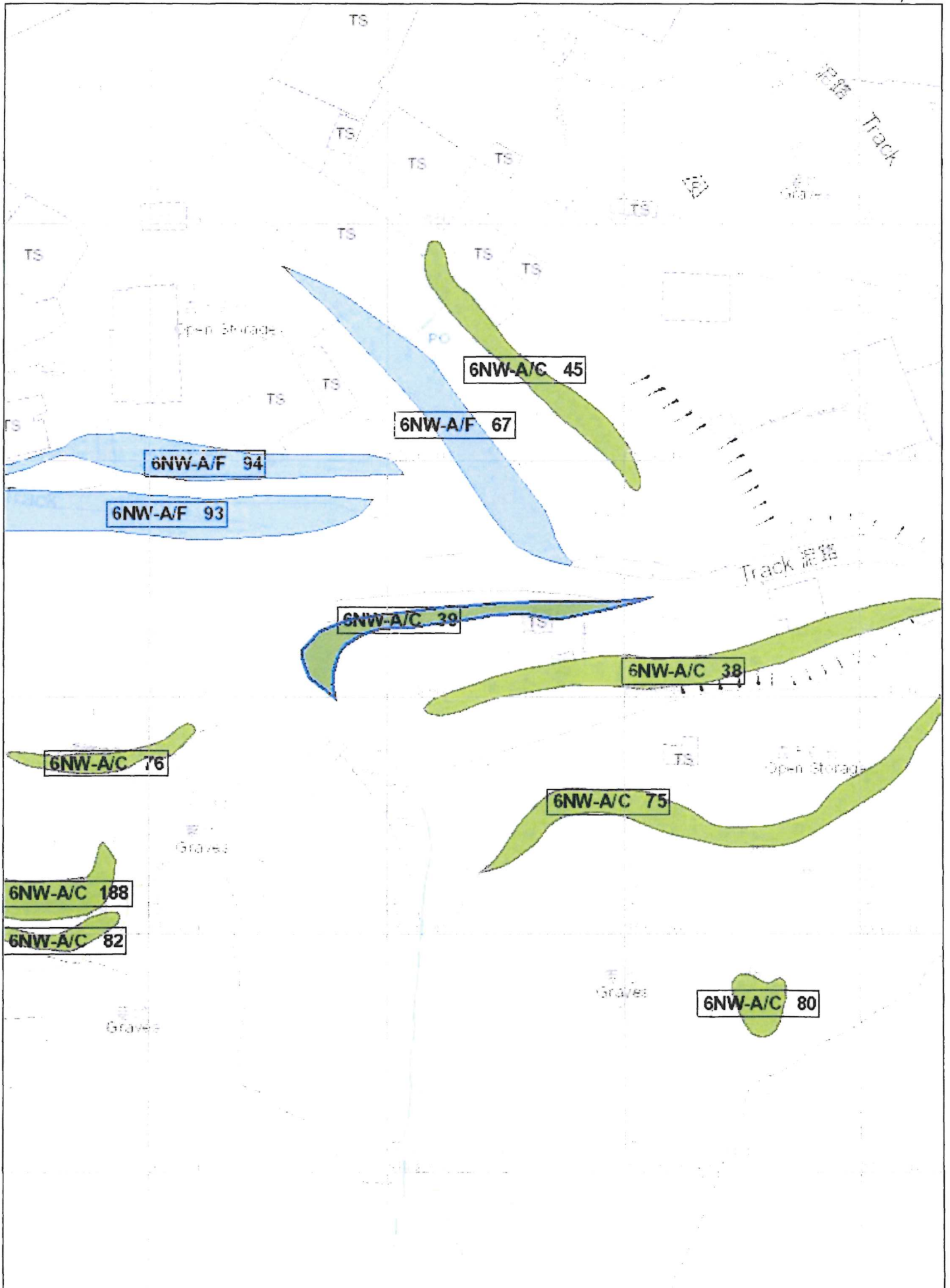
Action By: N/A

Non-routine Maintenance:

Action By: N/A

PHOTO







BASIC INFORMATION

Location: 350m West of Fung Kong Tsuen, Yuen Long

Date of Formation: post-1977

Date of Construction/
Modification:

Approximate Coordinates: Easting : 816233 Northing : 835370

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest: Cemetery

Distance of Facility from Crest (m): 1

Facility at Toe: Densely-used open area/facilities

Distance of Facility from Toe (m): 0

Consequence-to-life Category: 2

Remarks: N/A

SLOPE PART

(1) Max. Height (m): 4 Length (m): 150 Average Angle (deg): 65

WALL PART

N/A



MAINTENANCE RESPONSIBILITY

Mixed Feature Party: Lands D Agent: Lands D
Mixed Feature Party: DD128 LOT 126 Agent: N/A

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection: 04-06-2015
Data Source: EI(Lands D)
Slope Part Drainage: N/A

Wall Part Drainage: N/A

SLOPE PART

Slope Part (1)

Surface Protection (%): Bare: 0 Vegetated: 100 Chunam: 0 Shotcrete: 0 Other Cover: 0

Material Description: Material type: Soil Geology: N/A

Berm: No. of Berms: N/A Min. Berm Width (m): N/A

Weepholes: Size (mm): N/A Spacing (m): N/A



WALL PART

N/A

SERVICES

N/A



STAGE 1 STUDY REPORT

Inspected On: 25-02-2000

Weather: Some Rain

District: MW

Section No: 1-1

Height(m): H1 : 4 , H2 : 0

Type of Toe Facility: Densely-used open area/facilities

Distance from Toe(m): 0

Type of Crest Facility: Cemetery

Distance from Crest(m): 1

Consequence Category: 3

Engineering Judgement: U

Section No: 2-2

Type of Toe Facility: N/A

Distance from Toe(m): 0

Type of Crest Facility: N/A

Distance from Crest(m): 0

Consequence Category: 3

Engineering Judgement: U



Sign of Seepage: Slope : No signs of seepage
Wall : N/A

Criterion A satisfied: N

Sign of Distress: Slope : N/A
Wall : N/A

Criterion D satisfied: N

Non-routine maintenance required: N

Note: N/A

Masonry wall/Masonry facing: N

Note: N/A

Consequence category (for critical section): 3

Observations: N/A

Emergency Action Required: N

Action By: N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D: N/A

Action By: N/A

Further Study: N

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services: N

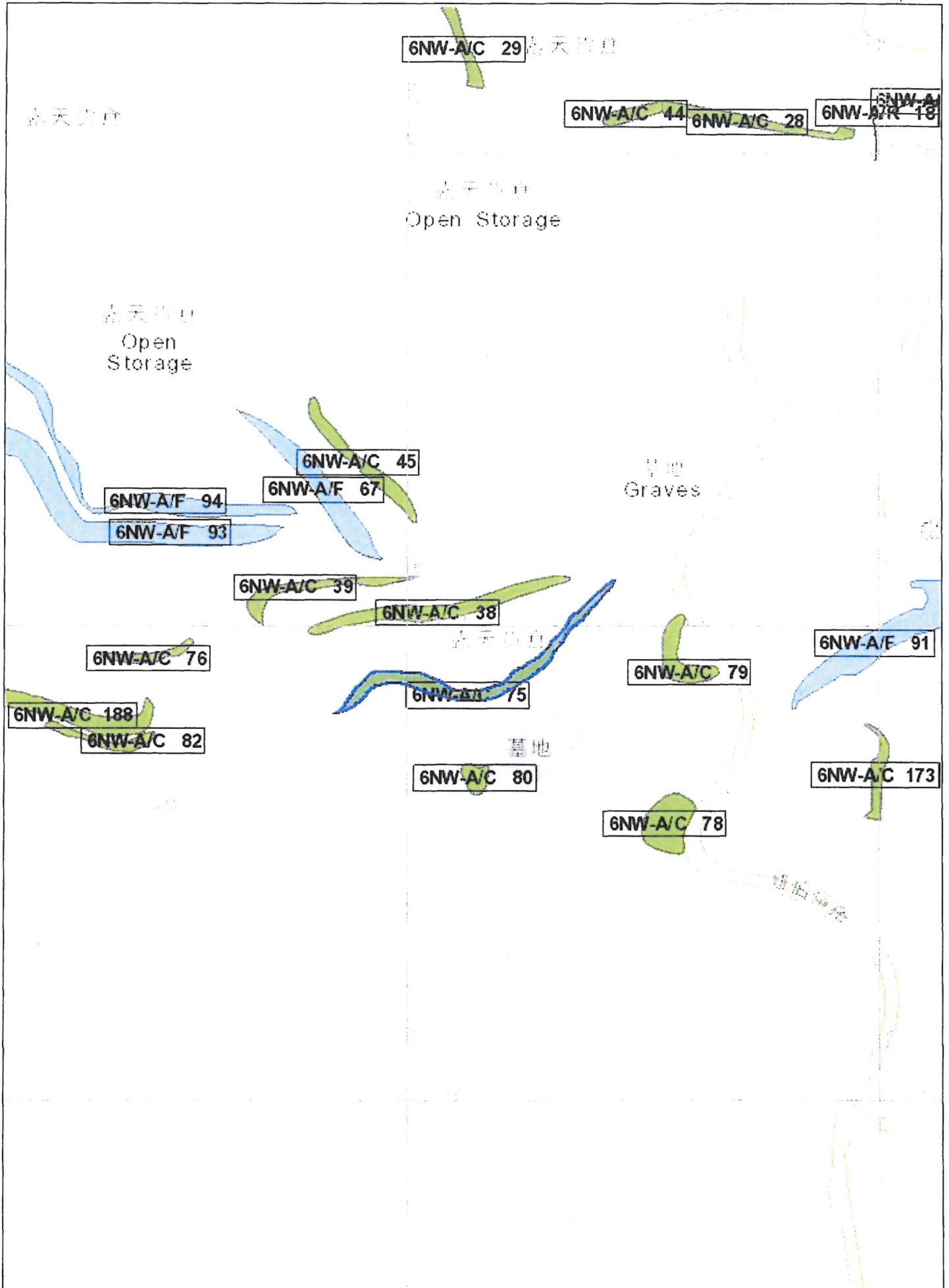
Action By: N/A

Non-routine Maintenance: N

Action By: N/A

