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Prudential Surveyors International Limited
測建行有限公司

9th June 2026

Your Ref.: TPB/A/SLC/199
Our Ref.: 2024/(PSIL)CEDDLTEC/PSIL/CEDD/FI01

By Post & Email (tpbpd@pland.gov.hk)
Town Planning Board Secretariat
15/F, North Point Government Offices
333 Java Road, North Point, Hong Kong

Attn: Secretary, Town Planning Board

Dear Sir/Madam,

Re: Planning Application under Section 16 of Town Planning Ordinance
For Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong
- Further Information 01 of S16 Application No. A/SLC/199 -

We refer to our submission of Further Information 01 (FI01) dated 4th June 2026 (Our Ref.: 2024/(PSIL)CEDDLTEC/PSIL/CEDD/FI01) in support of the captioned Planning Application No. A/SLC/199, we herewith request to supersede the FI01 dated 4th June 2026 and replace it with FI01 dated 9th June 2026 by the following documents, which consist of:-

- "Responses-to-Departmental Comments" Table
  - Attachment 1 – Replacement Pages for Archaeological Baseline Review
  - Attachment 2 – Replacement Pages for Landscape Proposal
  - Attachment 3 – Supplementary Information on Planning Statement
    - Annex A – Habitat Map
    - Annex B – Preliminary Illustration
    - Annex C – Sustainable Building Design
    - Annex D – Technical Clarifications
    - Annex E – Environmental Mitigation and Precautionary Measure
  - Attachment 4 – Replacement Pages for Excavation and Filling Plan
  - Attachment 5 – Replacement Page for Block Plan (Ground Floor)
  - Attachment 6 – Replacement Pages for Visual Impact Assessment
  - Attachment 7 – Replacement Pages for Planning Statement

Please find enclosed four (4) hardcopies of the aforementioned documents.

We trust that the attached FI01 dated 9th June 2026 fully addresses the departmental comments and we look forward to your favourable consideration on the captioned application. Should you have any queries, please do not hesitate to contact the undersigned or [redacted]

9th June 2026

Your Ref.: TPB/A/SLC/199
Our Ref.: 2024/(PSIL)CEDDLTEC/PSIL/CEDD/FI01

Yours faithfully,
For and on behalf of
PRUDENTIAL SURVEYORS INT'L LTD

Raymond C H Tam
Technical Director,
Planning and Development
[redacted]

RT/HT/ht

Cc: (by email)
- SSLO, CEDD
- Sai Kung & Islands District Planning Office, PlanD

Ref: 2024/(PSIL)CEDDLTEC/PSIL/CEDD/RtoC_01

Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong (Section 16 Application No.: A/SLC/199)

Responses to Comments received from Government Departments via Planning Department on 11.05.2026, 12.05.2026, 18.05.2026 and 19.05.2026 on the Proposed Shui Hau Education Centre – Planning Submission (PS) submitted on 23.04.2026

Comments from the Chief Heritage Executive (Antiquities & Monuments), Antiquities and Monuments Office (AMO)		
Item	Comments	Responses
1	Referring to the statement *"Through the surface scan, auger testing and test pit excavation in the Survey Area, the survey concluded that there were unlikely signs of archaeological remains."* In Section 6.2.12 of Appendix N, please revise as *"Through the surface scan, auger testing and test pit excavation in the Tong Fuk Miu Wan SAI, it was concluded that the Site has a low archaeological potential"* to align with the results of EIA in 2017.	Noted. Section 6.2.12 of Appendix N is superseded by the revised version provided in **Attachment 1**.
2	As stipulated in Section 6.7.2 of the Planning Statement and in Appendix N, the Applicant had committed to inform AMO on the works schedule for AMO to conduct site inspection as and when required.	Correct.
Comments from the Chief Town Planner / Urban Design and Landscape, Planning Department (PlanD)		
Item	Comments	Responses
3	Para. 4.1.1, Table 5.2 & Table 5.3 – The scientific names for "小葉青岡", "龍船花", "灑金榕", "天門冬" and "朝鮮草" should be "Cyclobalanopsis myrsinifolia", "Ixora chinensis", "Codiaeum variegatum", "Asparagus cochinchinensis" and "Zoysia tenuifolia" respectively. Moreover, the scientific names in para. 4.1.1 should be italicised.	Noted. The names have been updated to align with botanical scientific names. Para. 4.1.1, Table 5.2, Table 5.3, Figure 4.1 and Figure 5.4 are superseded by the revised version provided in **Attachment 2**.
4	The total number of compensatory trees of whip size is 33 in Table 5.2, but 35 in Para. 4.1.4.	Noted. The correct total number of the whips is 35nos. Table 5.2 is superseded by the revised version provided in **Attachment 2**.
Comments from the District Planning Officer / Sai Kung & Islands, PlanD		
Item	Comments	Responses
5	a. As shown on the Excavation and Filling Plan, please supplement the depth of filling and excavation for foundation works while excluding the height of buildings / structures on ground level after site formation and provide a section plan for better reference. If there is any E&M or ancillary facilities beneath the ground level after site formation, please specify their locations and dimensions.	Supplementary information in response to the comments from the Planning Department is provided in **Attachment 3**.
6	b. The subject site falls within an area zoned "Coastal Protection Area" ("CPA") on the approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 (the OZP). While the subject site is also in proximity	

	to the area zoned "Conservation Area" ("CA") in Shui Hau, a destination for scenic enjoyment and clam digging activities. With due respect to the planning intention of "CPA" zone, which only developments that are needed to support the conservation of the existing natural landscape or scenic quality of the area may be permitted, please elaborate on the relevant operational / management measures from the proposed education centre in support of the conservation of ecological environment in Shui Hau area.	
7	c. The applicant is advised to take note of the public comments received on this application and provide responses as appropriate.	
8	d. The applicant should provide further justification on the current site selection for the proposed education centre within the "CPA" zone, but not other locations in Shui Hau area.	
9	e. In addition to the building height comparison, the applicant should provide photomontage(s) and elaboration to demonstrate whether the scale, design and greening provisions of the proposed education centre are compatible with the surrounding areas zoned "CPA" and "CA".	
10	f. The applicant should provide the capacity of the proposed education centre (i.e. maximum number of visitors for each session and daily; number by walk-in and reservation; number for programmes, exhibition and use of facilities, etc.) taking into account the technical justifications.	
11	g. The applicant should justify these points thoroughly and supplement assessments/reports/appendices as appropriate: (i) significance of Shui Hau ecological environment; (ii) the recommendation of conservation and education initiatives in Shui Hau; (iii) the low-impact site selection criteria and supporting arguments for the current location within Shui Hau; (iv) types of activities and education programmes supported by the proposed education centre; and (v) considerations on mitigation measures during construction and operation stages.	

Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong (Section 16 Application No.: A/SLC/199)

Comments from the Chief Engineer / Construction, Water Supplies Department (WSD)		
Item	Comments	Responses
12	It is noted in Section 6.6.1 that the estimated fresh water demand for the proposed centre is 15.1 m3/d. Please provide the details of the concerned fresh water demand in the submission.	With reference made to EPD's Guidelines for Estimating Sewage Flows and WSD's DI1309 on water demand, the total fresh water daily demand of 15.1 m^3/day is conservatively estimated based on assumed water consumption of 12.0 m^3/day by visitors and participants, and 3.1 m^3/day by staff respectively. For water demand estimate purpose, 1,080 daily visitors and participants and 10 staff are conservatively assumed. As backchecked with the alternative approach adopts unit water demands with reference to WSD's DI1309, the estimated fresh water demand for the Proposed Centre will be noticeably lower.
Comments from Head of the Geotechnical Engineering Office (GEO), Civil Engineering and Development Department (CEDD)		
Item	Comments	Responses
13	It is noted from the application form and supplementary figure 2 that filling works with height ranging from 2.2m to 5.7m for the foundation works are proposed. The applicant should advise whether the purpose of the proposed filling works is to reinstate the temporary excavation pit back to the existing ground level after construction of the proposed foundation. The application should also advise whether the proposed filling works would result in formation of any temporary or permanent fill slopes.	Excavation works will be required to construct the foundation of the Proposed Centre, with excavation depth ranging from 2.8m to 6.3m. After completion of foundation works, excavated soil will be backfilled to the ground up to site formation level similar to the existing ground level ranging from approx. +2.6mPD to +6.1mPD. The depth of associated filling ranges from 2.2m to 5.7m. As such, the filling works will not result in formation of temporary or permanent fill slopes. The excess excavated soil will be dispatched to public filling reception facilities or other construction sites for reuse. Please refer to the supplementary figures in **Attachment 4**. Confirmatory ground investigation will be carried out during the construction stage to verify the geological conditions and to optimise the design of foundation works aiming to further minimise the extent of excavation and filling works.

Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong (Section 16 Application No.: A/SLC/199)

Comments from Chief Town Planner / Urban Design and Landscape, PlanD		
Item	Comments	Responses
14	The applicant may clarify the width of the building setback along South Lantau Road as shown in the Figure 3.1. Please note that the setback should be measured from the plant room rather than the multi-purpose room as the plant room is the structure nearest to South Lantau Road.	Noted. It is confirmed that the setback from the plant room to the South Lantau Road is approx. 7.3m. Appendix B is superseded by the revised version provided in **Attachment 5.** Para. 5.6.1, para. 6.3.2, para. 7.4.2, para. 7.5.2, para. 7.6.2, para. 8.1.4 of Appendix K are superseded by the revised version provided in **Attachment 6**.
Comments from Director of Environmental Protection, Environmental Protection Department (EPD)		
Item	Comments	Responses
15	Noise • Please clarify whether the office and the multi-purpose room in the Proposed Development are equipped with air conditioning, do not rely on openable windows for ventilation, and are not intended for noise-sensitive use. If affirmative, the quantitative road traffic noise calculation in Section 6.2.15 is not required. • Please provide supporting for the peak traffic flow assumed in the note. • Re. S.6.2.15, it is noted that the staff office will not have openable window facing the roadside, please incorporate such assumption for including "angle of view" in the road traffic noise calculation accordingly. • Re. S.6.2.15, please incorporate nearside façade correction in the road traffic noise calculation accordingly. •	The office and multi-purpose room will be equipped with air-conditioning and do not rely on opened windows for ventilation. Under this arrangement, the quantitative road traffic noise calculation is considered not relevant. Para. 6.2.15 of Planning Statement is superseded by the revised version provided in **Attachment 7**.
Comments from Commissioner for Transport, Transport Department		
Item	Comments	Responses
16	Pursuant to the discussion in the meeting with CEDD on 18 Mar 2026, the feasibility of providing a three-point turn facility within the center should be reviewed, as the current arrangement of allowing eastbound coaches to make a U-turn without reverse movement at South Lantau Road is considered non-viable due to site constraints.	It is anticipated that schools and groups visiting the Proposed Centre may arrange coach as a transport means for their participants, and the number of coaches should be limited. For westbound departures, 28-seated coaches may perform a U-turn near the Shui Hau Public Toilet, which is only 500m away from the Proposed Centre while large coaches

		can perform U-turn near Shek Pik Reservoir Commemorative Garden. For eastbound coaches heading to the Proposed Centre, the coaches may perform a U-turn at the roundabout of Ma Po Ping Road in Tong Fuk. To ensure smooth operation, the management staff of the Proposed Centre will provide guidance to drivers on the spot. Information about coaches' travelling routing will be disseminated through various channels, including activity registration forms, confirmation letters, and the Proposed Centre's website. The sizes of the individual facilities have been meticulously designed with land requirements be minimized as far as possible. A three-point turn facility requires occupying an extra area of approximately 80 to 100m^2, which is about 10% of the Proposed Centre's site area. Incorporating such turning facility will significantly reduce usable area to meet different functions, such as greenery and outdoor activity lawn, and compromise the overall layout of the Proposed Centre. In view of the above, providing a three-point turn facility within the Proposed Centre is considered not worthwhile to be pursued.
17	The provision of a bus lay by and pedestrian crossing(s) should be addressed within the current Planning Application. Deferring these items to a later stage may introduce uncertainty regarding feasibility and programme alignment.	With the aim to enhancing convenience for the general public, the Applicant is pursing, under a separate project, minor local improvement works in Shui Hau, including a bus lay-by, a pedestrian crossing, roadside parking spaces, and toilet facilities. A separate study is being conducted, and consultation with relevant departments on the preliminary design is underway. To better deploy resources for works procurement, contract administration, and works supervision, the proposed bus lay-by, pedestrian crossing and

		roadside parking spaces will be packaged into the construction contract for the Proposed Centre. The tender invitation is targeted to commence in Q4 2026. The proposed minor local improvement works will be implemented in phases, with due consideration given to minimising potential traffic impacts in the area. Close liaison will be maintained with the relevant authorities, including the Transport Department and the HK Police Force, to seek their agreement on temporary traffic arrangements before implementation in due course.

Attachment 1

discovered, including Late Neolithic / Early Bronze Age coarse ware, Qing dynasty pottery and evidence of stone working in the form of chipped stone, stone ring cores and fragments.

6.2.9 Two Test Pits (namely Test Pit A and Test Pit B) with 1m x 1m were excavated at the southern end of the coastal hill within the Tong Fuk Miu Wan SAI (**Figure 6.1** refers). The survey findings of the two Test Pits are as the followings:-

- Test Pit A: It contained dark deposit described as ironpan in 1985 and the artefacts recovered included Bronze age pottery and stone working debitage; and
- Test Pit B: It contained coarse pebbles, stone debitage a single Bronze age sherd and Bronze age pottery.

6.2.10 From the survey, artefacts were found in Test Pits A and B. However, taking the consideration to the Survey Area is located about 150m away from the Site and the excavation of Test Pits were at the top of the hill on the opposite side of the valley and separated by a hill and a stream, it is likely that these artefacts would be drifted to the Survey Area and it is unlikely that any in situ archaeological remains will be found in the current nearby Site. Therefore, the survey findings can only be used as a reference.

Archaeological Survey in 2012[11]

6.2.11 A Baseline Archaeological Survey was conducted by DSD in 2012, covering the Tong Fuk Miu Wan SAI. Referring to the Environmental Impact Assessment (EIA) Report for Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works approved in 2017, the location of the proposed Shui Hau SPS, in which the location is identical to that of the Proposed Centre, is considered of **low archaeological potential**.

6.2.12 With reference to Para. 3.5.2 of Annex 11B – Final Site Investigation, Surveys and Testings Report (Volume 2 – Environmental, Part 3) by DSD, one red coarse pottery sherd was retrieved from the sandy layer at Test Pit TFT6[12], dating to the Neolithic period (**Figure 6.1** refers). Only one artefact was discovered, which is considered a small quantity and not significant. It was assumed the found pottery sherd had drifted over and accumulated on the Site, which was not originally from this area and considered a secondary deposit. **Through the surface scan, auger testing and test pit excavation in the Tong Fuk Miu Wan SAI, it was concluded that the Site has a low archaeological potential**. Given the Test Pit TFT6 is located about 10m to northeast of the Site, the potential for finding similar artefacts within the Site is also relatively low. However, the Applicant will implement the recommended mitigation measures as outlined in the Approved EIA.

6.2.13 Based on the latest survey and the close proximately of this test pit, there are no additional in-situ archaeological materials, features or deposits found nearby. It is observed the Site and the surrounding had undergone some land works between 80s to 90s, including farming, terracing activities, and stone working. The remnants of the previous disturbances can be seen in the aerial photo (Photo No.: 04063) dated 31.05.1973 and is reproduced in **Figure 6.2**. In this connection. the Site of the Proposed Centre within the Tong Fuk Miu Wan SAI has low archaeological potential.

[11] Drainage Services Department. (2012). Site Investigation, Surveys and Testings Report (Volume 2 – Environmental, Part 3) of Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works – Investigation.
[12] The location of TFT6 was newly proposed by DSD due to the original location of test pit and auger hole of PT28 was identified having near 2m thick layer of modern fill of stone boulders.

Attachment 2

4 Tree Preservation and Removal Proposal

4.1 Tree Survey Findings

4.1.1 The tree survey for the Application Site was carried out on 3rd and 24th of September 2024. There are 31 nos. of tree (24 nos. of living tree, 7 nos. of dead tree) found within the Site. Outside the Site there are 4 nos. of tree were found in close proximately. The surveyed species include ~~Alangium chinense, Ficus hispida, Acacia confuse, Mallotus paniculatus, Sapium sebiferum, Celtis sinensis and Microcos nervosa~~ *Alangium chinense, Ficus hispida, Acacia confusa, Mallotus paniculatus, Sapium sebiferum*, *Celtis sinensis* and *Microcos nervosa*. The condition of the trees range from poor to fair, and most are of low amenity value. For the Tree Survey details, refer to Tree Assessment Schedule and Tree Photographs (**Annex A** and **Annex B** refers).

