Appendix G

Geotechnical Planning Review Report

Geotechnical Planning Review Report for

Section 16 Planning Application for Submission of Layout Plan for Permitted 'Flat' and 'Social Welfare Facility' Uses at Tsuen Wan Inland Lot 5 and Lot No. 429 in D.D. 399, Ting Kau, Tsuen Wan

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This report is for our client and is not intended for the use of any third party.

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1) INTRODUCTION

This geotechnical planning review report is to supplement the application for submission of layout plan for permitted 'flat' and 'social welfare facility' uses at Tsuen Wan Inland Lot 5 and Lot No. 429 in D.D. 399, Ting Kau, Tsuen Wan under Section 16 of the Town Planning Ordinance (Cap 131).

This report provides a review of how the geotechnical features in the vicinity, such as retaining walls and/or slopes, shown on the plan may affect, or be affected by, the proposed redevelopment and presents an assessment of the geotechnical feasibility of the proposed redevelopment as reflected in the Layout Plans submitted together with this report (copies of the submitted Layout Plans are attached in Appendix A).

The Proposed Redevelopment would involve redevelopment of the existing Royal View Hotel for a private residential development with the provision of a 60-place Day Care Centre for the Elderly, through excavation and lateral support works to facilitate the construction of basement of the proposed works.

2) DESCRIPTION OF SITE

The Application Site is bounded by Castle Peak Road – Ting Kau to the north, Tsing Long Highway to the west, and Aztec Lodge to the east and south. Location of the Application Site is shown in Figure 1.

2.1 Site Topography

The Application Site varies at around +31.00mPD to +40.00mPD.

2.2 Existing Registered Feature

A total of eight registered man-made features within or in the vicinity of the site are recorded in the GEO Slope Information System (SIS). SIS report and SIMAR report indicating the location of these features and their maintenance responsibility are attached in Appendix B for ease reference.

A summary of the feature registration numbers, responsible maintenance parties and current study status for these features are shown in Table 1.

The location of the features overlaid with the site is shown in Figure 2. Detail descriptions of the registered features are presented as follows:

Feature No. 6SE-C/R 136 (within application site)
The feature is a retaining wall located fully within the application site. It is at the east of the existing Royal View Hotel. Undeveloped Greenbelt and other densely populated buildings are respectively at the crest and the toe of the retaining wall. The feature was formed to current standard.

Feature No. 6SE-C/R 162 (outside application site)
The feature is a concrete retaining wall adjacent to the north-west boundary of the application site. Road with moderate traffic density are at the crest and the toe of the wall. The feature was formed to current standard.

Feature No. 6SE C/FR 271 (Partially within application site)
The feature consists of a soil & rock fill slope and a concrete toe wall located to the north-west corner of the existing Royal View Hotel. The wall portion is within the boundary of the application site while the slope portion is outside the boundary. Road with very low traffic density and open car park are respectively at the crest and the toe of the retaining wall. The feature was formed to current standard.

Feature No. 6SE- C/C 475 (outside application site)
The feature is a south-facing soil cut slope, located to the south of the existing Royal View Hotel and is outside the boundary of the application site. The slope surface is covered by shotcrete. Road with very low traffic density are at the crest and the toe of the slope. The feature was modified/upgraded to current standard.

Feature No. 6SE-C/CR 476 (outside application site)
The feature consists of a south-facing soil cut slope and a toe wall located to the south of the application site. The slope surface is partially vegetated and partially covered by shotcrete. The existing Royal Hotel and the road with low traffic density are respectively at the crest and the toe of the feature. The feature was improved

by carrying out Type 3 prescriptive measures (not up to upgrading standard), which was completed on 22 February 2010.

Feature No. 6SE-C/CR 758 (within application site)
The feature consists of a soil cut slope and a concrete wall at the crest, which is located to the north-east corner of the existing Royal View Hotel. The feature is within the boundary of the application site. The slope surface is vegetated. Open car park and lightly used open area are respectively at the crest and toe of the feature. The feature was formed to current standard.

Feature No. 6SE-C/C 759 (within application site)
The feature is a soil cut slope located fully within the application site. It is at the east of the existing Royal View Hotel. The slope surface is covered by shotcrete. The hotel and other densely populated buildings are respectively at the crest and the toe of the slope. The feature was formed to current standard.

Feature No. 6SE-C/C 760 (within application site)
The feature is a soil cut slope located fully within the application site. It is at the south-east corner of the existing Royal View Hotel. The slope surface is covered by shotcrete. Residential is at the crest and the toe of the slope. The feature was formed to current standard.

Table 1– Summary of Registered Man-made Features (within or in the vicinity of the site)

Feature No.	Sub-division No.	Maintenance	Maximum Height (m)	Length (m)	Slope Angle (Degree)
6SE-C/R 136	-	TWIL5	8	23	90
6SE-C/R 162	-	Highways Department	7.7	35	90
6SE-C/FR 271	1	DD399 LOT 429	2 (Slope) 3 (Wall)	20 (Slope) 20 (Wall)	20 (Slope) 90 (Wall)
6SE-C/FR 271	2	Highways Department			
6SE-C/C 475	-	TWIL5	1	20	20
6SE-C/CR 476	-	Lands Department	9.2 (Slope) 1.8 (Wall)	29 (Slope) 29 (Wall)	40 (Slope) 90 (Wall)
6SE-C/CR 758	1	DD399 LOT 429	1.5 (Slope) 2.4 (Wall)	33 (Slope) 33 (Wall)	22 (Slope) 90 (Wall)
6SE-C/CR 758	2	TWIL5			
6SE-C/C 759	-	TWIL5	5.2	50	30

6SE-C/C 760	-	TWIL5	7.9	95	35

3) SITE GEOLOGY

According to the 1:20 000 Geological Map Sheet 6 (Figure 3), the site is underlain by megacrystic fine grained granite of Jurassic/Cretaceous age and coarse ash crystal tuff of Upper Jurassic age, both from the Mesozoic Era.

This would be further confirmed by the findings of existing and proposed ground investigation results.

3.1 Existing Site Investigation

A search through the existing ground investigation records located in the vicinity of the study area was conducted at the Geotechnical Information Unit (GIU) of the Geotechnical Engineering Office (GEO). It shows that a number of ground investigations have been carried out adjacent to the site. The previous ground investigation works are summarized in Table 2. The location of relevant boreholes are shown in Figure 4. Copies of the drillholes, a trial trench and trail pits' logs are attached in Appendix C.

Table 2 - Summary of the Existing Ground Investigation Records

GIU Ref.	Year	Contractor	Report Title
11840	1989	Enpack (Hong Kong) Limited	Contract No. HY/88/46 Ground Investigation for Highway Southern Section
14284	1991	Bachy Soletanche Group	Contract No. HY/90/06 Ground Investigation for Highways in Tsing Yi Sector
18121	1991	Bachy Soletanche Group	Contract No. HY/90/06 Ground Investigation for Highways in Tsing Yi Sector
36835	2003	China State Construction Engineering (Hong Kong) Limited	Contract No. HY/99/19 Castle Peak Road Improvement, Middle Section, between Ting Kau and Sham Tseng, Tsuen Wan
36839	2003	China State Construction Engineering (Hong Kong) Limited	Contract No. HY/99/19 Castle Peak Road Improvement, Middle Section, between Ting Kau and Sham Tseng, Tsuen Wan
39115	2003	Gold Ram Engineering & Development Limited	10-year Extended Landslip Preventive Measures Project, Phase 2, Package U – Ground Investigation Works for Slopes in Tsuen Wan

Apart from the above records, an additional ground investigation including 13 vertical drillholes was carried out within and adjacent to the application site under other projects in 1996. The Location of the boreholes (BH1 to BH12 and BH16) are as

shown in the as-built record enclosed in Appendix D. Piezometers including one standpipe and two piezometers were installed within 6 of the drillholes (BH1, BH2, BH6, BH8, BH9 and BH11) and groundwater monitoring were carried out.

3.2 Proposed Site Investigation

Site-specific ground investigation works would be proposed to obtain information for future design analyses.

The proposed works include:
- Vertical/ Inclined Drillholes (with piezometers/standpipes)
- Trial pits
- Slope stripping

Site-specific laboratory tests would be ordered to obtain design parameters of the samples retrieved from the site-specific ground investigation works.

The proposed works include:
Phase I tests for soil classification:
- Particle size distribution (PSD) tests to determine if the sample is coarse-grained or fine-grained materials
- Atterberg limit tests to determine the liquid limit and plastic limit of fine-grained soils
- Moisture content tests to obtain the moisture content of soil for determining other soil parameters
- Particle density tests to obtain the particle density of soil for design calculation
- Chemical substance tests to determine the content of organic matters and chemical.

Phase II tests for soil/rock design parameters
- Direct shear box test to determine design drained shear strength parameters
- Triaxial tests to determine drained and undrained shear strength parameters
- Oedomter tests to determine the coefficient of consolidation of cohesive soils
- Uniaxial Compressive Strength (UCS) test and Point Load test to determine the UCS of rock sample.

3.3 Soil and Rocks

According to the existing available ground investigation record, the sequence of soil strata encountered above the bedrock is generally residual soil overlying completely to highly decomposed Tuff. The depth of the bedrock varies across the site, with a dip towards north. Details of each stratum are summarized in Table 3.

Table 3 - Summary of the Existing Ground Investigation Records

Geological Strata	Thickness (m)	Description / Properties
Residual Soil	3 - 5	The residual soil consists of soft reddish brown clayey silt or silty clay, occasionally with a coarse sand content.

CDT/ HDT	2 – 15	The CDT consists of extremely weak reddish brownish yellow silty sand/ sandy silt with some rock fragments. The HDT consists of moderately weak brownish grey/pink gravelly sand.
Grade III or Better Rock	-	Bedrock consists of moderately strong to strong, grey white, moderately / slightly decomposed coarse-grained tuff with medium to closely spaced joints, slightly stained.

3.4 Soil Parameters

Without the laboratory test results from the detailed ground investigation, the geotechnical parameters will be clarified upon the completion of future ground investigation and laboratory tests.

3.5 Groundwater

Piezometers and/or standpipes may be installed as part of the future ground investigation works so as to measure and confirm the groundwater table regularly in the vicinity of the proposed development.

4) GEOTECHNICAL CONSIDERATIONS

4.1 Proposed Site Formation Works

Previous approved site formation proposal under Section 12A – Planning Application for Proposed Amendments to the Tsuen Wan West Outline Zoning Plan in Support of Private Residential Development with the Provision of Social Welfare Facility at TWIL 5 and Lot No. 429 in D.D. 399, Ting Kau, Tsuen Wan is attached in Appendix E for the ease reference.

For the construction of basement and development works under this application, portion of existing ground Feature No. 6SE – C/C 760 will be trimmed due to the basement B1 construction and pile wall of retaining structures would be constructed to cater for the level difference and minimize the effect on the existing features. All other geological features as shown in Figure 2 remain unmodified under the proposed works.

Temporary pile wall would be required along the basement of the building where there will be level difference between the existing site formation levels and the basement formation levels. A schematic pile wall layout plan is shown in Figure 5 and Figure 6.

4.2 Proposed Excavation and Lateral Support Works (ELS)

The existing ground level of the sites varies from +31.00mPD to +40.00mPD

Open cut excavation is consider feasible for site area without level difference, given there is enough area within the site.

Based on the architectural drawings, two levels basement B2 and B1 are proposed while the deepest levels for B2 and B1 are +21.9 mPD and +25.30mPD respectively. In order to facilitate the two levels of basement below the existing ground level, future construction of pile caps supporting buildings or other site constraints, pile walls (with struts, if necessary) are required to retain the excavation. A schematic pile wall layout plan is shown in Figure 5 and Figure 6. Three corresponding sections have been developed to illustrate the ELS works for the basement construction as shown in Figure 7 to Figure 9, the maximum height of pile wall for each basement is summarised in the following table:

Basement	Max. Pile Wall Retained Height (assumed further 3m excavation for pile cap works) (m)
B1	11.68
B2	12.58

The ELS works should be designed in a manner that the effect of the proposed works should be minimal and does not cause significant effects on adjacent grounds, structures. The ground movement due to the deflection of the pile wall as well as groundwater drawdown should be determined. The differential settlements of adjoining structures and surrounding utilities caused by the proposed ELS works

should also be considered in detailed design. The impacts should be assessed in detailed design and submitted to the satisfaction of BD, GEO and other relevant government departments.

4.3 Effect of Proposed Works to Features in the Vicinity

Feature No. 6SE-C/R 136 (within application site)
The feature is a retaining wall located fully within the application site. It is at the east of the existing Royal View Hotel. The proposed works area is away from this feature. The design and construction of the proposed redevelopment is considered in such a way that the effect to this feature is insignificant and vice versa.

Feature No. 6SE-C/R 162 (outside application site)
The feature is a concrete retaining wall adjacent to the north-west boundary of the application site. The proposed works area is away from this feature. The design and construction of the proposed redevelopment is considered in such a way that the effect to this feature is insignificant and vice versa.

Feature No. 6SE C/FR 271 (Partially within application site)
The feature consists of a soil & rock fill slope and a concrete toe wall located to the north-west corner of the existing Royal View Hotel. The wall portion is within the boundary of the application site while the slope portion is outside the boundary. The level difference between the existing ground and proposed ground will be retained by retaining structure. The stability of the feature and effect from the proposed work will be checked against the current standard in the detailed design stage and modified/upgraded if necessary.

Feature No. 6SE- C/C 475 (outside application site)
The feature is a south-facing soil cut slope, located to the south of the existing Royal View Hotel and is outside the boundary of the application site. The proposed works area is away from this feature. The design and construction of the proposed redevelopment is considered in such a way that the effect to this feature is insignificant and vice versa.

Feature No. 6SE-C/CR 476 (outside application site)
The feature consists of a south-facing soil cut slope and a toe wall located to the south of the application site. The proposed works area is away from this feature. The design and construction of the proposed redevelopment is considered in such a way that the effect to this feature is insignificant and vice versa.

Feature No. 6SE-C/CR 758 (within application site)
The feature consists of a soil cut slope and a concrete wall at the crest, which is located to the north-east corner of the existing Royal View Hotel. The feature is within the boundary of the application site. The level difference between the existing ground and proposed ground will be retained by retaining structure. The stability of the feature and effect from the proposed work will be checked against the current standard in the detailed design stage and modified/upgraded if necessary.

Feature No. 6SE-C/C 759 (within application site)
The feature is a soil cut slope located fully within the application site. It is at the east of the existing Royal View Hotel. The proposed works area is away from this feature. The design and construction of the proposed redevelopment is considered in such a way that the effect to this feature is insignificant and vice versa.

Feature No. 6SE-C/C 760 (within application site)
The feature is a soil cut slope located fully within the application site. It is at the south-east corner of the existing Royal View Hotel. Part of the feature in clash with the proposed pile wall for basement B1 construction will be trimmed down. The stability of the feature and effect from the proposed work will be checked against the current standard in the detailed design stage and modified if necessary.

Unregistered slopes on the western hillside of Royal View Hotel
Excavation and lateral support works will be carried out along the western hillside for the basement construction. As the installation of pile wall and excavation have been set back from the site boundary and even more far away from the crest of slopes, the effect to this hillside is considered to be insignificant and vice versa.

4.4 Effect of Proposed Redevelopment on Surrounding Structures

The proposed redevelopment is close to the Ting Kau Bridge column towards southern direction. The site boundary of the proposed site and the column is approximately 25m. The column is at around 20.00 mPD while the lowest elevation of the basement B2 is only 21.90mPD, which is still above the column. As the Ting Kau Bridge column is far away and above the excavation and lateral support works, the effect on the Ting Kau Bridge column is considered to be minimal.

The effect on adjacent ground/ structures due to excavation and lateral support works will be further assessed. Any excavation and lateral support works required will be duly designed at the detailed design stage.

4.5 Existing Utilities

At the current stage, information for existing utilities is not yet available. Prior to the commencement of pile wall, inspection pits would be dug by hand tool and underground utility detection would be carried out by Competent Persons to identify the exact location of the surrounding utilities. If necessary, diversion of the utilities would be carried out.

Excavation and Lateral Support

If pile walls are proposed for ELS works, ground movement due to the deflection of the pile wall and groundwater drawdown may cause adverse effects on the surrounding utilities.

The ELS works should be designed in a manner that the effect of the proposed works should be minimal and does not impose any adverse effects on adjacent grounds and structures.

5) MONITORING PROGRAMME

A comprehensive monitoring programme shall be implemented on-site in order to safeguard the adjacent utilities, structures and/or slopes & retaining walls.

A comprehensive monitoring programme comprising the following will be implemented on-site during the construction of excavation and lateral supports works in order to safeguard the adjacent utilities, structures and slopes:

- Ground settlement checkpoints around the site;
- Utility settlement checkpoints on existing utilities;
- Vibration Checkpoints around the site;
- Piezometers/standpipes at locations around the site.

The locations and details of the monitoring works shall be addressed in the detailed design stage. The initial readings of all the above monitoring points and piezometers/standpipes will be taken prior to the construction works on site and these devices will be monitored on a daily basis throughout the construction period for excavation and foundation works.

The initial readings of all the above monitoring points and piezometers/standpipes shall be taken prior to the commencement of construction works on site and these devices shall be monitored regularly throughout the construction works.

6) CONCLUSION

This report has provided a general view of proposed redevelopment at Royal View Hotel at TWIL 5 and Lot No. 429 in D.D. 399, Ting Kau, Tsuen Wan and a review of how the geotechnical features in the vicinity, such as the existing features shown on plan may affect, or be affected by the proposed redevelopment and has discussed all the relevant issues regarding the geotechnical assessment of the proposed redevelopment.

All structures, utilities, slopes and retaining walls affecting or being affected by the proposed redevelopment will be assessed, If necessary, upgrading works will be carried out in detailed design to ensure that the slopes and retaining walls will not be adversely affected.

With reference to the preceding discussions, it is considered that the proposed redevelopment is **geotechnically feasible**.

7) REFERENCES

GEO (2017). Geoguide 2. Guide to Site Investigation. Geotechnical Engineering Office. Civil Engineering and Development Department. Hong Kong, 349p.

GEO (2017). Geoguide 3. Guide to Soil and Rock Descriptions. Geotechnical Engineering Office. Civil Engineering and Development Department. Hong Kong. 171p.

GEO (2017). Geospec 3. Model Specification for Soil Testing. Geotechnical Engineering Office. Civil Engineering and Development Department. Hong Kong. 327p.

GEO (2012). 1:20,000 Solid & Superficial Geology. Sheet 6. Geotechnical Engineering Office. Civil Engineering and Development Department. Hong Kong.

GEO (2024) Slope information system. Geotechnical Engineering Office, Civil Engineering and Development Department.

Figures

Figure 1 Site Location Plan

N

826000

826000

TING KAU BEACH

LIDO BEACH

CASAM BEACH

HOI MEI WAN BEACH

GEMINI BEACHES

Ma Wan Marine Traffic Control Station

826000

Legend

The Application Site

PROJECT

SECTION 16A APPLICATION FOR PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TWIL 5 AND LOT NO. 429 IN D.D. 399, TING KAU, TSUEN WAN

DRG. TITLE	DRG. NO	
	FIG–01	
SCALE: 1 : 5000 in A3	DATE: JAN 2024	

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Figure 2 Features Location Plan

N

6SE-C/R 89
6SE-C/FR 142
6SE-C/R 154
6SE-C/R 162
6SE-C/R 155
6SE-C/R 153
6SE-C/FR 271
6SE-C/CR 758
6SE-C/CR 483
6SE-C/C 496
6SE-C/C 4
6SE-C/R 152
6SE-C/C 688
6SE-C/C 689
6SE-C/C 698
6SE-C/C 481
6SE-C/R 120
6SE-C/FR 254
6SE-C/C 765
6SE-C/C 759
6SE-C/R 136
6SE-C/C 760
6SE-C/CR 479
6SE-C/C 475
6SE-C/CR 476
6SE-C/C 477

Legend

- The Application Site

Existing Geological Feature

- Cut Slope
- Fill Slope
- Retaining Wall

PROJECT
SECTION 16A APPLICATION FOR PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TWL 5 AND LOT NO. 429 IN D.D. 399, TING KAU, TSUEN WAN

DRG. TITLE		DRG. NO	
		FIG–05	
SCALE	1 : 500 in A3	DATE	JAN 2024

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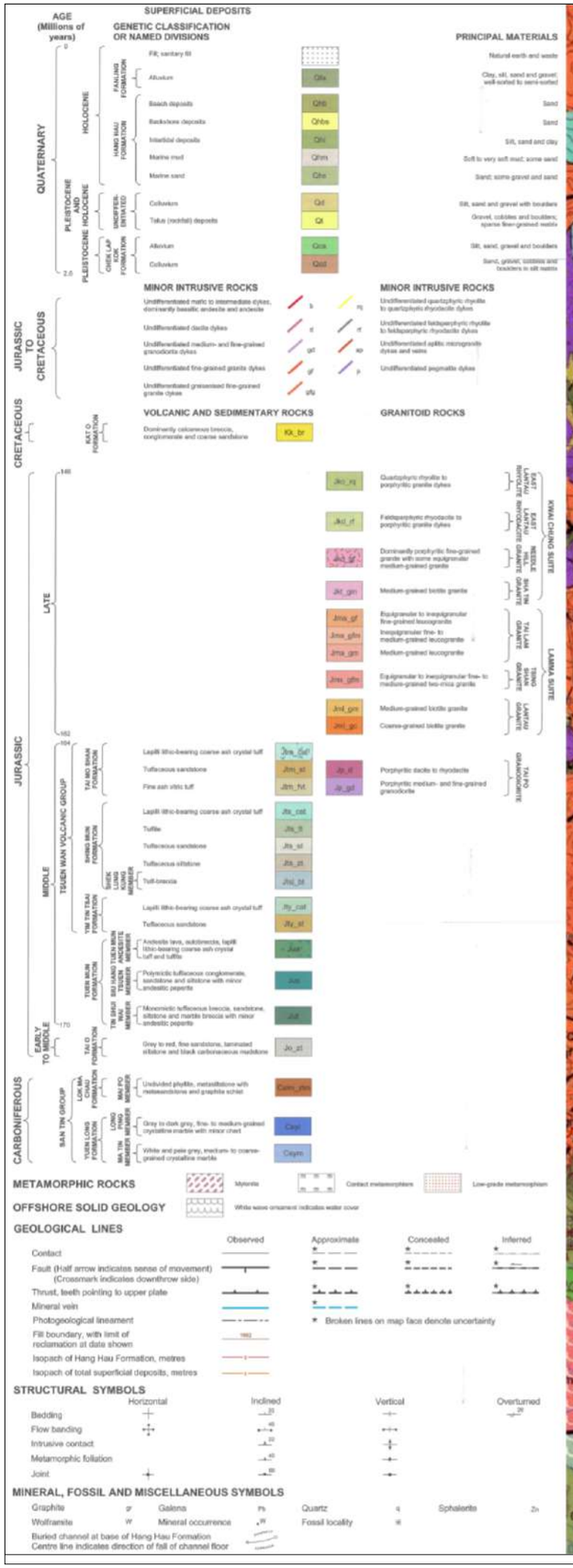
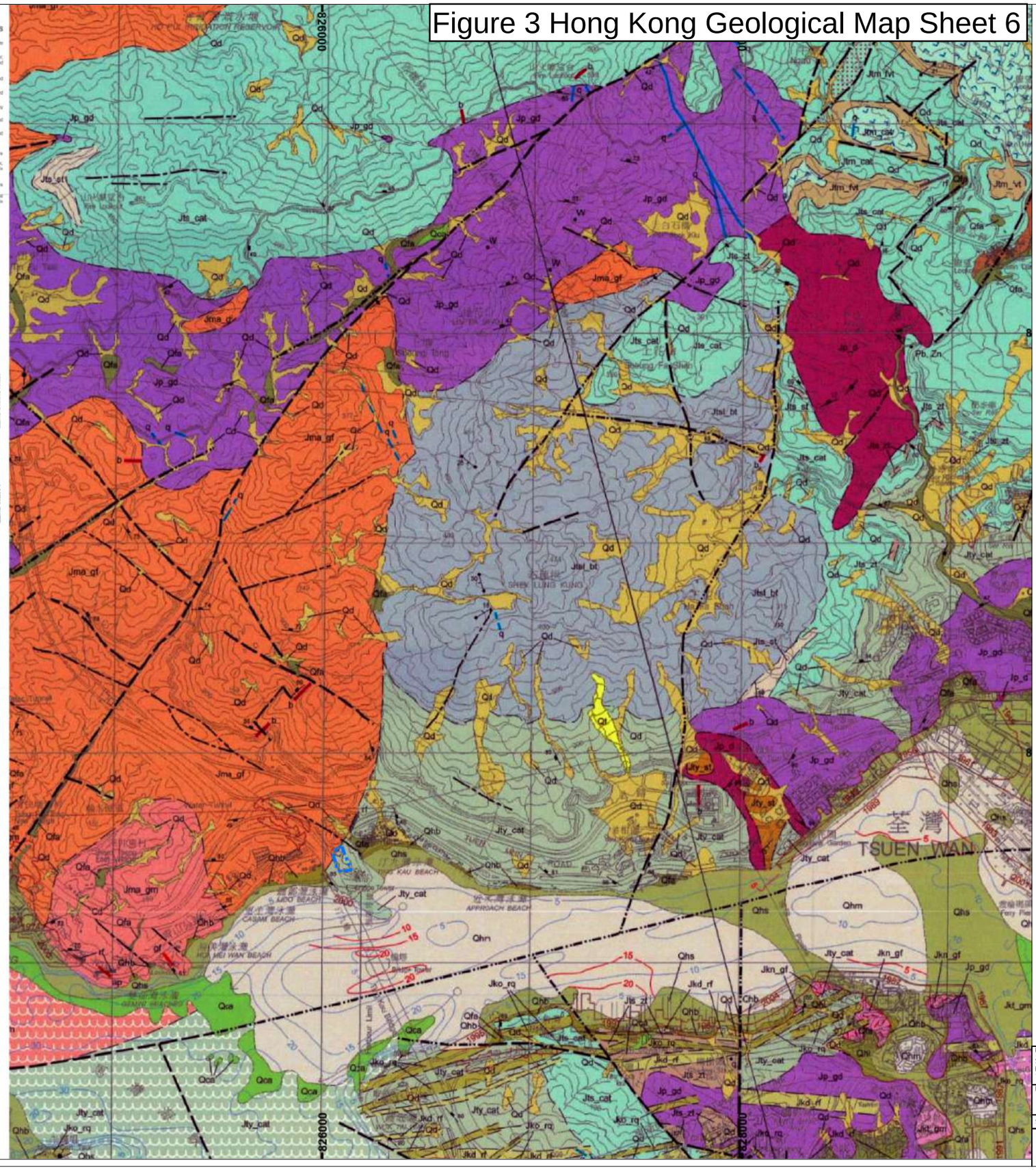
Figure 3 Hong Kong Geological Map Sheet 6





Legend

The Application Site

PROJECT	SECTION 16A APPLICATION FOR PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TWIL 5 AND LOT NO. 429 IN D.D. 399, TING KAU, TSUEN WAN
DRG. TITLE	DRG. NO. FIG–03
SCALE 1 : 20000 in A3	DATE JAN 2024

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Figure 4 Existing Boreholes Location Plan

N

GIU Report No. 36835

E02B/03/P1
E02B/03/P3
E02B/03/P2
E02B/03/P4

GIU Report No. 36839

ABUT/R2/A3
ABUT/R2/A1
ABUT/R2/A2
ABUT/R2/B1
ABUT/R2/B3
ABUT/R2/B2
RWB/C1
RWB/D1
RWB/D2
RWB/C3
RWB/D3

8846/210

GIU Report No. 11840

9006/5009
9006/5009

GIU Report No. 14284

8846/209

GIU Report No. 11840

GIU Report No. 39115

DH/19/01
TP/19/03
CH/19/2L
CH/19/03
TP/19/02
TP/19/01
CH/19/2U
TT/19/01
CH/19/01

Legend

- The Application Site

Existing GI

- Corehole
- Drillhole
- Trial Pit
- Trial Trench

PROJECT
SECTION 16A APPLICATION FOR PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TWIL 5 AND LOT NO. 429 IN D.D. 399, TING KAU, TSUEN WAN

DRG. TITLE

DRG. NO
FIG–04

SCALE 1 : 500 in A3

DATE JAN 2024

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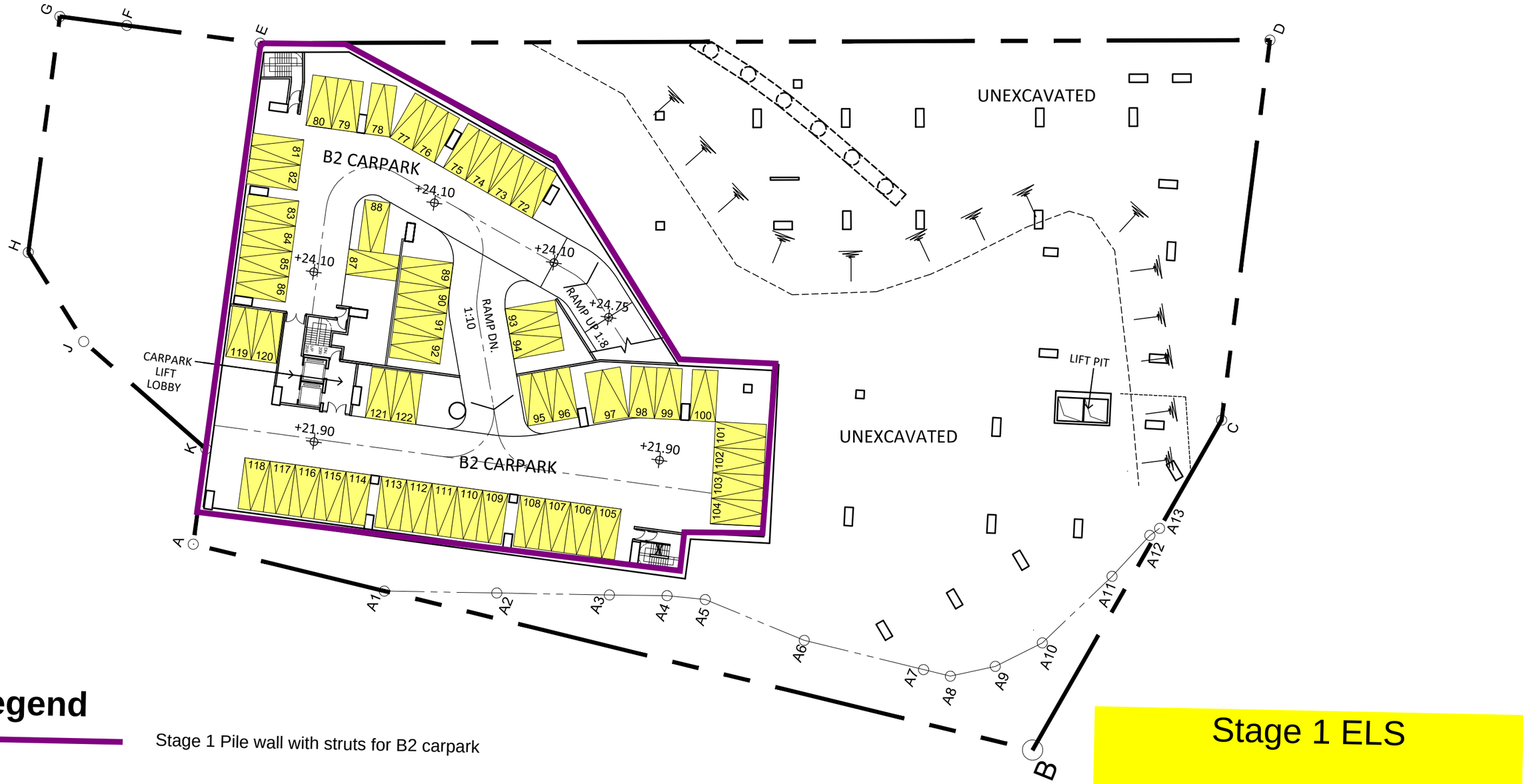
Figure 5 Proposed Pile Wall layout plan (Stage 1)



Legend

Stage 1 Pile wall with struts for B2 carpark

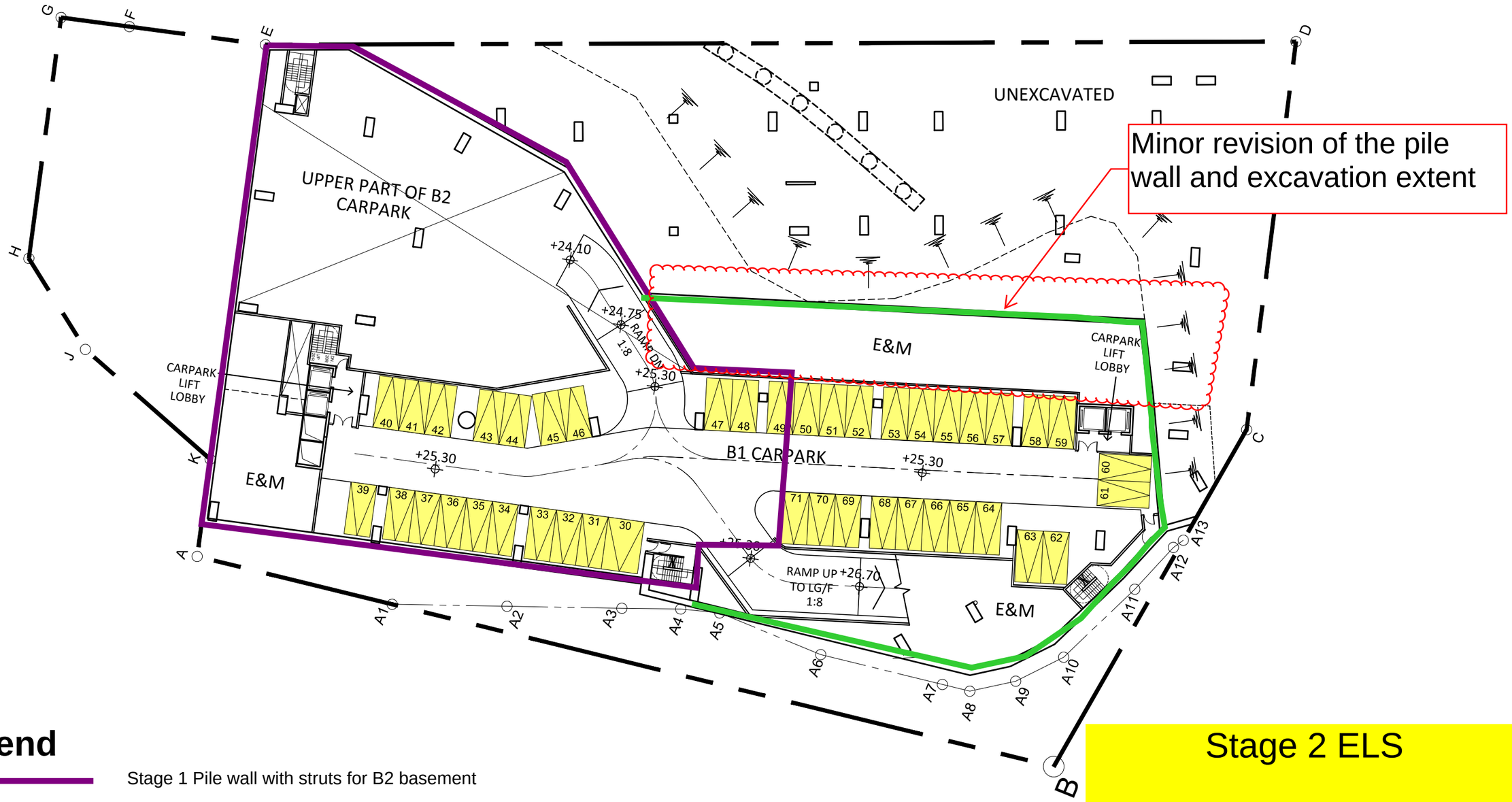
Stage 1 ELS

BASEMENT 2 FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

1:200 (A1)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED



Legend

Stage 1 Pile wall with struts for B2 basement

Stage 2 Pile wall with struts for B1 basement

Stage 2 ELS

BASEMENT 1 FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

1:200 (A1)

