Annex 1

Replacement Pages of Geotechnical Planning Review Report

CONTENTS

1. INTRODUCTION

2. DESCRIPTION OF THE SITE

- 2.1 ADJACENT BUILDINGS
- 2.2 ADJACENT GEOTECHNICAL FEATURES
- 2.3 EXISTING GROUND INVESTIGATION INFORMATION

3. GEOTECHNICAL WORKS ANTICIPATED FOR THE PROPOSED DEVELOPMENT

- 3.1 GROUND INVESTIGATION WORKS
- 3.2 FOUNDATION WORKS
- 3.3 SITE FORMATION AND ELS WORKS

4. CONCLUSION

FIGURES

FIGURE 1	SITE LOCATION PLAN
FIGURE 2	LAYOUT OF ADACENT BUILDINGS

TABLES

TABLE 1	INFORMATION OF ADJACENT BUILDINGS
TABLE 2	INFORMATION OF ADJACENT GEOTECHNCIAL FEATURES
TABLE 3	SUMMARY OF GEOLOGICAL INFORMATION RETRIEVED

APPENDICES

APPENDIX A	SCHEMATIC BUILDING PLANS
APPENDIX B	PHOTOS OF THE SITE, ADJOINING BUILDINGS & WALL FEATURES
APPENDIX C	GEOTECHNICAL FEATURE INFORMATION (EXTRACTED FROM SLOPE
	INFORMATION SYSTEM)
APPENDIX D	EXISTING GROUND INVESTIGATION RECORDS
APPENDIX E	EXISTING SLOPE STABILITY ANALYSIS

2.3 EXISTING GROUND INVESTIGATION INFORMATION

According to Geological Map of Hong Kong published by GCO, CEDD, the geology of the site comprises of equigranular medium-grained granite.

Records of ground investigation works of the area are also retrieved from GIU of CEDD. Ground investigation information at two adjacent locations is found. They are respectively for area adjoining 60 Tai Hang Road and Feature 11SW-A/C430. It is confirmed that the area is covered with thin layer of fill/residual soil generally of silty sand overlaying thick layer of completely decomposed granite of medium silty sand. Depth of N >=200 CDG and MDG/SDG are at 10m to 14.5m and 14.5m to 31.15m below ground respectively.

Summary of subsurface geological information are shown in Table 3 and the records are attached in Appendix C

	Location	Clear	Geological Information						
	/Project Name	Distance	Depths (m)	5					
		Away from the Site	Fill/ Residual Soil	CDG			MDG	MDG/ SDG	Tip of Borehole
#A	Area adjoining 60 Tai Hang Road	10m	1.5 - 3.5m	1.5- 3.5m to 5m	5m to 10m	10m to 15m	7m to 14.5m	14.5m- 31.15m	20.5 – 31.15m
			N= 5 - 14	18 - 45	60 - >200	72 - >200	-	-	
#B	11SE-A/CR430	35.8m	3.95m	3.95m to 6.5m	-	-	-	6.5m to 12.11m	12.11m
			N = 16	5	-	-	-	-	

	Table 3 Summ	nary of Geologi	ical Information	Retrieved
--	--------------	-----------------	------------------	-----------

2.4 EXISTING SLOPE STABILITY ANALYSIS

According to the borehole records retrieved, a trial slope analysis is carried out by SLOPE/W using rational geotechnical parameters for soil. The factor of safety is 1.24 which is greater than 1.2 for existing slope and thus the slope is considered stable. The result is attached in Appendix E.

3. GEOTECHNICAL WORKS ANTICIPATED FOR THE PROPOSED DEVELOPMENT

3.1 GROUND INVESTIGATION WORKS

To affirm geological conditions, ground water levels and information of adjoining retaining wall features, ground investigation works will be carried out by a GIFW contractor at a later stage. The works will include vertical boreholes and trial pits inclusive of relevant field tests and soil laboratory tests.

3.2 FOUNDATION WORKS

Given the geological information available and load intensity of the proposed development, raking mini piles socketed in rock are considered the most appropriate foundation system to carry both vertical and lateral loads in order to avoid additional load to existing slope and to minimize lateral and vertical deformation.

Design shall accord "Code of Practice for Foundations 2017". Effects on pile installation on adjoining grounds and geotechnical features shall be assessed in detail design stage and appropriate precautionary measures shall be implemented to minimize ground borne vibration. AAA system will be implemented to monitor ground water levels, ground settlement, building settlement/tilting and vibration where applicable.

Prior to foundation works, condition surveys will be carried out to ascertain conditions of adjoining buildings and features.

3.3 SITE FORMATION AND ELS WORKS

As the proposed access road is an elevated deck on raking mini-piles, both vertical and horizontal loads will be taken by the piles and there are virtually no additional loads on the slope due to the proposed deck. ELS works would also be minimal, since the proposed pile caps would be above existing slope surface. Therefore, the existing slope will remain stable.

APPENDIX E

EXISTING SLOPE STABILITY ANALYSIS

<u>1.238</u>