	Nos. of Existing Trees
Within Site	31
Total	31

Table 4.1: Summary of Existing Trees

4.1.2 None of the existing trees are protected species listed under the Forestry Regulations, Forests and Countryside Ordinance (Cap. 96 sub. leg.) or are *"Old and Valuable Tree"* or *"Potential Old and Valuable Tree"* as defined in DEVB TC (W) No. 5/2020 *"Registration of Old and Valuable Trees"* or *"Champion Tree"* as identified in the book *"Champion Trees in Urban Hong Kong"*.

4.1.3 35 nos. of whips will be planted on slopes with min. 1.5m spacing, 18 nos. of heavy standard tree will be planted on adjacent slopes with min. 3m spacing within the planting area of the Site, mainly on garden landscaped area, with soil depth of a minimum 1200mm excluding drainage layer. (**Figure 4.1** refers).

4.1.4 A summary of the proposed treatments of existing trees within the Application Site boundary is provided below:-

	Nos. of Existing Trees to be felled	**Nos. Compensatory Trees**
Within Site – (North)	29	18 (Heavy Standard)
Within Site – (South)	2	35 (Whips)
Total	31	53

Table 4.2: Summary of Treatment of Existing Trees

4.1.5 The calculation of compensatory planting ratio is as shown below:-

Compensatory Planting Ratio Calculation					
Total nos. of trees proposed to be felled	=	35	nos.		
Total DBH of trees proposed to be felled	=	**9,140**			mm
Total nos. of Proposed Heavy Standard Trees	=	18			nos.
Total nos. of Proposed Whip Trees	=	35			nos.
Total nos. of Proposed Compensatory Planting	=	18 + 35	=	**53**	nos.
DBH of Heavy Standard Tree	=	95			mm
Total Proposed Heavy Standard Trees DBH	=	18 × 95	=	**1,710**	mm
DBH of Whip Tree	=	10			mm
Total Proposed Whip Trees DBH	=	35 × 10	=	**350**	mm
Total Proposed Compensatory Planting DBH	=	1,710 + 350	=	**2,060**	mm
Compensatory Planting Ratio in terms of number	=	35 : 53	=	**1 : 1.51**	(>1:1)
Compensatory Planting Ratio in terms of aggregated DBH	=	9,140 : 2,060	=	**1 : 0.23**	(<1:1)

Table 4.3: Compensatory Planting Ratio Calculation

size of low shrubs will vary from 300mm to 600mm whilst the tall shrubs will be above 800mm. For groundcovers, 100mm to 300mm size will be provided.

5.4.5 **Table 5.2** indicated the Proposed Compensation Trees:-

No.	Species	Chinese Name	Size	Quantity	Species Native/ Exotic
FEATURED TREE / COMPENSATORY TREE					
1	*Sapium sebiferum*	烏桕	Heavy Standard	1	**Native**
2	*Polyspora axillaris*	大頭茶	Heavy Standard	5	**Native**
3	*Livistona chinensis*	蒲葵	Heavy Standard	8	**Exotic**
4	*Pyrus calleryana*	豆梨	Heavy Standard	1	**Native**
5	*Viburnum odoratissimum*	珊瑚樹	Heavy Standard	3	**Native**
6	*Bridelia tomentosa*	土密樹	Whip	6	**Native**
7	*Quercus championii*	嶺南青岡	Whip	6	**Native**
8	*Quercus myrsinifloria or Cyclobalanopsis myrsinifolia*	小葉青岡	Whip	~~6~~ 7	**Native**
9	*Reevesia thyrsoidea*	梭羅樹	Whip	6	**Native**
10	*Cleistocalyx nervosum* Water Adoptable	水翁	Whip	~~9~~ 10	**Native**
					Total Native Species: 45 (85%) Total Exotic Species: 8 (15%)
					Total: 53

Table 5.2: Proposed Compensation Trees.

5.4.6 In the landscape proposal, only one exotic species, *Livistonia chinensis* was selected; all the other trees are native species. The *Livistonia chinensis* was selected as it can contribute to the local biodiversity as a habitat creator and food source. This selection is not excessive, considering that only 15% of the total 53 trees planted are exotic.

5.4.7 The species in the **Table 5.3** will form the basis of the planting schedule with the reference image shown in Figure 5.4.

The below plant will be considered at the details design stage*		
No.	**Species**	**Chinese Name**
BUTTERFLY-FRIENDLY SEASONAL CHANGING PLANT		
1	*Crotalaria retusa*	吊裙草
2	*Lantana camara*	馬纓丹
3	*Duranta erecta "Lass"*	蕾絲假連翹
4	~~*Chinese ixora*~~ *Ixora chinensis*	龍船花
5	*Orthosiphom aristatus*	貓蘇草
6	*Gardenia jasminoides*	梔子花
7	*Agapanthus africanus*	百子蓮
8	*Angelonia angustifolia*	狹葉天使花
9	*Belamcanda chinensis*	射干
10	*Canna indica*	美人蕉
11	*Hedychium coronarium*	薑花
12	*Iris tectorum*	鳶尾
13	*Asclepias curassavica*	馬利筋
14	*Zephyranthes candida*	蔥蘭

The below plant will be considered at the details design stage*		
No.	**Species**	**Chinese Name**
EVERGREE SHRUB / GROUND COVER		
1	~~*Codlacum varlegatum*~~ *Codiaeum variegatum*	灑金榕
2	*Phyllostachys aurea*	羅漢竹
3	*Liriope spicata*	山麥冬
4	~~*Asaparagua densiflorous "Sprengeri"*~~ *Asparagus cochinchinensis*	天門冬
5	~~*B. Zoysia tenuiflia*~~ *Zoysia tenuifolia*	朝鮮草
ROOFTOP PLANT		
1	*Cyanotic cristata*	四孔草
2	*Callisia repens*	洋竹草
3	*Portulaca oleracea*	馬齒莧

Table 5.3: Planting Schedule
**Note: Species selection will be subject to detail design development & market availability*

5.5 Soil Depth, Drainage and Irrigation

5.5.1 In order to provide adequate soil depth and to use natural soil mix, 1,200mm soil depth excluding drainage layer for tree planting is designed. In general, the soil depth provided, with all drainage layer, water-proofing and protective screening exclusive is listed below:-

Planting Type	Soil Depth (Minimum)
Tree / Palm Tree	1,200mm
Shrub	600mm
Groundcover	450mm
Turf	300mm

Table 5.4: Soil Depth of Planting Types

5.5.2 Drainage system for each planter will be provided and under checked for all planting areas.

5.5.3 The irrigation system consists of three parts, i.e. the planters at grade will be served by traditional manual watering with irrigation points. Inaccessible Green roofs will be served by automatic irrigation system.

5.5.4 Water points at 20m hose radius will be provided for effective maintenance and watering of plants.

5.6 Landscape Area Provision

5.6.1 The Proposed Centre will include about not less than 20% of greenery of landscape area including at-grade green space, outdoor activity lawn and roof green system.

5.7 Site Coverage of Greenery

5.7.1 Not less than 20% of greenery (of total site area of 1,110 sq.m.) will be achieved in accordance with the requirement of Buildings Department PNAP (APP-152).