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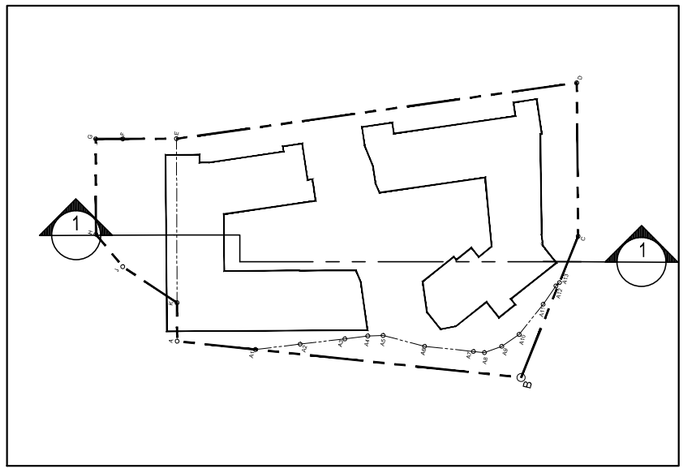
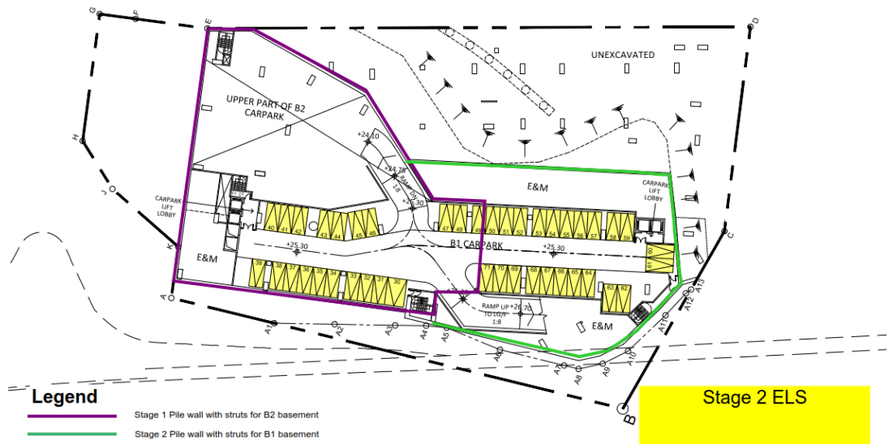
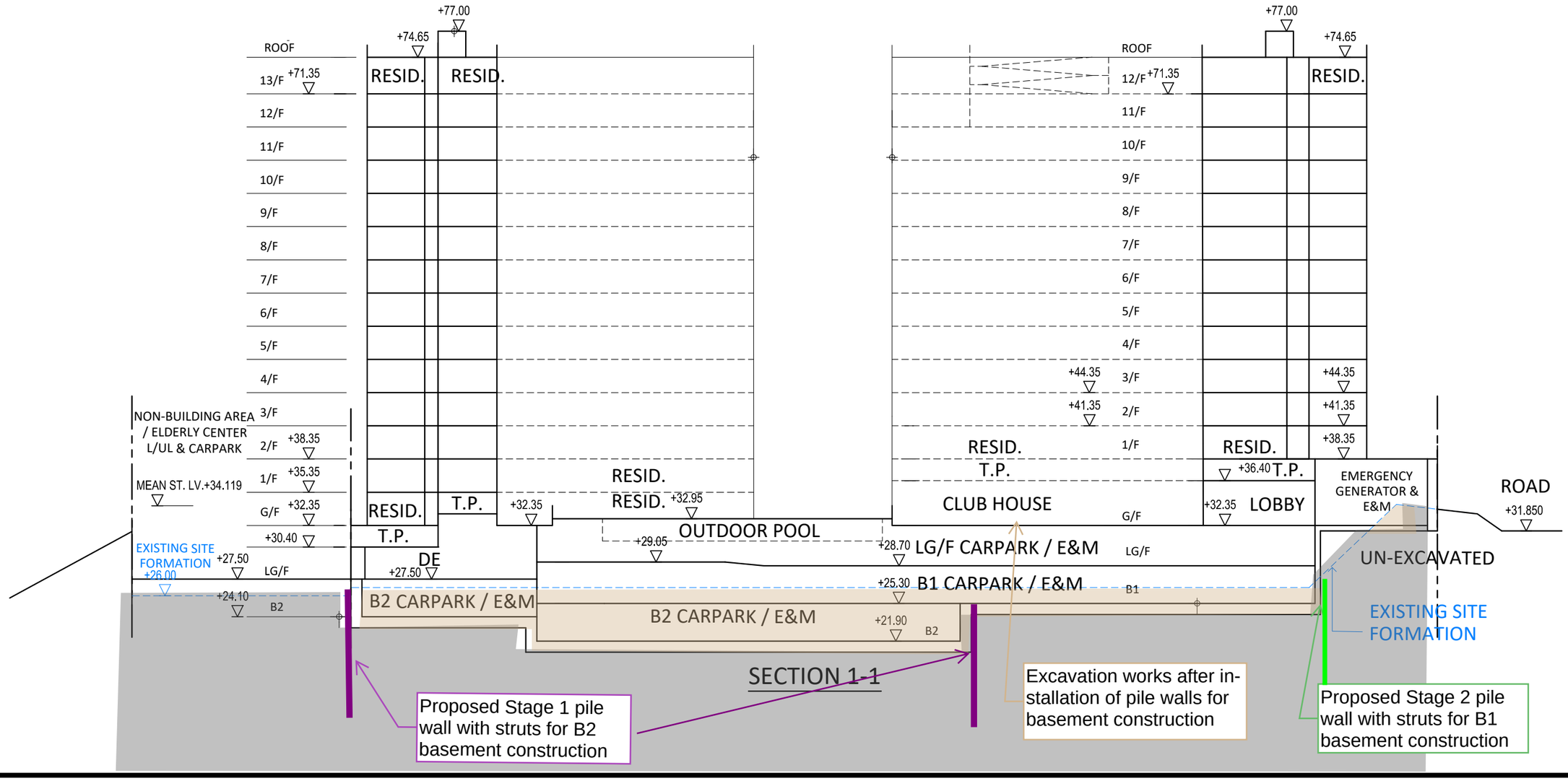




TOWER 1
14 STOREYS RESIDENTIAL FLOOR

TOWER 2
12 STOREYS RESIDENTIAL FLOOR



SCHEMATIC SECTION 1

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

1:200 (A1)

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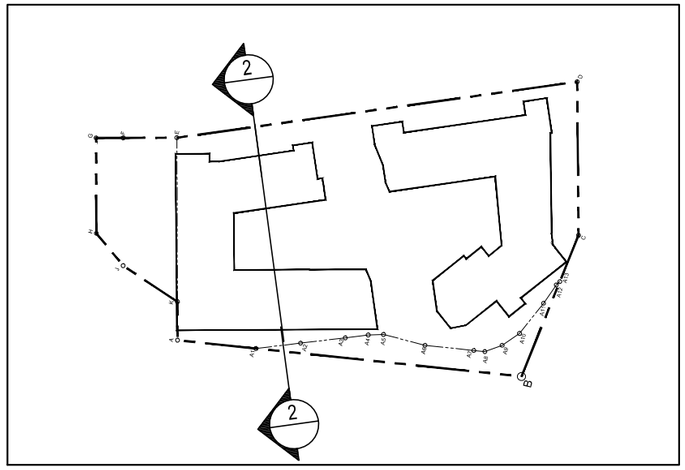
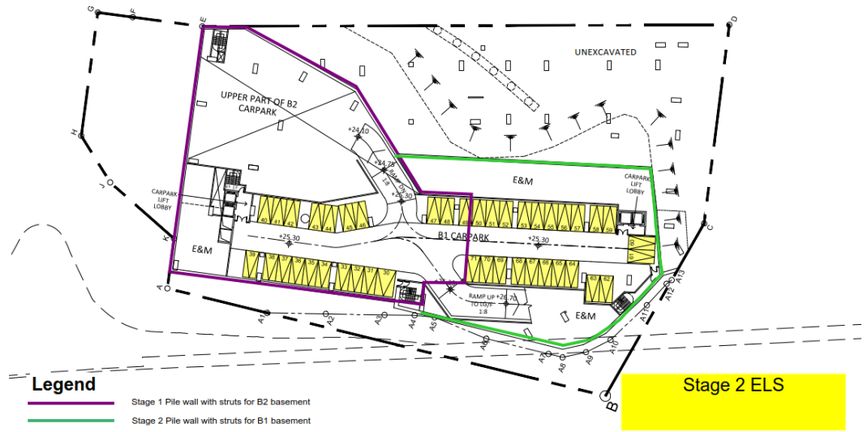
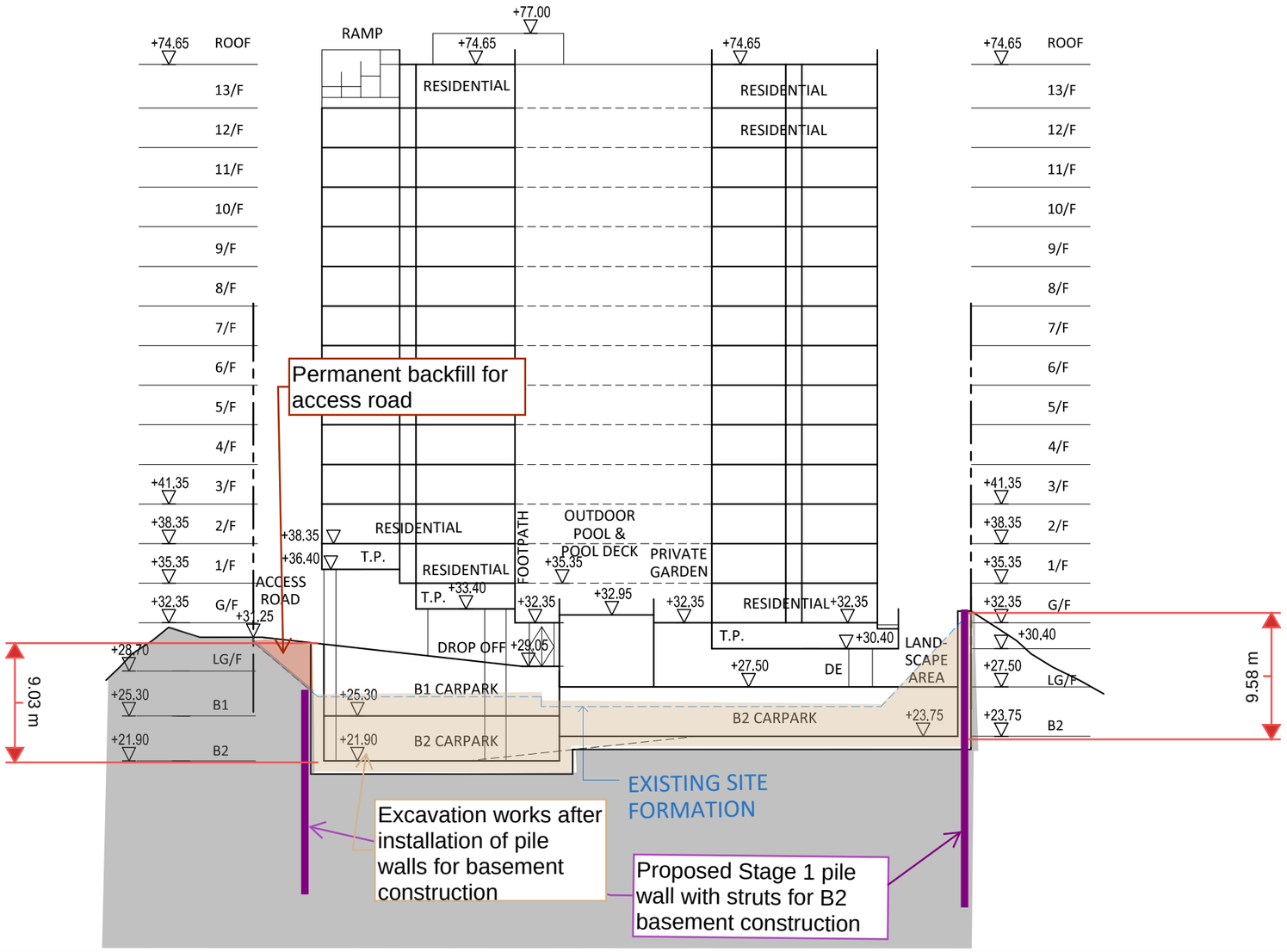




TOWER 1
14 STOREYS RESIDENTIAL FLOOR



SCHEMATIC SECTION 2
PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

1:200 (A1)

ARCHI+
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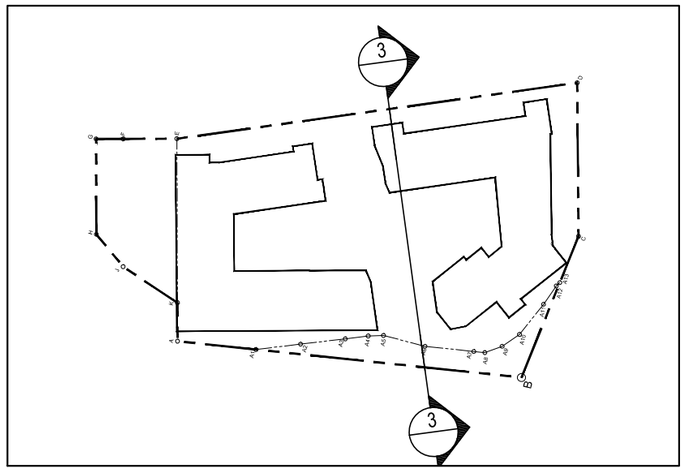

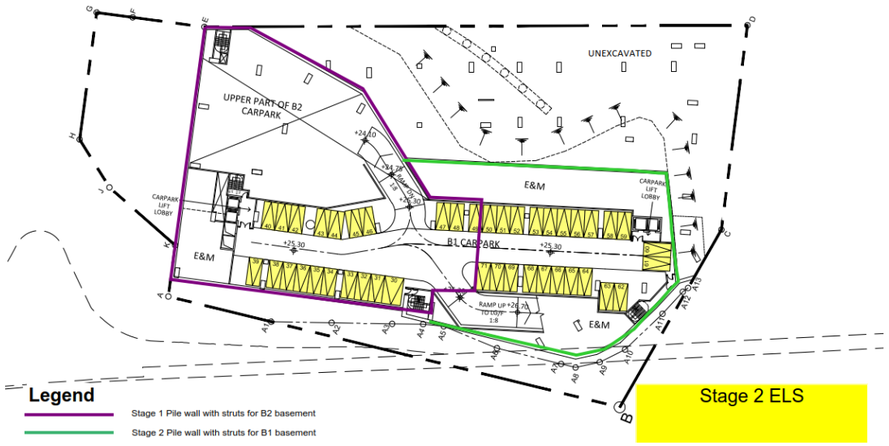

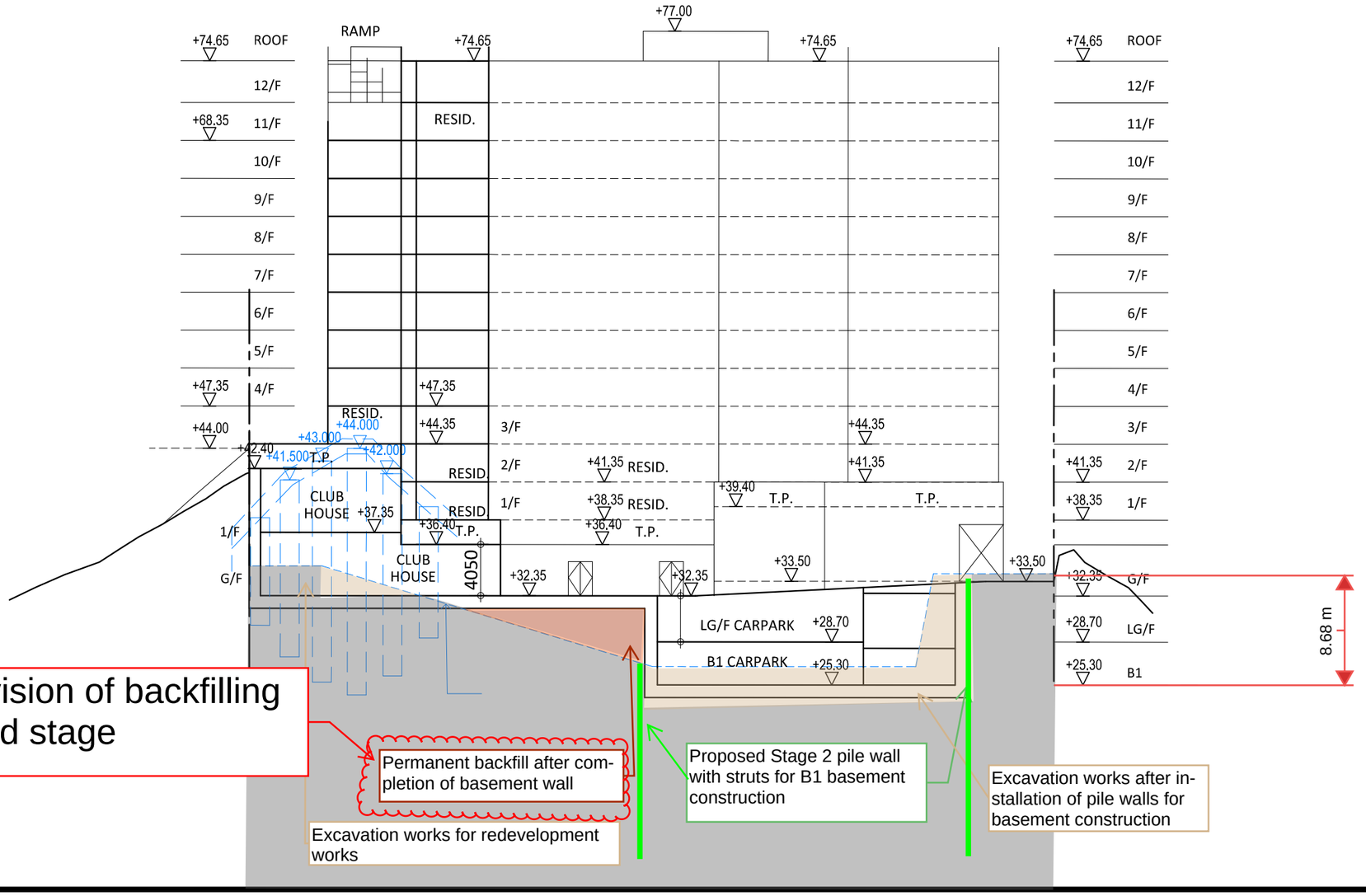

SCHEMATIC SECTION 3

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

1:200 (A1)

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Appendix A

Layout Plan

LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- FOOTPATH / COVERED AREA
- CARPARK / DRIVEWAY
- RESIDENTIAL USE
- LANDSCAPE AREA
- PRIVATE FLAT ROOF / PRIVATE GARDEN

ABBREVIATION:

DE = DAY CARE CENTRE FOR THE ELDERLY

LMR = LIFT MACHINE ROOM

N

INDICATIVE MASTER LAYOUT PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024

1 : 400 (A3)

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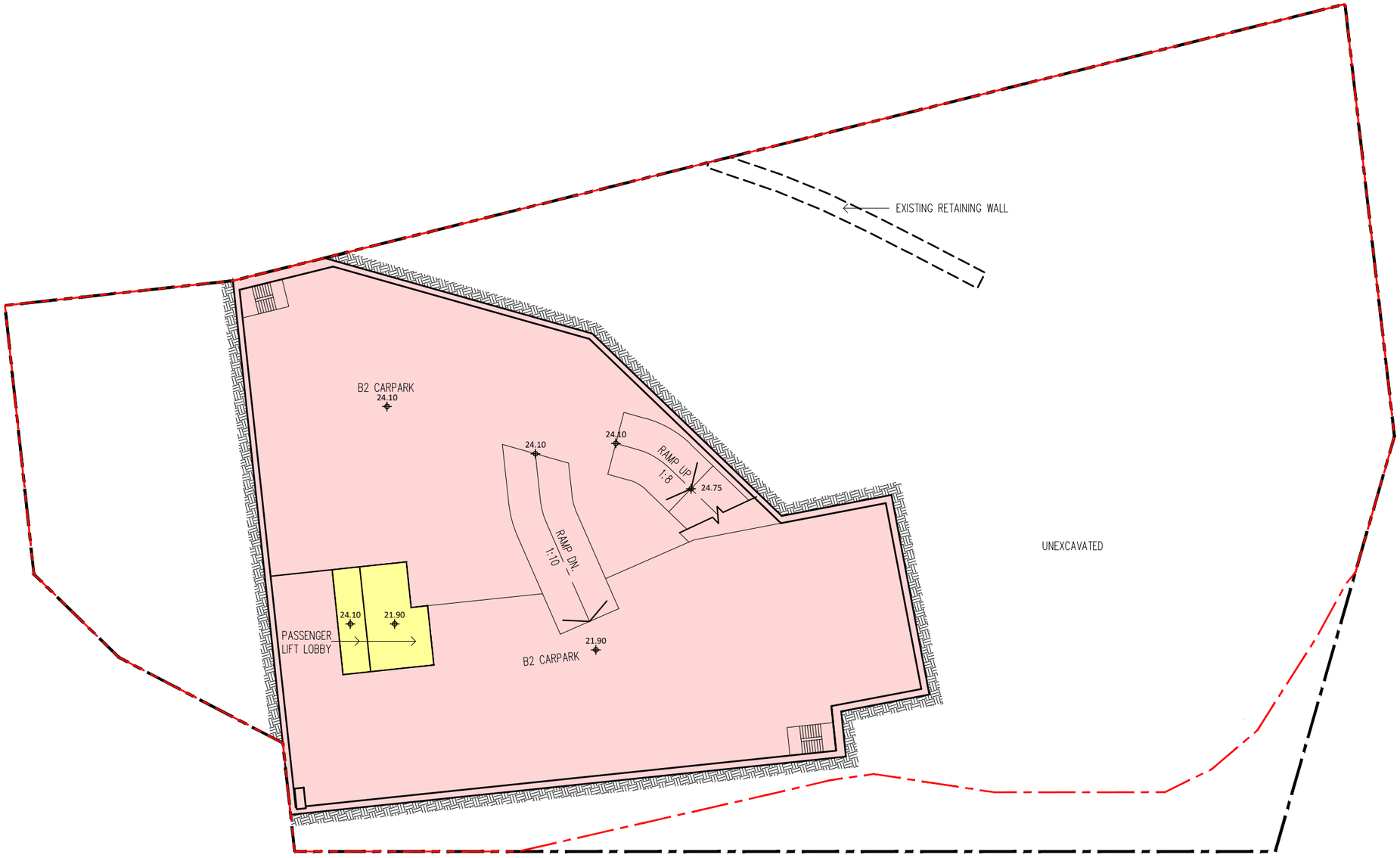
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- RESIDENTIAL USE



N

INDICATIVE BASEMENT 2 FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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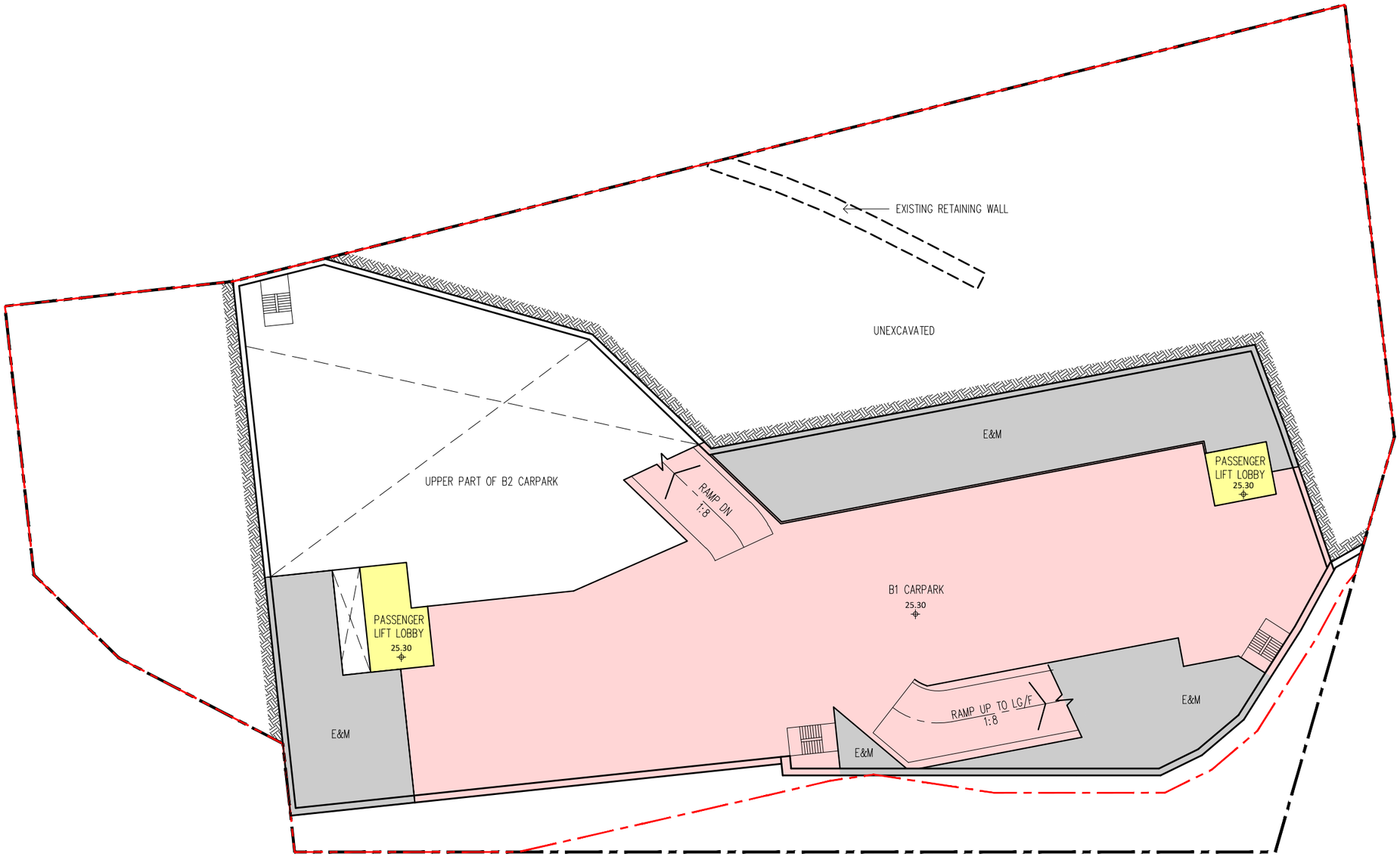
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- RESIDENTIAL USE
- VOID/LIGHT WELL
- E&M AREA



N

INDICATIVE BASEMENT 1 FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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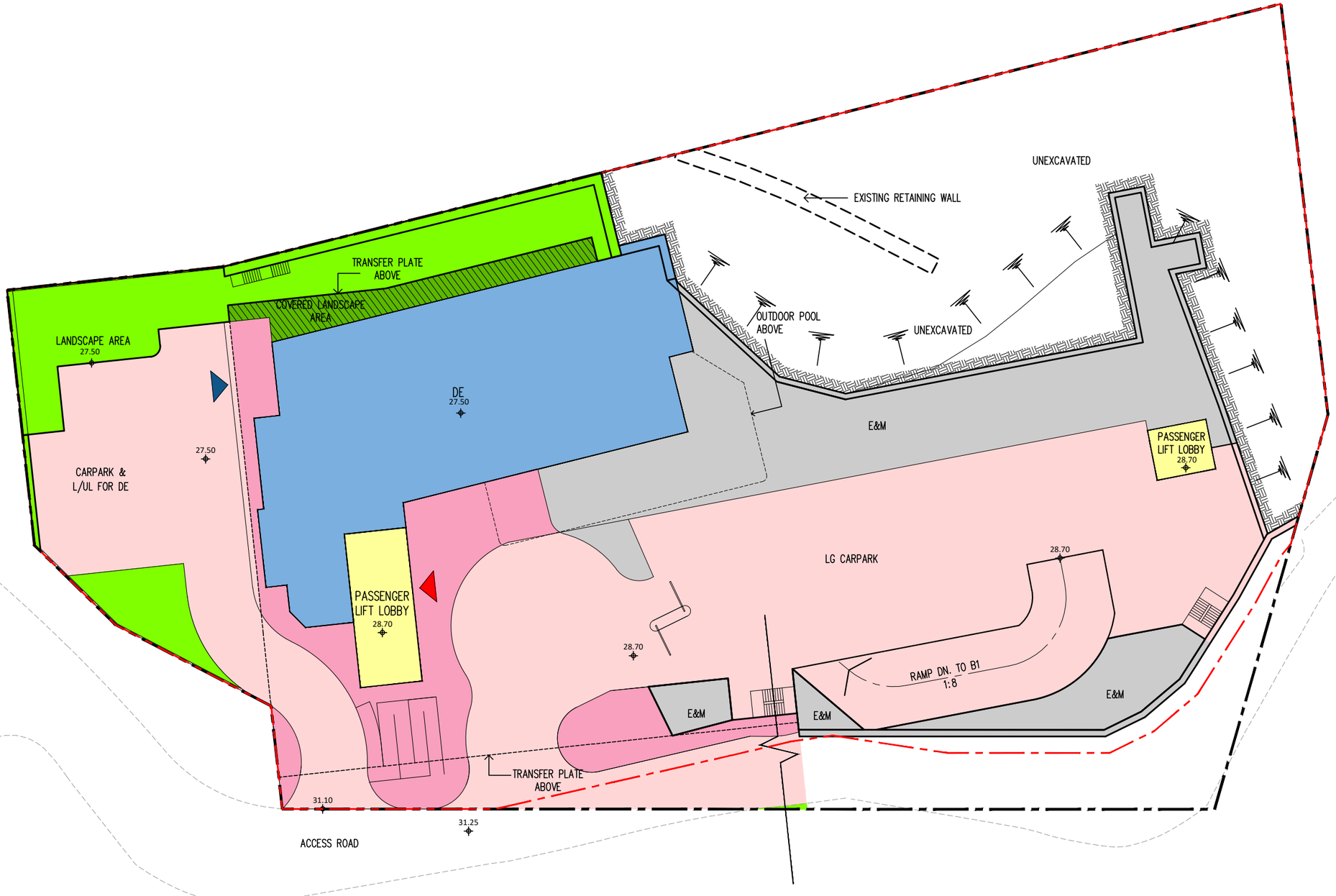
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- FOOTPATH / COVERED AREA
- DAY CARE CENTRE FOR THE ELDERLY (DE)
- RESIDENTIAL USE
- E&M AREA
- LANDSCAPE AREA
- COVERED LANDSCAPE AREA
- ENTRANCE TO RESIDENTIAL UNITS
- ENTRANCE TO DE



N

INDICATIVE LOWER GROUND FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- CARPARK / DRIVEWAY
- FOOTPATH / COVERED AREA
- CLUB HOUSE
- RESIDENTIAL USE
- E&M AREA
- TRANSFER PLATE
- LANDSCAPE AREA
- PRIVATE GARDEN
- ENTRANCE TO RESIDENTIAL UNITS
- ENTRANCE TO CLUB HOUSE

N

INDICATIVE GROUND FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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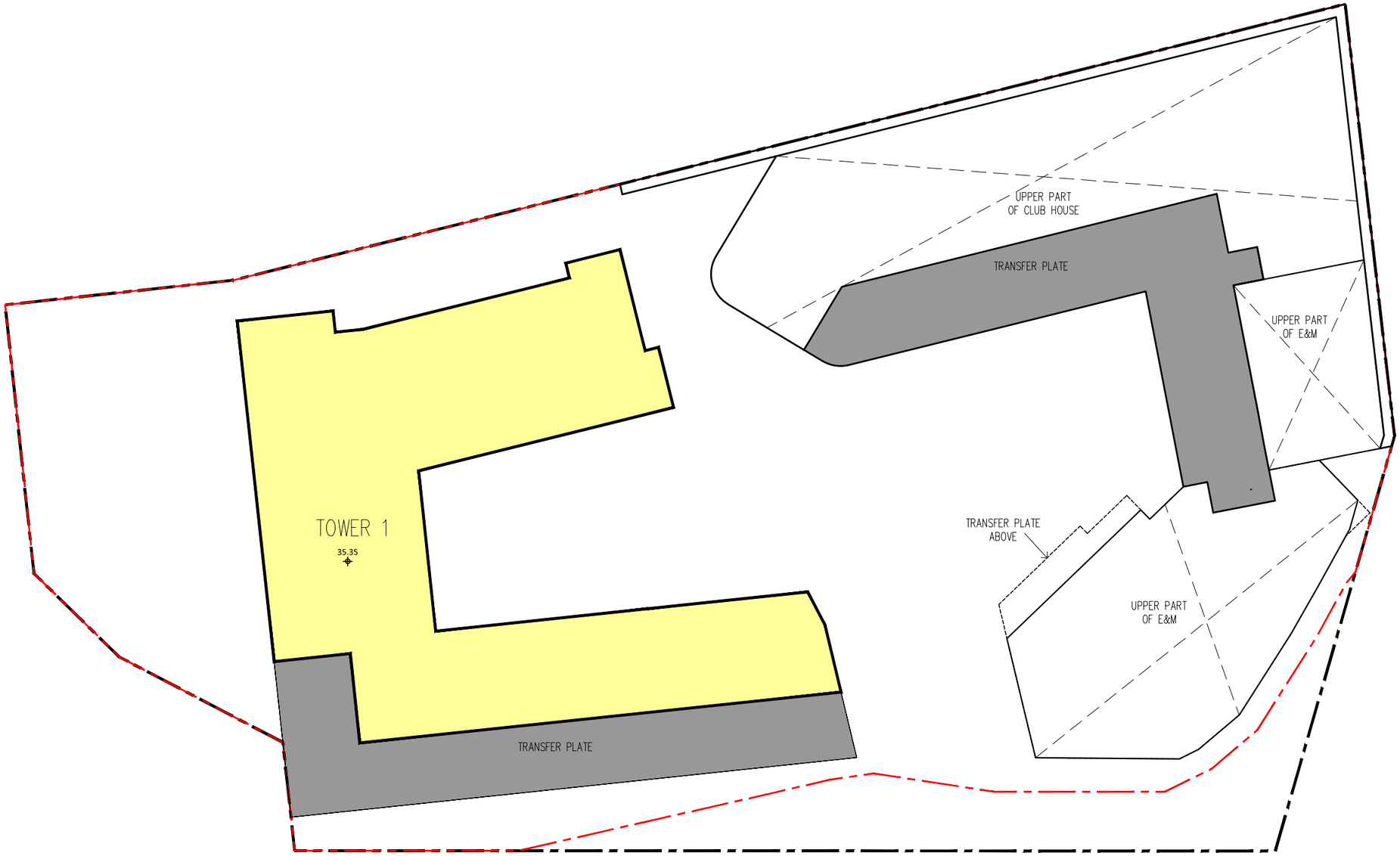
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- TRANSFER PLATE
- VOID/LIGHT WELL



N

INDICATIVE T1 1st. & T2 UPPER PART OF CLUB HOUSE FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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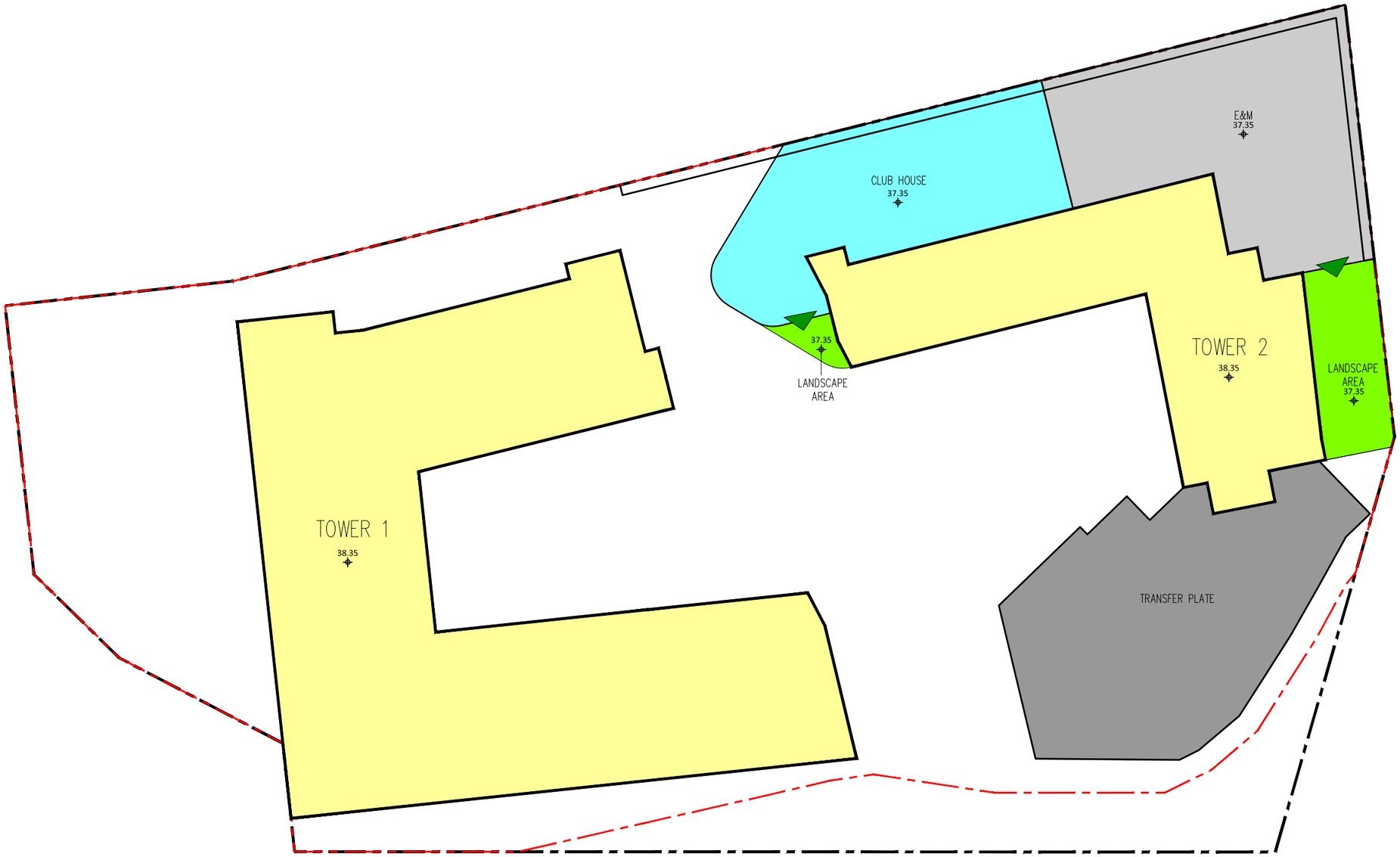
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- CLUB HOUSE
- E&M AREA
- TRANSFER PLATE
- LANDSCAPE AREA
- ACCESS TO LANDSCAPE AREA



N

INDICATIVE T1 2nd. & T2 1st. FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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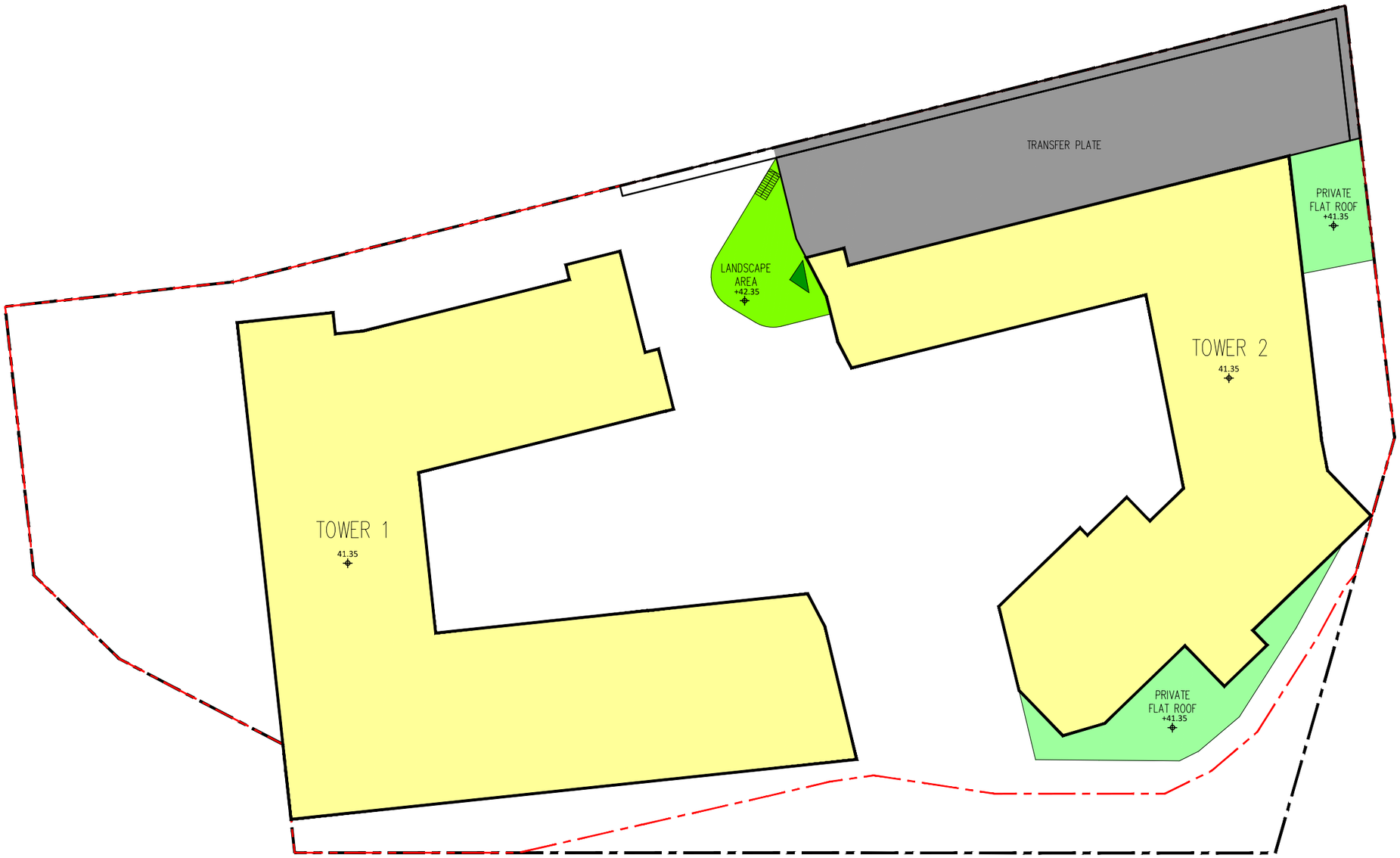
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- TRANSFER PLATE
- PRIVATE FLAT ROOF
- LANDSCAPE AREA
- ACCESS TO LANDSCAPE AREA