PHOTO







BASIC INFORMATION

Location: 300M SOUTH EAST OF TIN HAU TEMPLE, SHA KONG TSUEN, DEEP BAY

Date of Formation: post-1977

Date of Construction/
Modification:

Approximate Coordinates: Easting : 816155 Northing : 835470

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest: Other non-crowded built-up facilities

Distance of Facility from Crest (m): 0

Facility at Toe: Road/footpath with low traffic density

Distance of Facility from Toe (m): 0

Consequence-to-life Category: 2

Remarks: N/A

SLOPE PART

(1) Max. Height (m): 5.1 Length (m): 90 Average Angle (deg): 40

WALL PART

N/A



MAINTENANCE RESPONSIBILITY

Mixed Feature Party: DD128 LOT130 Agent: N/A
Mixed Feature Party: Lands D Agent: Lands D

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection: 25-11-2002
Data Source: Agreement CE 59/2002 (GE)
Slope Part Drainage: N/A

Wall Part Drainage: N/A

SLOPE PART

Slope Part (1)

Surface Protection (%): Bare: 100 Vegetated: 0 Chunam: 0 Shotcrete: 0 Other Cover: 0

Material Description: Material type: Soil Geology: N/A

Berm: No. of Berms: N/A Min. Berm Width (m): N/A

Weepholes: Size (mm): N/A Spacing (m): N/A



WALL PART

N/A

SERVICES

N/A



STAGE 1 STUDY REPORT

Inspected On:

Weather:

District: MW

Section No: 1-1

Height(m):

Type of Toe Facility: Road/footpath with low traffic density

Distance from Toe(m): 0

Type of Crest Facility: Other non-crowded built-up facilities

Distance from Crest(m): 0

Consequence Category:

Engineering Judgement:

Section No: 2-2

Type of Toe Facility:

Distance from Toe(m):

Type of Crest Facility:

Distance from Crest(m):

Consequence Category:

Engineering Judgement:



Sign of Seepage:

Criterion A satisfied:

Sign of Distress:

Criterion D satisfied:

Non-routine maintenance required:

Note:

Masonry wall/Masonry facing:

Note:

Consequence category (for critical section):

Observations: N/A

Emergency Action Required:

Action By: N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D: N/A

Action By: N/A

Further Study:

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services:

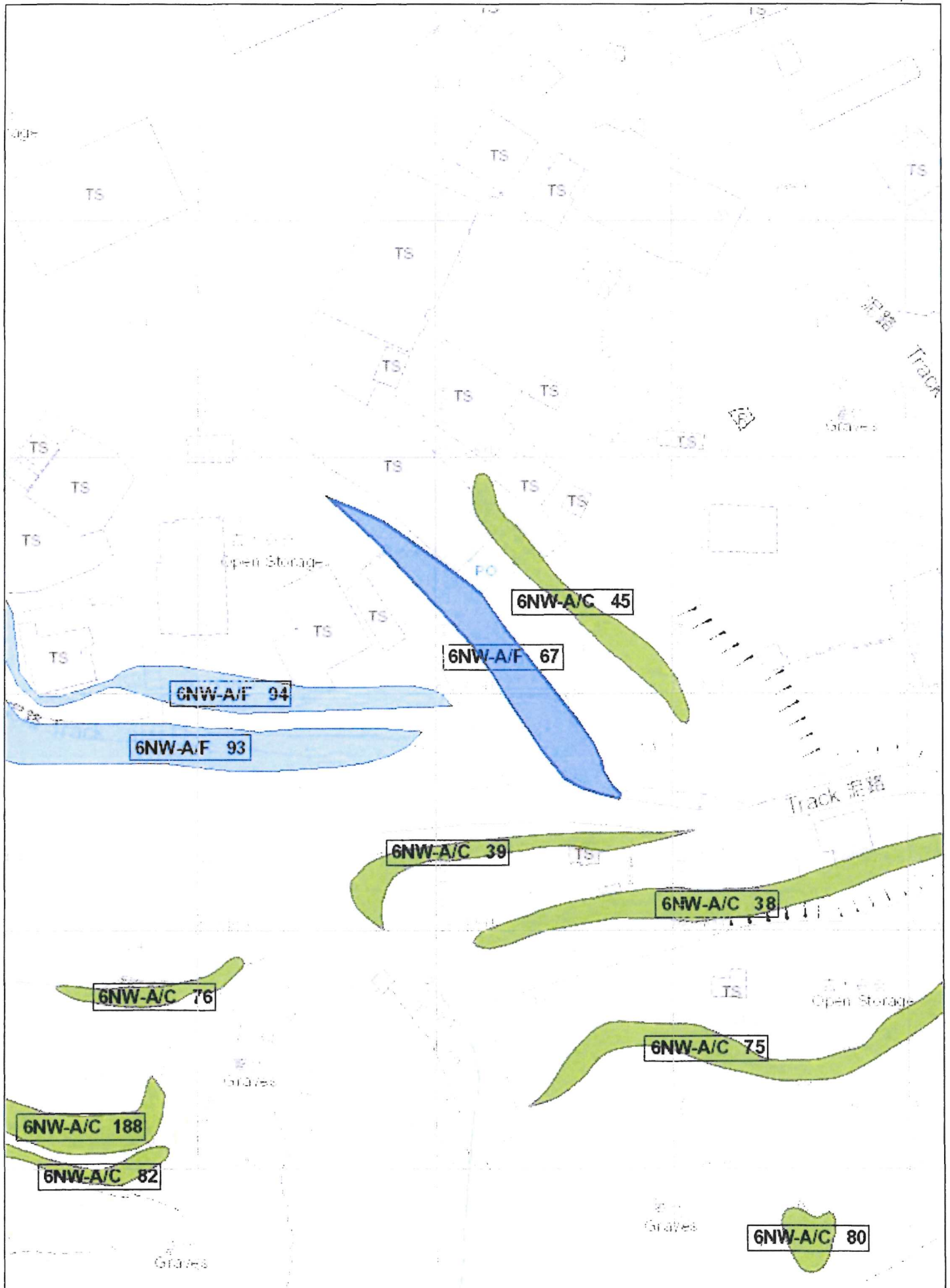
Action By: N/A

Non-routine Maintenance:

Action By: N/A

PHOTO







BASIC INFORMATION

Location: Lot 129 s.B, 126, 127 in DD128, Sha Kong Tsuen, Yuen Long

Date of Formation: pre-1977

Date of Construction/
Modification:

Approximate Coordinates: Easting : 816019 Northing : 835478

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest: Open car park

Distance of Facility from Crest (m): 0

Facility at Toe: Cottage, licensed and squatter area

Distance of Facility from Toe (m): 0

Consequence-to-life Category: 1

Remarks: N/A

SLOPE PART

(1) Max. Height (m): 6 Length (m): 245 Average Angle (deg): 40

WALL PART

N/A



MAINTENANCE RESPONSIBILITY

Mixed Feature Party: DD128 LOT 129 S.B Agent: N/A
 Mixed Feature Party: DD128 LOT 126 Agent: N/A
 Mixed Feature Party: DD128 LOT 127 Agent: N/A
 Mixed Feature Party: Lands D Agent: Lands D

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection: 25-05-2016
 Data Source: Districts
 Slope Part Drainage: N/A

Wall Part Drainage: N/A

SLOPE PART

Slope Part (1)
 Surface Protection (%): Bare: 100 Vegetated: 0 Chunam: 0 Shotcrete: 0 Other Cover: 0
 Material Description: Material type: Soil Geology: N/A
 Berm: No. of Berms: N/A Min. Berm Width (m): N/A
 Weepholes: Size (mm): N/A Spacing (m): N/A



WALL PART

N/A

SERVICES

N/A



STAGE 1 STUDY REPORT

Inspected On:

Weather:

District: N/A

Section No: 1-1

Height(m):

Type of Toe Facility: Cottage, licensed and squatter area

Distance from Toe(m): 0

Type of Crest Facility: Open car park

Distance from Crest(m): 0

Consequence Category:

Engineering Judgement:

Section No: 2-2

Type of Toe Facility:

Distance from Toe(m):

Type of Crest Facility:

Distance from Crest(m):

Consequence Category:

Engineering Judgement:



Sign of Seepage:

Criterion A satisfied:

Sign of Distress:

Criterion D satisfied:

Non-routine maintenance required:

Note:

Masonry wall/Masonry facing:

Note:

Consequence category (for critical section):

Observations: N/A

Emergency Action Required:

Action By: N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D: N/A

Action By: N/A

Further Study:

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services:

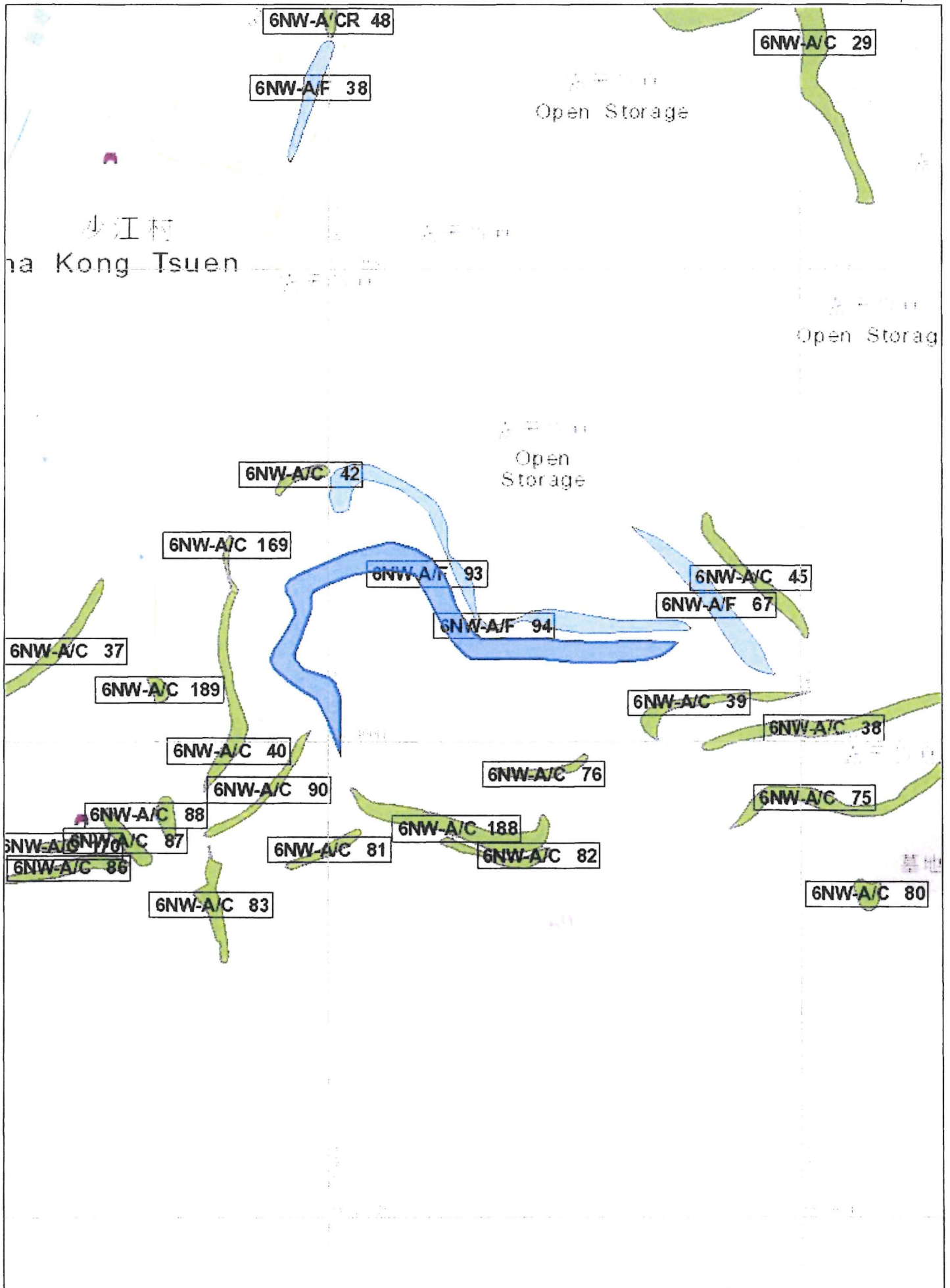
Action By: N/A

Non-routine Maintenance:

Action By: N/A

PHOTO







BASIC INFORMATION

Location: Lot 129 s.B, 126, 127, 270 in DD128, Sha Kong Tsuen, Yuen Long

Date of Formation: pre-1977

Date of Construction/
Modification:

Approximate Coordinates: Easting : 816115 Northing : 835449

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest: Construction sites

Distance of Facility from Crest (m): 0

Facility at Toe: Cottage, licensed and squatter area

Distance of Facility from Toe (m): 0

Consequence-to-life Category: 1

Remarks: N/A

SLOPE PART

(1) Max. Height (m): 4 Length (m): 200 Average Angle (deg): 35

WALL PART

N/A



MAINTENANCE RESPONSIBILITY

Mixed Feature Party: DD128 LOT 126 Agent: N/A
 Mixed Feature Party: DD128 LOT 128 Agent: N/A
 Mixed Feature Party: DD128 LOT 129 S.B Agent: N/A
 Mixed Feature Party: DD128 LOT 270 S.A Agent: N/A
 Mixed Feature Party: DD128 LOT 270 RP Agent: N/A
 Mixed Feature Party: Lands D Agent: Lands D

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection: 25-05-2016
 Data Source: Districts
 Slope Part Drainage: N/A

Wall Part Drainage: N/A

SLOPE PART

Slope Part (1)
 Surface Protection (%): Bare: 100 Vegetated: 0 Chunam: 0 Shotcrete: 0 Other Cover: 0
 Material Description: Material type: Soil Geology: N/A
 Berm: No. of Berms: N/A Min. Berm Width (m): N/A
 Weepholes: Size (mm): N/A Spacing (m): N/A



WALL PART

N/A

SERVICES

N/A



STAGE 1 STUDY REPORT

Inspected On:

Weather:

District: N/A

Section No: 1-1

Height(m):

Type of Toe Facility: Cottage, licensed and squatter area

Distance from Toe(m): 0

Type of Crest Facility: Construction sites

Distance from Crest(m): 0

Consequence Category:

Engineering Judgement:

Section No: 2-2

Type of Toe Facility:

Distance from Toe(m):

Type of Crest Facility:

Distance from Crest(m):

Consequence Category:

Engineering Judgement:



Sign of Seepage:

Criterion A satisfied:

Sign of Distress:

Criterion D satisfied:

Non-routine maintenance required:

Note:

Masonry wall/Masonry facing:

Note:

Consequence category (for critical section):

Observations: N/A

Emergency Action Required:

Action By: N/A

ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D: N/A

Action By: N/A

Further Study:

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services:

Action By: N/A

Non-routine Maintenance:

Action By: N/A

PHOTO