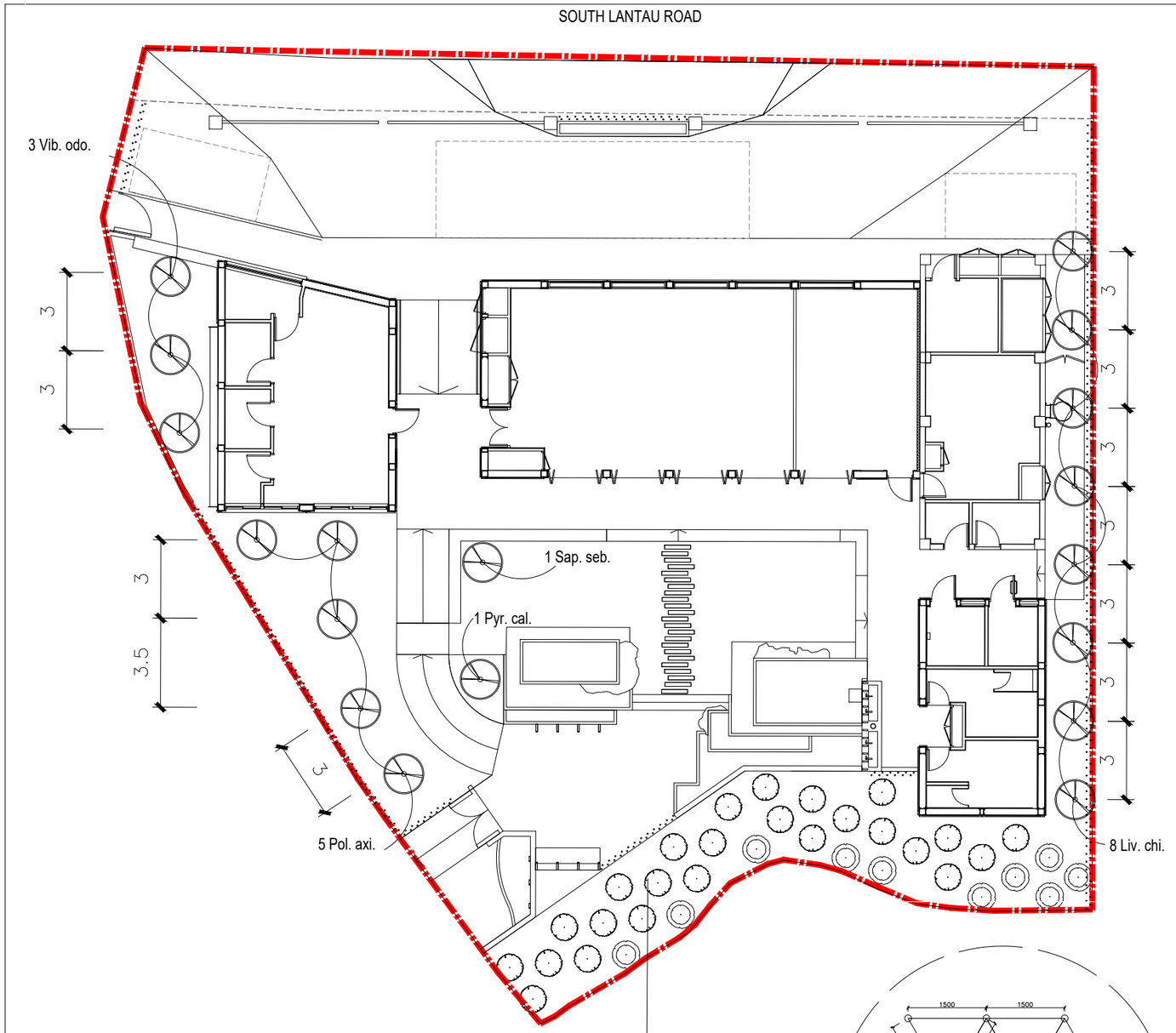
Area of the Site = 1,110 sq.m.

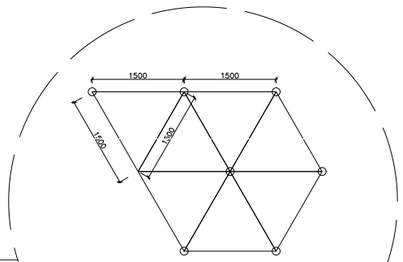
Site Coverage of Greenery Requirements: -

a) Minimum Total Greenery Areas = 222 sq.m. (i.e. 20% of Area of the Site)

b) Minimum At-grade Greenery Area = 111 sq.m. (i.e. 10% of Area of the Site)

5.7.2 Not less than 20% of greenery will be provided (**Figure 5.7** refers).





WHIP MIX w/.
SPACING 1.5M

WHIP MIX SPACING

SCALE 1:100

SCALE BAR 1:200

0 5 10 20

LEGEND:

COMPENSATED TREE

COMPENSATED WHIP MIX

COMPENSATED WATER ADOPTABLE WHIP MIX

APPLICATION SITE

LEGEND	Botanical Name	Chinese Name	Size (mm)	Quantity
Sap. seb.	*Sapium sebiferum* (Native)	鳥桕	Heavy standard	1
Pol. axi.	*Polyspora axillaris* (Native)	大頭茶	Heavy standard	5
Liv. Chi.	*Livistona chinensis* (Exotic)	蒲葵	Heavy standard	8
Pyr. cal.	*Pyrus calleryana* (Native)	豆梨	Heavy standard	1
Vib. odo.	*Viburnum odoratissimum* (Native)	珊瑚樹	Heavy standard	3
WHIP MIX	*Bridelia tomentosa* (Native)	土密樹	Whip mix	6
	Quercus championii (Native)	嶺南青岡	Whip mix	6
	Quercus myrsinifolia or Cyclobalanopsis myrsinifolia (Native)	小葉青岡	Whip mix	7
	Reevesia thyrsoidea (Native)	梭羅樹	Whip mix	6
	Cleistocalyx nervosum (Native) Water Adoptable whip	水翁	Whip mix	10

File Name :
Source :

CEDD 土木工程拓展署 Civil Engineering and Development Department

PRUDENTIAL 測建行 SURVEYING · LAND ADVISORY · VALUATION

JOB TITLE:
Section 16 Application for
Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong

Drawing Title
Tree Compensatory Plan

Rev	Description	Date
-	Submission	18/02/2025
A	Layout Update	10/03/2025

Drawn: WC | Date: 26/09/24
Checked: KC | Approved: KC
Scale: 1:200@A3
Drawing No.: Fig. 4.1
Rev.: A

Featured Tree /Compensatory Tree


Sapium sebiferum
烏桕


Pyrus calleryana
豆梨


Polyspora axillaris
大頭茶


Viburnum odoratissimum
珊瑚树


Quercus myrsinifolia or Cyclobalanopsis myrsinifolia
小葉青岡


Quercus championii
嶺南青岡


Livistona chinensis
蒲葵


Bridelia tomentosa
土密樹


Reevesia thyrsoidea
梭羅樹

Butterfly-Friendly Seasonal Changing Plant


Crotalaria retusa
吊裙草


Lantana camara
馬纓丹


Duranta erecta "Lass"
薑絲假連翹


~~Chinese ixora~~
Ixora chinensis 龍船花

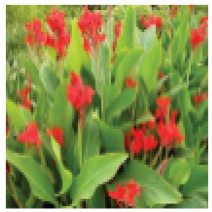

Orthosiphon aristatus
猫蘇草


Gardenia iasminoides
栀子花


Agapanthus africanus
百子蓮


Angelonia angustifolia
狹葉天使花


Belamcanda chinensis
射干


Canna indica
美人蕉


Hedychium coronarium
薑花


Iris tectorum
鳶尾


Asclepias curassavica
馬利筋


Zephyranthes candida
葱蘭

Evergreen Shrub/Ground Cover


~~Codiaeum variegatum~~
Codiaeum variegatum
灌金榕


Phyllostachys aurea
羅漢竹


Liriope spicata
山麥冬


~~Asparagus densiflorous~~ ~~Sprengeri~~'
Asparagus cochinchinensis
天門冬


~~B.Zoysia Tenuiflia~~
Zoysia tenuifolia
朝鮮草


Gardenia iasminoides
栀子花

File Name
Source

CEDD 土木工程拓展署 Civil Engineering and Development Department	PRUDENTIAL	JOB TITLE: Section 16 Application for Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong	Drawing Title: SOFTSCAPE REFERENCE IMAGERY	Rev / Description / Date	Drawn / Date	Drawing No.	Fig. 5.4
					Checked / Approved		
					Scale: 1 : 200 @ A3	Rev.	-

Attachment 3

Section 16 Application No. A/SLC/199

In response to the comments from the Planning Department, the following is provided to elaborate collectively as supplementary information:

Background

Strategic Context

1. The Proposed Centre at Shui Hau is situated within the Government's strategic policy framework for Lantau, as set out in the Sustainable Lantau Blueprint (June 2017) and further developed in the Lantau Conservation and Recreation Masterplan (2020). Under the overarching principle of "Development in the North; Conservation for the South" adopted in the Sustainable Lantau Blueprint (the Blueprint), and taking into account the characteristics of different parts of Lantau, CEDD has formulated the Lantau Conservation and Recreation Masterplan (the Masterplan) to provide a framework guiding conservation and recreation initiatives, and to orchestrate public and private projects better for achieving synergy in the conservation of Lantau.