N

INDICATIVE T1 3rd. & T2 2nd. FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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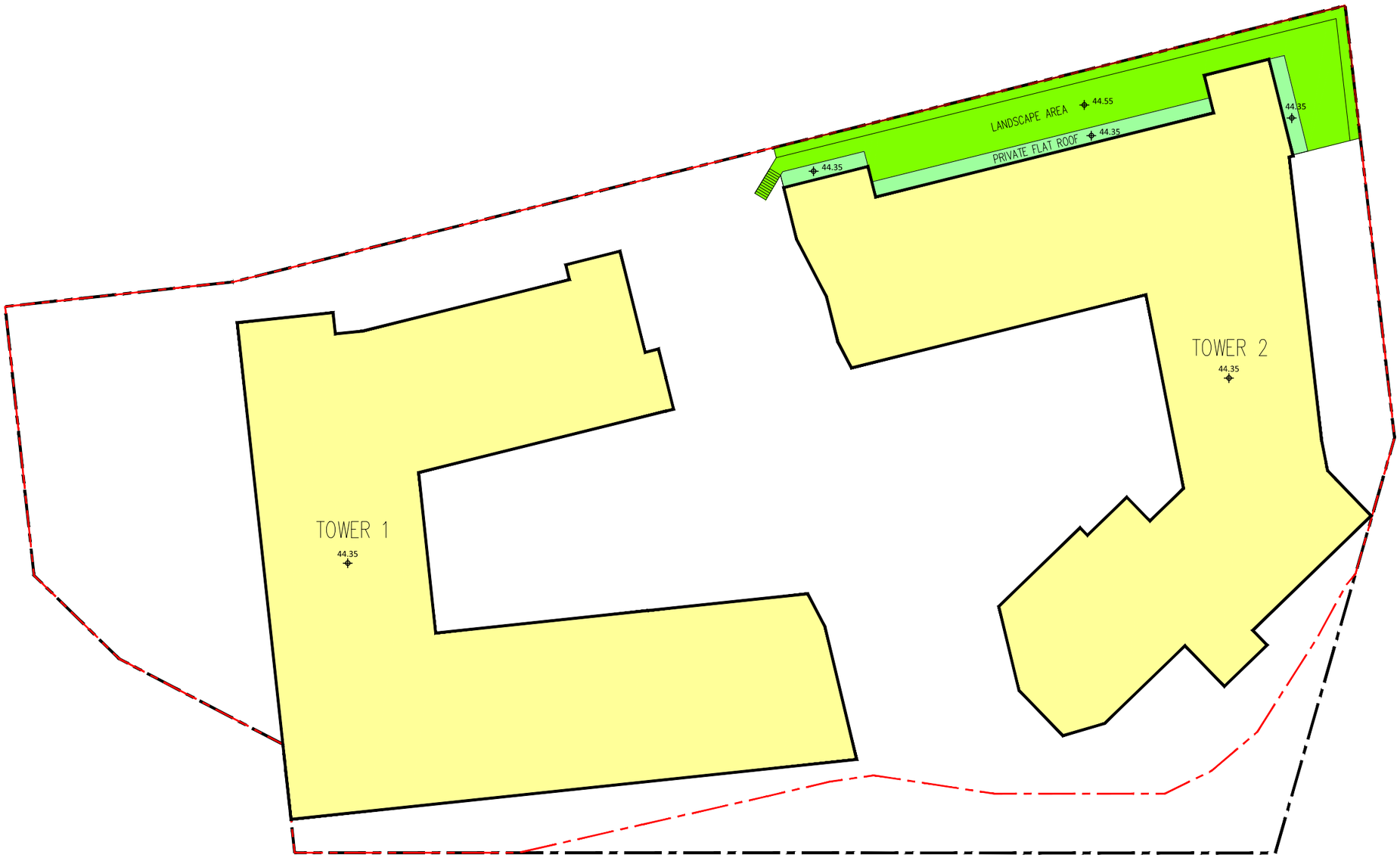
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- PRIVATE FLAT ROOF
- LANDSCAPE AREA



INDICATIVE T1 4th. & T2 3rd. FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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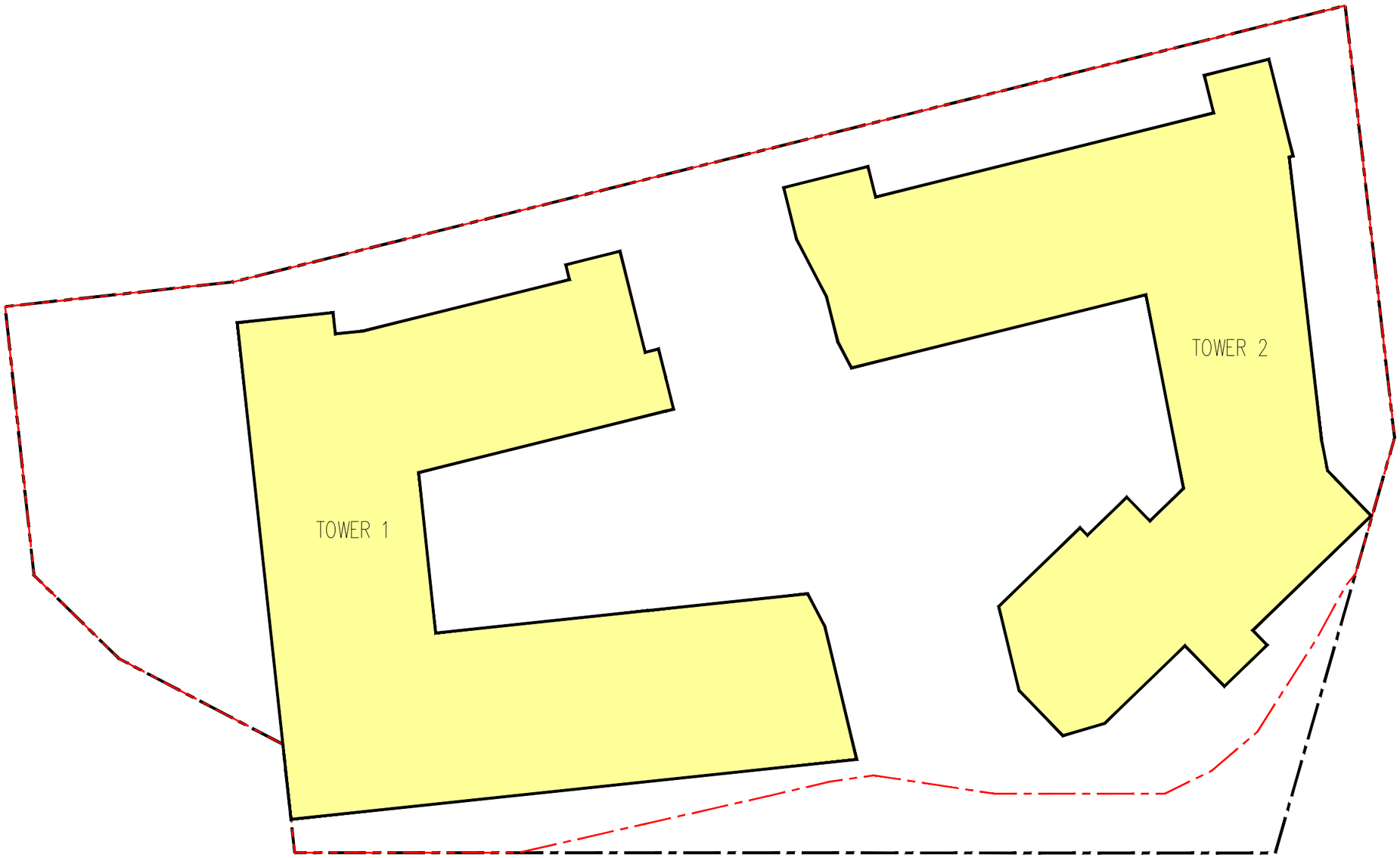
LEGEND

APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

RESIDENTIAL USE



N

INDICATIVE TYPICAL FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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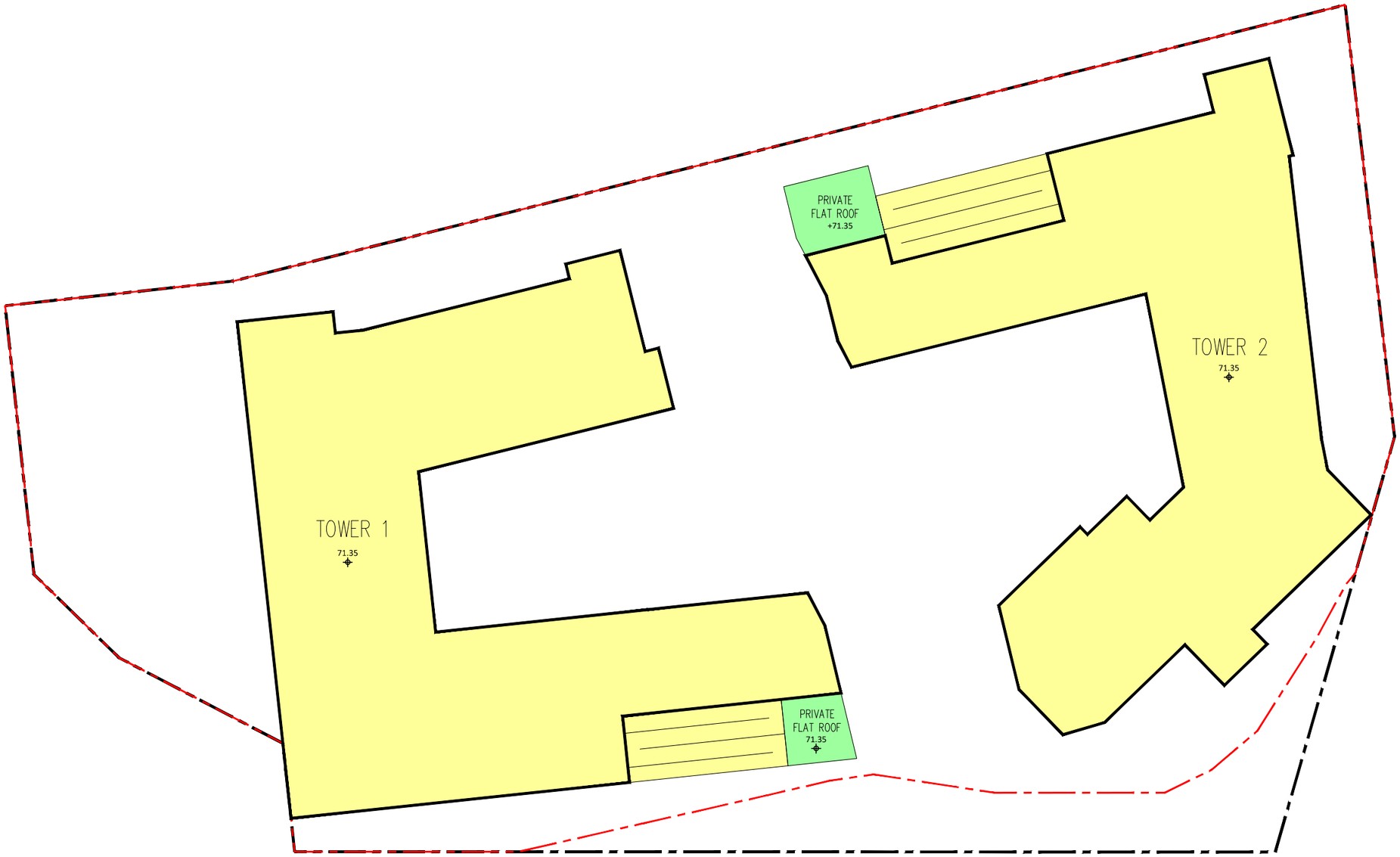
LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- PRIVATE FLAT ROOF



N

INDICATIVE T1 13th. & T2 12th. FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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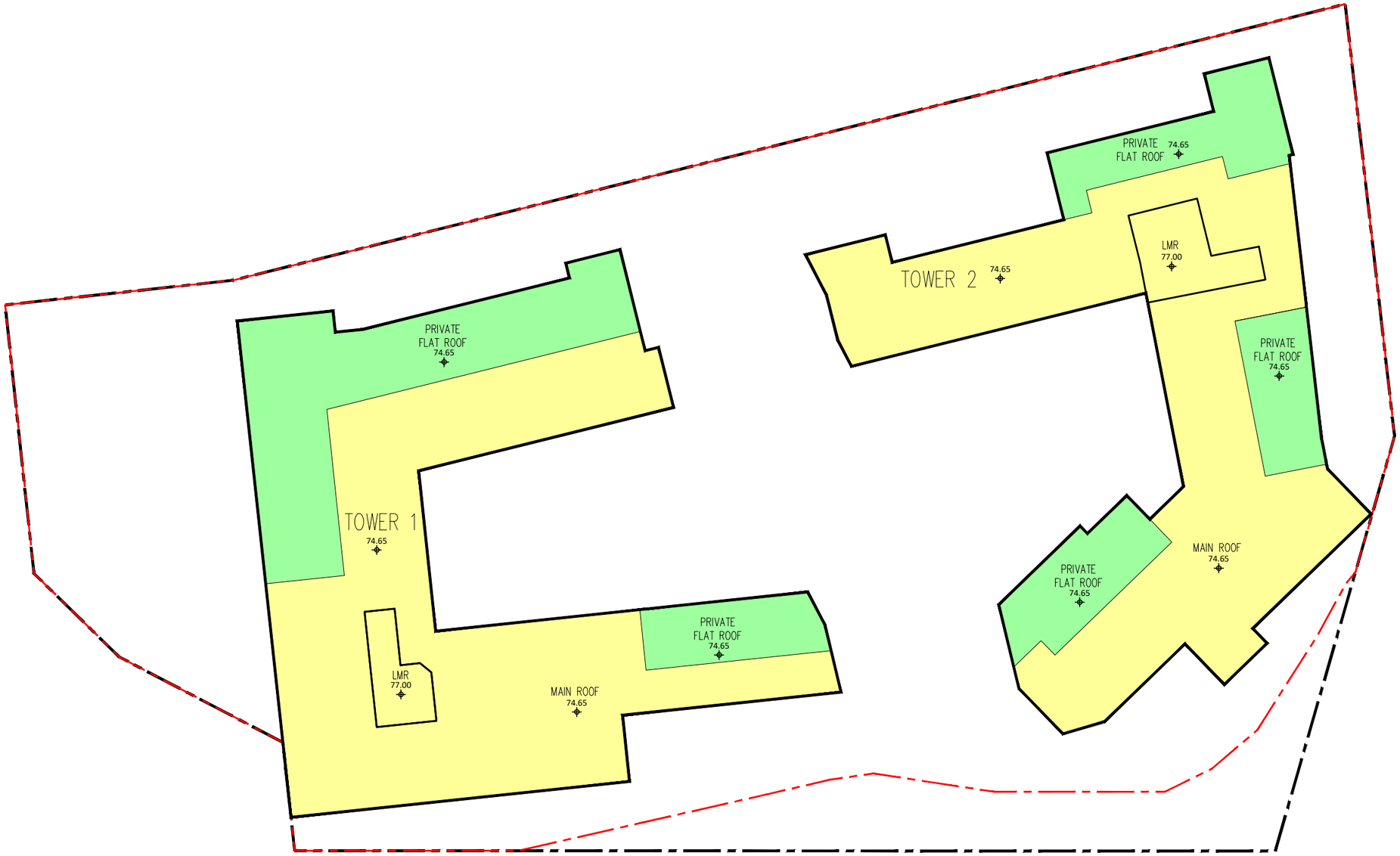
LEGEND

APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

RESIDENTIAL USE

PRIVATE FLAT ROOF



ABBREVIATION:

LMR = LIFT MACHINE ROOM

N

INDICATIVE ROOF FLOOR PLAN

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024

1 : 400 (A3)

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LEGEND

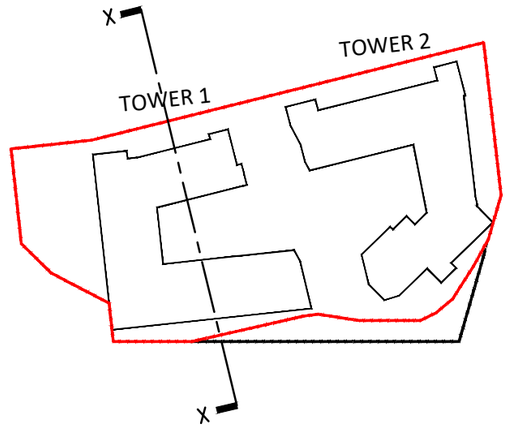
APPLICATION SITE BOUNDARY

DEVELOPMENT SITE BOUNDARY

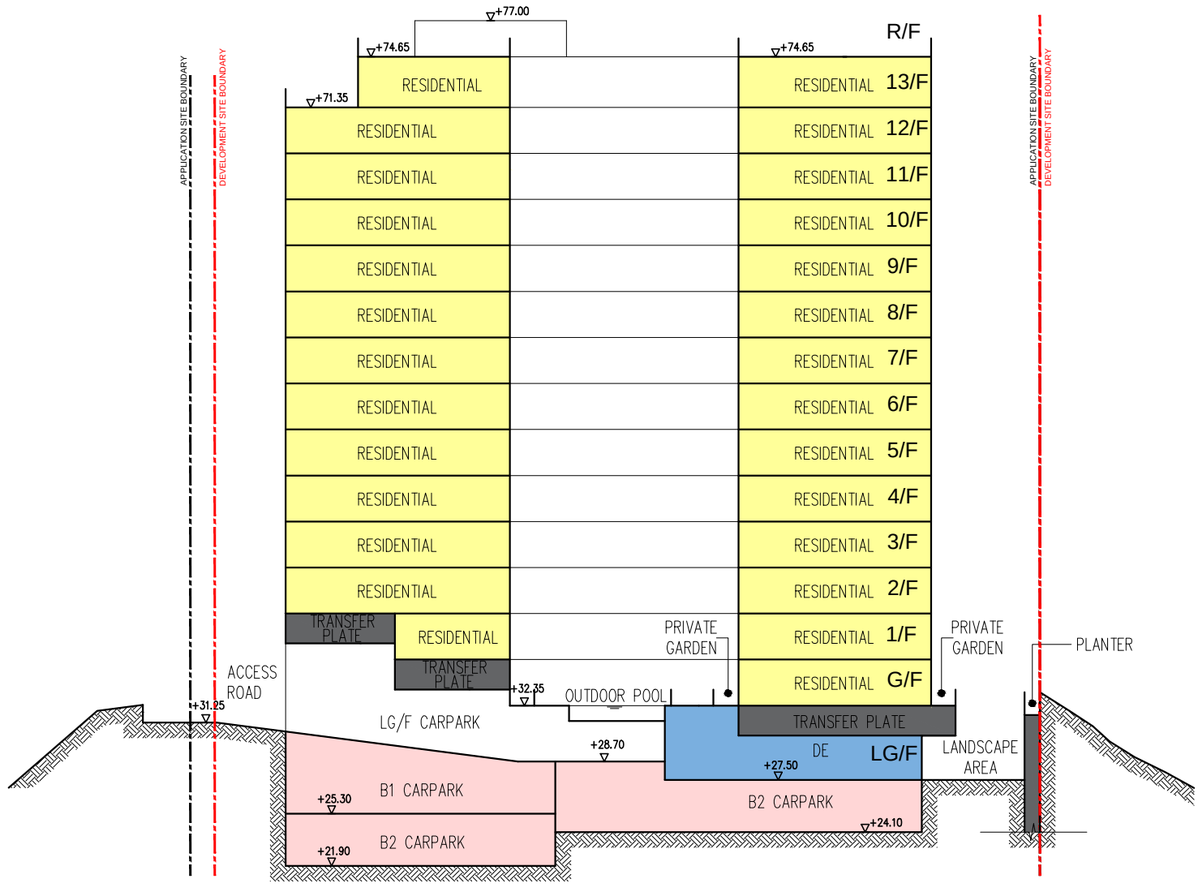
RESIDENTIAL USE

DAY CARE CENTRE FOR THE ELDERLY (DE)

CARPARK / DRIVEWAY



TOWER 1
14 STOREYS RESIDENTIAL FLOOR



INDICATIVE SITE SECTION X-X

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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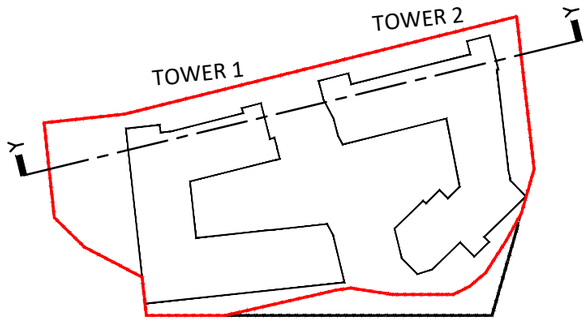
ARCHIPLUS INTERNATIONAL LIMITED

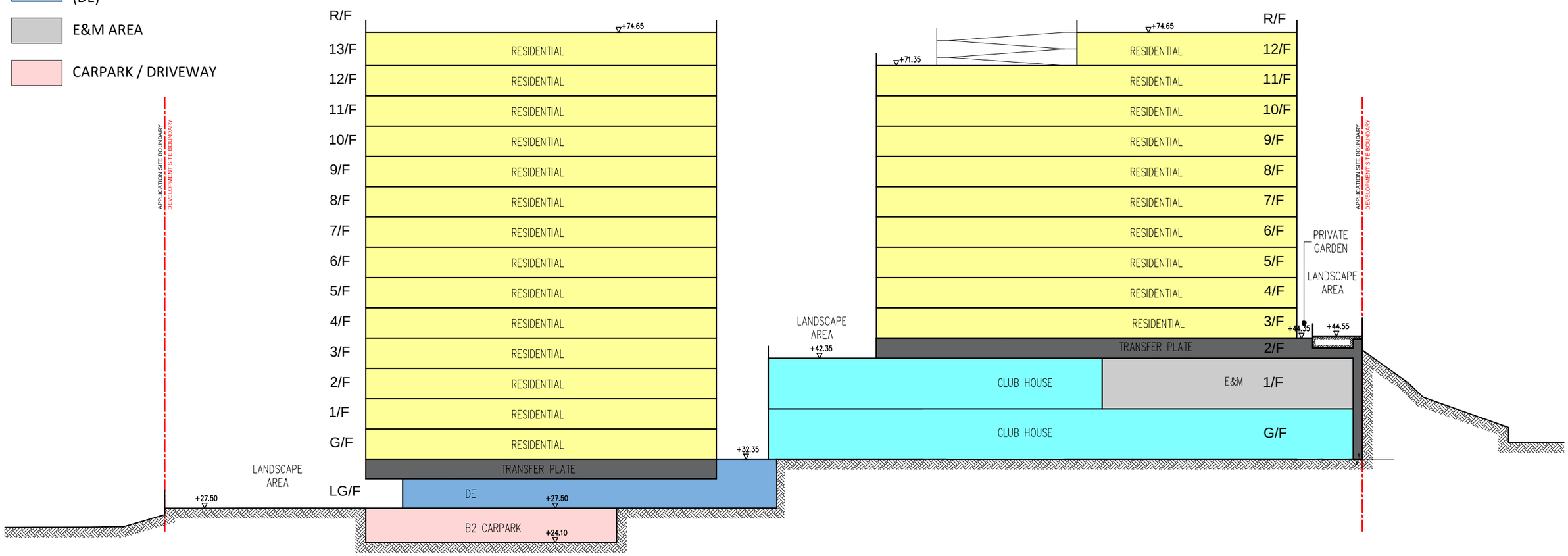


LEGEND

- APPLICATION SITE BOUNDARY
- DEVELOPMENT SITE BOUNDARY
- RESIDENTIAL USE
- CLUB HOUSE
- DAY CARE CENTRE FOR THE ELDERLY (DE)
- E&M AREA
- CARPARK / DRIVEWAY

TOWER 1
14 STOREYS RESIDENTIAL FLOOR

TOWER 2
12 STOREYS RESIDENTIAL FLOOR



INDICATIVE SITE SECTION Y-Y

PROPOSED REDEVELOPMENT AT ROYAL VIEW HOTEL AT TING KAU, N.T.

DATE : 23/07/2024
1 : 400 (A3)

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Appendix B

SIS Data Sheets, SIS Plans and SIMAR Reports

BASIC INFORMATION

Location:	East of Ting Kau Hotel, Ting Kau, N.T.
Registration Date:	19-03-2007
Ranking Score (NPRS):	0 (N/A)
Date of Formation:	post-1977
Date of Construction/ Modification:	
Data Source:	Districts
Approximate Coordinates:	Easting : 826112 Northing : 825482

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Undeveloped green belt
Distance of Facility from Crest (m):	0
Facility at Toe:	Other densely populated buildings
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	1
Remarks:	N/A

SLOPE PART

N/A

WALL PART

(1) Max. Height (m): 8 Length (m): 23 Face Angle (deg): 90

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Private Feature Party: TWIL5 Agent: N/A Land Cat.: 1 Reason Code: 1 MR Endorsement Date: 12-11-2007

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	28-08-2006
Data Source:	Districts
Slope Part Drainage:	N/A
Wall Part Drainage:	(1) Position: Crest Size(mm): 225

SLOPE PART

N/A

WALL PART

Wall Part (1)
Type of Wall: Wall Material: Others Wall Location: Retaining wall with level platform
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): 50 Spacing (m): 1

SERVICES

N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_1218 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	28-08-2006
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Other densely populated buildings
Distance from Toe(m):	0
Type of Crest Facility:	Undeveloped green belt
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

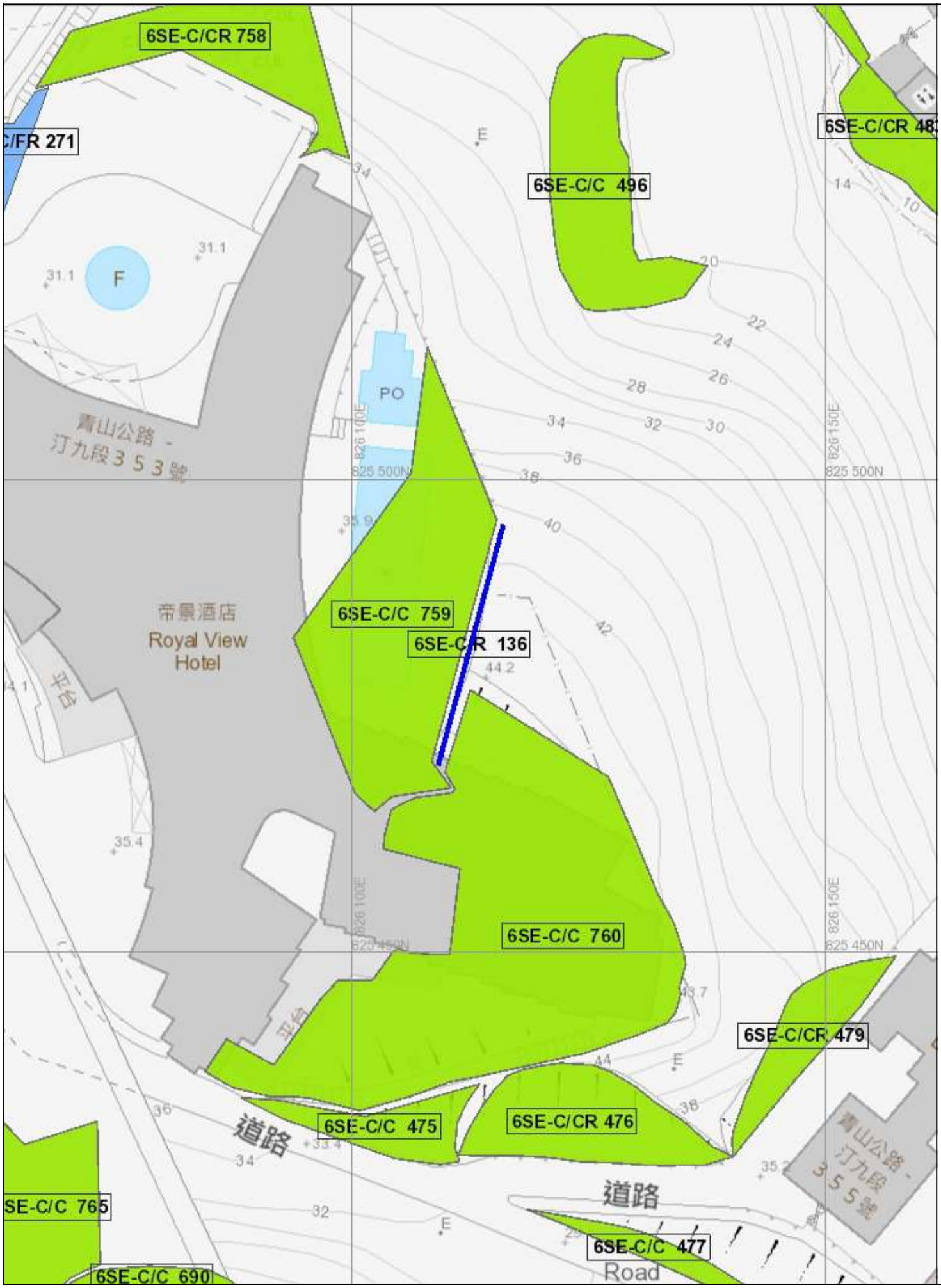
Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	
Action By:	N/A

OTHER EXTERNAL ACTION

Check / repair Services:	
Action By:	N/A
Non-routine Maintenance:	

Action By: N/A

PHOTO


6SE-C/CR 758
C/FR 271
6SE-C/C 496
6SE-C/CR 48
F
PO
青山公路 - 汀九段353號
826 100E
825 500N
826 150E
825 500N
帝景酒店
Royal View Hotel
6SE-C/C 759
6SE-C/R 136
平台
826 100E
825 450N
826 150E
825 450N
6SE-C/C 760
6SE-C/CR 479
6SE-C/C 475
6SE-C/CR 476
道路
青山公路 - 汀九段355號
SE-C/C 765
道路
6SE-C/C 477
Road
6SE-C/C 690

Slope Maintenance Responsibility Report (6SE-C/R136)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/R136**		**Sub-Division**	Not Applicable
	Location	WITHIN TWIL5		
	Responsible Lot/Party	TWIL5	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

- 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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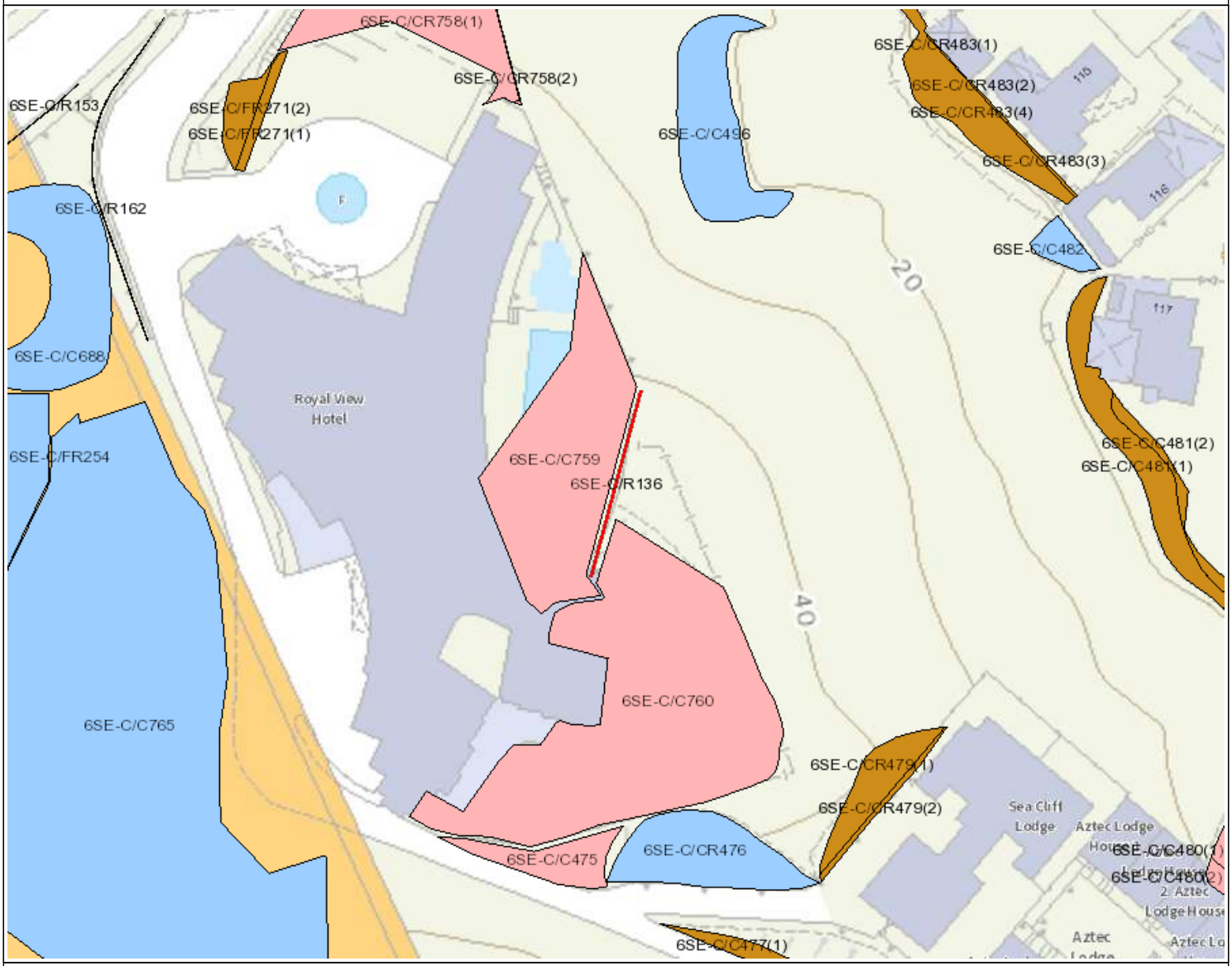
Location Plan



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

This Plan is **NOT TO SCALE** and intended for **IDENTIFICATION** only. All information shown on this plan **MUST** be verified by field survey.

Printed on: 04/01/2024

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BASIC INFORMATION

Location:	CASTLE PEAK ROAD - TING KAU
Registration Date:	31-08-2007
Ranking Score (NPRS):	0 (EI)
Date of Formation:	post-1977
Date of Construction/ Modification:	
Data Source:	Project Office
Approximate Coordinates:	Easting : 826042 Northing : 825524

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Road/footpath with moderate traffic density
Distance of Facility from Crest (m):	2
Facility at Toe:	Road/footpath with moderate traffic density
Distance of Facility from Toe (m):	2
Consequence-to-life Category:	2
Remarks:	N/A

SLOPE PART

N/A

WALL PART

(1) Max. Height (m): 7.7 Length (m): 80 Face Angle (deg): 90

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Government Feature Party: HyD Agent: HyD Land Cat.: 5b(iii) Reason Code: 56 MR Endorsement Date: 20-02-2009

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	01-02-2019
Data Source:	Project Office
Slope Part Drainage:	(1) Position: Toe Size(mm): 300
Wall Part Drainage:	(1) Position: Toe Size(mm): 300

SLOPE PART

N/A

WALL PART

Wall Part (1)
Type of Wall: Wall Material: Concrete Wall Location: Retaining wall with level platform
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): 75 Spacing (m): 1.5

SERVICES

N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_1662 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: GEO/MW 006/2010

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	01-02-2019
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Road/footpath with moderate traffic density
Distance from Toe(m):	2
Type of Crest Facility:	Road/footpath with moderate traffic density
Distance from Crest(m):	2
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

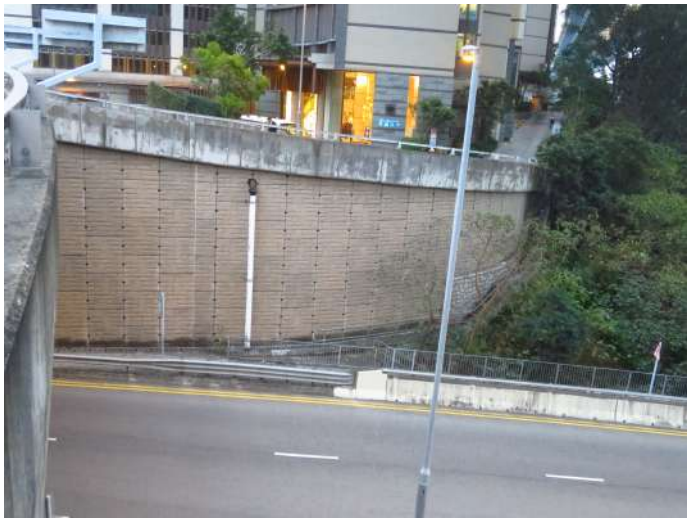
Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	
Action By:	N/A

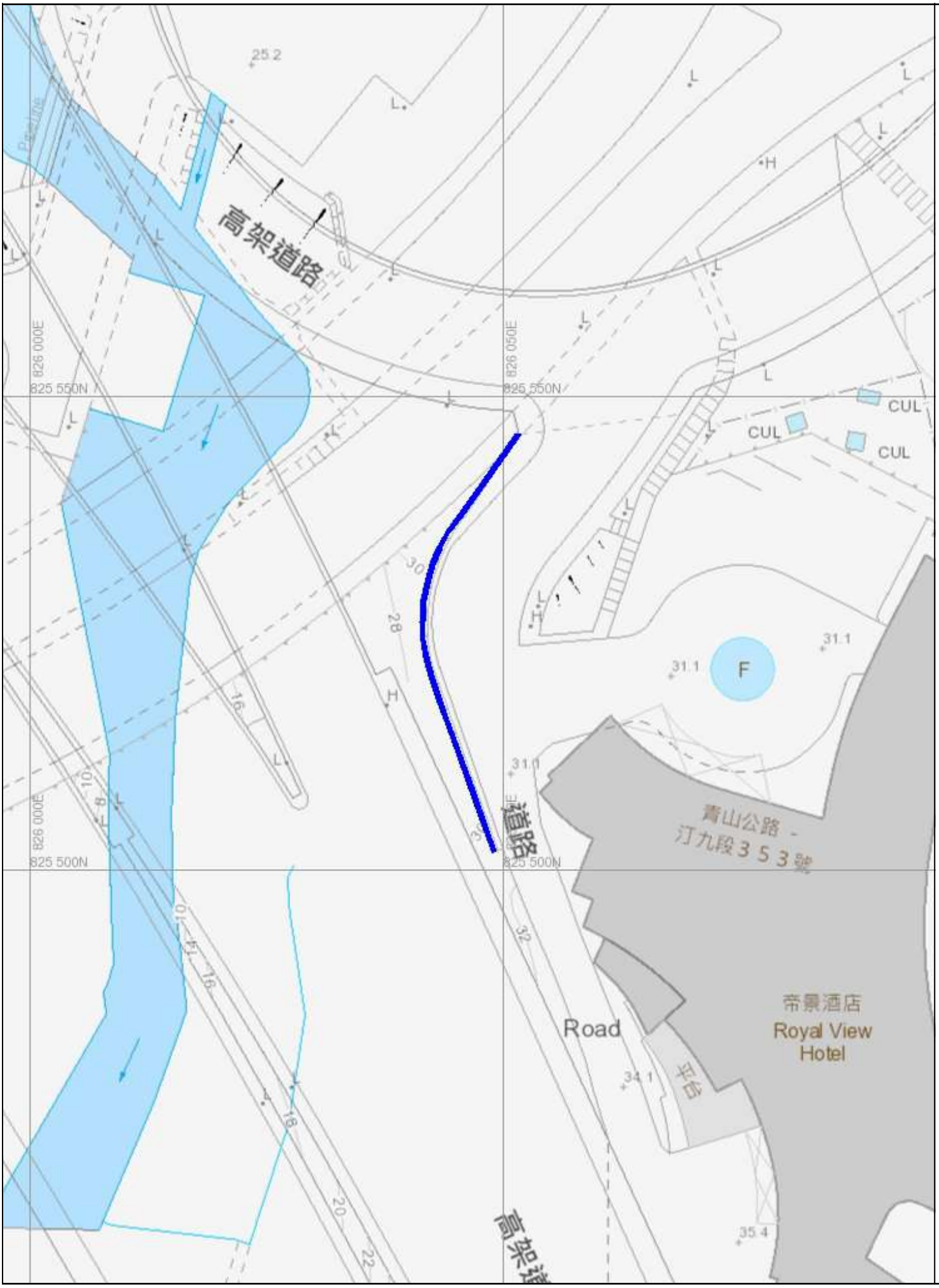
OTHER EXTERNAL ACTION

Check / repair Services:	
Action By:	N/A
Non-routine Maintenance:	

Action By: N/A

PHOTO




高架道路
826 000E
826 050E
825 550N
825 500N
CUL
CUL
CUL
F
青山公路 -
汀九段353號
帝景酒店
Royal View
Hotel
Road
平台
道路
高架道

Slope Maintenance Responsibility Report (6SE-C/R162)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/R162**		**Sub-Division**	Not Applicable
	Location	ADJOINING APPROACH ROAD TO TWIL 5 AND TO THE NORTH-WEST OF TWIL 5		
	Responsible Lot/Party	Highways Department	**Maintenance Agent**	Highways Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

- 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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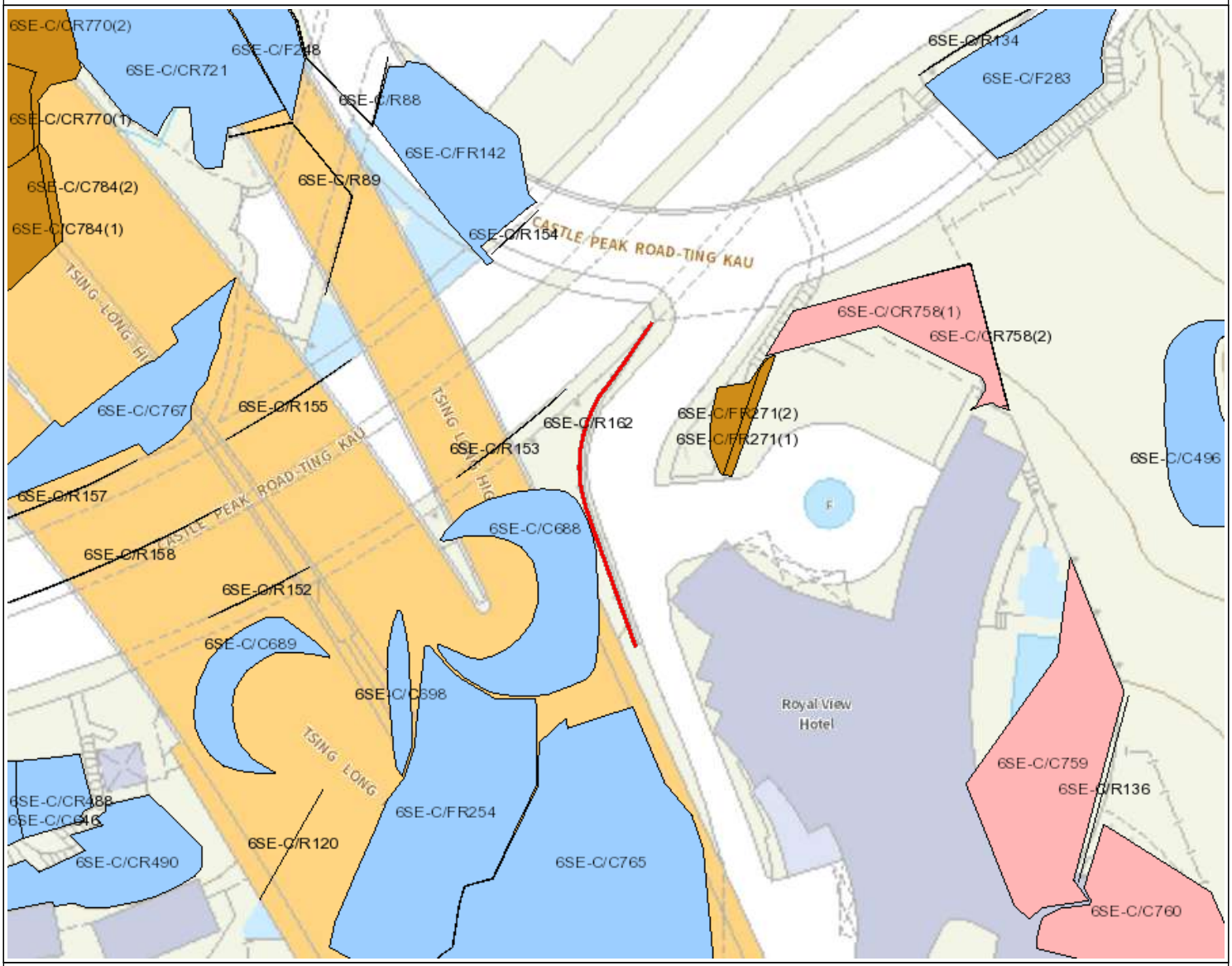
Location Plan



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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BASIC INFORMATION

Location:	CASTLE PEAK ROAD - TING KAU
Registration Date:	19-03-2007
Ranking Score (NPRS):	0 (EI)
Date of Formation:	post-1977
Date of Construction/ Modification:	
Data Source:	Project Office
Approximate Coordinates:	Easting : 826062 Northing : 825533

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Road/footpath with low traffic density
Distance of Facility from Crest (m):	0
Facility at Toe:	Open car park
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	2
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 2 Length (m): 20 Average Angle (deg): 20

WALL PART

(1) Max. Height (m): 3 Length (m): 21.5 Face Angle (deg): 90

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 1 Mixed Feature Party: DD399 LOT429 Agent: N/A Land Cat.: 1 Reason Code: 1 MR Endorsement Date: 04-06-2008
(2) Sub Div.: 2 Mixed Feature Party: HyD Agent: HyD Land Cat.: 5b(iii) Reason Code: 62 MR Endorsement Date: 04-06-2008

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	03-07-2020
Data Source:	Project Office
Slope Part Drainage:	(1) Position: On slope Size(mm): 300 (2) Position: Toe Size(mm): 300
Wall Part Drainage:	(1) Position: Toe Size(mm): 300

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

Wall Part (1)
Type of Wall: Wall Material: Concrete Wall Location: Wall at toe
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): N/A Spacing (m): N/A

SERVICES

(1) Utilities Type: Cable Size(mm): 0 Location: On crest Remark: N/A
(2) Utilities Type: Electricity Size(mm): 0 Location: On slope Remark: N/A
(3) Utilities Type: Electricity Size(mm): 0 Location: On crest Remark: N/A
(4) Utilities Type: Gas Size(mm): 0 Location: On slope Remark: N/A
(5) Utilities Type: Gas Size(mm): 0 Location: On crest Remark: N/A
(6) Utilities Type: Telecom Size(mm): 0 Location: On crest Remark: N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_9 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	03-07-2020
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None

Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Open car park
Distance from Toe(m):	0
Type of Crest Facility:	Road/footpath with low traffic density
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

6SE-C/R 134
6SE-C/F 283
6SE-C/R 88
6SE-C/FR 142
6SE-C/R 154
6SE-C/CR 758
6SE-C/R 162
6SE-C/FR 271
6SE-C/R 153
6SE-C/C 688
6SE-C/C 698
6SE-C/FR 254
6SE-C/C 765
6SE-C/C 759
6SE-C/R
6SE-C/C
道路
青山公路 - 汀九段353號
Road
帝景酒店
Royal View Hotel
PO
F

Slope Maintenance Responsibility Report (6SE-C/FR271)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/FR271**		**Sub-Division**	1
	Location	WITHIN DD399 LOT 429 AND ADJOINING GOVERNMENT LAND		
	Responsible Lot/Party	DD399 LOT429	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

2	**6SE-C/FR271**		**Sub-Division**	2
	Location	WITHIN DD399 LOT 429 AND ADJOINING GOVERNMENT LAND		
	Responsible Lot/Party	Highways Department	**Maintenance Agent**	Highways Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

- 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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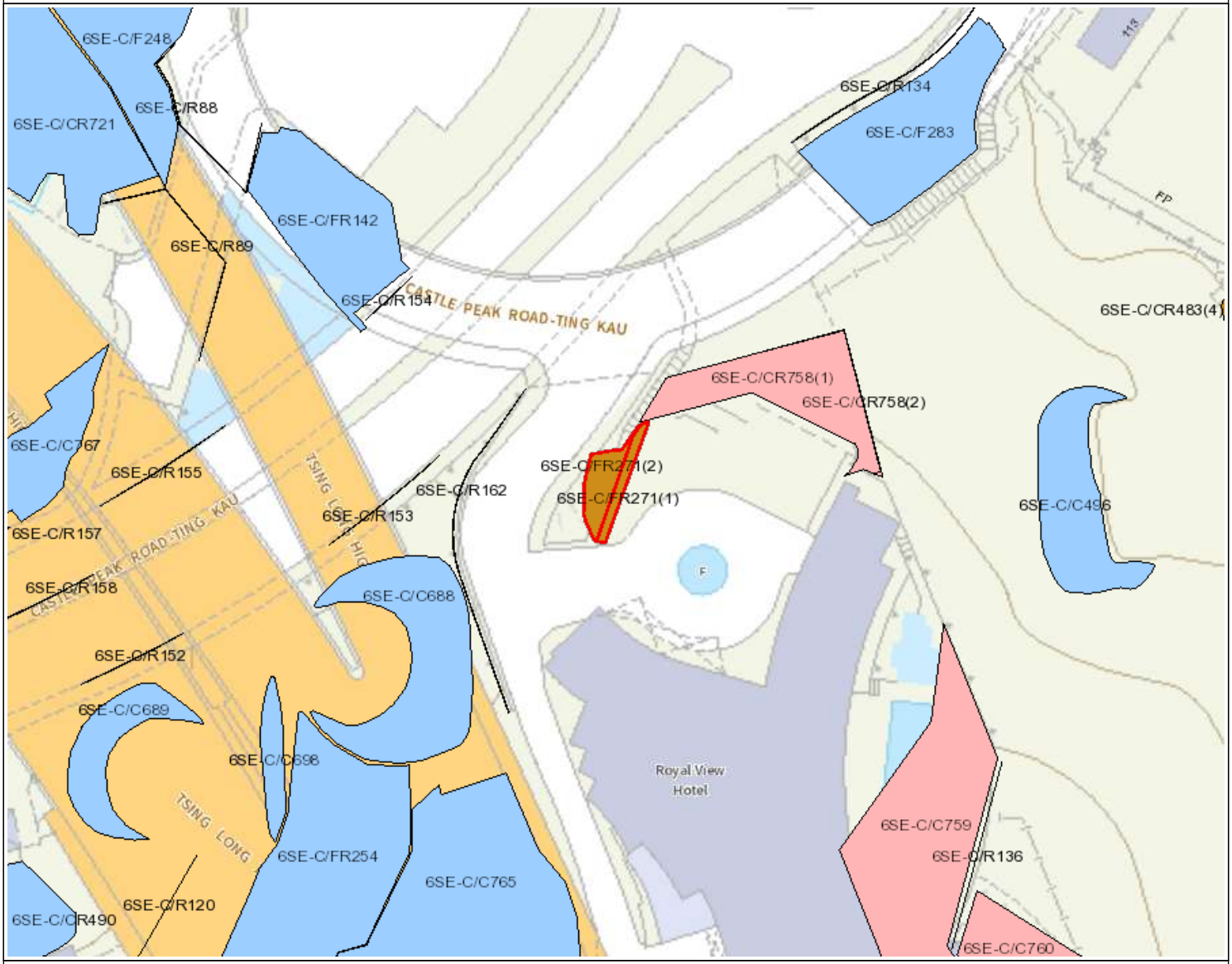
Location Plan



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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BASIC INFORMATION

Location:	South of Ting Kau Hotel at TWIL 5 & Lot 429 in DD 399, Ting Kau, N.T.
Registration Date:	16-03-1998
Ranking Score (NPRS):	0 (Notional)
Date of Formation:	pre-1977
Date of Construction/ Modification:	19-09-2006
Data Source:	Districts
Approximate Coordinates:	Easting : 826096 Northing : 825433

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Road/footpath with very low traffic density
Distance of Facility from Crest (m):	0
Facility at Toe:	Road/footpath with very low traffic density
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	3
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 1 Length (m): 20 Average Angle (deg): 20

WALL PART

N/A

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Private Feature Party: TWIL5 Agent: N/A Land Cat.: 1,5a Reason Code: 1,71 MR Endorsement Date: 14-06-2007

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	26-09-2006
Data Source:	Districts
Slope Part Drainage:	N/A
Wall Part Drainage:	N/A

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 0 Chunam: 0 Shotcrete: 100 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): 50 Spacing (m): 1.5

WALL PART

N/A

SERVICES

N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_7156 Part: 0 Checking Status: Feature modified/upgraded to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

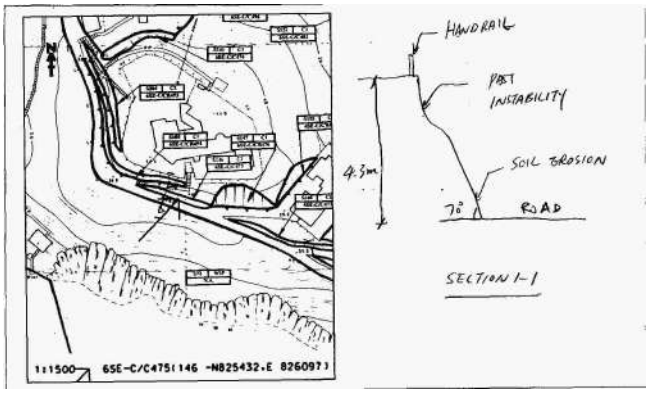
GIU Cell Ref.:	6SE18C6
Map Sheet Reference (1:1000):	6SE-18C
Aerial Photos:	Y08949 (1963), Y08950 (1963)
Nearest Rainguage Station (Station Number):	Emmanuel Primary School, 13 Miles, Castle Peak Road(N10)
Data Collected On:	26-09-2006
Date of Construction, Subsequent Modification and Demolition:	Modification: Constructed Before: 1963 After: N/A
Related Reports/Files or Documents:	File/Report: Development Ref. No.: GCMW9057/93 File/Report: Development Ref. No.: GCMW9057/93 File/Report: Development Ref. No.: GCMW9057/93 File/Report: Development Ref. No.: GCMW9057/93
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	03-04-1997
Weather:	Mainly Fine
District:	MW



Section No:	1-1
Height(m):	H1 : 4 , H2 : 0
Type of Toe Facility:	Road/footpath with very low traffic density
Distance from Toe(m):	0
Type of Crest Facility:	Road/footpath with very low traffic density
Distance from Crest(m):	0
Consequence Category:	3
Engineering Judgement:	P
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:	P
Sign of Seepage:	Slope : No signs of seepage Wall : N/A
Criterion A satisfied:	N
Sign of Distress:	Slope : Severe (near crest, mid-portion, at toe) Wall : N/A
Criterion D satisfied:	N
Non-routine maintenance required:	Y
Note:	PROVIDE PROTECTIVE COVER TO THE BARE SURFACE.
Masonry wall/Masonry facing:	Y
Note:	square rubble with pointing
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:	Y
Action By:	Mixed

OTHER EXTERNAL ACTION

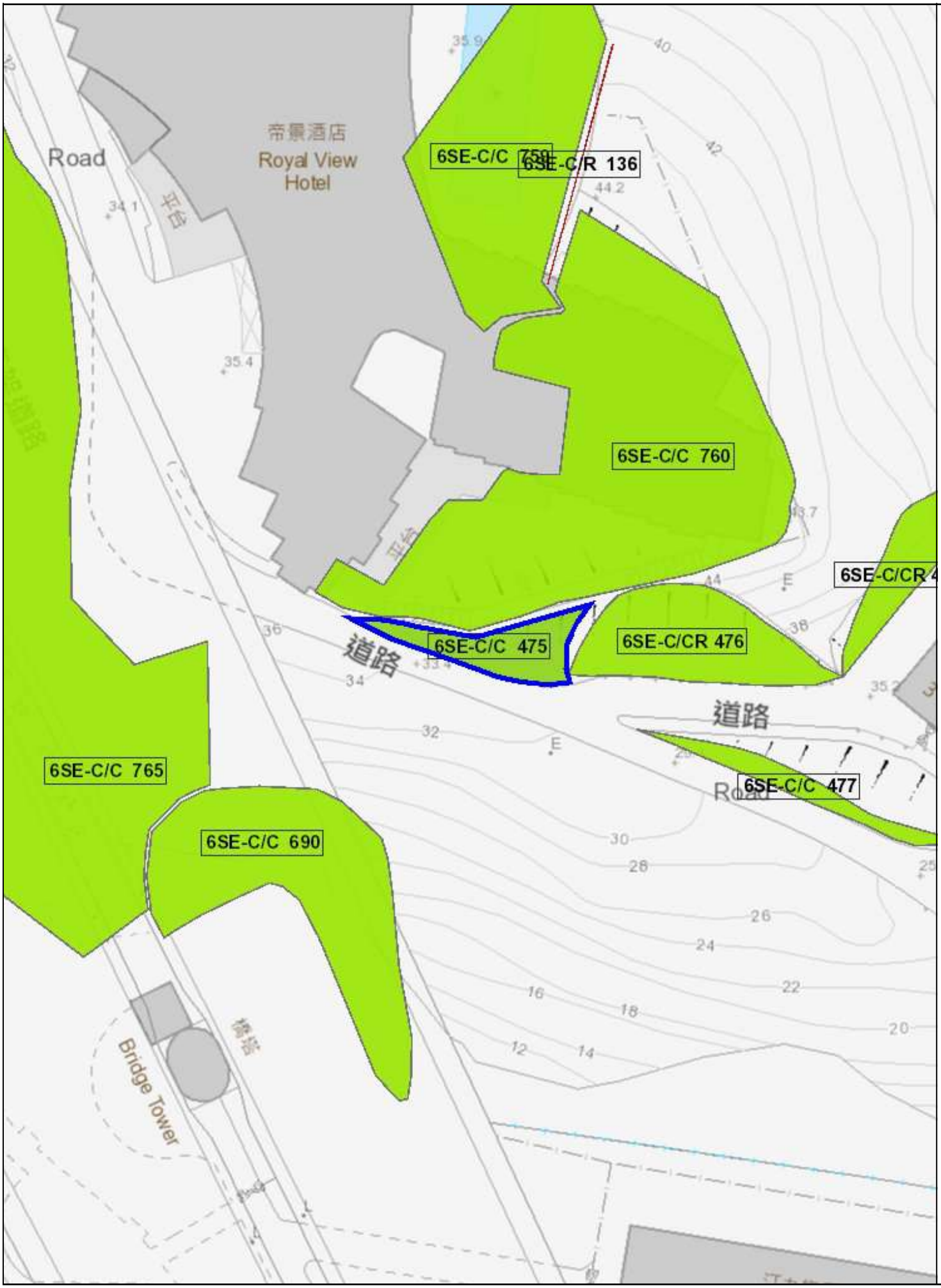
Check / repair Services:	N
Action By:	N/A
Non-routine Maintenance:	Y
Action By:	Mixed

PHOTO

6SE-C/C475
GENERAL VIEW

6SE-C/C475
GENERAL VIEW

6SE-C/C475
DISTRESS


Road
帝景酒店
Royal View
Hotel
6SE-C/C 759
6SE-C/R 136
6SE-C/C 760
6SE-C/CR 4
6SE-C/C 475
6SE-C/CR 476
道路
道路
6SE-C/C 765
6SE-C/C 477
6SE-C/C 690
Bridge Tower
橋塔

Slope Maintenance Responsibility Report (6SE-C/C475)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/C475**		**Sub-Division**	Not Applicable
	Location	ADJOINING THE SOUTH BOUNDARY OF TWIL5		
	Responsible Lot/Party	TWIL5	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

- 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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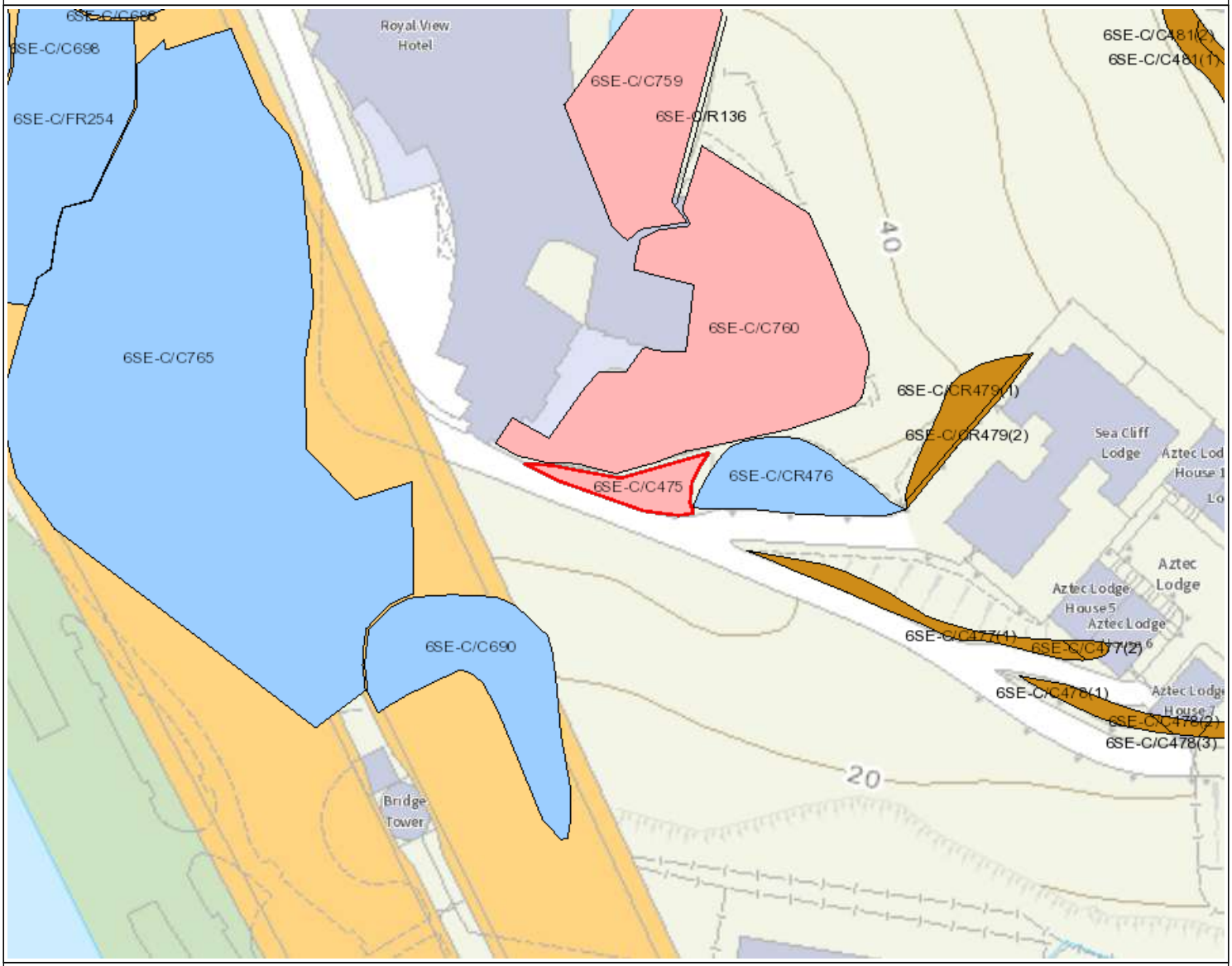
Location Plan



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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BASIC INFORMATION

Location:	Ting Kau Village, Tsuen Wan
Registration Date:	16-03-1998
Ranking Score (NPRS):	0 (EI)
Date of Formation:	pre-1977
Date of Construction/ Modification:	18-01-2010
Data Source:	Project Office
Approximate Coordinates:	Easting : 826124 Northing : 825433

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Hotel
Distance of Facility from Crest (m):	4
Facility at Toe:	Road/footpath with low traffic density
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	1
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 9.2 Length (m): 29 Average Angle (deg): 40

WALL PART

(1) Max. Height (m): 1.8 Length (m): 29 Face Angle (deg): 90

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Government Feature Party: Lands D Agent: Lands D Land Cat.: 5b(vi) Reason Code: 62 MR Endorsement Date: 07-12-1999

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	06-04-2018
Data Source:	Project Office
Slope Part Drainage:	(1) Position: On slope Size(mm): 250
Wall Part Drainage:	(1) Position: Crest Size(mm): 250

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 0 Chunam: 0 Shotcrete: 0 Other Cover: 100
Material Description: Material type: Soil Geology: N/A
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): 75 Spacing (m): 1.5

WALL PART

Wall Part (1)
Type of Wall: Wall Material: Concrete Wall Location: Wall at toe
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): 75 Spacing (m): 1.5

SERVICES

N/A

CHECKING STATUS INFORMATION

N/A

BACKGROUND INFORMATION

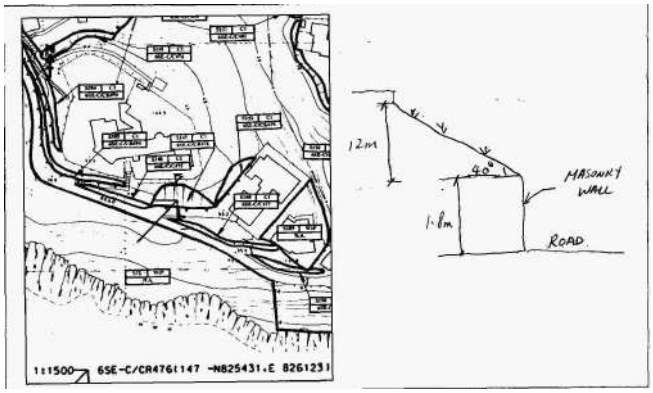
GIU Cell Ref.:	6SE18C6
Map Sheet Reference (1:1000):	6SE-18C
Aerial Photos:	Y08949 (1963), Y08950 (1963)
Nearest Rainguage Station (Station Number):	Emmanuel Primary School, 13 Miles, Castle Peak Road(N10)
Data Collected On:	06-04-2018
Date of Construction, Subsequent Modification and Demolition:	Modification: Constructed Before: 1963 After: N/A
Related Reports/Files or Documents:	File/Report: Development Ref. No.: GCMW9057/93 File/Report: Development Ref. No.: GCMW9057/93 File/Report: Development Ref. No.: GCMW9057/93 File/Report: Development Ref. No.: GCMW9057/93
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)
Upgraded by:
Prescriptive Design Using GEO Report No. 56: N/A
Non-prescriptive Design Including Conventional Design: N/A
Improved by:
Type 1 / Type 2 Prescriptive Measures: N/A
Type 3 Prescriptive Measures (not up to upgrading standard): Yes
Actual Completion Date: 22-02-2010

STAGE 1 STUDY REPORT

Inspected On:	03-04-1997
Weather:	Mainly Fine
District:	MW



Section No:	1-1
Height(m):	H1 : 14 , H2 : 0
Type of Toe Facility:	Road/footpath with low traffic density
Distance from Toe(m):	0
Type of Crest Facility:	Hotel
Distance from Crest(m):	4
Consequence Category:	2
Engineering Judgement:	P
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:	2
Engineering Judgement:	P
Sign of Seepage:	Slope : No signs of seepage Wall : No sign of seepage
Criterion A satisfied:	N
Sign of Distress:	Slope : Reasonable (at toe) Wall : Minimal(mid-portion)
Criterion D satisfied:	N
Non-routine maintenance required:	N

Note:	N/A
Masonry wall/Masonry facing:	Y
Note:	Square rubble with pointing.
Consequence category (for critical section):	2
Observations:	N/A
Emergency Action Required:	N
Action By:	N/A

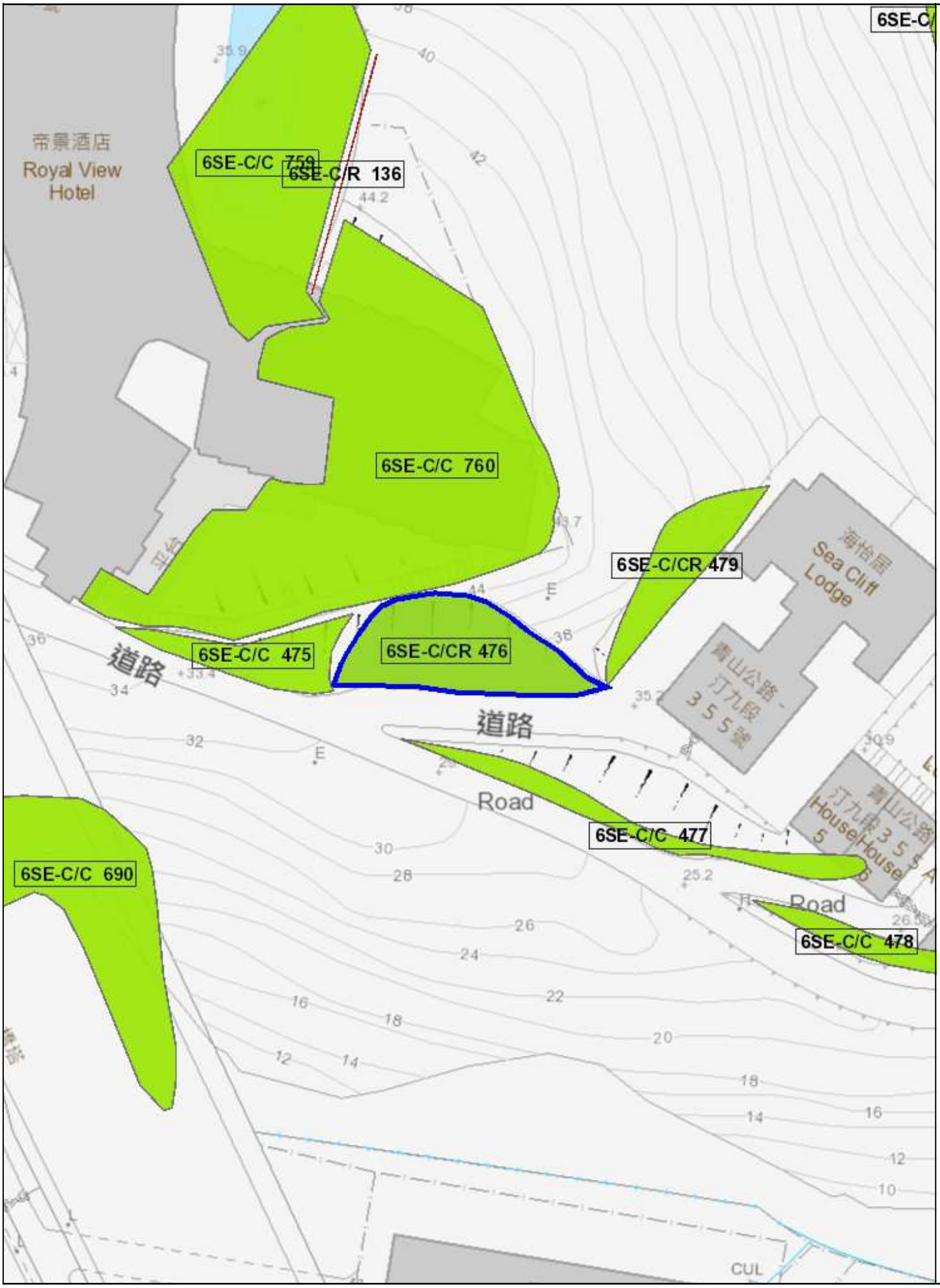
ACTION TO INITIATE PREVENTIVE WORKS

Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	Y
Action By:	Mixed

OTHER EXTERNAL ACTION

Check / repair Services:	N
Action By:	N/A
Non-routine Maintenance:	N
Action By:	N/A

PHOTO


6SE-C/
帝景酒店
Royal View Hotel
6SE-C/C 759
6SE-C/R 136
6SE-C/C 760
6SE-C/CR 479
海怡居
Sea Cliff Lodge
6SE-C/C 475
6SE-C/CR 476
道路
道路
Road
6SE-C/C 477
6SE-C/C 690
Road
6SE-C/C 478
CUL

Slope Maintenance Responsibility Report (6SE-C/CR476)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/CR476**		**Sub-Division**	Not Applicable
	Location	TO THE S OF TWIL5		
	Responsible Lot/Party	Lands Department	**Maintenance Agent**	Lands Department
	Remarks	For enquiries about the maintenance of this slope / sub-division of the slope, please contact the Maintenance Agent directly.		