2. The Blueprint adopts the spatial planning principle of "Development in the North; Conservation for the South", under which the southern part of Lantau, is to be conserved for its natural, cultural and heritage resources, with "low-impact leisure and recreational uses" developed where appropriate for public enjoyment. The Blueprint's major planning principle of Nature and Cultural Conservation emphasises that conservation resources should, where appropriate, be utilised for "education, eco-recreation and eco-tourism". The Masterplan operationalises this strategic direction by providing the overall framework for conservation and recreation in South Lantau, including the concept of the South Lantau Eco-recreation Corridor (the Corridor), and by identifying broad conservation and recreation priorities and site-based opportunities. As mentioned in para. 1.1.2 of the Planning Statement, CEDD is pursuing the beneficial use of the rich natural, historical and cultural resources of South Lantau for ecotourism or sustainable recreational uses under the context of the Corridor, which covers Cheung Sha, Shui Hau, Shek Pik and Pui O. The Proposed Centre is to be taken forward as one of the proposals under the Corridor.

3. The 2023 Policy Address promulgated that South Lantau should be pursued for eco-tourism or recreational uses, with diversified eco-recreational facilities at Cheung Sha, Shui Hau, Shek Pik and Pui O. The 2024 Policy Address announced to expedite the development of the Corridor.

4. The Proposed Centre thus reflects the policy intent of "balancing development and conservation" by strengthening the protection of natural, cultural and heritage resources, while facilitating the provision of

environmental and cultural education. The proposal is also aligned with the Policy Address.

Site Selection

Rich Ecological Value of Shui Hau

5. Shui Hau possess various habitats of high ecological value. The Executive Summary of the Planning Statement states that, Shui Hau boasts a rich ecological environment, including sandflats, wetlands, woodlands, and streams, which confers exceptional educational and conservation value and makes it particularly suitable for a targeted nature education facility. According to CEDD's ecological study previously conducted, namely "Ecological study for Pui O, Shui Hau, Tai O and neighboring areas – Feasibility Study" (the Ecological Study), over 560 species of flora and fauna were recorded in Shui Hau. The habitat map of Shui Hau surrounding area under the Ecological Study is provided in **Annex A**. This underscores the area's biodiversity significance and educational potential. The Shui Hau sandflat is a very rare and distinctive habitat in Hong Kong, preserving a seamless connection between terrestrial and marine natural habitats, as well as a gradual transition in the natural landscape. Of particular conservation importance, Shui Hau functions as an important breeding and nursery ground for the Chinese horseshoe crab (which is declared 'endanger' under the International Union for Conservation of Nature Red List of Endanger Species), and is very rich in variety and abundance of other intertidal organisms. Shui Hau also serves as a stopover site for migratory birds and is an important breeding and nursery ground for amphibians and odonates. The Ecological Study recommended establishing an education centre on government land to the northeast of Shui Hau, which corresponds to the Application Site (the Site) mentioned in the Planning Statement, to raise public conservation awareness and generate synergy with other conservation initiatives across areas of South Lantau.

Long History and Cultural Heritage of Shui Hau

6. Shui Hau is located between Tong Fuk and Shek Pik in South Lantau. Its name, literally "water mouth", was said to be originating from its location near the river mouth. Shui Hau has a long history which its name is listed in the *Gazetteer of Xin'an County* in 1819.

7. There are three major clans, surnamed Chi, Fung and Chan in Shui Hau. The Chi is said to move from Shek Pik Village earliest in 1625, then came the Fung from Shek Pik while the Chan, recorded in 1979, has been the 12th to 13th generation in Shui Hau. Prior to the construction of the South Lantau Road, villagers of Shui Hau made a living with rice farming. They also used to catch seafood such as clams and sea snails for food at the bay of Shui Hau.

8. Of the traditional buildings in Shui Hau, numbers 49 and 50 of Shui Hau are two graded III historic buildings with pitched roofs, green bricks and green glazed ceramic balustrades, were built by the Chan clan in the 1920s. Along a pair of boundary stones and the earth god shrine, the villagers also conduct ritual ceremony to Tai Wong Yeh, which is represented by two stones in a shrine, on the 16th day of the 12th lunar month and the 2nd day of the 1st lunar month for protecting the village and ensure abundant harvests. The Proposed Centre would also provide a platform to promote Shui Hau's cultural heritage, helping to sustain local traditions and strengthening public awareness of the village's historical value.

Public concerns and the need for an education-led approach

9. There are public concerns about possible haphazard and uncontrolled development in South Lantau, including Shui Hau. To better protect the natural and landscape character of the area to avoid disturbance to the natural environment, an area of about 626 ha (including the environmentally and ecologically sensitive area in Shui Hau) has been designated as Regulated Area under the South Lantau Coast Outline Zoning Plan No. S/SLC/23 to enable the Planning Authority to instigate enforcement actions against any unauthorised developments. Other than legal enforcement for controlling unauthorised developments, there are increasing public concerns about the potential threats due to the human activities at Shui Hau posed to the habitats of high ecological value. In particular, public concerns have been raised about the impact of excessive clam digging activities at Shui Hau sandflat during weekends and public holidays on existing ecological habitats. Recent observations recorded a daily average of 380 visitors at Shui Hau, with peak reaching approximately 1,000 visitors during public holiday or weekends. Excessive clam digging activities may disrupt the ecological roles of clams, including water purification and food web support, thereby disrupting the equilibrium of the ecosystem. Clam diggers should be educated on responsible and sustainable clam digging practices to avoid or minimise habitat disturbance, and allow juvenile clams to grow and reproduce. In this context, the Proposed Centre will help promote public awareness of environmental protection and conservation as well as responsible visitor behaviour, and support long-term conservation of the area.

Site Suitability and Locational Advantages

10. As mentioned in Section 7.3 of the Planning Statement, the location of the Proposed Centre has been strategically selected. Located adjacent to South Lantau Road, the Site is convenient to be accessed by means of public transport. The Proposed Centre's prominent, easily identifiable and accessible position will provide a convenient gathering point for giving briefings to participants prior to guided tours and field studies. The Site sits at a popular entry point to the Shui Hau sandflat, thereby enabling early and proactive reaching out to engage visitors with information on how to protect horseshoe crabs and the surrounding coastal environment. In the past,

education booths could only be temporarily set up at the Shui Hau sandflat on a short-term basis to support this kind of public education promotion activities. The Site's close proximity to Shui Hau Village also further facilitates collaboration with local villagers and the organization of cultural guided tours.

11. Within Shui Hau, the Site comprises available government land of a suitable size to accommodate an education facility of the required scale. No rare or protected tree species, registered/registerable Old and Valuable Trees, or plant and animal species of conservation importance have been recorded on the Site. Having regard to connectivity, accessibility, potential environmental and visual impacts, land availability and other factors, the Site is considered an appropriate location for the Proposed Centre to promote conservation and education in Shui Hau and is considered the most suitable and practical option for implementation.

In Line with Planning Intention of "Coastal Protection Area" ("CPA") Zone

12. As mentioned in Section 4 and para. 7.2 of the Planning Statement, the Site falls within an area zoned "CPA" under the approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 (the OZP). According to the Schedule of Uses of "CPA" zone under the OZP, "*in general, only development that are needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted".* The Proposed Centre will serve as an education base to promote the ecological value of the Shui Hau area and other ecologically sensitive areas in Lantau, as well as the local traditional village culture and customs, and to raise public awareness of nature conservation. In collaboration with relevant departments and interested parties, the geographical advantage of the Proposed Centre can be utilized to conduct on-going ecological monitoring, review habitat conditions and quality, assess the effectiveness of conservation measures, and identify any potential adverse changes at an early stage. The Proposed Centre will also facilitate proactive reaching out to engage visitors with information on how to protect horseshoe crabs and the surrounding coastal environment.

13. The Proposed Centre is intended to be small in scale (total floor area of about 440m^2) and focused on guided education programmes, research support and community outreach, thereby minimising its physical and ecological footprint while maximising educational benefits. The illustration is provided in **Annex B** to show the indicative scale, design and greening provisions of the Proposed Centre. In this regard, the Proposed Centre is considered to be conservation-supportive in nature and compatible with the planning intention of the "CPA" zone.

Role of the Proposed Centre in Conservation Outcomes and Visitor Management

14. As explained in the Planning Statement, the proposed use of the Proposed Centre is to serve as an education base to promote the natural ecological value of the Shui Hau area as well as the local traditional village culture and customs and raise public awareness of nature conservation. By providing a structured venue for interpretation and coordinated activities, the Proposed Centre is intended to:

- concentrate educational uses in an appropriately managed setting;
- help promote environmental protection awareness among visitors through various publicity and educational efforts on avoiding or minimizing potential disturbance to sensitive habitats; and
- support long-term conservation outcomes through a combination of education, monitoring support, and community participation.

Sustainable Building Design

15. The Proposed Centre will also serve as a demonstration of how sustainable building design can be integrated into the project. Where appropriate and subject to detailed design, the Proposed Centre may incorporate the following elements. For illustration purpose, the sustainable building design arrangement is shown in **Annex C.**

a. photovoltaic system
   - solar panels may be installed to generate renewable electricity on-site. The electricity produced can help offset a portion of the Proposed Centre's power consumption (for example, lighting and small power loads), thereby reducing reliance on grid electricity and lowering carbon emissions from operation;

b. bio-filtration / detention and infiltration rain garden
   - bio-filtration / detention and infiltration rain garden may be introduced as a landscape feature to capture, temporarily store (detain), and naturally filter stormwater runoff. The system can slow down the flow of rainwater, improve water quality through bio-filtration (using soil and plants), and allow water to infiltrate into the ground where suitable. Where feasible, collected and treated rainwater may also be reused for landscape irrigation, reducing potable water demand;

c. skylights at roof
   - roof skylights may be incorporated to bring daylight deeper into interior spaces. This can improve indoor visual comfort and reduce the need for artificial lighting during daytime hours, contributing to

energy savings while creating a brighter, more pleasant environment for visitors;

d. permeable paving
   - permeable or porous paving may be used in selected outdoor areas (e.g., walkways or forecourts) to allow rainwater to pass through the ground surface and seep into the underlying layers/soil. This approach helps reduce surface runoff, lowers peak discharge to drains and thus reduce the burden on the drainage system, and supports more sustainable stormwater management;

e. biophilic design elements
   - the Proposed Centre may incorporate biophilic design measures that enhance biodiversity and improve visitor experience. These may include planting species suitable for butterfly foraging and habitation, installing bird houses and perches, and providing "insect hotels" to offer shelter and nesting spaces for insects. Collectively, these features can encourage urban wildlife, support ecological education, and create a more engaging natural setting, and thus strengthen the connection between visitors and nature;

f. green roof and vertical greening
   - green roof and vertical greening may be provided on the roof and external walls to enhance green coverage, enabling the Proposed Centre to better blend with the surrounding natural environment. These features will provide vegetation layers for birds and insects to inhabit, thereby enhancing local biodiversity. These features can also help reduce direct solar radiation from reaching the building, and thus lowering indoor temperature and reducing energy consumption.

Preliminary Operational Mode

16. As mentioned in para. 5.3.2 of the Planning Statement, the Proposed Centre will function as a platform for environmental conservation and culture-based activities in collaboration with non-governmental organisations (NGOs), educational groups, relevant government departments and nearby villagers. The overall purpose of these programmes is to:
    - enhance visitors' awareness of environmental conservation, particularly the local ecology and sensitive habitats in and around Shui Hau; and
    - strengthen understanding and appreciation of rural culture, including local traditions, livelihoods and community heritage.

Potential Activities

17. Activities are expected to take the form of exhibitions, seminars, talks, workshops, guided tours and field studies, supported by community

engagement and ecological monitoring initiatives, where possible. Further to the information provided in the Planning Statement, the following elaborates on potential educational elements under consideration:

(a) Exhibitions
- exhibitions supported by augmented reality (AR) technology and interactive elements to present ecological and cultural themes in an engaging manner; and
- intend to strengthen visitors' basic understanding before entering the surrounding environment, supporting more responsible behaviour for avoiding inadvertent disturbance.

(b) Talks, workshops and seminars
- talks and workshops to enhance visitors' understanding of Lantau's ecology and heritage while fostering expert collaboration;
- seminars to bring together experts and scholars to discuss conservation issues and explore collaboration opportunities; and
- intend to build an informed visitor base and create a mechanism for specialist exchange and collaboration.

(c) Guided tours and field studies
- hands-on experiences and site-based learning, such as guided tours and field studies for visitors, enabling them to gain a better understanding of local species, habitat and ecosystems through real-world observation;
- these activities would be designed to improve understanding while promoting managed access (i.e., guided movement, appropriate viewing areas, and avoidance of access to sensitive habitats); and
- intend to provide meaningful visitor experiences.

(d) Collaboration with NGOs, schools and academic institutions
- partnerships with NGOs and academic institutions to implement diversified conservation activities to foster a strong sense of stewardship for environmental protection among visitors;
- collaborations with the AFCD on public education activities such as distributing leaflets, and sharing information with visitors on protecting horseshoe crabs and coastal environment to enhance public awareness of nature conservation;
- partnerships with schools and academic institutions to provide experiential learning opportunities for students; and
- intend to ensure programmes are credible, varied, and aligned with broader conservation objectives.

(e) Ecological monitoring

- subject to feasibility and detailed planning, the Proposed Centre may explore the use of artificial intelligence (AI) technology to support monitoring ecological conditions at Shui Hau; and
- intend to strengthen evidence-based understanding of site conditions and support continual improvement of conservation and education efforts.

(f) Community engagement and cultural continuity

- community-based activities such as eco-tours, cultural talks, and traditional craft workshops may be organized, in partnership with nearby villagers, NGOs, and academics; and
- intend to strengthen community cohesion and social harmony, support mutual understanding between visitors and local residents, and promote conservation awareness in a manner that respects local culture and livelihood.

Staffing and Opening Hours

18. As mentioned in Section 5.3 of the Planning Statement, the daily operation of the Proposed Centre is expected to require about five on-site staff. The Proposed Centre would operate from 9:30am – 4:30pm on Mondays, Wednesdays to Sundays, and public holidays, and would be closed on every Tuesday except public holidays.

Activity Delivery and Capacity Management

19. Activities at the Proposed Centre will primarily be conducted on a pre-registration basis to facilitate activity planning and participant management. It is anticipated that each activity session could accommodate an average of about 20 to 50 participants, with more than 60 educational activities to be held annually. Effective visitor management measures, such as registration at the entrance, will be implemented to receive walk-in visitors. This approach helps maintain oversight of visitor flows and supports clear communication of site guidance and behavioural expectations.

<u>Foundation works with Excavation of Land</u>

20. Excavation works will be required to construct the foundation of the Proposed Centre. Based on the available ground investigation information, the superficial soil layer of the site comprises mainly a mixture of colluvium and clayey silt, which is comparatively soft. Excavation is anticipated to be required to found the foundation at an appropriate soil stratum with sufficient bearing capacity, ranging from approximately 2.8m to 6.3m in depth. Upon completion of the foundation works, excavated soil will be backfilled to the ground up to site formation level similar to the existing ground level ranging

from approximately +2.6mPD to +6.1mPD. The depth of associated filling is expected to range from 2.2m to 5.7m. As such, the filling works will not result in formation of temporary or permanent fill slopes. The excess excavated soil will be dispatched to public filling reception facilities or other construction sites for reuse. Please refer to the supplementary figures in **Attachment 4** of the responses to comments.

21. Confirmatory ground investigation will be carried out during the construction stage to verify the geological conditions and to optimise the design of foundation works aiming to further minimise the extent of excavation and filling works.