- 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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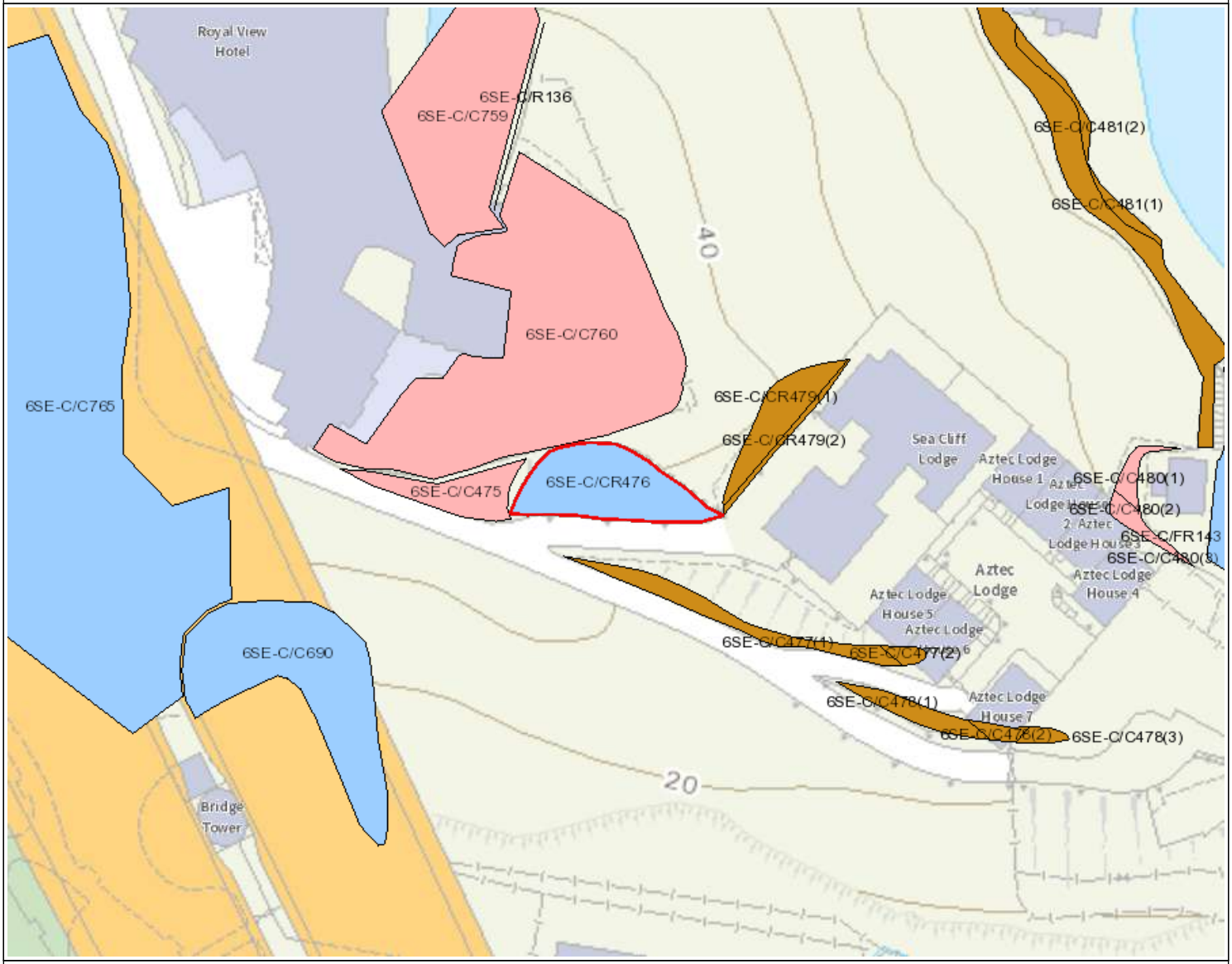
Location Plan



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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BASIC INFORMATION

Location:	North of Ting Kau Hotel, Ting Kau, N.T.
Registration Date:	19-03-2007
Ranking Score (NPRS):	0 (Notional)
Date of Formation:	post-1977
Date of Construction/ Modification:	
Data Source:	Districts
Approximate Coordinates:	Easting : 826089 Northing : 825546

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Open car park
Distance of Facility from Crest (m):	0
Facility at Toe:	Lightly-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): 1.5 Length (m): 33 Average Angle (deg): 22

WALL PART

(1) Max. Height (m): 2.4 Length (m): 33 Face Angle (deg): 90

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 1 Private Feature Party: DD399 LOT429 Agent: N/A Land Cat.: 1 Reason Code: 1 MR Endorsement Date: 07-12-2007
(2) Sub Div.: 2 Private Feature Party: TWIL5 Agent: N/A Land Cat.: 1 Reason Code: 1 MR Endorsement Date: 07-12-2007

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	28-08-2006
Data Source:	Districts
Slope Part Drainage:	(1) Position: Crest Size(mm): 375 (2) Position: Toe Size(mm): 225
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

Wall Part (1)
Type of Wall: Wall Material: Concrete Wall Location: Wall at crest
Berm: No. of Berms: N/A Min. Berm Width (m): N/A
Weepholes: Size (mm): 50 Spacing (m): 1.5

SERVICES

(1) Utilities Type: Sewer/Drain Size(mm): 0 Location: On slope Remark: Size cannot be determined

CHECKING STATUS INFORMATION

Tagmark: SCS_6899 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	28-08-2006
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Lightly-used open area/facilities
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

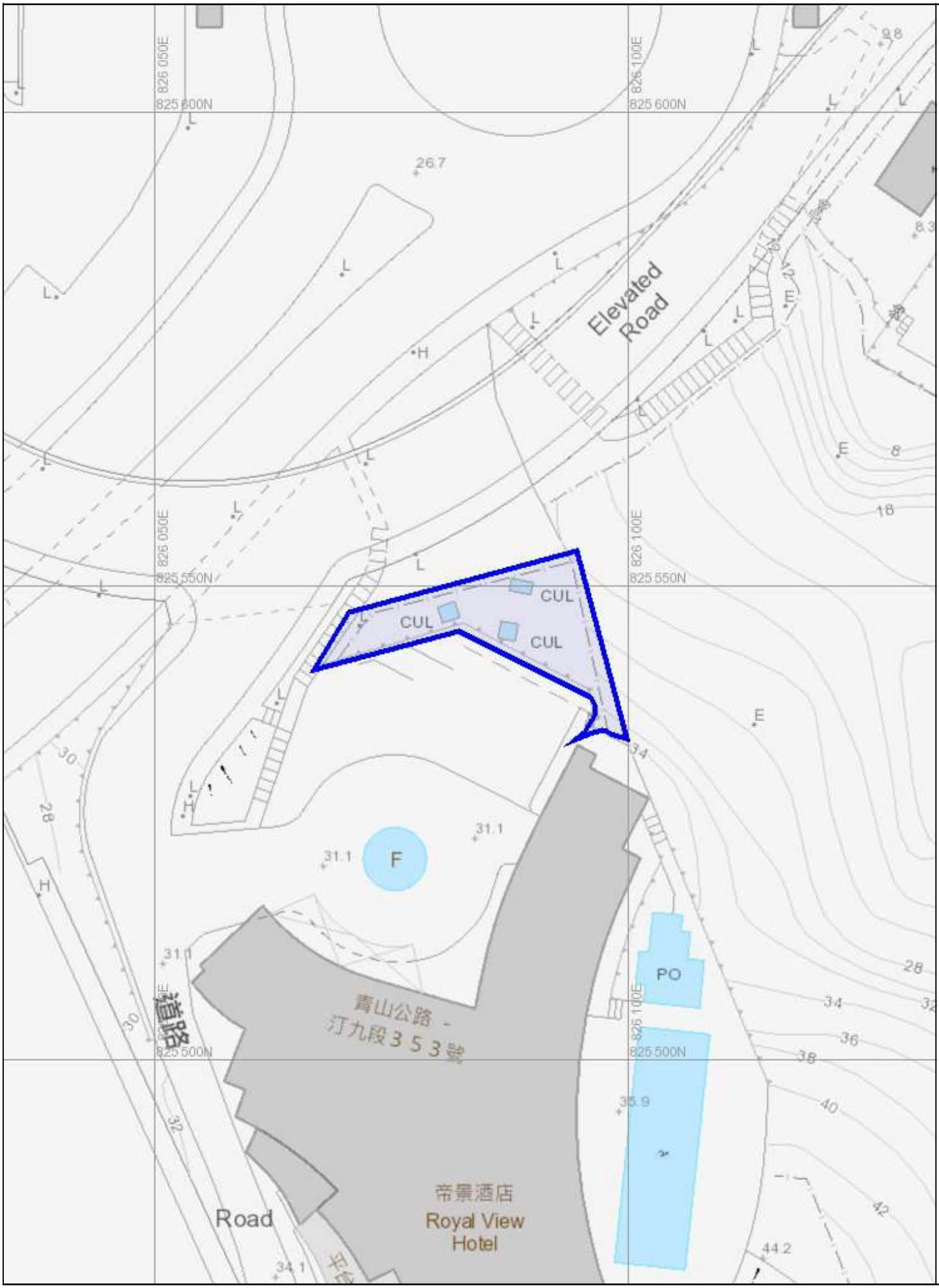
Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	

Action By: N/A

OTHER EXTERNAL ACTION

Check / repair Services:
Action By: N/A
Non-routine Maintenance:
Action By: N/A

PHOTO


826 050E
825 600N
826 100E
825 600N
Elevated Road
CUL
CUL
CUL
826 050E
825 550N
826 100E
825 550N
F
31.1
31.1
PO
826 100E
825 500N
青山公路 - 汀九段353號
826 050E
825 500N
Road
帝景酒店
Royal View Hotel
35.9
44.2
34.1

Slope Maintenance Responsibility Report (6SE-C/CR758)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/CR758**		**Sub-Division**	1
	Location	WITHIN DD399 LOT 429 AND TWIL5		
	Responsible Lot/Party	DD399 LOT429	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

2	**6SE-C/CR758**		**Sub-Division**	2
	Location	WITHIN DD399 LOT 429 AND TWIL5		
	Responsible Lot/Party	TWIL5	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

- 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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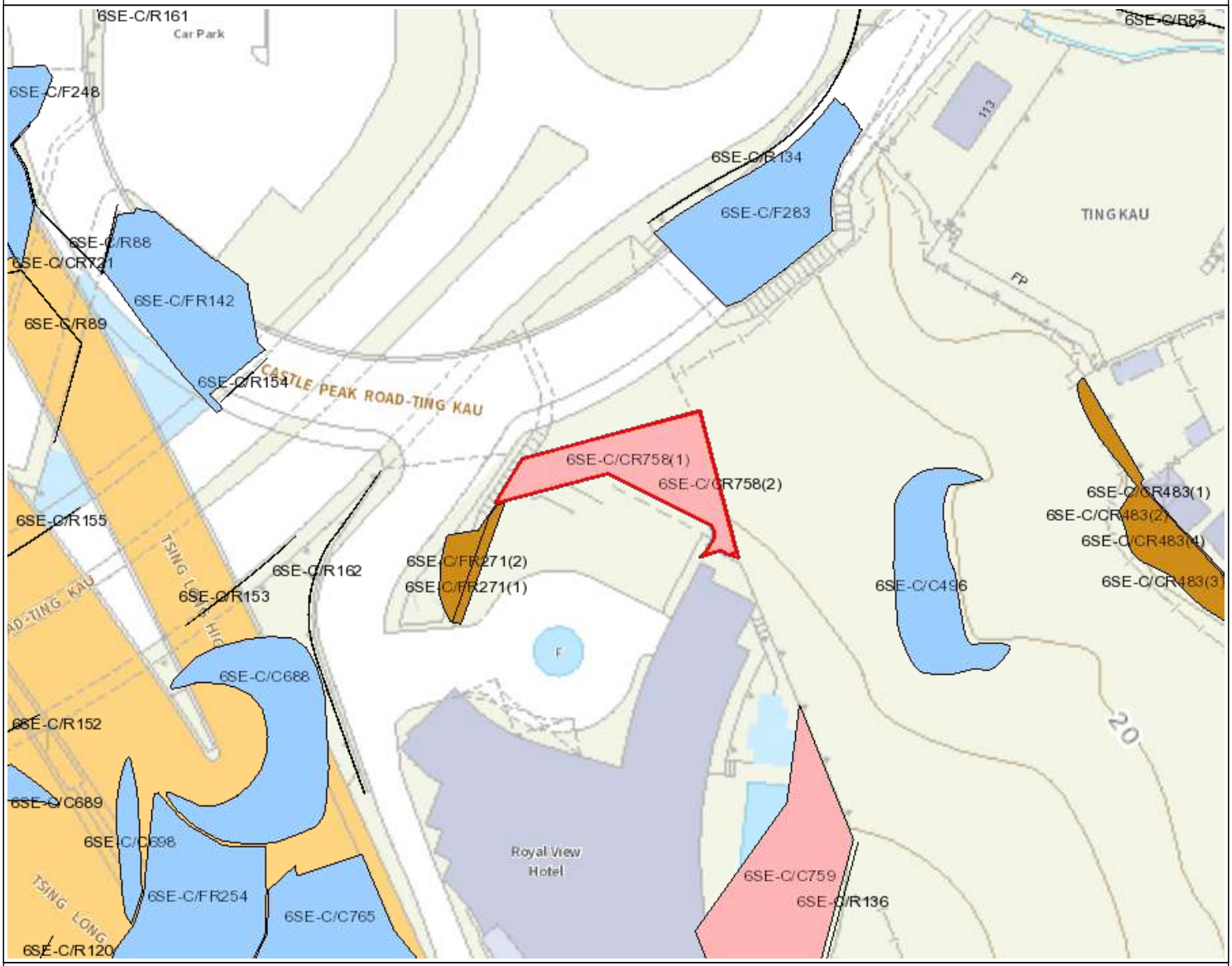
Location Plan



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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BASIC INFORMATION

Location:	East of Ting Kau Hotel, Ting Kau, N.T.
Registration Date:	19-03-2007
Ranking Score (NPRS):	0 (Notional)
Date of Formation:	post-1977
Date of Construction/ Modification:	
Data Source:	Districts
Approximate Coordinates:	Easting : 826104 Northing : 825485

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Other densely populated buildings
Distance of Facility from Crest (m):	0
Facility at Toe:	Hotel
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	1
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 5.2 Length (m): 50 Average Angle (deg): 30

WALL PART

N/A

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Private Feature Party: TWIL5 Agent: N/A Land Cat.: 1 Reason Code: 1 MR Endorsement Date: 12-11-2007

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	28-08-2006
Data Source:	Districts
Slope Part Drainage:	(1) Position: Toe Size(mm): 225
Wall Part Drainage:	N/A

SLOPE PART

Slope Part (1)
Surface Protection (%): Bare: 0 Vegetated: 0 Chunam: 0 Shotcrete: 100 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): 50 Spacing (m): 1.5

WALL PART

N/A

SERVICES

(1) Utilities Type: Sewer/Drain Size(mm): 0 Location: On slope Remark: Size cannot be determined

CHECKING STATUS INFORMATION

Tagmark: SCS_10 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	28-08-2006
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Hotel
Distance from Toe(m):	0
Type of Crest Facility:	Other densely populated buildings
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

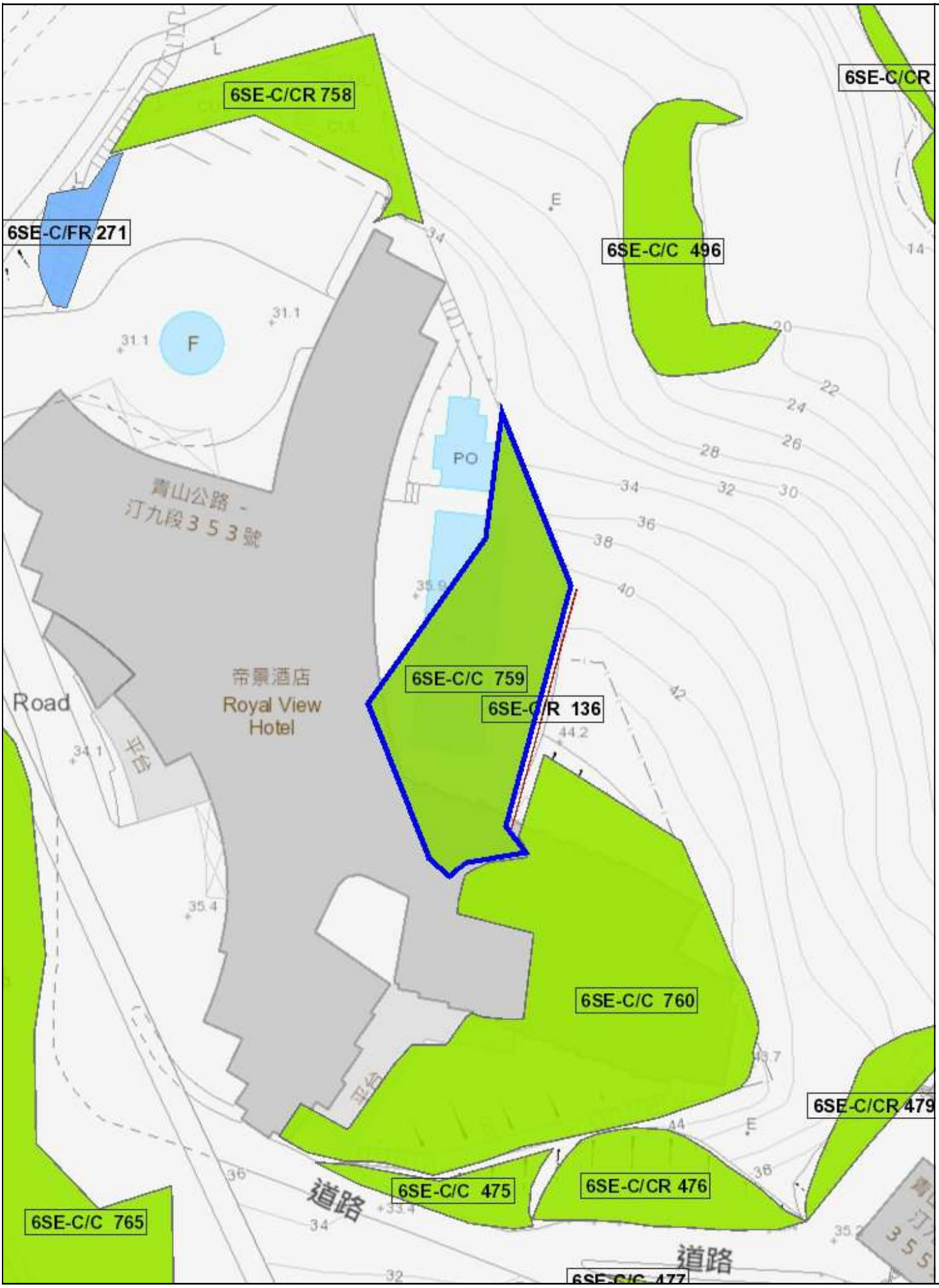
Criterion A/Criterion D:	N/A
Action By:	N/A
Further Study:	
Action By:	N/A

OTHER EXTERNAL ACTION

Check / repair Services:	
Action By:	N/A
Non-routine Maintenance:	

Action By: N/A

PHOTO


6SE-C/CR 758
6SE-C/CR
6SE-C/FR 271
6SE-C/C 496
F
PO
青山公路 - 汀九段353號
帝景酒店
Royal View Hotel
Road
6SE-C/C 759
6SE-C/R 136
6SE-C/C 760
6SE-C/CR 479
6SE-C/C 475
6SE-C/CR 476
6SE-C/C 765
道路
道路

Slope Maintenance Responsibility Report (6SE-C/C759)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/C759**		**Sub-Division**	Not Applicable
	Location	WITHIN TWIL5		
	Responsible Lot/Party	TWIL5	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

- 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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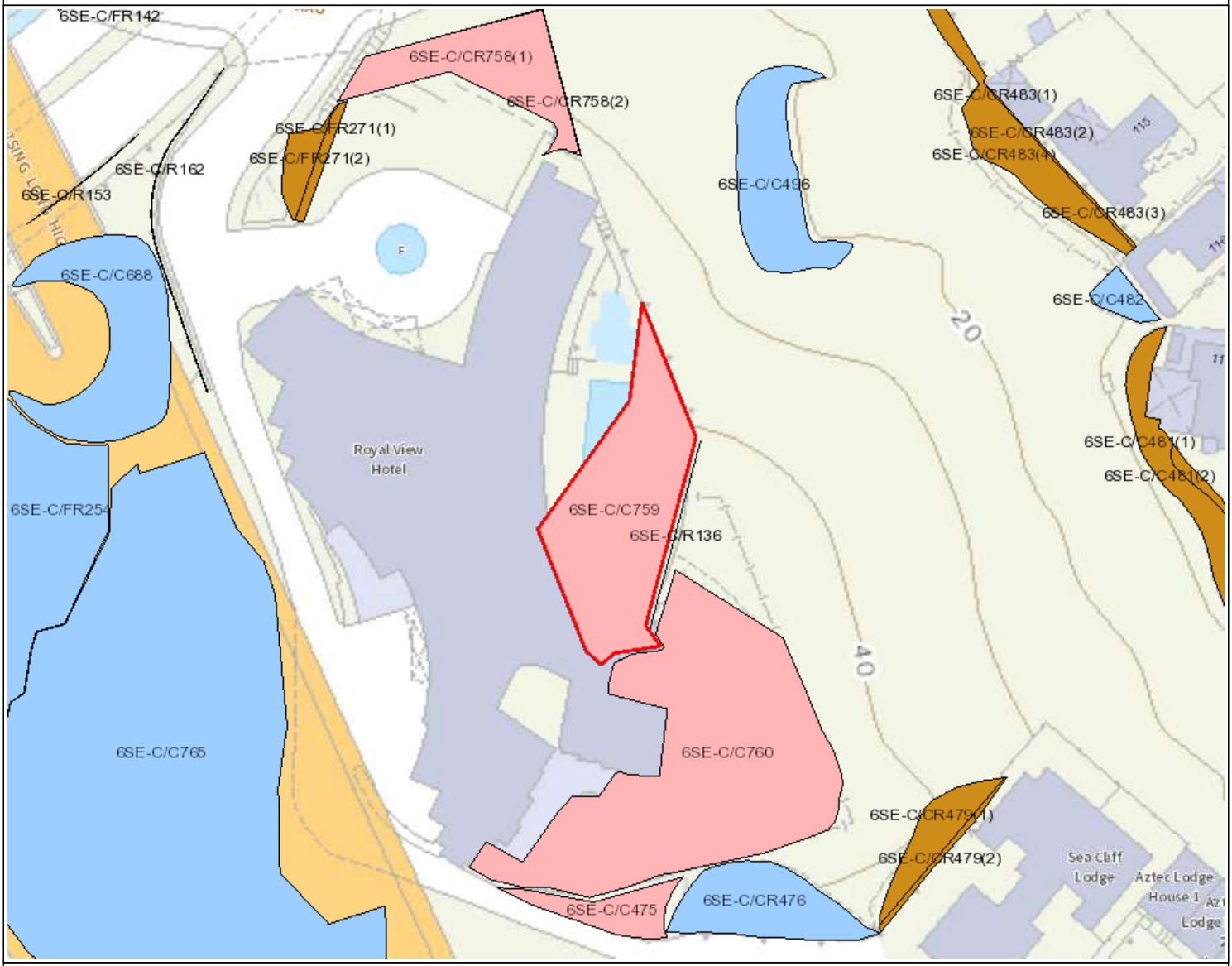
Location Plan



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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BASIC INFORMATION

Location:	Royal View Hotel, Ting Kau, New Territories
Registration Date:	19-03-2007
Ranking Score (NPRS):	0 (N/A)
Date of Formation:	post-1977
Date of Construction/ Modification:	
Data Source:	LPM
Approximate Coordinates:	Easting : 826118 Northing : 825451

CONSEQUENCE-TO-LIFE CATEGORY

Facility at Crest:	Residential building
Distance of Facility from Crest (m):	0
Facility at Toe:	Residential building
Distance of Facility from Toe (m):	0
Consequence-to-life Category:	1
Remarks:	N/A

SLOPE PART

(1) Max. Height (m): 7.9 Length (m): 95 Average Angle (deg): 35

WALL PART

N/A

MAINTENANCE RESPONSIBILITY

(1) Sub Div.: 0 Private Feature Party: TWIL5 Agent: N/A Land Cat.: 1 Reason Code: 1 MR Endorsement Date: 12-11-2007

DETAILS OF SLOPE / RETAINING WALL

Date of Inspection:	11-10-2012
Data Source:	LPM
Slope Part Drainage:	(1) Position: Crest Size(mm): 220 (2) Position: On slope Size(mm): 220 (3) Position: Toe Size(mm): 220
Wall Part Drainage:	N/A

SLOPE PART

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

WALL PART

N/A

SERVICES

N/A

CHECKING STATUS INFORMATION

Tagmark: SCS_11 Part: 0 Checking Status: Formed to current standard Checking Certificate No.: N/A

BACKGROUND INFORMATION

GIU Cell Ref.:	N/A
Map Sheet Reference (1:1000):	N/A
Aerial Photos:	N/A
Nearest Rainguage Station (Station Number):	()
Data Collected On:	11-10-2012
Date of Construction, Subsequent Modification and Demolition:	N/A
Related Reports/Files or Documents:	N/A
Remarks:	N/A
Follow Up Actions:	N/A
DH-Order (To Be Confirmed with Buildings Department):	None
Advisory Letter (To Be Confirmed with Buildings Department):	None
LPMIS:	None

ENHANCED MAINTENANCE INFORMATION

From Maintenance Department: (Last Updated Date: 25/09/2023)

STAGE 1 STUDY REPORT

Inspected On:	
Weather:	
District:	N/A
Section No:	1-1
Height(m):	
Type of Toe Facility:	Residential building
Distance from Toe(m):	0
Type of Crest Facility:	Residential building
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

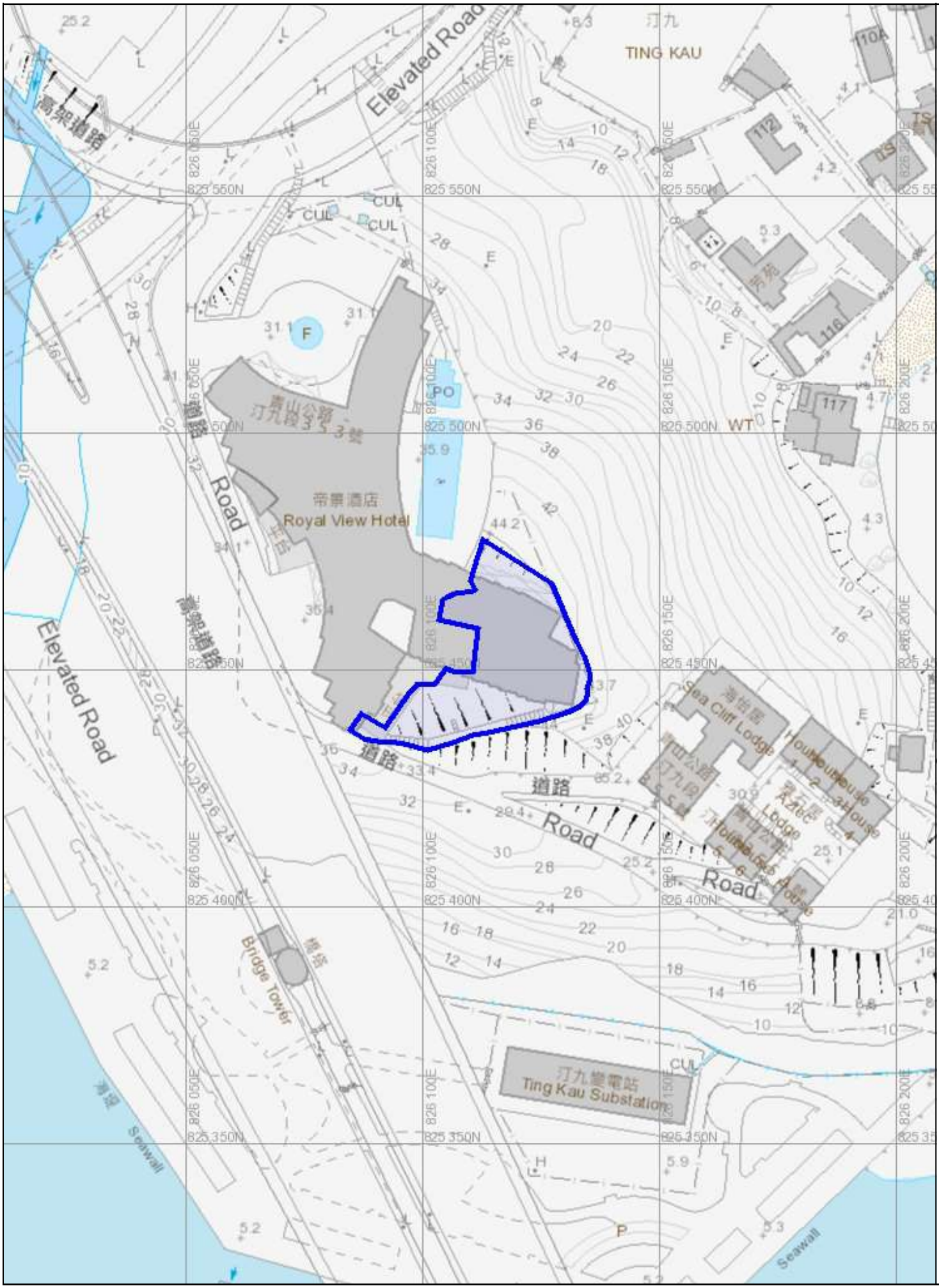
ACTION TO INITIATE PREVENTIVE WORKS

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


Elevated Road
TING KAU
高架道路
Road
帝景酒店
Royal View Hotel
Sea Cliff Lodge
Bridge Tower
Ting Kau Substation
Seawall
825 550N
825 500N
825 450N
825 400N
825 350N
826 050E
826 100E
826 150E
826 200E

Slope Maintenance Responsibility Report (6SE-C/C760)	**ESTATE MANAGEMENT SECTION** **LANDS DEPARTMENT**

List of Slope Maintenance Responsibility Area(s)

1	**6SE-C/C760**		**Sub-Division**	Not Applicable
	Location	WITHIN TWIL5		
	Responsible Lot/Party	TWIL5	**Maintenance Agent**	Not Applicable
	Remarks	Not Applicable		

- 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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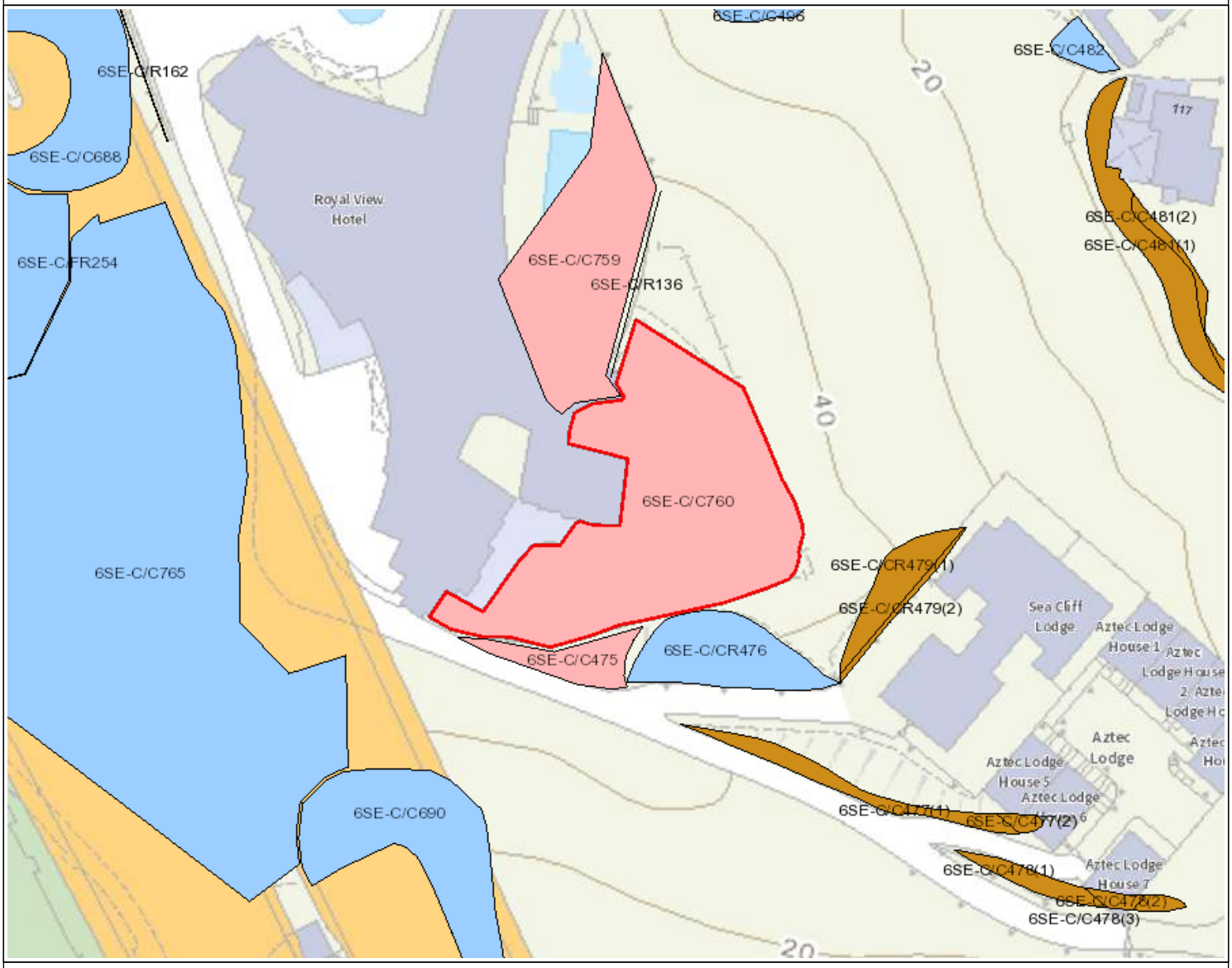
Location Plan



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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Appendix C

Existing Ground Investigation Records

BACHY SOLETANCHE

BACHY SOLETANCHE GROUP
SOIL & FOUNDATIONS SPECIALISTS

DRILLHOLE RECORD

W. O. /

HOLE No. 9006/5009

CONTRACT NO. HY/90/06

DATE from 27/12/90 to 28/12/90

PROJECT: ROUTE 3, PRELIMINARY DESIGN GROUND INVESTIGATION FOR HIGHWAYS IN TSING YI SECTOR

SHEET 1 OF 2

METHOD	CO-ORDINATES	ROCK COREBIT
ROTARY	E 826032.32	T2-101 & T-76
MACHINE & No.	N 825475.44	HOLE DIA. 0.00m-1.68m PX 1.68m-5.73m HX 5.73m-11.40m NX
D2G-38		
FLUSHING MEDIUM	ORIENTATION	GROUND-LEVEL
WATER	VERTICAL	+15.58mPD

Drilling Progress	Casing depth/size	Water level/time/date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R. Q. D.	Fracture Index /m	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
27/12/90	PX			25	0	0	N.I.		HX		1.68		III/IV	PW 0/30	Moderately weak to moderately strong, brownish greenish grey moderately to highly decomposed fine to medium grained TUFF with very closely to closely spaced, limonite, manganese stained & soil infilled rough joints, dipping 0°-90°. M.D.Zone at 1.68m-2.87m. (M/H.D.TUFF)
	1.68m PX HX			100	40	0	N.I.				2.18		III		
				100	41	41	N.I.				2.62				
				100	27	0	N.I.				2.87				
				51	0	0	N.I.		T2-101		3.47		III/IV	PW 50/90	
			70	41	10	8	N.I.				4.27				
	5.73m HX									9.85	5.73				
				100	96	53	14				6.22		II/III		Moderately strong to strong, dark bluish grey moderately to slightly decomposed fine to medium grained TUFF with closely to occasional widely spaced, limonite & manganese stained rough & tight joints, dipping 10°-50°, 80°-90°. (M/S.D.TUFF) Sub-vertical joints at : 6.45m-6.75m, 6.75m-7.60m, 7.74m-8.25m.
				100	100	91	5								
28/12/90		7.30m 07:30							T-76		7.92			PW 90/100	
				100	100	83	4						II		
											9.96				

- SMALL DISTURBED SAMPLE
- BULK DISTURBED SAMPLE
- S.P.T. LINER SAMPLE
- U 100 UNDISTURBED SAMPLE
- U 76 UNDISTURBED SAMPLE
- MAZIER SAMPLE (76mm)
- WATER SAMPLE
- WATER LEVEL
- STANDARD PENETRATION TEST
- PISTON SAMPLE
- PERMEABILITY TEST

LOGGED W.L.CHAN DATE 29/12/90

CHECKED C.LUN DATE 22/1/91

Client : Highways Department, Government of Hong Kong

REMARKS

Backfilled the hole with B/C grout.

BACHY SOLETANCHE

BACHY SOLETANCHE GROUP
SOIL & FOUNDATIONS SPECIALISTS

DRILLHOLE RECORD

W. O. _____ / _____

HOLE No. 9006/5009

CONTRACT NO. HY/90/06

DATE from 27/12/90 to 28/12/90

PROJECT: ROUTE 3, PRELIMINARY DESIGN GROUND INVESTIGATION FOR HIGHWAYS IN TSING YI SECTOR

SHEET 2 OF 2

METHOD	CO-ORDINATES	ROCK COREBIT
ROTARY	E 826032.32	T2-101 & T-76
MACHINE & No.	N 825475.44	HOLE DIA. 0.00m-1.68m PX 1.68m-5.73m HX 5.73m-11.40m NX
D2G-38		
FLUSHING MEDIUM	ORIENTATION	GROUND-LEVEL
WATER	VERTICAL	+15.58mPD

Drilling Progress	Casing depth/ size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R. Q. D.	Fracture Index /m	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Zone	Description
28/12/90			70	100	100	88	6		T-76	4.18	11.40		II	PW 90 / 100	See previous sheet. (S.D.TUFF)
															End of drillhole at 11.40m.

11 12 13 14 15 16 17 18 19 20

- SMALL DISTURBED SAMPLE
- BULK DISTURBED SAMPLE
- S.P.T. LINER SAMPLE
- U 100 UNDISTURBED SAMPLE
- U 76 UNDISTURBED SAMPLE
- MAZIER SAMPLE (76mm)
- WATER SAMPLE
- WATER LEVEL
- STANDARD PENETRATION TEST
- PISTON SAMPLE
- PERMEABILITY TEST

LOGGED W.L.CHAN DATE 29/12/90

CHECKED C.LUN DATE 22/1/91

REMARKS

PROJECT : Route 3 G.I. for Highway Southern Section

HOLE No. 8846/209 Sheet 1 of 2

Type of hole: ROTARY
rig: DR - 2
bit: T.C. & DIAMOND

Coordinates: E 826061.74
N 825447.30
Angle from vertical 0°
Bearing: (degree) -

Location: TING KAU

Ground / Seabed level 36.47 m PD

Drilling progress size	Casing depth size	Water level	Notes e.g. water return, sampling, instrumentation	Recovery %	R.Q.D.	Fracture Index	Depth (metres)	Reduced level m PD	Legend	Description	Grade
15/2 89	PX		water return; Inspection pit; 60%; 1,1,2, 1,2,2 N=7; 1; 1,2,2, 2,2,2 N=8; 2				0.00 – 4.00			Loose reddish brown SILT with some coarse sand (COLLUVIUM)	
			45%; 11,18, 28,25,21, 52 N=126; 3; 4; T²101; TNW	0; 100; 100; 87	75; 28; 42	5; 3; 7	4.00 – 5.10			Very dense yellowish green SILT with some medium sand & gravels (C.to H.D.V)	IV/V
		6.30m @ 18:00					5.10 – 7.30			Strong greenish grey fine to medium grained slightly decomposed VOLCANIC TUFF medium to closely spaced joints with limnoite stained	II
16/1 89		6.57m @ 8:00	1,2,1, 2,2,7 65% N=12; 5; TNW				7.30 – 7.75			Stiff yellowish brown SILT with some medium sand (C.D. V)	V
				100; 100; 100	57; 97; 57	6; 1; 3	7.75 – 9.90			Strong greenish grey fine to medium grained slightly decomposed VOLCANIC TUFF medium spaced joints with limonite stained	II

Jar sample; Bulk sample; Liner Sample; Undisturbed sample (U 100); Mazier sample; Piston sample; Water sample; Standard penetration test; Permeability test; Vane shear test; Piezometer tip

Remarks

Piezometer: - m PD; - m PD; - m PD

Scale: 1:50

Contract No. HY/88/46

Logged HCY Checked KKC

Contractor ENPACK (H.K.) LTD.