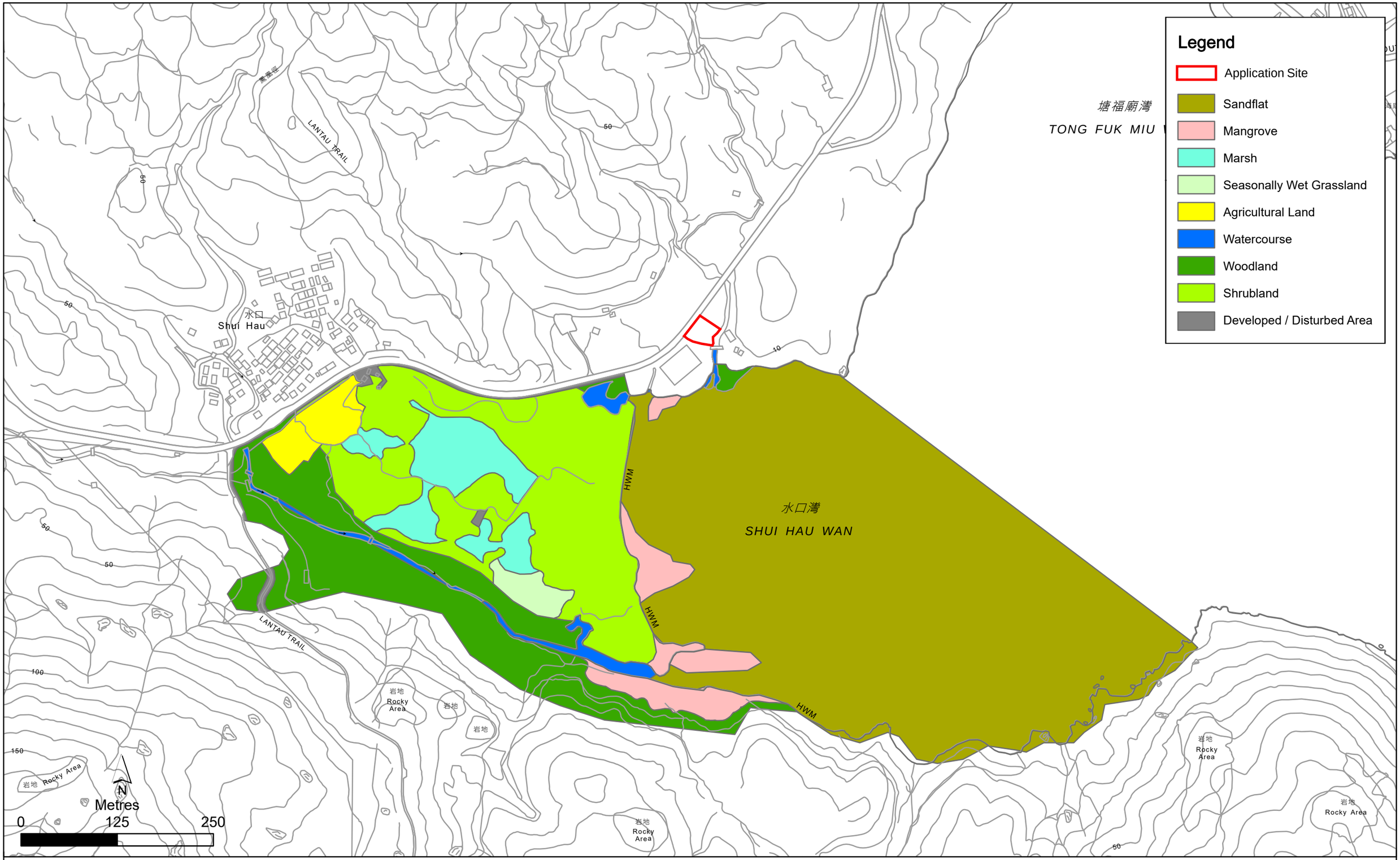
Technical Clarifications

22. Further to the information in the Planning Statement, technical clarifications on water supply, sewage, drainage and traffic are provided in **Annex D** for PlanD's information.

Environmental Mitigation and Precautionary Measures

23. The ecological sensitivity of Shui Hau is well recognised. To avoid or minimize potential environmental impacts in various aspects, comprehensive environmental mitigation and precautionary measures have been formulated with reference made to the relevant legislations and guidelines, including but not limited to Water Pollution Control Ordinance (Cap. 358), Waste Disposal Ordinance (Cap. 354), Air Pollution Ordinance (Cap. 311), Professional Persons Environmental Consultative Committee Practice Notes (ProPECCPN), such as ProPECC PN 1/24 and ProPECC PN 2/24, Environmental, Transport and Works Bureau Technical Circular (Works) No. 5/2005, etc. The environmental mitigation and precautionary measures planned to be implemented during construction and operation stages, including those proposed in Sections 6.2 to 6.7 of the Planning Statement, are summarised in **Annex E**.

Annex A



Habitat map of the study area in Shui Hau under "Ecological study for Pui O, Shui Hau, Tai O and neighboring areas - Feasibility Study"

Annex B

Preliminary Illustration of the Proposed Centre

Annex B

Indicative only

Preliminary Illustration of the Proposed Centre

Annex B

Annex C

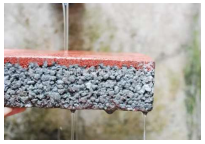
Proposed sustainable building design elements

Annex C

a 
Photovoltaic panel

b 
Bio-filtration / detention and infiltration rain garden

c 
Skylight at roof

d 
Permeable paving

e 
Butterfly garden


Bird houses


Insect hotel

f 
Green roof


Vertical greening

(Biophilic design elements)

Annex D

Technical Clarifications

Further to the information provided in the Planning Statement, the following technical clarifications are provided for PlanD's information.

Water Supply

1. Further to the information about the estimated fresh water demand for the Proposed Centre provided in para. 6.6.1 of Planning Statement, the following elaboration is provided as supplementary information.

2. Reference has been made to the relevant standards, code of practice, guidelines and design manuals, including:
   - WSD's Civil Engineering Design Manual;
   - EDP's Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning;
   - Manual of Mainlaying Practice (2012 edition);
   - WSD's DI N0.1309; and
   - Guidelines for Hydraulic Modelling, WS, AD/NW's memo ref. (24) in WSD/CONS/01/50 Pt.1 dated 26.6.2017

3. The total fresh water daily demand of 15.1 m^3/day is conservatively estimated based on assumed water consumption of 12.0 m^3/day by visitors and participants, and 3.1 m^3/day by staff respectively, with reference to the EPD's Guidelines for Estimating Sewage Flows and WSD's DI 1309 on water demand. For water demand estimate purpose, 1,080 daily visitors and participants and 10 staff are conservatively assumed. A summary is provided in **Table 1.**

4. New water mains are proposed to tee off from the nearby existing water supply network. As the water demand is relatively small, the existing water supply system could cater for the water demand arising from the Proposed Centre.

Sewage

5. Further to the information about the estimated sewage generation for the Proposed Centre provided in para. 6.4.1 of Planning Statement, the following elaboration is provided as supplementary information.

6. Reference has been made to the relevant standards, code of practice, guidelines and design manuals, including:
   - EPD's "Guidelines for Estimating Sewerage Flows for Sewerage Infrastructure Planning" (GESF);
   - DSD's Sewerage Manual (Part 1) – Key Planning Issues and Gravity Collection System; and
   - DSD's Sewerage Manual (Part 2) – Pumping Stations and Rising Mains

7. The total Average Dry Weather Flow (ADWF) of 13.6 m^3/day is estimated based on assumed unit flow factor of 0.01 m^3/day for visitors and participants, and 0.28 m^3/day by staff respectively, with reference to the EPD's Guidelines for Estimating Sewage Flows. For sewerage generation estimate purpose, 1,080 daily visitors and participants and 10 staff are conservatively assumed. A summary is provided in **Table 2**.

8. The public sewerage at South Lantau is being planned and implemented in a progressive manner. The public sewerage, including the Shui Hau Sewage Pumping Station, is yet to be available in Shui Hau. There will be no discharge of sewage from the Proposed Centre to the local environment. An underground tank is designed as an interim measure to store the sewage generated from the Proposed Center. The tank is designed with a capacity of 127 m^3, which is more than 9 times the estimated total ADWF, with an additional 30% allowance for contingency.

9. A licensed service provider will collect and dispose of the stored sewage regularly. Monthly inspection and regular desilting will be carried out by the service provider to avoid excess buildup within the tank. Monitoring sensors will be installed to keep track the sewage level in the tank to prevent sewage overflow.

10. Provision for facilitating future connection to the nearby public sewerage, when available, will be allowed in the design of the Proposed Centre. The Applicant will keep in close liaison with DSD for the earliest possible sewerage connection.

11. Based on the above, no adverse sewerage impact is anticipated. The Applicant will implement appropriate environmental mitigation measures during construction and operation stages including those summarised in Annex E of Attachment 3 of this further information.

Drainage

12. Further to the information about the drainage aspect provided in para. 6.5.1 of Planning Statement, the following elaboration is provided as supplementary information.

13. Reference has been made to the DSD's Stormwater Drainage Manual (Fifth edition, January 2018) and its Corrigenda Nos. 1/2022, 1/2024 and 2/2024.