Date Started 15/2/89 Finished 16/2/89

SCOTT WILSON KIRKPATRICK & PARTNERS
Consulting Engineers

G248

PROJECT : Route 3 G.I. for Highway Southern Section | **HOLE No.** 8846/209 | Sheet 2 of 2

Type of hole: ROTARY
rig: DR - 2
bit: T.C. & DIAMOND

Coordinates: E 826061.74
N 825447.30
Angle from vertical 0°
Bearing: (degree) -

Location: TING KAU
Ground / ~~Seabed~~ level 36.47 m PD

Drilling progress size	Casing depth size	Water level	Notes e.g. water return, sampling, instrumentation	Recovery %	R.Q.D.	Fracture Index	Depth (metres)	Reduced level m PD	Legend	Description	Grade
							10.00				
16/2/89			water return	100	57	3				Strong greenish grey fine to medium grained slightly decomposed VOLCANIC TUFF medium spaced joints with limonite stained	II
			65% TNW				10.92				
				100	60	3					
		6.70m @ 8:00					11.92				
				100	91	1					
							12.92			Drillhole completed at 12.92m	

J Jar sample ▨ Liner Sample
B Bulk sample
U Undisturbed sample (U 100)
M Mazier sample
P Piston sample
W Water sample
N Standard penetration test
K Permeability test
V Vane shear test
T Piezometer tip

Remarks

m PD
m PD
m PD
Piezometer

Scale: 1:50
Contract No. HY/88/46
Logged HCY Checked KKC

Contractor ENPACK (H.K.) LTD.
Date Started 15/2/89 Finished 16/2/89

SCOTT WILSON KIRKPATRICK & PARTNERS
Consulting Engineers

G248

PROJECT : Route 3 G.I. for Highway Southern Section | **HOLE No.** 8846/210 | Sheet 1 of 3

Type of hole: ROTARY | Coordinates: E 826128.75 N 825496.95 | Location: TING KAU

rig: DR - 3 | Angle from vertical 0°

bit: T.C. & IDAMOND | Bearing: (degree) - | Ground / Seabed level 34.75 m PD

Drilling progress size	Casing depth size	Water level	Notes e.g. water return, sampling, instrumentation	Recovery %	R.Q.D.	Fracture Index	Depth (metres)	Reduced level m PD	Legend	Description	Grade
							0.00	34.75			
24/2/89			water return							Medium dense reddish brown & yellowish brown SILT with some coarse sand	
	HX		1,2,2, 3,3,3 N=11 (1)				1.50				
		DRY @ 18:00	60%							(COLLUVIUM)	
			2,3,3, 4,5,5 N=17 (2)				3.00				
25/2/89		DRY @ 8:00									
		DRY @ 18:00		74	22	10	4.45	30.30		Strong grey fine grained slightly decomposed VOLCANIC TUFF closely spaced joints with limonite stained	II
26/2/89		DRY @ 8:00		100	52	5	5.17				
	NX		TNW				5.79	28.96		Moderately strong to strong, grey medium to coarse grained moderately to slightly decomposed VOLCANIC TUFF highly frcatured	II/III
			65%	100	29	2	6.45				
				20	0	>15	7.85				
				70	46	>15	9.35				

- Jar sample
- Bulk sample
- Liner Sample
- Undisturbed sample (U 100)
- Mazier sample
- Piston sample
- Water sample
- Standard penetration test
- Permeability test
- Vane shear test
- Piezometer tip

Remarks: Pressuremeter test was carried out at depth 3.0 -3.85m

Piezometer: - m PD; - m PD; - m PD

Scale: 1:50

Contract No. HY/88/46

Logged HCY Checked KKC

Contractor ENPACK (H.K.) LTD.

Date Started 24/2/89 Finished 28/2/89

SCOTT WILSON KIRKPATRICK & PARTNERS
Consulting Engineers

G248

PROJECT : Route 3 G.I. for Highway Southern Section | **HOLE No.** 8846/210 | Sheet 2 of 3

Type of hole: ROTARY | Coordinates: E 826128.75 | Location: TING KAU
rig: DR - 3 | N 825496.95
bit: T.C. & DIAMOND | Angle from vertical 0° | Bearing: (degree) - | Ground/~~Seabed~~ level 34.75 m PD

Drilling progress size	Casing depth size	Water level	Notes e.g. water return, sampling, instrumentation	Recovery %	R.Q.D.	Fracture Index	Depth (metres)	Reduced level m PD	Legend	Description	Grade
							10.00	24.75			
26/2 89			water return	70	46	> 15	10.35		V	Moderately to slightly decomposed VOLCANIC TUFF (see sheet 1 for details)	II/III
				100	29	> 15	11.12		V V		
				100	0	> 15	11.82		V		
	NX	DRY @ 18:00		100	42	10	13.08	21.67	V V V		
			65%								
27/2 89		DRY @ 8:00		83	0	>15	13.60		V	Strong whitish grey medium to coarse grained slightly decomposed VOLCANIC TUFF closely spaced joints with limonite stained at depth 15.84 to 16.02m, 16.62 to 16.92m, 17.29 to 17.48m & 17.94 to 18.04m, highly fractured	II
				29	0	>15	15.10		V V		
			TNW	63	0	> 15	15.42		V		
				97	19	> 15	16.12		V V		
		DRY @ 18:00		100	56	14	16.82		V		
			15%	100	0	7 15	17.44		V V		
				100	16	> 15	18.08		V		
28/2 89		DRY @ 8:00		100	39	10	18.78		V V		
				100	73	6	19.78		V		
				94	55	9					

- Jar sample
- Liner Sample
- Bulk sample
- Undisturbed sample (U 100)
- Mazier sample
- Piston sample
- Water sample
- Standard penetration test
- Permeability test
- Vane shear test
- Piezometer tip

Remarks

m PD
m PD
m PD
Piezometer

Scale: 1:50
Contract No. HY/88/46
Logged HCY Checked KKC

Contractor ENPACK (H.K.) LTD.
Date Started 24/2/89 Finished 28/2/89

SCOTT WILSON KIRKPATRICK & PARTNERS
Consulting Engineers

G248

PROJECT : Route 3 G.I. for Highway Southern Section | **HOLE No.** 8846/210 | Sheet 3 of 3

Type of hole: ROTARY | Coordinates: E 826128.75 N 825496.95 | Location: TING KAU

rig: DR - 3 | Angle from vertical 0°

bit: T.C. & DIAMOND | Bearing: (degree) – | Ground / ~~Seabed~~ level 34.75 m PD

Drilling progress size	Casing depth size	Water level	Notes e.g. water return, sampling, instrumentation	Recovery %	R.Q.D.	Fracture Index	Depth (metres)	Reduced level m PD	Legend	Description	Grade
							20	14.75			
28/2 89			water return 75% TNW	94	55	9			V V V V	slightly decomposed VOLCANIC TUFF (see sheet 2 for details)	II
							21.07	13.68		Drillhole completed at 21.07m	

J Jar sample | Liner Sample | B Bulk sample | U Undisturbed sample (U 100) | M Mazier sample | P Piston sample | Water sample | SPT Standard penetration test | Permeability test | Vane shear test | Piezometer tip

Remarks

Piezometer: – m PD; – m PD; – m PD

Scale: 1:50

Contract No. HY/88/46

Logged HCY Checked KKC

Contractor ENPACK (H.K.) LTD.

Date Started 24/2/89 Finished 28/2/89

SCOTT WILSON KIRKPATRICK & PARTNERS
Consulting Engineers

G248

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A1
SHEET 1 of 2
DATE from 21.12.2002 to 23.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,052.35 N 825,544.88	CASING 0.00m to 2.15m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.75 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.
	2.15 115mm									+25.60	2.15			
				100	57	23	>20		T2-101 2.15 2.22				III	Moderately strong, greyish brown and yellowish brown mottled light grey and pinkish brown, moderately decomposed feldsparphyric RHYOLITE. Joints are very closely to closely, occasionally medium spaced, smooth planar and undulating, extremely narrow, surface stained, dipping 20°-30°, 40°-50°, 60°-70° and occasionally subvertical.
				100	58	33	NI		T2-101 3.43					
				100	63	31	8.0 5.0		T2-101 4.28	+23.75	4.00		II	4.00-4.28m: Strong, dark grey mottled light grey and pinkish brown, slightly decomposed feldsparphyric RHYOLITE.
										+23.47	4.28		IV	
										+23.25	4.50		III	4.28-4.50m, 5.05-5.20m and 6.00-6.50m: Moderately weak, orangish brown, highly decomposed feldsparphyric RHYOLITE.
				100	59	9	>20		T2-101 5.05	+22.70	5.05		IV	
										+22.55	5.20		III	
				99	9	0	NI		T2-101 6.00 6.38	+21.75	6.00		IV	
										+21.25	6.50		III / II	Strong, greyish brown dappled dark grey mottled white and pinkish brown, moderately to slightly decomposed feldsparphyric RHYOLITE. Joints are medium spaced, smooth undulating, extremely narrow to tight, surface stained, dipping 40°-50° and 60°-70°.
				100	91	84	6.7		T2-101 7.88					
				96	89	63	NI 10.7		T2-101 9.40	+18.85	8.90		III/IV II/I	8.90-9.05m: Extremely weak to very weak, brownish grey completely to highly decomposed feldsparphyric RHYOLITE.
										+18.70	9.05			
										+18.60	9.15		II	Strong to very strong, dark grey mottled pinkish brown and white, slightly decomposed feldsparphyric RHYOLITE. Joints are medium

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U75 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.1.2003
CHECKED A.W.Hompool
DATE 8.1.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A1
SHEET 2 of 2
DATE from 21.12.2002 to 23.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,052.35 N 825,544.88	CASING 0.00m to 2.15m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.75 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	96	88	2.3		T2-101	+17.50	10.25		III	occasionally closely to medium spaced, smooth planar and undulating, extremely narrow, clean and surface stained dipping 30°-40°, 40°-50°, 60°-70° and subvertical. 10.25-10.45m, 11.10-11.40m, 12.50-12.65m and 13.25-13.50m: Moderately strong to strong, brownish grey moderately decomposed feldsparphyric RHYOLITE.
							11.4			+17.30	10.45			
11													II	
				100	100	83			T2-101	+16.65	11.10			
										+16.30	11.45		III	
12							6.5						II	
										+15.25	12.50			
										+15.10	12.65		III	
13				100	92	66			T2-101				II	
							>20			+14.50	13.25			
										+14.25	13.50		III	
14				100	88	74	9.0		T2-101					
				92	57	19			T2-101				II	
21.12.02 23.12.02														
				100	96	89			T2-101					
16				100	100	84	2.5		T2-101	+11.80	15.95		I	Strong to very strong, dark grey mottled white and pinkish brown, fresh feldsparphyric RHYOLITE. Joints are medium to widely spaced, smooth planar, extremely narrow to tight, clean dipping 10°-20° and occasionally subvertical.
				100	100	100			T2-101	+10.53	17.22			End of hole at 17.22m.
17														
18														
19														
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.1.2003
CHECKED A.W.Horspool
DATE 6.1.2003

REMARKS

Impression Packer Tests was carried out at 11.10-12.60m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A2
SHEET 1 of 2
DATE from 19.12.2002 to 20.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,059.23 N 825,645.56	CASING 0.00m to 3.00m 140mm 3.00m to 5.19m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.60 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.00 140mm 115mm													
	5.19 115mm									+22.41	5.19			
				99	61	36	NI 10.4		T2-101 5.19	+22.21	5.39		IV III / II	Moderately strong to strong, dark grey and brownish grey spotted white and pink, moderately to slightly decomposed feldsparphyric RHYOLITE with closely to medium occasionally extremely closely to very closely, rough planar and rough stepped occasionally rough undulating, extremely narrow, iron and manganese stained, calcite coated (up to 1mm) joints dipping at 0°-10°, 10°-20°, 20°-30° and 75°-85° occasionally 30°-40° and 60°-70°. 5.19-5.39m, 6.45-6.55m and 10.35-10.48m: Weak and highly decomposed.
									T2-101 6.45	+21.15 +21.05	6.45 6.55		IV	
				99	95	93	NI 3.8		T2-101 8.00					
				100	86	80	6.9 >20		T2-101 8.50				III / II	
				100	90	84	1.9 12.9		T2-101 9.50					
							5.3							

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 23.12.2002
CHECKED A.W.Horspool
DATE 24.12.2002

REMARKS

An impression packer discontinuity survey was carried out between 13.50 and 15.00m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A2
SHEET 2 of 2
DATE from 19.12.2002 to 20.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,059.23 N 826,545.56	CASING 0.00m to 3.00m 140mm 3.00m to 5.19m 116mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.60 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				99	85	74	>20 NI		T2-101 10.82	+17.25 +17.12	10.35 10.48		IV	
11				99	86	72	10.1		T2-101 12.07	+15.53 +15.41	12.07 12.19		II III	Strong to very strong, occasionally moderately strong, dark grey and brownish grey, slightly decomposed feldsparphyric RHYOLITE with closely to medium occasionally extremely closely to very closely spaced, rough planar and rough stepped occasionally rough undulating, extremely narrow, iron and manganese stained, joints dipping at 0°-10°, 20°-30° and 50°-60°, occasional 20°-30° and 60°-70°.
12				100	85	54	>20 8.0 >20		T2-101 13.42	+14.91 +14.68	12.69 12.92		II III	12.07-12.19m, 12.69-12.92m and 15.48-15.81m: Moderately strong and moderately decomposed.
13				100	95	89	5.8		T2-101 14.80				II	
14							7.4		T2-101 15.16					
15 19.12.02 20.12.02				100	88	58				+12.12	15.48		III	
16				100	82	67	>20 8.8		T2-101 16.69	+11.79	15.81		II	
17				100	96	69	15.3		T2-101 18.04	+9.59	18.01			End of hole at 18.01m.
18														
19														
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 23.12.2002
CHECKED A.W.Horspool
DATE 24.12.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A3
SHEET 1 of 3
DATE from 17.12.2002 to 18.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,066.09 N 825,546.62	CASING 0.00m to 13.82m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.81 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.

HOUSING M1007.GPJ HK 02.GDT 29-01-03

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 27.12.2002
CHECKED A.W.Horspool
DATE 28.12.2002

REMARKS

An impression packer discontinuity survey was carried out between 19.00 and 20.50m.

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A3
SHEET 2 of 3
DATE from 17.12.2002 to 18.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,066.09 N 825,546.62	CASING 0.00m to 13.92m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.81 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	13.92 115mm									+13.89	13.92			
				100	40	0	>20		13.92 T2-101 14.22	+13.57	14.24		III	Moderately strong to strong, grey and brownish grey spotted grey, white and brown, moderately to slightly decomposed slightly metamorphosed coarse ash TUFF with very closely to closely occasionally medium spaced, rough planar and rough stepped, extremely narrow, iron and manganese stained joints dipping at 0°-10°, 20°-30°, 40°-50° and 60°-70° occasional 50°-60°. 13.97-14.24m, 15.13-15.33m and 16.69-17.67m: Moderately weak and moderately decomposed.
				100	85	82	8.7		T2-101	+12.68	15.13		III / II	
							>20		15.31	+12.48	15.33		III	
				97	68	58	8.0		T2-101				III / II	
							NI			+11.35	16.46		IV	16.46-16.69m: Weak and highly decomposed.
				99	49	20	>20		16.82 T2-101	+11.12	16.69		III	
							14.7		17.82	+10.14	17.67		III	Moderately weak to moderately strong, greenish grey and brownish grey spotted grey moderately decomposed LAMPROPHYRE with very closely to closely occasionally extremely closely spaced, rough planar and rough stepped occasionally rough undulating, extremely narrow, iron and manganese stained joints dipping at 0°-10°, 10°-20° and 30°-40° occasional 50°-60°. 18.70-18.82m and 18.97-19.07m: Weak and highly decomposed. Strong to very strong occasionally moderately
				100	67	24	>20		T2-101					
	17.12.02						13.3		18.72	+9.11	18.70			
	18.12.02						NI			+8.99	18.82		IV	
							>20			+8.84	18.97		II	
				97	70	28	NI			+8.74	19.07		IV	
							11.1		T2-101					
							19.7							

HOUSING M1007.GPJ HK_02.GDT 29-01-03

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 27.12.2002
CHECKED A.W.Horspool
DATE 28.12.2002

REMARKS

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/A3
SHEET 3 of 3
DATE from 17.12.2002 to 18.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,066.09 N 825,546.62	CASING 0.00m to 13.92m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.81 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	87	59	3.1 >20		T2-101				II	strong, dark grey occasionally brownish grey spotted white and pink, slightly decomposed feldsparphyric RHYOLITE with very closely to closely occasionally extremely closely spaced, rough planar and rough stepped, extremely narrow, iron and manganese stained, joints dipping at 0°-10°, 10°-20°, 30°-40° and 60°-70° occasional 20°-30°.
21							1.5			+6.81	21.00			
				100	73	41	>20 14.5		T2-101				III	Moderately weak to moderately strong, brownish grey and dark grey spotted grey and white, moderately decomposed feldsparphyric RHYOLITE with very closely to closely occasionally extremely closely spaced, rough planar and rough stepped occasionally rough undulating, extremely narrow, iron and manganese stained joints dipping at 0°-10°, 20°-30°, 30°-40°, 40°-50° occasional 10°-20°.
22							>20			+5.44	22.37		IV	22.37-22.50m: Weak and highly decomposed.
							NI			+5.31	22.50			
				100	59	27	>20 5.7		T2-101				III	End of hole at 23.00m.
23										+4.81	23.00			
24														
25														
26														
27														
28														
29														
30														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 27.12.2002
CHECKED A.W.Horspool
DATE 28.12.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B1
SHEET 1 of 2
DATE from 21.12.2002 to 23.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,049.67 N 825,540.03	CASING 0.00m to 3.56m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +28.14 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.
	3.56 115mm									+24.58 +24.48	3.56 3.56		IV	
				98	92	84	NI 14.7 5.6		T2-101					Moderately strong to strong occasionally moderately weak, brownish grey and dark grey spotted white and pink, moderately to slightly decomposed feldsparphyric RHYOLITE with closely to medium occasionally extremely to very closely spaced, rough planar and rough stepped occasionally rough undulating, extremely narrow, limonite and manganese stained, calcite coated (up to 1mm) joints dipping at 0°-10°, 10°-20°, 30°-40° and 75°-85° occasionally 20°-30° and 40°-50°. 3.56-3.68m: Weak and highly decomposed.
				100	84	81	9.8		T2-101				III / II	
				100	67	55	5.0		T2-101					
				100	95	81	14.7		T2-101					
				100	65	65	7.3 >20		T2-101					

21.12.02
23.12.02

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 27.12.2002
CHECKED A.W.Horspool
DATE 28.12.2002

REMARKS

An impression packer discontinuity survey was carried out between 11.00 and 12.50m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B1
SHEET 2 of 2
DATE from 21.12.2002 to 23.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,049.67 N 825,540.03	CASING 0.00m to 3.56m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +28.14 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				99	41	15	17.6		T2-101					
							>20			+17.29	10.85			
				99	88	54	6.2		T2-101				II	Strong to very strong occasionally moderately strong, dark grey occasionally brownish grey spotted white and pink, slightly decomposed feldsparphyric RHYOLITE with closely to medium occasionally extremely to very closely spaced, rough planar and rough stepped, extremely narrow, iron stained joints dipping at 0°-10°, 20°-30°, 30°-40° and 40°-50° occasional 50°-60° and 70°-80°.
							>20			+16.64	11.50		III	
										+16.50	11.64			
							8.3						II	
				100	81	48	>20		T2-101	+15.78	12.36		III	
										+15.68	12.46			
							8.9						II	11.50-11.64m and 12.36-12.46m: Moderately strong and moderately decomposed.
				100	80	52	NI			+14.89	13.25		IV	13.25-13.44m: Weak and highly decomposed.
							16.4		T2-101	+14.70	13.44			
				100	99	90	4.3		T2-101				II	
							17.4							
				100	100	58	1.8		T2-101					
							9.1							
				100	100	100	0		T2-101	+10.82	17.32			End of hole at 17.32m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 27.12.2002
CHECKED A.W.Horspool
DATE 28.12.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B2
SHEET 1 of 2
DATE from 19.12.2002 to 20.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,056.08 N 825,541.15	CASING 0.00m to 3.81m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.75 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm									+23.94	3.81			Wash boring.
	3.81 115mm			98	41	21	16.7		T2-101 3.81	+23.28	4.47		III	Moderately strong occasionally moderately weak and strong, brownish grey spotted white and pink, moderately decomposed feldsparphyric RHYOLITE with very closely to closely occasionally extremely closely and medium spaced, rough planar and rough stepped occasionally rough undulating, extremely narrow, limonite, manganese and chlorite stained, joints dipping at 0°-10°, 20°-30° and 75°-85° occasional 30°-40°. 3.81-5.30m: Lamprophyre. 4.47-4.79m, 5.47-5.64m, 5.99-6.14m, 6.36-6.51m and 6.98-7.22m: Weak and highly decomposed.
							NI		T2-101 4.79	+22.96	4.78		IV	
				91	62	49	11.8		T2-101 5.47	+22.28	5.47		III	
							NI			+22.11	5.64		IV	
							14.3			+21.76	5.99		III	
				95	55	25	NI		T2-101	+21.81	6.14		IV	
							>20			+21.39	6.36		III	
							NI			+21.24	6.51		IV	
							>20		T2-101 6.79	+20.84	6.91		III	
							NI			+20.53	7.22		IV	
				80	44	16	15.4		T2-101	+20.14	7.61		III	
							NR		T2-101 7.81	+19.94	7.81		V	No recovery assumed to be completely decomposed feldsparphyric rhyolite.
				93	66	64	9.3		T2-101 8.35	+19.40	8.35		III / II	Moderately strong to strong, dark grey and brownish grey spotted white and pink, moderately to slightly decomposed feldsparphyric RHYOLITE with closely to medium occasionally extremely closely to very closely spaced, rough planar and rough stepped, occasionally rough undulating, extremely narrow, occasionally very narrow, limonite and manganese stained calcite coated (up to 1mm) joints dipping at 0°-10°
				94	43	26	NI		T2-101 8.72	+19.16	8.59		IV	
				99	76	63	4.6		T2-101				III / II	
							13.2			+18.13	9.62			
							NI		9.92	+17.83	9.92		IV	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 23.12.2002
CHECKED A.W.Horspool
DATE 24.12.2002

REMARKS

An impression packer discontinuity survey was carried out between 11.00 and 12.50m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B2
SHEET 2 of 2
DATE from 19.12.2002 to 20.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,056.08 N 825,541.15	CASING 0.00m to 3.81m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.75 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				99	46	34	>20 NI		T2-101	+17.61 +17.41	10.14 10.34		III/IV IV	and 50°-60° occasional 60°-70°. 8.35-8.59m, 9.62-9.92m and 10.14-10.34m: Weak and highly decomposed.
				100	80	74	6.5 >20		T2-101	+16.48 +16.33	11.27 11.42		II III	Strong to very strong occasionally moderately strong, dark grey and brownish grey, spotted white and pink, slightly decomposed feldsparphyric RHYOLITE with closely to medium occasionally extremely closely to very closely spaced, rough planar and rough stepped iron and manganese stained and calcite coated (up to 1mm) joints, dipping at 0°-10°, 10°-20°, 20°-30° and 60°-70° occasional 30°-40° and 70°-80°. 11.27-11.42m, 12.84-13.30m and 14.85-15.12m: Moderately strong and moderately decomposed.
				98	87	75	5.6		T2-101	+14.91	12.84		II	
				100	65	48	>20		T2-101	+14.45	13.30		III	
				100	93	57	10.3		T2-101	+12.80	14.85		II	
				98	83	75	>20 2.3		T2-101	+12.63	15.12		III II	
19.12.02 20.12.02				100	97	88	7.5		T2-101	+10.31 +10.11	17.44 17.64		II	17.44-17.47m: Moderately weak and moderately decomposed. End of hole at 17.64m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 23.12.2002
CHECKED A.W.Horspool
DATE 24.12.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B3
SHEET 1 of 3
DATE from 17.12.2002 to 18.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,062.95 N 825,541.93	CASING 0.00m to 3.00m 140mm 3.00m to 14.30m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.95 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.00 140mm 115mm													

HOUSING M1007.GPJ HK_02.GDT 29-01-03

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

An impression packer discontinuity survey was carried out between 16.00 and 17.50m.

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B3
SHEET 2 of 3
DATE from 17.12.2002 to 18.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,052.95 N 825,541.93	CASING 0.00m to 3.00m 140mm 3.00m to 14.30m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.95 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
11														
12														
13														
14	14.30 115mm									+13.65	14.30			
15				100	82	82	NI 2.8		T2-101					Moderately strong to strong, light greyish green banded reddish b brown mottled greyish brown and yellowish brown, moderately decomposed lapilli bearing fine ash meta TUFF. (POSSIBLE SHEAR ZONE) Joints are very closely to closely spaced, smooth and rough planar and undulating and slickensided planar and undulating, extremely narrow to very narrow, kaolin and chlorite coated, occasionally limonite coated, dipping 20°-30°, 50°-60° and subvertical. 15.70-19.10m: with pervasive quartz veining.
16				100	86	81			T2-101					
17				100	94	77	>20 7.1		T2-101				III	
18				100	94	77	>20 10.0		T2-101					
19				100	50	44	>20		T2-101					
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. ABUT/R2/B3
SHEET 3 of 3
DATE from 17.12.2002 to 18.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,062.95 N 825,541.93	CASING 0.00m to 3.00m 140mm 3.00m to 14.30m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +27.95 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	86	72	4.7		T2-101	+7.10	20.85			
17.12.02 18.12.02				100	97	72	>20		20.97 T2-101					Strong, dark greenish grey streaked yellowish brown mottled grey, slightly decomposed feldsparphyric RHYOLITE. Joints are generally medium to closely spaced, smooth planar and undulating, extremely narrow, clean and surface stained, dipping 10°-20°, 50°-60° and 70°-80°.
22				100	78	78	5.0		22.05 T2-101				II	
23				100	100	76			23.05 T2-101	+4.60	23.35			
														End of hole at 23.35m.
24														
25														
26														
27														
28														
29														
30														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/C1
SHEET 1 of 2
DATE from 28.12.2002 to 31.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,047.37 N 825,537.86	CASING 0.00m to 4.05m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.67 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.
	4.05 115mm									+28.62	4.05			
				100	49	34			T2-101 4.05				III	Strong, light yellowish brown dappled greyish brown, moderately decomposed feldsparphyric RHYOLITE. Joints are very closely to closely spaced, smooth and rough undulating and stepped, extremely narrow to very narrow, surface stained, soil coated and occasionally limonite coated, dipping 60°-70° and subvertical, occasionally 20°-30°.
				100	92	80	7.2		T2-101 4.82	+25.76	4.91		II	4.91-6.10m: Strong, dark grey mottled white, slightly decomposed feldsparphyric RHYOLITE.
				100	91	69	>20		T2-101 5.91	+24.57	6.10		III	
				100	97	38	12.0		T2-101 7.39					
				100	15	15	>20		T2-101 8.23	+22.07	8.60		II	Strong, dark greenish grey mottled grey and white, slightly decomposed feldsparphyric RHYOLITE. Joints are closely, occasionally closely to medium spaced, smooth planar and stepped, extremely narrow, surface stained and clean, dipping 10°-20°, 30°-40° and occasionally 60°-70°.
				100	100	81			T2-101 9.95					

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

Impression Packer Test was carried out at 9.50-11.00m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/C1
SHEET 2 of 2
DATE from 28.12.2002 to 31.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,047.37 N 826,537.86	CASING 0.00m to 4.05m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.67 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	89	72	9.9		T2-101	+19.47	11.20			
				100	64	37	>20 16.7 >20		T2-101	+18.89 +18.67	11.78 12.00		III IV/III	Moderately strong to strong, yellowish brown dappled greyish brown mottled pinkish brown, grey and white, moderately decomposed feldsparphyric RHYOLITE. Joints are medium, occasionally closely to medium spaced, smooth undulating and rough stepped, extremely narrow, surface stained, dipping 20°-30°, 60°-70° occasionally subvertical.
				100	100	90	4.2		T2-101	+17.87	12.80		III	11.78-12.00m: Moderately weak to moderately strong, light yellowish brown, highly to moderately decomposed feldsparphyric RHYOLITE.
				100	91	74	NI 11.3		T2-101	+17.11 +17.01 +16.42	13.56 13.66 14.25		III / II V/IV III / II	12.80-13.56m: Strong, dark greenish grey mottled yellowish brown moderately to slightly decomposed feldsparphyric RHYOLITE. 13.56-13.66m: Weak, dark brown, completely to highly decomposed feldsparphyric RHYOLITE. 13.66-14.25m: Strong, dark greenish grey mottled yellowish brown moderately to slightly decomposed feldsparphyric RHYOLITE.
28.12.02 30.12.02				100	98	85			T2-101					Strong to very strong, dark greenish grey mottled pinkish brown and grey, slightly decomposed to fresh feldsparphyric RHYOLITE. Joints are medium spaced, smooth planar, extremely narrow to tight, clean dipping 20°-30° and 40°-50°.
				100	100	100	4.0		T2-101				II / I	
30.12.02 31.12.02				100	100	83			T2-101					
				100	100	100			T2-101					
				100	100	77			T2-101					
				100	100	100			T2-101	+11.47	19.20			End of hole at 19.20m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/C2
SHEET 1 of 2
DATE from 28.12.2002 to 30.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,045.51 N 825,634.46	CASING 0.00m to 3.00m 140mm 3.00m to 3.97m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.28 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.00 140mm 115mm													
	3.97 115mm									+26.31	3.97			
				100	100	94			397 T2-101					Strong, light grey banded and streaked dark grey mottled white, moderately decomposed feldsparphyric RHYOLITE. Joints are medium spaced, smooth and rough, undulating and stepped, very narrow, limonite coated and surface stained dipping 20°-30° and subvertical.
				100	97	82	3.0		487 T2-101					3.97-5.90m: With subparallel subvertical joint smooth undulating.
				100	75	78			627 T2-101				III	
				100	86	53	4.8		731 T2-101					7.90-8.50m: Subvertical joint smooth planar.
				100	83	24			845 T2-101					
28.12.02 30.12.02									896	+21.28	9.00			
										+21.08	9.20		V/IV	Extremely weak to very weak, greyish brown dappled brownish to brown, completely to highly decomposed feldsparphyric RHYOLITE. Assumed zone of core loss.
				72	18	0	NA		T2-101	+20.58	9.70		V V/	9.20-9.70m: Extremely weak, completely

- Small Disturbed Sample
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- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.12.2003
CHECKED A.W.Horspool
DATE 6.12.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/C2
SHEET 2 of 2
DATE from 28.12.2002 to 30.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,045.51 N 825,534.46	CASING 0.00m to 3.00m 140mm 3.00m to 3.97m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.28 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
							NI			+20.23	10.05		IV	decomposed RHYOLITE (Slightly clayey silty fine to coarse SAND with some fine to coarse subangular to subrounded gravel.)
										+19.79	10.49		IV/III	
				100	100	100			T2-101 10.49					Moderately weak to moderately strong, light greyish brown mottled orangish brown, highly to moderately decomposed feldsparphyric RHYOLITE. Recovered as angular fine to coarse gravel sized fragments.
									T2-101 10.79					
11				100	69	51	2.3		T2-101	+18.88	11.40		III	
									11.85					Moderately strong to strong, light greyish brown mottled orangish brown, moderately decomposed feldsparphyric RHYOLITE. Joints are medium to closely occasionally very closely spaced, smooth planar and undulating, very narrow, surface stained, dipping 60°-70°.
12				100	92	92	7.1		T2-101				II	
										+17.38	12.90			Strong, pinkish brown, banded greyish brown spotted and mottled black and white, slightly decomposed feldsparphyric RHYOLITE. Joints are medium spaced smooth undulating and stepped, very narrow to extremely narrow, surface stained, occasional talc and kaolin coated, dipping 20°-30° and 40°-50°.
13				100	100	65			T2-101 13.32 13.52	+17.03	13.25		III	12.90-13.25m: Moderately strong, light yellowish brown mottled greyish black moderately decomposed feldsparphyric RHYOLITE.
14				100	100	98			T2-101					
15				100	100	75			T2-101 15.05 15.64					
16				100	96	89	2.3		T2-101				II	
17									17.17					Below 17.00m: becoming strong to very strong, dark grey mottled light grey and pinkish brown, slightly decomposed feldsparphyric RHYOLITE.
18				100	100	91			T2-101 18.67	+11.61	18.67			
19														End of hole at 18.67m.
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.12.2003
CHECKED A.W.Horspool
DATE 6.12.2003

REMARKS

Impression Packer Test was carried out at 12.90-14.40m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/C3
SHEET 1 of 2
DATE from 31.12.2002 to 02.01.2003

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,043.13 N 825,530.02	CASING 0.00m to 7.56m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.36 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.
	7.56 115mm			100	18	0	>20		T2-101 7.86	+22.80	7.56		IV / III	Moderately weak to moderately strong, yellowish brown dappled greyish brown, highly to moderately decomposed feldsparphyric RHYOLITE. Where intact, joints are very closely to closely occasionally medium spaced, smooth planar, extremely narrow, surface stained, dipping 20°-30° and 60°-70°.
				100	10	0	NI		T2-101 7.86					
				100	0	0			T2-101 8.47					
				100	56	23	>20		T2-101 8.93					

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.1.2003
CHECKED A.W.Horspool
DATE 6.1.2003

REMARKS

HOUSING M1007.GPJ HK 02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/C3
SHEET 2 of 2
DATE from 31.12.2002 to 02.01.2003

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,043.13 N 825,530.02	CASING 0.00m to 7.56m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.36 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	35	22			T2-101					
				100	78	47			T2-101	+19.81	10.55			Strong, pinkish brown mottled grey and white, slightly decomposed feldsparphyric RHYOLITE. Joints are medium spaced, smooth planar, extremely narrow, clean and surface stained dipping 20°-30° and 60°-70°.
11														
31.12.02 2.1.03				100	100	100	6.7		T2-101					
12				100	84	73			T2-101					
13				100	100	90			T2-101					
14							4.5						II	
				100	100	93			T2-101					
15				100	87	64			T2-101					
16				100	100	81			T2-101					
17				100	100	50	3.3		T2-101	+12.86	17.50			
18				100	100	92			T2-101	+11.86	18.50		II / III	Strong to very strong, dark grey mottled white and grey, slightly decomposed to fresh feldsparphyric RHYOLITE. Joints are medium spaced, smooth planar, extremely narrow, clean and surface stained dipping 20°-30° and 60°-70°.
														End of hole at 18.50m.
19														
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.1.2003
CHECKED A.W.Horspool
DATE 6.1.2003

REMARKS

Impression Packer Test was carried out at 12.80-14.30m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/D1
SHEET 1 of 2
DATE from 24.12.2002 to 27.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,051.48 N 825,534.94	CASING 0.00m to 7.78m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +29.22 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.
	7.78 115mm			96	47	24	NI		T2-101 7.78	+21.44	7.78			Moderately strong to strong, brownish grey streaked dark greenish grey mottled pinkish brown and white, moderately decomposed feldsparphyric RHYOLITE. Joints are closely to very closely occasionally medium spaced, smooth and rough undulating, extremely narrow, surface stained, dipping 60°-70° and 10°-20°. 8.45-10.00m: With pervasive randomly oriented mineral veining (POSSIBLE SHEAR ZONE) 9.84-10.20m and 10.60-10.95m: Moderately
				100	96	63	15.0 >20		T2-101 8.27 T2-101 9.03				III	
				100	84	47	12.6		T2-101	+19.39	9.84		IV	

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 6.1.2003
CHECKED A.W.Horspool
DATE 7.1.2003

REMARKS

Impression Packer Test was carried out at 9.00-10.50m.

HOUSING M1007.GPJ HK 02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/D1
SHEET 2 of 2
DATE from 24.12.2002 to 27.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. B-3	E 826,051.48 N 825,534.94	CASING 0.00m to 7.78m 116mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +29.22 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
							NI			+19.02	10.20		III	weak to moderately strong, greyish b rown, highly to moderately decomposed feldsparphyric RHYOLITE.
							15.0						III	
							NI			+18.62	10.60		IV/ III	
11										+18.27	10.95			
				100	70	67	5.6		T2-101				II	Strong, light greyish brown dappled pinkish brown mottled white, slightly decomposed feldsparphyric RHYOLITE. Joints are medium spaced, smooth and rough undulating, extremely narrow, surface stained, dipping 60°-70° and 10°-20°.
										+17.52	11.70			
12										+17.37	11.85		IV/III	
				92	83	80	4.1		T2-101	+17.12	12.10		II	11.70-11.85m: Moderately weak to moderately strong, highly to moderately decomposed feldsparphyric RHYOLITE.
13														Strong to very strong, dark grey mottled white, slightly decomposed feldsparphyric RHYOLITE. Joints are very closely to closely, occasionally medium spaced, smooth planar, extremely narrow, clean dipping 10°-20° and 50°-60°.
							>20							
14				100	78	58	11.2		T2-101				II	
							>20							
24.12.02 27.12.02														
15				100	100	92	4.5		T2-101					
16				100	100	100			T2-101	+13.16	16.06			End of hole at 16.06m.
17														
18														
19														
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 6.1.2003
CHECKED A.W.Hongpool
DATE 7.1.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/D2
SHEET 1 of 2
DATE from 24.12.2002 to 24.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,049.76 N 825,532.04	CASING 0.00m to 3.00m 140mm 3.00m to 8.41m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.75 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.00 140mm 115mm													
	8.41 115mm			100	65	24	>20		8.41 T2-101 9.41	+22.34 +21.25 +20.95 +20.75	8.41 9.50 9.80 10.00		IV / III III III	Moderately weak to moderately strong, orangish brown banded greyish green mottled dark grey, highly to moderately decomposed feldsparphyric RHYOLITE. Joints are very closely to closely spaced, smooth and rough planar and undulating, very narrow, occasional kaolin and soil coated, dipping 10°-20° and subvertically.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

HOUSING M1007.GPJ HK 02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/D2
SHEET 2 of 2
DATE from 24.12.2002 to 24.12.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,049.76 N 825,532.04	CASING 0.00m to 3.00m 140mm 3.00m to 8.41m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.75 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	69	34	10.1		T2-101	+20.45	10.30		IV/III	Moderately strong to strong, dark greenish grey mottled grey and white, moderately decomposed feldsparphyric RHYOLITE. Joints are smooth stepped and rough undulating, extremely to very narrow, soil and kaolin infilled (up to 10mm) dipping 10°-20° and 20°-30°.
							NI			+20.05	10.70		III	
										+19.95	10.80		IV/III	9.80-9.85m, 10.00-10.30m and 10.70-10.80m: Moderately weak to moderately strong, highly to moderately decomposed coarse ash TUFF.
11				100	93	57	8.1		T2-101					
12				100	95	80	6.0		T2-101				II	Strong, brownish grey mottled grey, black and white, slightly decomposed feldsparphyric RHYOLITE. Joints are closely to medium spaced, smooth planar and undulating, extremely narrow, clean and surface stained, dipping 10°-20°, 20°-30° and 60°-70°, occasionally subvertical.
13				100	100	77			T2-101					
14				100	100	81			T2-101	+16.20	14.55			Strong, dark grey mottled pinkish brown, light grey and white, slightly decomposed feldsparphyric RHYOLITE. Joints are medium to closely spaced, smooth planar and stepped, extremely narrow, clean and surface stained, dipping 10°-20°, 40°-50° and occasionally subvertical.
15				100	100	97	3.2		T2-101					
16				100	100	100			T2-101	+12.50	18.25		II	
17														End of hole at 18.25m.
18														
24.12.02														
19														
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 3.1.2003
CHECKED A.W.Horspool
DATE 4.1.2003

REMARKS

Impression Packer Test was carried out at 11.00-12.50m.

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/D3
SHEET 1 of 2
DATE from 31.12.2002 to 02.01.2003

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,049.09 N 825,529.23	CASING 0.00m to 3.00m 140mm 3.00m to 9.32m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.37 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.00 140mm 115mm													
	9.32 115mm								9.32	+21.05	9.32			Strong, pinkish brown and yellowish brown streaked greenish grey mottled grey, moderately decomposed altered

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 6.1.2003
CHECKED A.W.Horspool
DATE 7.1.2003

REMARKS

HOUSING M1007.GPJ HK_02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. RWB/D3
SHEET 2 of 2
DATE from 31.12.2002 to 02.01.2003

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. YJ-5	E 826,049.09 N 825,529.23	CASING 0.00m to 3.00m 140mm 3.00m to 9.32m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +30.37 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	89	77	9.5		T2-101 10.82				III	feldsparphyric RHYOLITE. Joints are medium to closely spaced, smooth and rough undulating, extremely narrow, clean and surface stained, dipping 20°-30°, 50°-60° and subvertical.
				100	100	86			T2-101 12.02					
				100	86	58	5.9		T2-101 13.82					
				100	100	86			T2-101 14.45	+15.47	14.90			
31.12.02 2.1.03				100	100	78	2.6		T2-101 16.30				II	Strong to very strong, dark greenish grey mottled pinkish brown and grey, slightly decomposed feldsparphyric RHYOLITE. Joints are medium to widely spaced, smooth undulating and rough stepped, extremely narrow, clean and surface stained, dipping 60°-70°, occasionally 20°-30° and subvertical.
				100	95	61			T2-101 17.35					
				100	100	80			T2-101 18.77					
				100	100	100			T2-101 19.56	+10.81	19.56			End of hole at 19.56m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 6.1.2003
CHECKED A.W.Horspool
DATE 7.1.2003

REMARKS

Impression Packer Test was carried out at 13.20-14.70m.

HOUSING M1007.GPJ HK 02.GDT 29-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P1
SHEET 1 of 3
DATE from 20.09.2002 to 26.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. BR045	E 826,060.78 N 825,557.72	CASING 0.00m to 2.18m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.23 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
														Wash boring.
				96	50	21	NI		T2-101 2.18	+23.05	2.18		IV	Moderately strong to strong, brownish grey and dark grey, mottled pink, spotted pink, moderately to slightly decomposed, feldsparphyric RHYOLITE (CORESTONE) with where intact, very closely to closely, occasionally extremely closely and medium spaced, rough planar and rough stepped, occasionally rough undulating extremely narrow, limonite and manganese stained, calcite coated (up to 1mm) joints dipping at 0° - 10°, 40° - 50°, 60° - 70° and 70° - 80°. 2.18-2.37 and 3.95-4.46m: Weak, highly decomposed.
				100	57	49	8.9		T2-101 2.70	+22.65	2.57		III / II	
				100	55	31	>20		T2-101 3.80	+21.28	3.95		IV	
							NI		T2-101 4.46	+20.77	4.46		III/ II	
							>20			+20.36	4.87			
				100	69	69	8.0		T2-101 5.80					Strong to very strong, occasionally moderately strong dark grey, occasionally brownish grey mottled pink, slightly decomposed, feldsparphyric RHYOLITE with closely to medium, occasionally very closely and widely spaced, rough planar and rough stepped, extremely narrow, limonite and manganese stained, calcite coated (up to 1mm) joints dipping at 0° - 10°, 20° - 30°, 40° - 50°, 50° - 60° and subvertical from 5.67m - 6.01m, 6.89m - 7.32m, 9.56m - 10.21m and 11.97m - 12.72m. Occasional 65°-75° and 75°-85°.
				100	85	79	1.1		T2-101 7.32					
							11.7							
				98	86	47	>20		T2-101 8.02					7.70-7.96m: Extremely closely spaced joints.
							2.9							
				100	91	86	8.0		T2-101 9.00					
							17.6							
				100	100	92			T2-101					

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.10.2002
CHECKED A.W.Horspool
DATE 4.10.2002

REMARKS

An impression packer discontinuity survey was carried out between 14.00 and 15.50m.

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P1
SHEET 2 of 3
DATE from 20.09.2002 to 26.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. BR045	E 825,060.78 N 825,557.72	CASING 0.00m to 2.18m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.23 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
							9.6		10.43				II	
11				100	100	100	3.0		T2-101 11.50					
12				100	69	49	10.5		T2-101 12.15					
				100	81	73			T2-101 12.80					
13				100	92	84	2.8 19.0		T2-101 14.20					
14				100	92	69	7.0		T2-101 15.08					
15				100	70	54	18.5		T2-101 16.41	+9.30	15.93			
16				100	71	64	>20 4.7 >20		T2-101 17.80				III / II	Moderately strong to strong, occasionally very strong brownish grey and dark grey, mottled pink, moderately to slightly decomposed, feldsparphyric RHYOLITE with very closely to closely, occasionally extremely closely and medium spaced, rough planar and rough stepped, occasionally rough undulating extremely narrow, limonite and manganese stained, calcite coated (up to 1mm) joints dipping at 0° - 10°, 10° - 20°, 70° - 80° and subvertical from 17.83m - 18.44m. Occasional 30°-40°.
17				100	97	81	7.1		T2-101 19.02					
18				97	73	32	>20 14.9		T2-101					
19														
20														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.10.2002
CHECKED A.W.Horspool
DATE 4.10.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P1
SHEET 3 of 3
DATE from 20.09.2002 to 26.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. BR045	E 826,060.78 N 825,557.72	CASING 0.00m to 2.18m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.23 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
21				100	61	0	>20 >20		20.46 T2-101 21.07	+4.16	21.07			End of Drillhole at 21.07m
22														
23														
24														
25														
26														
27														
28														
29														
30														

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 4.10.2002
CHECKED A.W.Horspool
DATE 4.10.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P2
SHEET 1 of 3
DATE from 17.09.2002 to 19.09.2002

PROJECT HY/99/19-Castle Peak Road improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. BR045	E 826,061.85 N 825,552.50	CASING 0.00m to 4.82m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.12 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	115mm													Wash boring.
				95					T2-101 1.80 – 2.40	+23.32	1.80			Light grey mottled light pink angular to subangular fine to coarse GRAVEL of quartz and concrete. (FILL)
										+22.72	2.40			Wash boring.
	4.82 115mm									+20.30	4.82			
17.9.02				89	67	42			T2-101 4.82 – 5.60					Strong orangish brown banded dark grey mottled light grey and white moderately decomposed FELDSPARPHYRIC RHYOLITE. Joints medium spaced smooth planar extremely narrow occasional very narrow surface stained. dipping 60°-70°, predominantly.
18.9.02				100	100	100	2.2		T2-101 5.60 – 6.47				III	
				100	100	100			T2-101 6.47 – 7.80	+18.12	7.00			
				100	100	100			T2-101 7.80 – 8.70					Strong occasionally very strong dark grey mottled light grey slightly decomposed FELDSPARPHYRIC RHYOLITE. Joints medium spaced smooth planar extremely narrow occasional very narrow surface stained. dipping 60°-70°, predominantly.
				100	87	72			T2-101 8.70 – 9.33					
				100	96	84			T2-101 9.33 –					

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Presaurometer Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

An impression packer discontinuity survey was carried out between 14.30 and 15.80m.

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P2
SHEET 2 of 3
DATE from 17.09.2002 to 19.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. BR045	E 826,061.85 N 825,552.50	CASING 0.00m to 4.62m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.12 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
							0.9		10.33 T2-101		11			
				100	89	69			11.32 T2-101					
				100	100	100			11.95 T2-101		12			From 11.60-12.70m: subvertical smooth undulating surface stained extremely narrow joints.
				100	100	100			13.20 T2-101		13			
				100	93	54			14.53 T2-101		14		II	
				100	100	100	2.2		15.85 T2-101		15			
18.9.02														
19.9.02				100	100	100			17.34 T2-101		17			From 16.40-17.50m: With pervasive randomly oriented jointing.
				100	100	100			18.74 T2-101		18			
				100	92	58	2.1		T2-101		19			
											20			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P2
SHEET 3 of 3
DATE from 17.09.2002 to 19.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. BR045	E 826,061.85 N 825,552.50	CASING 0.00m to 4.82m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.12 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
21 19.9.02				100	95	66			20.22 T2-101 21.28	+3.84	21.28			End of hole at 21.28m.

22 23 24 25 26 27 28 29 30

Small Disturbed Sample
Large Disturbed Sample
SPT Liner Sample
U76 Undisturbed Sample
U100 Undisturbed Sample
Mazier Sample
Piston Sample
Water Sample

Water Level
Standard Penetration Test
Permeability Test
Piezometer Tip
Standpipe Tip
Pressuremeter Test
Impression Packer Test
Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P3
SHEET 1 of 3
DATE from 20.09.2002 to 24.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. H-9	E 826,067.15 N 825,558.92	CASING 0.00m to 3.00m 140mm 3.00m to 5.09m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.32 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.00 140mm 115mm													
	5.09 115mm													
				100	54	37	NI		5.09 T2-101 5.59	+20.23	5.09		IV	Moderately weak to moderately strong light greenish grey mottled white streaked orangish brown highly decomposed fine ash TUFF. Joints are very closely to closely spaced smooth stepped, extremely narrow, occasional very narrow surface stained dipping 30°-40°, 60°-70°.
				100	91	68	11.8		T2-101 7.13	+18.08	7.24			
				100	100	56	5.9		T2-101 8.71					Strong dark grey and dark greyish brown mottled grey and white moderately to slightly decomposed FELDSPARPHYRIC RHYOLITE. Joints medium to widely spaced extremely narrow to tight smooth planar dipping 20°-30°,60°-70° and subvertical. From 7.80-9.48m: 2-3 No.subangular subvertical tight joints.
				100	100	89			T2-101 9.88					
20.9.02 23.9.02							2.9							

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

An impression packer discontinuity survey was carried out between 13.75 and 15.25m.

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P3
SHEET 2 of 3
DATE from 20.09.2002 to 24.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. H-9	E 826,087.15 N 825,558.92	CASING 0.00m to 3.00m 140mm 3.00m to 6.09m 116mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.32 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100	95	95			T2-101		11			
				100	100	100			T2-101		12			
				100	67	67			T2-101					
				100	100	100			T2-101		13			
				100	100	58	2.3		T2-101		14		III / II	
				100	98	75			T2-101		15			From 15.23-15.59m: moderately strong, highly to moderately decomposed.
				100	91	58	11.7		T2-101		16			
				100	100	0	4.1		T2-101		17			
				100	86	82			T2-101		18			From 17.40-19.90m: 3 No. subrounded, tight smooth planar joints.
23.9.02 24.9.02				100	59	0			T2-101		19			
				100	70	70	0.8		T2-101		20			

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P3
SHEET 3 of 3
DATE from 20.09.2002 to 24.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. H-9	E 826,067.15 N 825,558.92	CASING 0.00m to 3.00m 146mm 3.00m to 5.09m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.32 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
24.9.02				100	99	90			T2-101 20.80	+4.36	20.96			End of hole at 20.96m.

Small Disturbed Sample
Large Disturbed Sample
SPT Liner Sample
U76 Undisturbed Sample
U100 Undisturbed Sample
Mazier Sample
Piston Sample
Water Sample
Water Level
Standard Penetration Test
Permeability Test
Piezometer Tip
Standpipe Tip
Pressuremeter Test
Impression Packer Test
Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P4
SHEET 1 of 3
DATE from 16.09.2002 to 19.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. H-9	E 826,068.05 N 825,553.91	CASING 0.00m to 3.80m 140mm 3.80m to 10.49m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.30 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	140mm													Wash boring.
	3.80 140mm 115mm													

Small Disturbed Sample
Large Disturbed Sample
SPT Liner Sample
U76 Undisturbed Sample
U100 Undisturbed Sample
Mazier Sample
Piston Sample
Water Sample
Water Level
Standard Penetration Test
Permeability Test
Piezometer Tip
Standpipe Tip
Pressuremeter Test
Impression Packer Test
Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P4
SHEET 2 of 3
DATE from 16.09.2002 to 19.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. H-9	E 826,068.06 N 825,553.91	CASING 0.00m to 3.80m 140mm 3.80m to 10.49m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.30 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
	10.49 115mm									+14.61	10.49			
				85	46	0	NI		T2-101 10.49 10.79	+14.56	10.74		II	Strong light grey slightly decomposed QUARTZ VEIN, highly fractured recovered as angular fine to coarse GRAVEL and COBBLES.
11				68	65	35			T2-101 11.13					Moderately weak to moderately strong light grey banded white streaked orangish brown to moderately decomposed fine ash TUFF. Joints are very closely to closely occasional medium spaced smooth and rough undulating very narrow to extremely narrow surface stained dipping 40°-50°, 60°-70° and subvertical.
16.9.02 17.9.02				100	100	86			T2-101 12.06					
12				100	99	96	3.7		T2-101 13.51				III	
13				100	50	20	>20		T2-101 14.07	+11.39	14.00			From 13.60-14.00m: Moderately weak, moderately decomposed.
14				100	100	100			T2-101 14.62	+11.25	14.14		II	Strong dark grey mottled white and light grey slightly decomposed FELDSPARPHYRIC RHYOLITE. Joints are medium spaced occasionally closely and widely spaced smooth planar extremely narrow to tight clean, surface stained dipping 40°-50°, 60°-70° and subvertically. From14.70-17.90m: Pervasive subvertical, subangular joints.
15				100	100	81	1.5		T2-101 15.03					
17.9.02 18.9.02				100	100	89			T2-101 15.53					
17				100	100	100			T2-101 17.85					
18				100	100	100			T2-101 17.99					
19				100	100	100	2.1		T2-101 18.30				II	
20				100	100	80			T2-101 19.85					From 19.50-20.71m: Very closely to closely spaced pervasive subvertical joints.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Horspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. M1007/01
HOLE NO. E02B/03/P4
SHEET 3 of 3
DATE from 16.09.2002 to 19.09.2002

PROJECT HY/99/19-Castle Peak Road Improvement between Ting Kau & Sham Tseng, Tsuen Wan.

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No. H-9	E 826,068.05 N 825,553.91	CASING 0.00m to 3.80m 140mm 3.80m to 10.49m 115mm
FLUSHING MEDIUM Water	ORIENTATION VERTICAL	GROUND LEVEL +25.30 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
18.9.02				100	100	53	>20		T2-101 20.71					
				100	87	83			T2-101 21.81					
				100	89	51	3.6		T2-101 22.42					
				100	65	15			T2-101 23.13	+2.17	23.13			End of hole at 23.13m.

Small Disturbed Sample
Large Disturbed Sample
SPT Liner Sample
U76 Undisturbed Sample
U100 Undisturbed Sample
Mazier Sample
Platon Sample
Water Sample

Water Level
Standard Penetration Test
Permeability Test
Piezometer Tip
Standpipe Tip
Pressuremeter Test
Impression Packer Test
Vane Shear Test

LOGGED M.Chiu
DATE 26.9.2002
CHECKED A.W.Honspool
DATE 27.9.2002

REMARKS

HOUSING M1007.GPJ HK_02.GDT 21-01-03

Form: PRO/05/03E

Gold Ram Engineering & Development Limited

JOB NO. GE/2002/21
HOLE NO. DH/19/01
SHEET 1 of 2
DATE from 06.01.2003 to 07.01.2003

PROJECT: Ting Kau Village, Tsuen Wan, N.T. Feature No.6SE-C/CR479
Works Order No.GE/2002/21/GI/19

METHOD: Rotary	CO-ORDINATES	ROCK CORE BIT
Rig & No.: DR-8	E 826,145.24 N 825,446.46	CASING: 0.00m to 2.60m 140mm 2.60m to 10.35m 115mm
FLUSHING MEDIUM: Air/Foam	ORIENTATION: VERTICAL	GROUND LEVEL: +39.33 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
6.1.03	140mm	DRY at 18:00												Firm, reddish brown, slightly sandy clayey SILT with occasional angular to subangular fine gravel sized quartz and tuff fragments. (COLLUVIUM)
7.1.03		DRY at 08:00		100				(1, 2, 2 2, 2, 3) N = 9						
	2.60 140mm 115mm			100										
				92				(1, 1, 2 2, 2, 3) N = 9						
				70				(1, 1, 2 3, 3, 4) N = 12					V	Extremely weak, brown and yellowish brown, completely decomposed coarse ash TUFF. (Firm, slightly sandy clayey SILT with some angular to subangular fine gravel sized quartz and tuff fragments.)
				85				(2, 2, 4 4, 5, 8) N = 24		+32.08	7.25		V	Extremely weak, greyish brown, completely decomposed coarse ash TUFF. (Stiff to very stiff, sandy clayey SILT with some angular to subangular fine gravel sized quartz and tuff fragments.)
		8.87m		95				(3, 5, 8, 8, 10, 12) N = 38						

Small Disturbed Sample
Large Disturbed Sample
SPT Liner Sample
U76 Undisturbed Sample
U100 Undisturbed Sample
Mazier Sample
Piston Sample
Water Sample
Water Level
Standard Penetration Test
Permeability Test
Piezometer Tip
Standpipe Tip
Pressuremeter Test
Impression Packer Test
Vane Shear Test

LOGGED M.Chiu
DATE 10.1.2003
CHECKED S.Fiux
DATE 11.1.2003

REMARKS

An inspection was excavated to 1.50mbgl.
A piezometer was installed at 4.20m with a response zone from 3.20 to 4.70m.
A piezometer was installed at 8.85m with a response zone from 7.85 to 9.35m.

HOUSING 1.PM19B.GPJ HK_02.GDT 2003/3/13

Gold Ram Engineering & Development Limited

JOB NO. GE/2002/21
HOLE NO. DH/19/01
SHEET 2 of 2
DATE from 06.01.2003 to 07.01.2003

PROJECT Ting Kau Village, Tsuen Wan, N.T. Feature No.6SE-C/CR479
Works Order No.GE/2002/21/GI/19

METHOD Rotary	CO-ORDINATES	ROCK CORE BIT
Rig & No DR-8	E 826,145.24 N 825,446.46	CASING 0.00m to 2.60m 140mm 2.60m to 10.35m 115mm
FLUSHING MEDIUM Air/Foam	ORIENTATION VERTICAL	GROUND LEVEL +39.33 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R Q D	Fracture Index	Tests	Samples No.	Samples Type	Samples Depth	Reduced Level	Depth (m)	Legend	Grade	Description
7.1.03	10.35 115mm	18:00							25		10.25	+28.98	10.35			Same as Previous Page
																End of hole at 10.35m.

11 12 13 14 15 16 17 18 19 20

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 10.1.2003
CHECKED S.Flux
DATE 11.1.2003

REMARKS

HOUSING LPM108.GPJ HK_02.GDT 28/03/03

Gold Ram Engineering & Development Limited

JOB NO. GE/2002/21
HOLE NO. CH/19/01
SHEET 1 of 1
DATE from 13.01.2003 to 13.01.2003

PROJECT Ting Kau Village, Tsuen Wan, N.T. Feature No.6SE-C/CR479
Works Order No.GE/2002/21/GI/19

METHOD Coring Machine	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No	E 825,146.48 N 825,436.74	CASING
FLUSHING MEDIUM Water	ORIENTATION 0HORIZONTAL	GROUND LEVEL +35.67 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100					T2-101 0.00–0.41	+35.67	0.41			Strong, brownish grey mottled pink and white, intact, CONCRETE. (RETAINING WALL)
				54					T2-101 0.41–1.00	+35.67	1.00			Brownish grey and brown, sandy angular to subangular medium to coarse GRAVEL and COBBLE sized moderately strong concrete fragments. (FILL)
									1 * 1.00–1.50					Firm, reddish brown and greyish brown, sandy clayey SILT with some angular to subangular fine gravel sized rock fragments. (COLLUVIUM)
									2 * 2.00–2.50					
									3 * 2.50–3.00	+35.67	2.50			
									4 * 3.00–3.50					Firm to stiff, brown and reddish brown, sandy clayey SILT with some angular to subangular fine to medium gravel sized quartz and tuff fragments. (COLLUVIUM)
									5 * 3.50–4.00					
									6 * 4.00–4.50					
									7 * 4.50–5.00					
13.1.03									8 *	+35.67	5.00			
														End of hole at 5.00m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 17.2.2003
CHECKED S.Flux
DATE 18.2.2003

REMARKS

HOUSING LPM19B GPJ HK 02.GDT 23/04/03

Gold Ram Engineering & Development Limited

JOB NO. GE/2002/21
HOLE NO. CH/19/2L
SHEET 1 of 1
DATE from 07.01.2003 to 12.01.2003

PROJECT Ting Kau Village, Tsuen Wan, N.T. Feature No.6SE-C/CR479
Works Order No.GE/2002/21/GI/19

METHOD Coring Machine	CO-ORDINATES	ROCK CORE BIT T2-101,TNW
Rig & No	E 826,148.86 N 825,439.52	CASING
FLUSHING MEDIUM Water	ORIENTATION -50	GROUND LEVEL +33.91 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
				100					T2-101 0.00 0.42					Strong, brownish grey mottled pink and white, intact, CONCRETE. (RETAINING WALL)
				100					T2-101 1.25	+32.66	1.25			
									1 1.75					Firm, orange brown and brown, sandy clayey SILT with some angular to subangular fine gravel sized quartz rock fragments. (FILL)
									2 2.25	+32.19	2.25			
				86	30	0	NI 20.0		TNW 2.65				III / II	Moderately strong to strong, grey and brownish grey spotted pink, white and grey, moderately to slightly decomposed coarse ash TUFF with very closely to closely occasionally extremely closely and mediums paced, rough planar and rough stepped, extremely narrow, iron and manganese stained, calcite coated (up to 1mm) joints. (CORESTONE?)
				96	84	70			TNW 3.15					
				99	88	70	7.5 20.0		TNW 3.82	+30.08	3.82			
									3 4.32				V	Extremely weak, greyish brown, completely decomposed coarse ash TUFF. (Slightly silty fine to coarse SAND with occasional angular to subangular fine gravel sized quartz and tuff fragments.)
									4 4.82					
									5 5.32					
									6 5.82					
7 1.03									7	+29.31	6.00			
														End of hole at 6.00m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 17.2.2003
CHECKED S.Flux
DATE 18.2.2003

REMARKS

HOUSING LPM198.GPJ HK_02.GDT 28/03/03

Gold Ram Engineering & Development Limited

JOB NO. GE/2002/21
HOLE NO. CH/19/2U
SHEET 1 of 1
DATE from 15.01.2003 to 15.01.2003

PROJECT Ting Kau Village, Tsuen Wan, N.T. Feature No.6SE-C/CR479
Works Order No.GE/2002/21/GI/19

METHOD Coring Machine	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No.	E 826,148.78 N 825,439.58	CASING
FLUSHING MEDIUM Water	ORIENTATION HORIZONTAL	GROUND LEVEL +36.14 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
15.1.03				93 92					T2-101 0.42 T2-101 0.68 1 0.92 2 1.42 3 1.92 4 2.42 5 2.92 6 3.42 7 3.92 8	+36.14 +36.14 +36.14 +36.14	0.42 0.68 1.42 4.42			Strong, brownish grey mottled white and pink, intact, CONCRETE. (RETAINING WALL) Moderately strong, brown, concrete fragments. (FILL) Firm, brown, sandy clayey SILT with some angular to subangular fine to coarse gravel sized moderately strong to strong tuff and concrete fragments. (FILL) Firm to stiff, yellowish brown occasionally reddish brown, slightly sandy clayey SILT with occasional angular to subangular fine gravel sized quartz and tuff fragments (COLLUVIUM) End of hole at 4.42m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 17.2.2003
CHECKED S.Flux
DATE 18.2.2003

REMARKS

#HOUSING LPM198.GPJ HK_02.GDT 20/03/03

Gold Ram Engineering & Development Limited

JOB NO. GE/2002/21
HOLE NO. CH/19/03
SHEET 1 of 1
DATE from 12.01.2003 to 12.01.2003

PROJECT Ting Kau Village, Tsuen Wan, N.T. Feature No.6SE-C/CR479
Works Order No.GE/2002/21/GI/19

METHOD Coring Machine	CO-ORDINATES	ROCK CORE BIT T2-101
Rig & No	E 826,153.55 N 825,445.58	CASING
FLUSHING MEDIUM Water	ORIENTATION HORIZONTAL	GROUND LEVEL +35.08 mP.D.

Drilling Progress	Casing depth/size	Water level/ time/ date	Water Recovery %	Total core Recovery %	Solid core Recovery %	R.Q.D.	Fracture Index	Tests	Samples No. Type Depth	Reduced Level	Depth (m)	Legend	Grade	Description
12.1.03				100 55 58					1 2 3 4 5 6 7 8 9 10	+35.08 +35.08 +35.08 +35.08 +35.08	0.35 0.75 0.85 1.25 5.00			Strong, brownish grey mottled pink and white, intact, CONCRETE. (RETAINING WALL) Reddish brown and dark grey, silty sandy angular to subangular coarse GRAVEL and COBBLE sized moderately strong concrete fragments. (FILL) Firm, orange brown, sandy clayey SILT with some angular to subangular fine to coarse gravel sized moderately strong rock fragments. (FILL) Brownish grey, sandy angular to subangular medium to coarse GRAVEL and COBBLE sized moderately strong concrete fragments. (FILL) Firm to stiff, reddish brown occasionally orange brown, slight sandy clayey SILT with occasional fine gravel sized tuff and quartz fragments. (COLLUVIUM) End of hole at 5.00m.

- Small Disturbed Sample
- Large Disturbed Sample
- SPT Liner Sample
- U76 Undisturbed Sample
- U100 Undisturbed Sample
- Mazier Sample
- Piston Sample
- Water Sample
- Water Level
- Standard Penetration Test
- Permeability Test
- Piezometer Tip
- Standpipe Tip
- Pressuremeter Test
- Impression Packer Test
- Vane Shear Test

LOGGED M.Chiu
DATE 17.2.2003
CHECKED S.Flux
DATE 18.2.2003

REMARKS

HOUSING LPM19B.GPJ HK 02.GDT 2003/03

Gold Ram Engineering & Development Ltd

TRIAL PIT RECORD

TRIAL PIT No.: TP/19/01

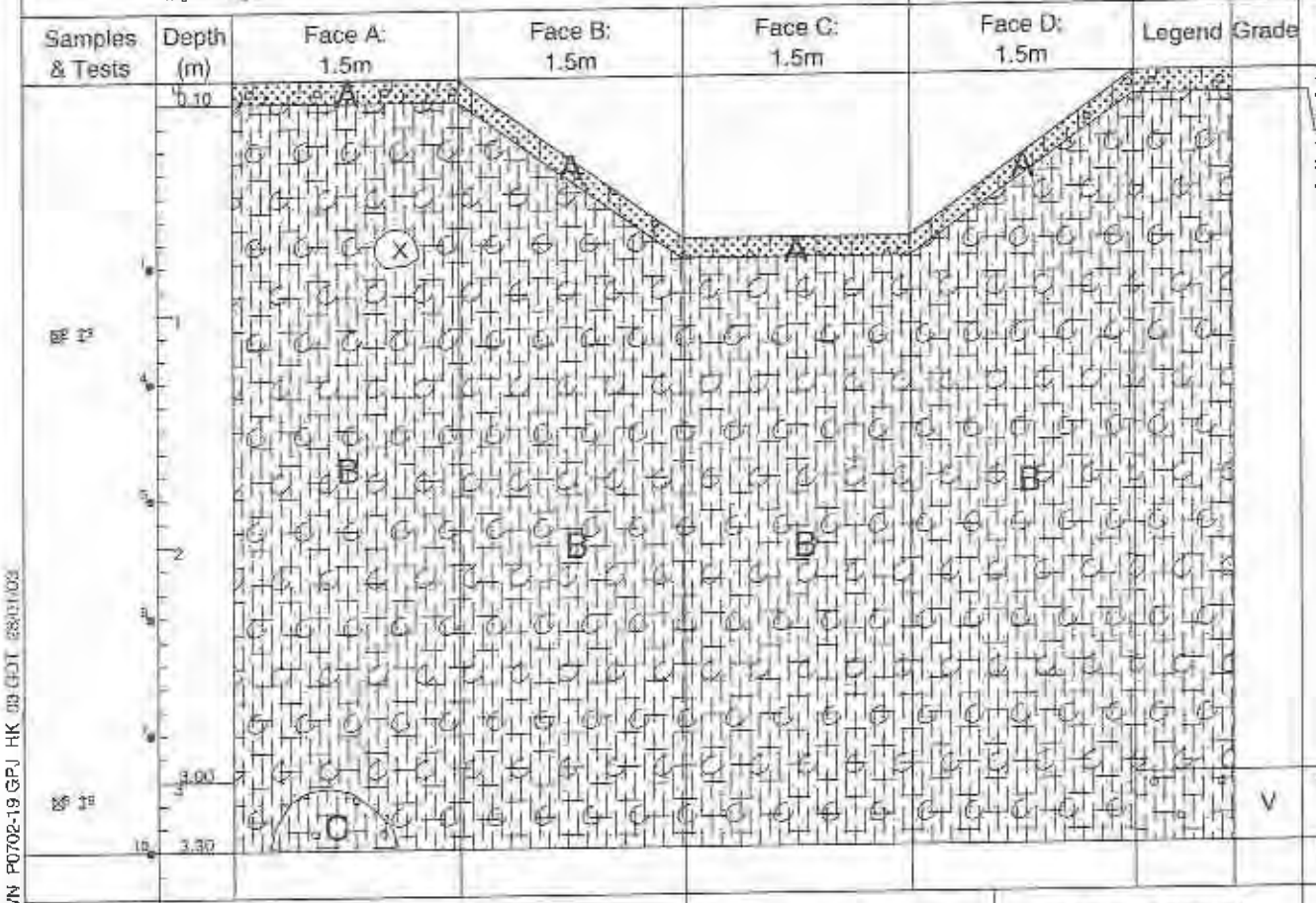
Excavation Date: 14.01.2003 - 16.01.2003.
Backfill Date: 22.02.2003

Co-ordinates: E 826,140.65 N 825,439.89
Ground Level: +40.77 mPD

PROJECT: Ground Investigation Works for Slopes in Tsuen Wan
Ting Kau Village, Tsuen Wan. Feature No. 6SE-C/CR479

W.O. No.: GE/2002/21/GI/19
Contract No.: GE/2002/21

Logged By: M.Chiu Date: 16.01.2003
Checked By: S.Flux Date: 28.01.2003



Description

Strata A: Loose to dense*, dry, dark brown, silty fine to coarse SAND with some angular to subangular fine to coarse gravel sized rock fragments and rootlets and refuse. (TOPSOIL)

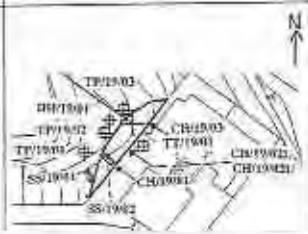
Strata B: Firm to stiff, dry, reddish brown and orangish brown, slightly sandy clayey SILT with some angular to subangular fine to coarse gravel and occasional cobble and boulder (size 0.45m x 0.35m) sized moderately weak to moderately strong quartz and tuff fragments. (COLLUVIUM)

Strata C: Extremely weak, pinkish grey completely decomposed coarse TUFF. (Stiff, dry, sandy clayey SILT with some angular to subangular fragments gravel sized quartz and tuff fragments)

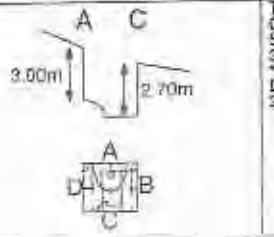
Feature X: Boulder.

Symbol	Samples/Tests/Water
■	Small Disturbed Sample
I	Large Disturbed Sample
▬	Undistrubed Horizontal Sample(U100/U76)
▮	Undisturbed Vertical Sample(U100/U76)
⊠	Block Sample
▽	In-situ Density Test
▲	Water Sample
∿	Seepage

PLAN



CROSS SECTION



Remarks

Trial pit terminated at 3.00m.
Groundwater not encountered.
Sides stable, shoring installed.
3 No. GCO probes tests were carried out prior to excavation.
*Indicates qualitative assessment only.
Depth of samples and terminated refer to mid point of face B.
2 No. block samples were taken form 0.50 to 0.80m and 2.50 to 2.80m.

LRM1 TRIAL PIT COMPUTER DRAWN P0702-19.GPJ HK_03.GDT 28/01/03

Form No.: PRO/05/07e

Gold Ram Engineering & Development Ltd

TRIAL PIT No. TP/19/02

TRIAL PIT RECORD

Excavation Date: 14 01 2003 - 16 01 2003.
Backfill Date: 22.02 2003

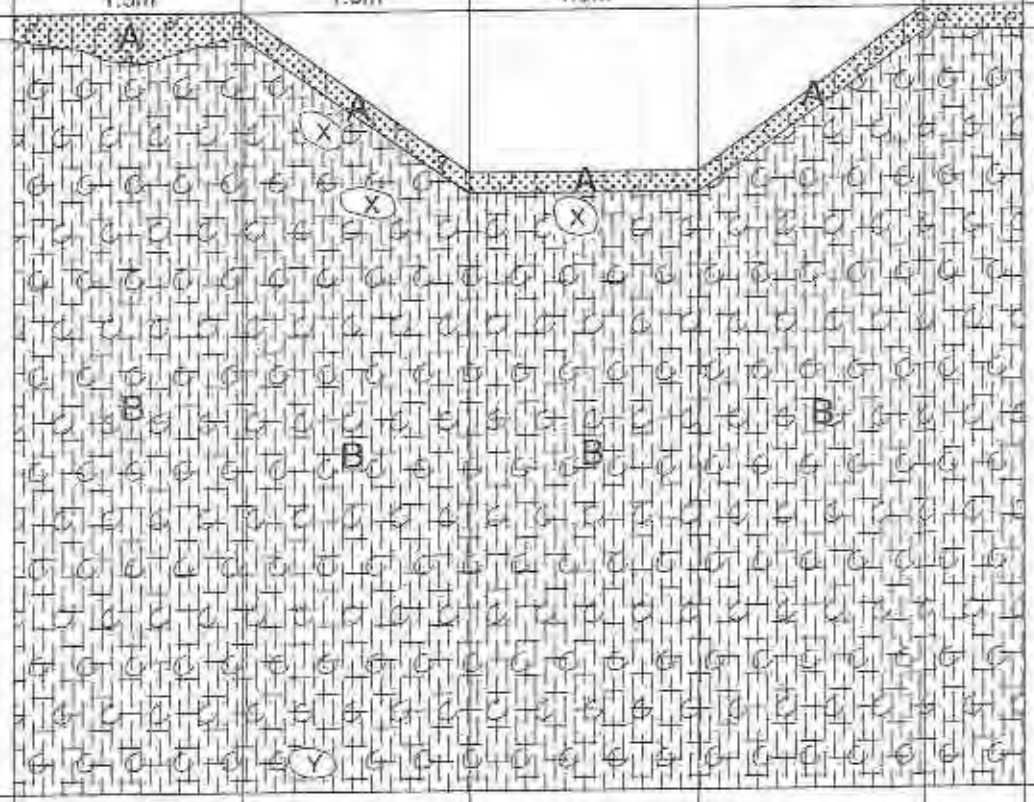
Co-ordinates: E 826,145.89 N 825,442.65
Ground Level: +39.37 mPD

PROJECT Ground Investigation Works for Slopes in Tsuen Wan
Ting Kau Village, Tsuen Wan. Feature No. 6SE-C/CR479

W.O. No.: GE/2002/21/GI/19
Contract No.: GE/2002/21

Logged By: M.Chiu Date: 16.01.2003
Checked By: S.Flux Date: 28.01.2003

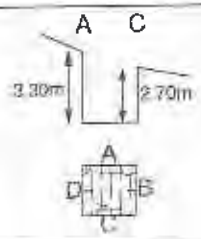
Samples & Tests	Depth (m)	Face A: 1.5m	Face B: 1.5m	Face C: 1.5m	Face D: 1.5m	Legend	Grade	Description
	0.10							Strata A: Loose to dense*, dry, dark brown, silty fine to coarse SAND with some angular to subangular fine to coarse gravel sized rock fragments and rootlets and refuse. (TOPSOIL)
								Strata B: Firm to stiff, dry, reddish brown and orangish brown, slightly sandy, clayey SILT with some angular to subangular fine to coarse gravel and occasional cobble and boulder (size 0.30m x 0.30m) sized moderately weak to moderately strong quartz and tuff fragments. (COLLUVIUM)
	3.30							Feature X: Boulder of moderately weak to moderately strong tuff. Feature Y: Boulder of completely to highly decomposed tuff.



Symbol	Samples/Tests/Water
	Small Disturbed Sample
	Large Disturbed Sample
	Undistrubed Horizontal Sample(U100/U76)
	Undisturbed Vertical Sample(U100/U76)
	Block Sample
	In-situ Density Test
	Water Sample
	Seepage

PLAN

CROSS SECTION



Remarks

Trial pit terminated at 3.00m.
Groundwater not encountered.
Sides stable, shoring installed.
2 No. GCO probes tests were carried out prior to excavation.
*Indicates qualitative assessment only.
Depth of samples and terminated refer to mid point of face B.
2 No. block samples were taken form 0.50 to 0.80m and 2.70 to 3.00m.

LFMU TRIAL PIT COMPUTER DRAWN P0702-19.GPJ HK 03.GDT 28/01/03

Form No.: PRD/95/07a

Gold Ram Engineering & Development Ltd

TRIAL PIT No. TP/19/03

TRIAL PIT RECORD

Excavation Date: 14.01.2003 - 16.01.2003
Backfill Date: 22.02.2003

Co-ordinates: E 826,148.54 N 825,446.58
Ground Level: +38.30 mPD

PROJECT: Ground Investigation Works for Slopes in Tsuen Wan, Ting Kau Village, Tsuen Wan, Feature No. 6SE-C/C847)

W.O. No.: GE/2002/21/GI/19
Contract No.: GE/2002/21

Logged By: M.Chiu Date: 16.01.2003
Checked By: S.Flux Date: 28.01.2003

Samples & Tests	Depth (m)	Face A: 1.5m	Face B: 1.5m	Face C: 1.5m	Face D: 1.5m	Legend	Grade
	0.10	A	A	A	A		
	3.30	B	B	B	B		

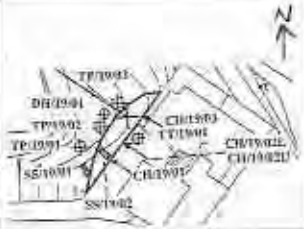
Description

Strata A: Loose to dense*, dry, dark brown, silty fine to coarse SAND with some angular to subangular fine to coarse gravel sized rock fragments and rootlets and refuse. (TOPSOIL)

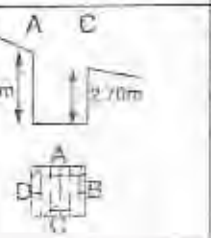
Strata B: Firm to stiff, dry, reddish brown and orangish brown, slightly sandy clayey SILT with some angular to subangular fine to coarse gravel and occasional cobble (size 0.45m x 0.35m) sized moderately weak to moderately strong quartz and tuff fragments. (COLLUVIUM)

Symbol	Samples/Tests/Water
B	Small Disturbed Sample
D	Large Disturbed Sample
U	Undistrubed Horizontal Sample(U100/U76)
V	Undisturbed Vertical Sample(U100/U76)
B	Block Sample
C	In-situ Density Test
W	Water Sample
SP	Seepage

PLAN



CROSS SECTION



Remarks

Trial pit terminated at 3.00m.
Groundwater not encountered.
Sides stable, shoring installed.
3 No. GCO probes tests were carried out prior to excavation.
*Indicates qualitative assessment only.
Depth of samples and terminated refer to mid point of face B.
2 No. block samples were taken form 0.50 to 0.80m and 2.50 to 2.80m.

(M) TRIAL PIT COMPUTER DRAWN P07/02-19.GPJ HK_05.GDT 28/01/03

Gold Ram Engineering & Development Ltd

TRIAL TRENCH No.: TT/19/01

TRIAL TRENCH RECORD

Excavation Date: 17.01.2003 - 17.01.2003
Backfill Date: 25.02.2003

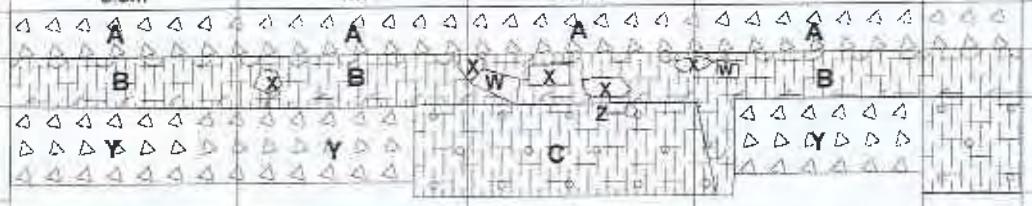
Co-ordinates: E 826,152.02 N 825,440.26
Ground Level: +33.55 mPD

PROJECT: Ground Investigation Works for Slopes in Tsuen Wan
Ting Kau Village, Tsuen Wan. Feature No. 6SE-C/CR475

W.O. No.: GE/2002/21/GI/19
Contract No.: GE/2002/21

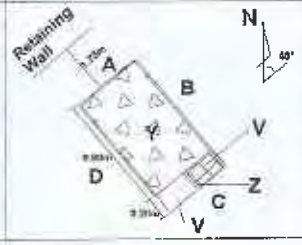
Logged By: M.Chiu Date: 17.02.2003
Checked By: S.Flux Date: 18.02.2003

Samples & Tests	Depth (m)	Face A: 0.5m	Face B: 1m	Face C: 0.5m	Face D: 1m	Legend	Grade	Description
	0							Strata A: CONCRETE SLAB.
	0.20							Strata B: Firm to stiff*, dry, yellowish brown and brown, sandy, clayey SILT with some angular to subangular fine to coarse gravel and occasional cobble and boulder (maximum size 0.25m x 0.15m) sized moderately strong to strong tuff, concrete and brick fragments. (FILL)
	0.40							
	0.80						V	Strata C: Extremely weak, brown and yellowish brown, completely decomposed coarse ash TUFF. (Firm, slightly sandy, clayey SILT with some angular to subangular fine gravel sized quartz and tuff fragments)
	1							Feature W: Boulder of concrete.
								Feature X: Boulder.
								Feature Y: Footing of retaining wall.
								Feature Z: Steel bar.
	2							
	3							

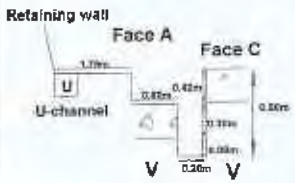


Symbol	Samples/Tests/Water
•	Small Disturbed Sample
I	Large Disturbed Sample
▬	Undistrubed Horizontal Sample(U100/U76)
▮	Undisturbed Vertical Sample(U100/U76)
⊠	Block Sample
⌣	In-situ Density Test
▲	Water Sample
∿	Seepage

PLAN



CROSS SECTION



Remarks

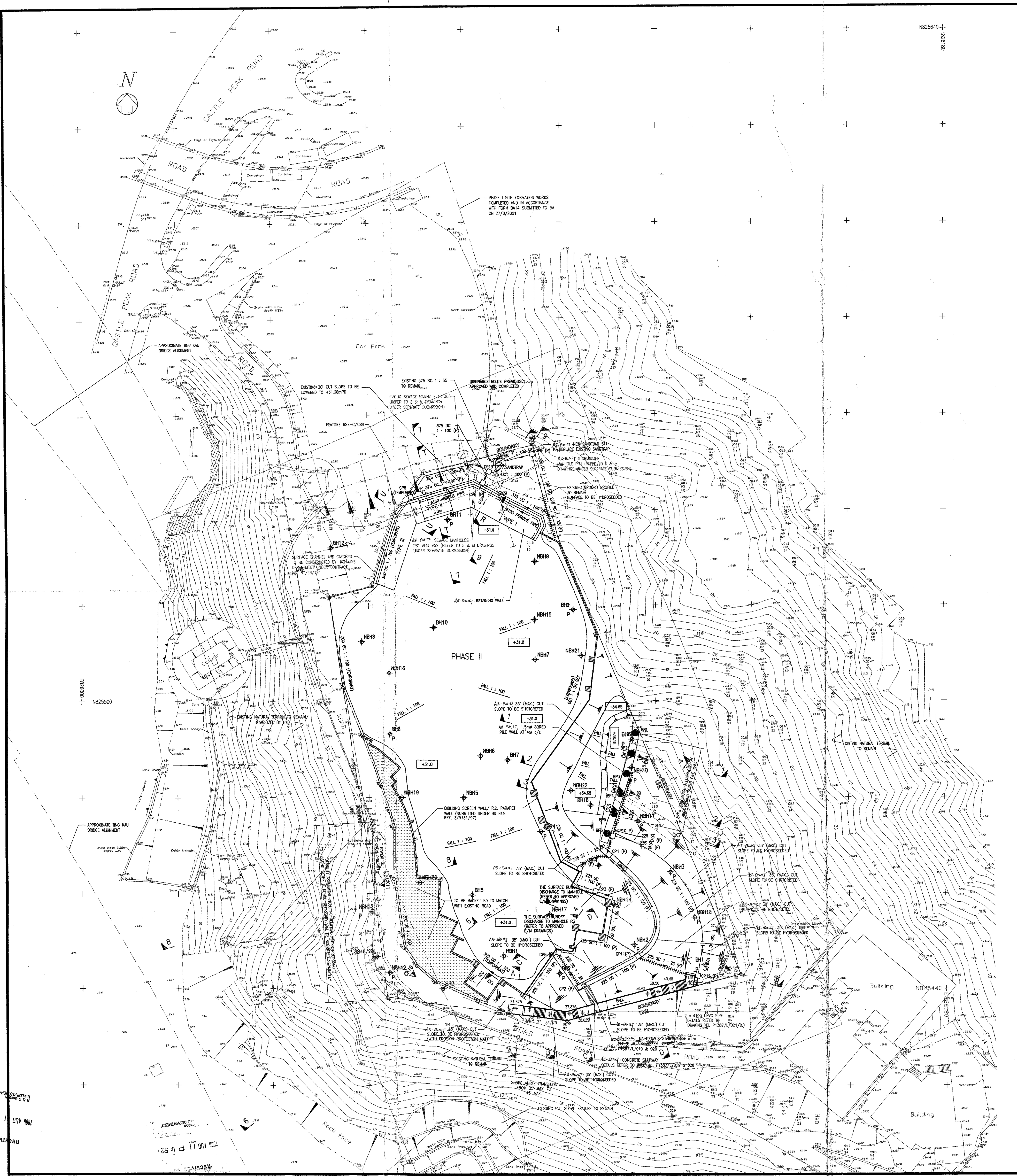
Trial trench terminated at 0.80m.
Groundwater not encountered.
Sides stable, shoring not installed.
Depth of samples and terminated refer to mid point of face B.

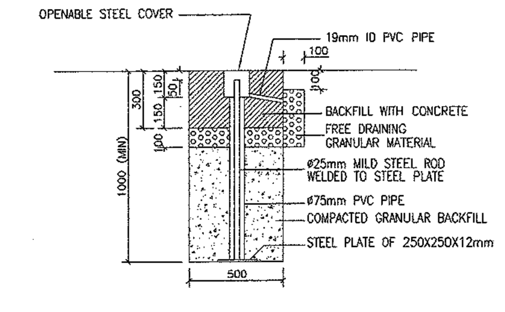
LPMU TRIAL PIT COMPUTER DRAWN P0702-19.GPJ HK_03.GDT 03/03/03

Form No.: PRO/05/07a

Appendix D

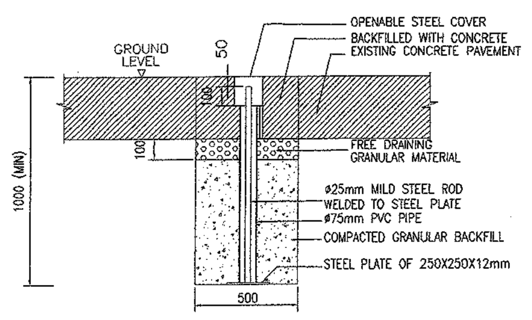
As-built Record





SETTLEMENT MONITORING STATION ON SOIL GROUND

N.T.S.



SETTLEMENT MONITORING STATION ON PAVEMENT

N.T.S.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL COMPLY WITH HONG KONG BUILDING (CONSTRUCTION) REGULATIONS 1990.
2. ALL LEVELS ARE IN METRES ABOVE PRINCIPAL DATUM (+mPD).
3. DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS OTHERWISE STATED.
4. SLOPE ANGLES FOR ALL SOIL CUT SLOPES SHALL BE CONSTRUCTED AS SPECIFIED.
5. ALL SOIL CUT SLOPES SHALL BE PROTECTED BY SHOTCRETE OR CHUNAM AS PER SITE FORMATION LAYOUT PLAN UNLESS OTHERWISE STATED. 50mm DIAMETER WEEPHOLES TO BE PROVIDED AT 1.5m c/c STAGGERED. ALL TEMPORARY OUT SLOPES FORMED ON SITE SHOULD NOT EXCEED 3.0m IN HEIGHT AND 45 DEGREES IN ANGLE.
6. IF GROUND CONDITIONS REVEALED DURING THE PROGRESS OF WORKS DEVIATE FROM THE DESIGN ASSUMPTIONS AS SHOWN ON THE DRAWINGS. THE DESIGN AND EXTENT OF SITE FORMATION WORKS WILL BE REVIEWED, REVISED AND SUBMITTED TO RELEVANT DEPARTMENTS FOR APPROVAL, IF FOUND NECESSARY.
7. EXACT LOCATIONS OF MONITORING CHECK POINTS SHALL BE DETERMINED BY THE ENGINEER ON SITE.
8. ALL FINAL FORMATION SURFACES SHALL BE INSPECTED AND APPROVED BY THE ENGINEER/ARCHITECT PRIOR TO THE APPLICATION OF SURFACE PROTECTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIVERSION AND REINSTATEMENT OF SURFACE DRAINAGE DUE TO THE CONSTRUCTION/EXCAVATION OF PILE CAPS.
10. SITE DRAINAGE (i.e. UC, SC, DOWNPIPE, CATCHPIT & SANDTRAP) SHALL BE CONSTRUCTED AS SHOWN ON THE SITE DRAINAGE PLAN TO COLLECT RUNOFF AND TRANSPORT TO PROPOSED SANDTRAP BEFORE DISCHARGE THE COLLECTED RUNOFF TO EXISTING DRAINAGE SYSTEM. THE PROPOSED DRAINAGE SYSTEM ONLY SERVES SITE FORMATION STAGE, UNLESS OTHERWISE DENOTED WITH (P), THE INDICATED DRAINAGE WILL REMAIN AS PERMANENT DRAINAGE SYSTEM.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING APPROVAL FROM RELEVANT AUTHORITY FOR THE CONSTRUCTION OF DRAINAGE WORK AND DISCHARGE OF STORM WATER INTO EXISTING DRAINAGE SYSTEM, OUTSIDE LOT BOUNDARY, IF NECESSARY.
12. THE CONTRACTOR SHALL VERIFY ALL SETTING OUT, DIMENSIONS AND SITE BOUNDARY DATA AGAINST THE LATEST ARCHITECTURAL DRAWING BEFORE WORK COMMENCES, AND INFORM THE ENGINEER IMMEDIATELY FOR ANY DISCREPANCIES DISCOVERED.
13. BEFORE CONSTRUCTION COMMENCES, THE CONTRACTOR SHALL CONSULT THE VARIOUS SERVICES AND UTILITIES AUTHORITIES TO ACCURATELY LOCATE AND DETERMINE ACCEPTABLE METHODS OF PROTECTION AND/OR RELOCATION OF ALL SERVICES AND UTILITIES AFFECTED BY THE WORKS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORKS NECESSARY FOR THE PROTECTION, RELOCATION AND TEMPORARY DIVERSION OF SERVICES AND UTILITIES.
14. THE CONTRACTOR SHALL TAKE ALL NECESSARY CARE TO PREVENT DAMAGE TO THE ADJACENT PROPERTIES/STRUCTURES. DISPOSAL OF EXCAVATED MATERIAL AND DISCHARGE OF SILTY WATER INTO GOVERNMENT LAND OR EXISTING STREAM COURSES IS PROHIBITED.
15. THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN WORKING IN THE VICINITY OF THE EXISTING DRAINS/CULVERT IN ORDER NOT TO DISTURB, INTERFERE WITH OR CAUSE DAMAGE TO THE DRAINS. ANY DAMAGE SHALL BE MADE GOOD TO THE ENGINEER AND RELEVANT GOVERNMENT DEPARTMENTS SATISFACTION AND AT THE COST OF THE CONTRACTOR.
16. FOR ALL COMPLETED PERMANENT SLOPES AND RETAINING WALLS FOR WHICH THE OWNERS OF THE DEVELOPMENT HAVE MAINTENANCE RESPONSIBILITY, THE INFORMATION REQUESTED IN PNAP 168 WILL BE SUBMITTED TOGETHER WITH THE FORM BA 14.
17. THE MAINTENANCE MANUAL FOR ALL PERMANENT SLOPES AND RETAINING WALLS IN ACCORDANCE WITH PNAP 189 SHALL BE SUBMITTED TOGETHER WITH THE CERTIFICATE FOR COMPLETION (FORM BA14).

NOTES ON MONITORING

1. ALL SETTLEMENT AND TITLING CHECK POINTS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE SITE FORMATION PLAN PRIOR TO COMMENCEMENT OF WORKS.
2. ALL CHECK POINTS SHALL BE SURVEYED AND THE INITIAL READING SHALL BE TAKEN AFTER THE INSTALLATION. INITIAL READINGS FOR ALL CHECK POINTS SHALL BE SUBMITTED TO THE ENGINEER AND BD FOR REFERENCE BEFORE COMMENCEMENT OF SITE FORMATION WORKS.
3. ALL CHECK POINTS AND EXISTING PIEZOMETERS/STANDPIPES (BH2P, BH5P, BH8P) INSTALLED DURING GI SHALL BE MONITORED DAILY THROUGHOUT THE PROGRESS OF CONSTRUCTION WORKS AND BH1P, BH2P BE MONITORED PRIOR TO COMMENCEMENT OF EXCAVATION WORKS. ALL READINGS SHALL BE SUBMITTED TO ENGINEER AND KEPT ON SITE FOR INSPECTION.
4. IN CASE THAT EXCESSIVE OR UNDUE GROUND MOVEMENT IS RECORDED, ANY EXCAVATION WORK SHALL BE CEASED AND THE ENGINEER SHALL BE INFORMED IMMEDIATELY REMEDIAL PROPOSAL SHOULD BE SUBMITTED TO THE SATISFACTION OF AP/ENGINEER PRIOR TO RESUMPTION OF WORKS ON SITE.
5. THE NUMBER AND MONITORING FREQUENCIES OF CHECK POINTS AND PIEZOMETERS/ STANDPIPES SPECIFIED ARE MINIMUM REQUIREMENT ONLY AND SHALL BE INCREASED AS INSTRUCTED BY THE ENGINEER.
6. ALL CHECK POINTS SHOULD BE KEPT IN GOOD CONDITION AND SHALL BE REPAIRED OR REINSTALLED IMMEDIATELY IF FOUND NECESSARY.

PRECAUTIONARY MEASURES OF EARTHWORKS AGAINST HEAVY RAINFALL

1. SURFACE WATER FLOWING INTO THE SITE SHALL BE INTERCEPTED AND CONDUCTED FROM THE SITE TO AN INDICATED SAFE DISCHARGE POINT. AT EACH INTERSECTION AND ABRUPT CHANGE IN DIRECTION OF SURFACE DRAINAGE CHANNELS AN ACCESSIBLE CATCHPIT SHALL BE PROVIDED. ALL DRAINAGE WORKS SHALL BE KEPT CLEAR OF DEBRIS.
2. ALL EARTHWORKS SHALL BE GRADED AND SEALED TO ENSURE RUN-OFF AND TO AVOID PONDING.
3. A METHOD OF WORKING SHALL BE ADOPTED IN WHICH THE MINIMUM OF BARE SOIL IS EXPOSED AT ANY TIME. EARTHWORK TO FORM THE FINAL FACE SHALL BE FOLLOWED UP IMMEDIATELY WITH SURFACE PROTECTION AND THE FACE PANEL SIZE SHALL BE ENOUGH TO PERMIT THIS.
4. EXCAVATION SHALL NOT BE LEFT OPEN ON OR ADJACENT TO SLOPES.
5. IF TRENCHES ON OR ADJACENT TO SLOPE HAVE TO BE EXCAVATED DURING THE WET SEASON THIS SHALL BE DONE WITH EXTREME CARE IN SHORT SECTIONS AT A TIME. PRECAUTIONS SHALL ALWAYS BE TAKEN TO PREVENT WATER ENTERING AND COLLECTING IN THE TRENCH.
6. WHERE TEMPORARY BARE EARTH SLOPE FACES ARE UNAVOIDABLE THEY SHALL BE PROTECTED WITH SHEETING WELL-SECURED AGAINST THE WIND. WHERE SLOPE FACES ARE TEMPORARILY EXPOSED FOR MORE THAN TWO WEEKS TEMPORARY HARD SURFACING SHALL BE PROVIDED AND TEMPORARY DRAINS SHALL BE INSTALLED.
7. ALL TEMPORARY DRAINAGE WORKS PROPOSED BY THE CONTRACTOR SHOULD BE SUBMITTED TO ENGINEER FOR ACCEPTANCE PRIOR TO CONSTRUCTION.

LEGEND:

BH1 P	BOREHOLE NO.1 WITH PIEZOMETER
BH3	BOREHOLE NO.3
	BOUNDARY LINE
+31.80	PROPOSED FORMATION LEVEL +31.80mPD
	EXISTING SLOPE
	PROPOSED 35° (MAX.) CUT SLOPE TO BE SHOTCRETED OR HYDROSEEDED
	PROPOSED 30° (MAX.) CUT SLOPE TO BE SHOTCRETED OR HYDROSEEDED
	PROPOSED 45° (MAX.) CUT SLOPE TO BE HYDROSEEDED
	TO BE BACKFILLED TO MATCH WITH EXISTING ROAD
+44.0	EXISTING GROUND LEVEL +44.0 mPD
	PROPOSED BORED PILE WALL
225 UC 1 : 100	PROPOSED TEMPORARY 225UC 1 IN 100 EXCEPT DENOTED (P) IS PERMANENT DRAINAGE SYSTEM
	BUILDING SCREEN WALL/R.C. PARAPET WALL (DETAILS WILL BE SUBMITTED SEPARATELY)
	PROPOSED MANHOLE (REFER TO E & M DRAWINGS UNDER SEPARATE SUBMISSION)

NOTES FOR SITE FORMATION

1. THE GROUND CONDITIONS WHICH WAS USED AS THE BASIS OF DESIGN IS SHOWN WHERE APPROPRIATE ON THE DRAWINGS. IF DURING WORK ON SITE THE GROUND CONDITIONS ARE FOUND TO BE OTHERWISE THAN AS SHOWN ON THE DRAWINGS, THEN THE DESIGN AND EXTENT OF WORKS MAY BE CHANGED BY THE ENGINEER IN ORDER TO MEET THE GROUND CONDITION AS ENCOUNTERED. ANY DESIGN AMENDMENTS SHALL BE SUBMITTED TO RELEVANT DEPARTMENTS FOR APPROVAL.
2. PRIOR TO APPLYING, IF ANY, BLINDING LAYER TO A FORMATION OR ANY SURFACING OF SLOPE, THE APPROVAL OF THE ENGINEER SHALL BE OBTAINED AND RECORDS SHALL BE TAKEN OF THE EXPOSED GROUND.
3. DURING WORK ON SITE, RECORDS SHALL BE KEPT OF THE GROUND AS ENCOUNTERED. THESE SHALL INCLUDE THE DEPTHS OF SOIL AND ROCK, THE OCCURRENCE OF GROUNDWATER AND THE LOCATIONS OF ANY VOIDS OR AREAS OF SOFT GROUND.
4. ANY DEVIATION IN DIMENSIONS, LEVELS OR METHOD OF CONSTRUCTIONS NECESSITATED BY SITE CONDITIONS SHALL BE STRICTLY ADHERED TO THE ENGINEERS INSTRUCTION.

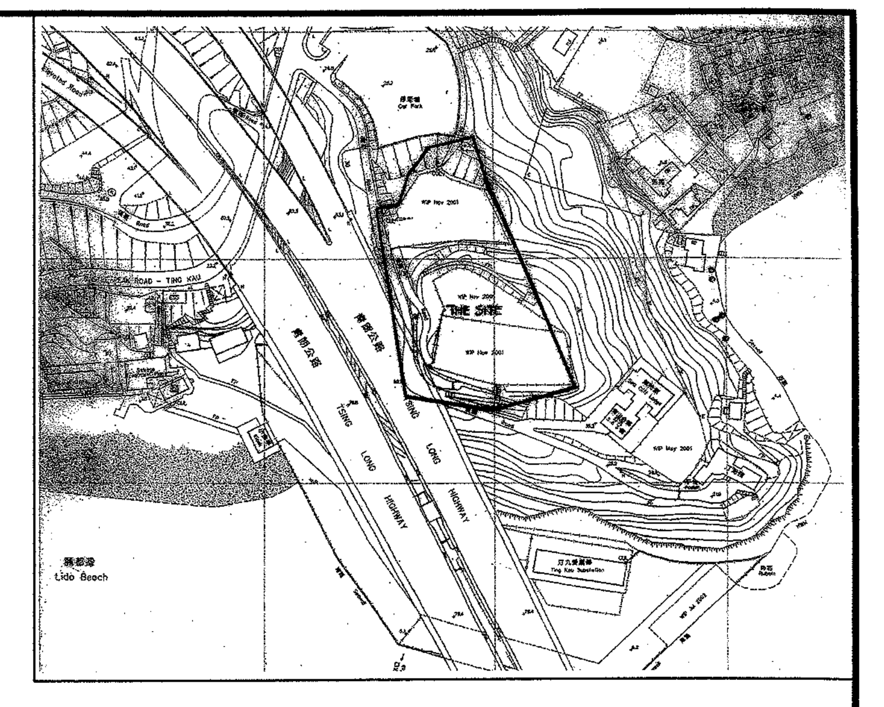
CHUNAM FOR SLOPE SURFACE PROTECTION

1. CHUNAM FOR SURFACING SHALL COMPOSED OF 1 PART OF CEMENT, 3 PARTS OF HYDRATED LIME AND 20 PARTS OF APPROVED NON-ORGANIC SOIL BY WEIGHT. THE CEMENT AND LIME SHOULD BE MIXED DRY BEFORE ADDING THE SOIL.
2. THE SLOPE SURFACE OVER WHICH CHUNAM IS TO BE APPLIED SHALL BE CLEARED OF ALL ORGANIC SOIL.
3. THE CHUNAM SHOULD BE APPLIED IN ONE LAYER OF 20mm THICK
4. THE FINISHED SURFACE SHALL BE KEPT WET FOR SUCH CURING PERIOD AS MAY BE ORDERED BY THE ENGINEER.
5. WEEP HOLES OF 50mm TO BE AT 1.5m CENTERS STAGGERED IN EACH DIRECTION
6. JUST BEFORE THE CHUNAM HARDENS, IT SHALL BE THOROUGHLY WETTED AND RUBBED WITH SACKS TO FILL ANY CRACK DEVELOPED AT THE CHUNAM.

ALLOWABLE BEARING PRESSURE OF RETAINING WALL

RETAINING WALL TYPE	AS BUILT FOUNDING LEVEL (mPD)	DESIGN MAXIMUM BEARING PRESSURE (kPa)	ALLOWABLE BEARING PRESSURE (kPa)
I	+26.00	96.35	163.05
II	+28.00	96.35	163.05
III	+30.20	18.16	88.68

* REMARK : AS BUILT LEVEL = PROPOSED LEVEL



BLOCK PLAN

1 : 2000

Wong Chak Yan, Greg
Registered Geotechnical Engineer, RGE24/83

LU Ronald
Authorized Person (Architect)

Record Drawing

GEO COPY

駿輝建築有限公司
Chun Fai Construction Company Ltd.

Greg Wong & Associates Ltd.
Consulting Engineers & Project Managers
黃澤恩顧問工程師事務所

CLIENT:	SUN HUNG KAI ENGINEERING CO. LTD
ARCHITECT:	RONALD LU & PARTNERS HK LTD.
PROJECT TITLE:	T.W.I.L. 5 & LOT 429 IN D.D. 399, TING KAU, N.T.
DRAWING TITLE:	AS-BUILT RECORD PLAN - SITE FORMATION PLAN (STAGE 2) (PHASE II) (BORED PILE SCHEME)
SCALE :	AS SHOWN
DRAWING NO.	TKH/SF/RP/01

B.D. REF. NO. : BD 6/9131/97

Plotting Scale 1 : 300 in A0

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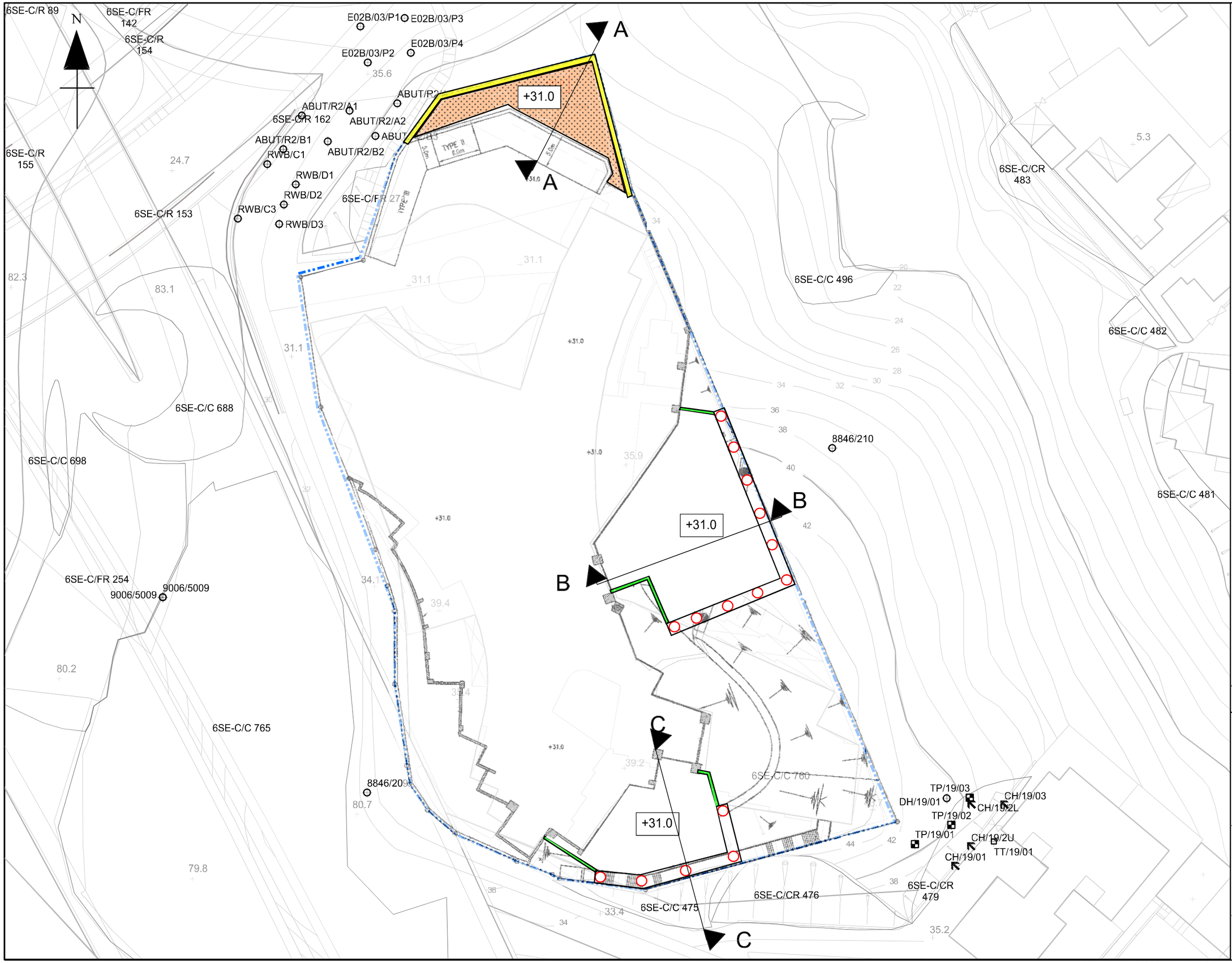
RECEIVED BY
2006 AUG 11 P 4:52
BUILDINGS DEPARTMENT R & D Section

GEO COPY

Attachment of (23) in GCMW 9131/97 Pt.

Appendix D

Previous Approved Site Formation Proposal under Section 12A Application



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Legend

- THE APPLICAITON SITE
- EXISTING COREHOLE
- EXISITNG DRILLHOLE
- EXISITNG TRIAL PIT
- EXISTING TRIAL TRENCH
- EXISITNG GROUND LEVEL
- EXISITNG BUILDING SCREEN WALL
- EXISITNG 35° (MAX.) CUT SLOPE
- EXISITNG 30° (MAX.) CUT SLOPE
- EXISITNG 30° (MAX.) CUT SLOPE
- PROPOSED SOLDIER PILE WALL
- PROPOSED PIPE PILE WALL
- PROPOSED BORED PILE WALL
- PROPOSED COMPACTED FILL
- +31.0 PROPOSED FORMATION LEVEL

Initial	Date	Checked	Date
Kathy		DHE	

Project

Section 12A
Planning Application
for Proposed Amendments to
the Tsuen Wan West
Outline Zoning Plan
in Support of
Private Residential Development with
the Provision of Social Welfare Facility
at TWIL 5 and Lot No. 429
in D.D. 399, Ting Kau, Tsuen Wan

Title

INDICATIVE SITE
FORMATION PLAN

SF/001	Scale 1:500 @ A3

C M WONG & ASSOCIATES LTD

Plot date: 2021-08-12

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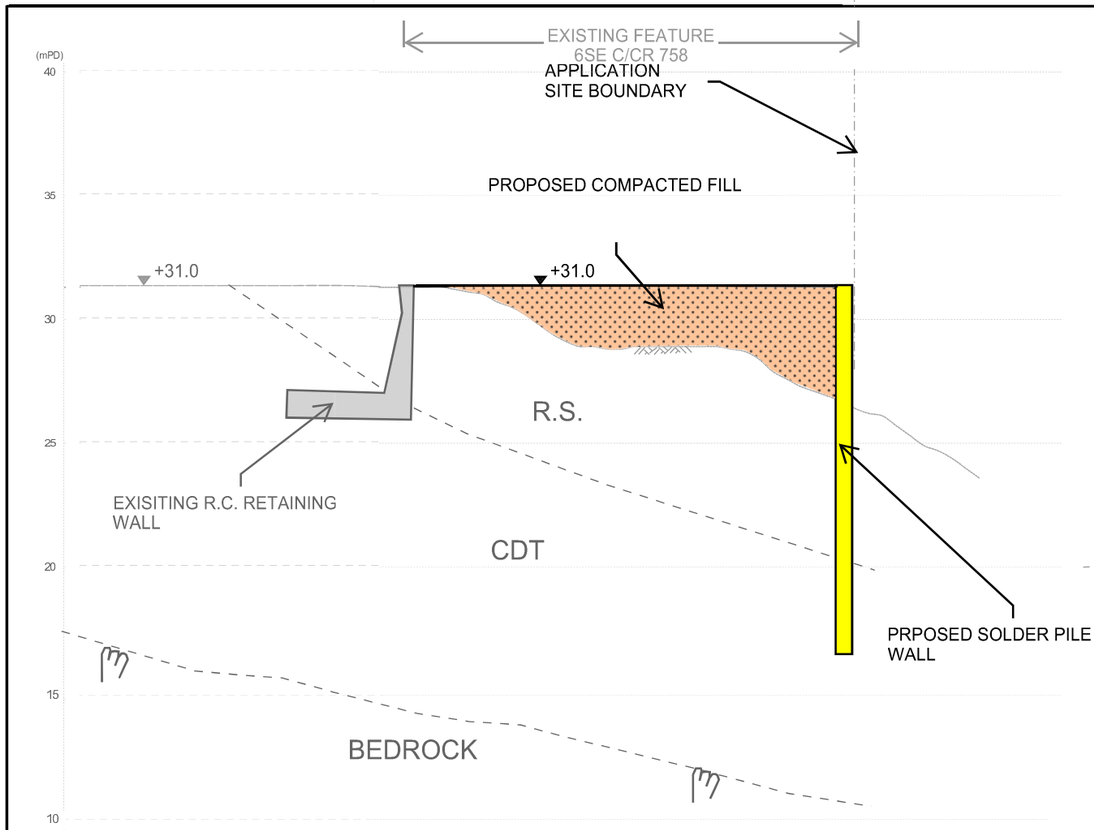
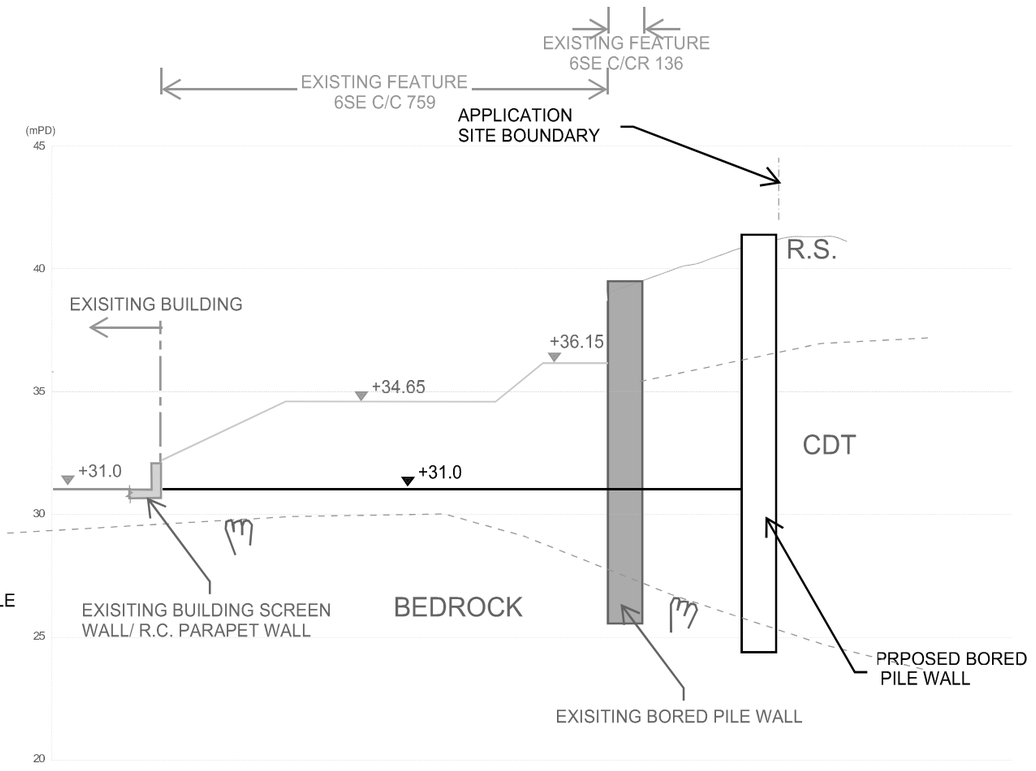
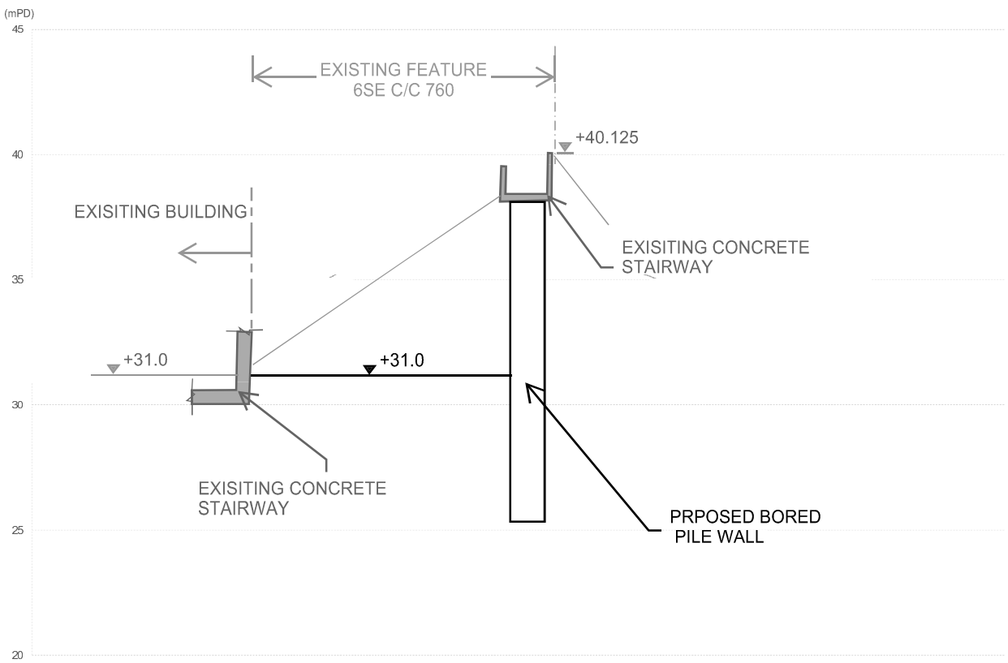


SECTION A-A



SECTION B-B



SECTION C-C

INDICATIVE & FOR REFERENCE ONLY

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Initial	Date	Checked	Date
Kathy		DHE	

Project

Section 12A
Planning Application
for Proposed Amendments to
the Tsuen Wan West
Outline Zoning Plan
in Support of
Private Residential Development with
the Provision of Social Welfare Facility
at TWIL 5 and Lot No. 429
in D.D. 399, Ting Kau, Tsuen Wan

Title

INDICATIVE SITE
FORMATION PLAN
(SECTION A-A TO C-C)

	Scale
SF/002	As shown

C M WONG & ASSOCIATES LTD

Plot date: 2021-08-25

Mxd: C:\Users\che106245\Rsk Group Limited\SHK_Projects - General\Ting Kau Development\GPRR\Map\TIK-GEO-001_202108.mxd