14. As mentioned in para. 6.5.1 of Planning Statement, surface runoffs from the Proposed Centre will be naturally drained or be properly collected and discharged to existing drainage system. With reference to DSD's Stormwater Drainage Manual and its Corrigenda, the runoffs from the Proposed Centre are estimated by rational method with a 50-year storm return

period adopted for estimating the rainfall intensity, taking into account the effects of climate change up to end of 21st Century and design allowance for the uncertainties in the range of possible future climate change development and global actions among nations on reducing carbon emissions. The runoff coefficient for green area, porous paving and roofing are taken as 0.2, 0.4 and 0.9 respectively. A summary of estimation of runoff from the Proposed Centre is summarised in **Table 3**.

Table 3 – Summary of estimation of runoffs from the Proposed Centre

Rainfall intensity (mm/hr)	Runoffs from the Centre (m^3/s)			Total runoff (m^3/s)
	Green Area	Porous Paving	Roofing	
357	0.0046	0.0176	0.0313	0.0535

15. The capacity of existing drainage system in adjacent to the Proposed Centre is reviewed and summarised in **Table 4**. It shows that the incremental surface runoff from the Proposed Centre could be accommodated by the existing drainage system. No adverse impact on the existing drainage is anticipated.

Table 4 – Summary of capacity of the existing drainage system

Cumulative runoff (m^3/s)	Capacity of existing drainage (m^3/s)	Proportional capacity
0.1058	0.1980	0.53

16. The Contractor will be required to observe relevant requirements to make proper temporary drainage arrangement to ensure that the existing drainage system adjacent to the Site would not be affected at the construction stage. The Contractor shall follow the relevant guidelines and site practices, including those outlined in DSD Technical Circular No. 1/2017 "Temporary Flow Diversions and Temporary Works Affecting Capacity in Stormwater Drainage System", DSD Practice Note No. 1/2004 "Design Rainfall Depth for Temporary Works within the Dry Season", ProPECC PN 2/24 "Construction Site Drainage" and Environmental, Transport and Works Bureau Technical Circular (Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works", as appropriate.

17. Based on the above, no adverse drainage impact is anticipated. The Applicant will implement appropriate environmental mitigation measures during construction and operation stages including those summarised in Annex E of Attachment 3 of this further information.

Traffic

18. Further to the information about the traffic aspect provided in section 6.1 of Planning Statement, the following elaboration is provided as supplementary information.

19. Activities at the Proposed Centre will primarily be conducted on a pre-registration basis to facilitate activity planning and participant management. It is anticipated that each activity session could accommodate an average of about 20 to 50 participants, with more than 60 educational activities to be held annually. It is noteworthy that South Lantau Road is a Closed Road. Motorists who wish to access roads on South Lantau are required to hold a valid Lantau Closed Road Permit issued by the Transport Department. Visitors are expected to take public transport to the Proposed Centre, while schools and groups visiting the Proposed Centre will arrange coach as transport means for their participants. Information about suggested transportation for visitors and travelling routing for coaches will be disseminated through various channels, including activity registration forms, confirmation letters, and the Proposed Centre's website. Visiting schools and groups will be suggested to utilize 28-seater coaches. For smooth operation, the management staff of the Proposed Centre will provide guidance to drivers.

20. For each activity session targeted at visiting schools and groups, it is anticipated that two 28-seater coaches will be utilized to meet the anticipated participant demand, which is equivalent to three passenger car unit (pcu). The total incremental daily traffic is expected to range from five to ten coaches per day. For traffic generation estimate purpose, three pcu/hr of traffic generation rate is conservatively assumed.

21. Taken into account the three pcu/hr generated, the road link performance of South Lantau Road is presented in **Table 5**. The result shows that South Lantau Road will perform satisfactorily when the Proposed Centre is in operation.

Table 5 – Road Link Performance

Road Link	Capacity (pcu/hr)	Traffic Flow (pcu/hr) (1)				V/C Ratio (2)			
		AM Peak	PM Peak	Week end Peak	Public Holiday Peak	AM Peak	PM Peak	Week end Peak	Public Holiday Peak
South Lantau Road near Tong Fuk Beach E/B	1990	95	115	115	115	0.1	0.1	0.1	0.1
South Lantau Road near Tong Fuk Beach W/B	1990	140	75	145	125	0.1	0.1	0.1	0.1

Note :
(1) Traffic flow is forecasted with reference to the traffic count survey conducted in 2022, 2019-based Territorial Population and Employment Data Matrices from Planning Department and historical traffic data from Annual Traffic Census, taking into account of the anticipated traffic generation from the Proposed Centre during operation.
(2) V/C ratio is rounded up to the nearest 0.1.

22. As mentioned in para. 6.1.5, the traffic generated during construction stage will be temporary and limited to small number of vehicles delivering construction plant and materials. Traffic diversion or impact on existing right-of-way, is not anticipated.

23. In view of the above, no significant traffic impact would be induced by the Proposed Centre. During the construction period, the Applicant will establish a traffic management liaison group (TMLG) to discuss and vet the temporary traffic arrangements (TTAs) for the Proposed Centre. TMLG comprises the Hong Kong Police Force, the Transport Department as well as the Applicant's site supervision team and contractor. In addition, the Applicant will set up telephone hotline and closely liaise with the local community for prompt response to public enquiries or complaints.

Table 1

Estimation on total fresh water daily demand for the Propsoed Centre

Employee	Sewerage Unit Flow Factor for Employee	Conversion Factor [1]	Fresh Water Unit Flow Factor for Employee	No. of Employee	Fresh Water Daily Demand of Employee
	(A_E)	(B_E)	(C_E)=(A_E)/(B_E)	(D_E)	(E_E)=(C_E)*(D_E)
	(m^3/unit/day)	(%)	(m^3/unit/day)	(Unit)	(m^3/day)
	0.28 [2]	90	0.31	10	3.1

Visitor	Sewerage Unit Flow Factor for Visitor	Conversion Factor [1]	Fresh Water Unit Flow Factor for Visitor	No. of Visitor	Fresh Water Daily Demand of Visitor
	(A_V)	(B_V)	(C_V)=(A_V)/(B_V)	(D_V)	(E_V)=(C_V)*(D_V)
	(m^3/unit/day)	(%)	(m^3/unit/day)	(Unit)	(m^3/day)
	0.01 [3]	90	0.011	1080	12

	(F)=(E_E)+(E_V)
Total	**15.1 m^3/day**

Notes:

(1) 90% of water demand contributes to the sewage flow is assumed.

(2) With reference to EPD's Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning, the sewerage unit flow factor comprises 0.2 m^3/day for community, social and personal services and 0.08m^3/day for commercial employee.

(3) It is assumed that visitors will be staying about 1 to 2 hrs per day within the facility on average. The unit flow factors for flushing use, has assumed flushing water consumption of 0.1m^3/day for visitor usage. The unit flow factor from washing use is based on assumed consumption of 0.03m^3/day. This results in unit flow factor of 0.01m^3/day.

As backchecked with the alternative approach adopting unit water demands from WSD s DI1309, the estimated fresh water demand for the Proposed Centre will be noticeably lower.

Table 2

Estimation on Sewage Generated from the Proposed Shui Hau Education Centre

Employee	Sewerage Unit Flow Factor for Employee (1)	No. of Employee	Total Average Dry Weather Flow
	(m^3/unit/day)	(unit)	(m^3/day)
	0.28	10	2.8

Visitor	Sewerage Unit Flow Factor for Visitor (2)	No. of Visitor	Total Average Dry Weather Flow
	(m^3/unit/day)	(unit)	(m^3/day)
	0.01	1080	10.8

Total	13.6 m^3/day

Notes:

(1) With reference to EPD's Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning, the sewerage unit flow factor comprises 0.2 m^3/day for community, social and personal services and 0.08m^3/day for commercial employee.

(2) It is assumed that visitors will be staying about 1 to 2 hrs per day within the facility on average. The unit flow factors for flushing use, has assumed flushing water consumption of 0.1m^3/day for visitor usage. The unit flow factor from washing use is based on assumed consumption of 0.03m^3/day. This results in unit flow factor of 0.01m^3/day.

Annex E

Environmental Mitigation and Precautionary Measures

Reference has been made to the relevant legislations and guidelines, including but not limited to:

- Water Pollution Control Ordinance (Cap. 358)
- Waste Disposal Ordinance (Cap. 354)
- Air Pollution Control Ordinance (Cap. 311)
- ProPECC Practice Notes (latest version)
- Environmental, Transport and Works Bureau Technical Circular (Works) No. 5/2005

Aspects	Construction phase	Operation phase
Air Quality	• All trucks carrying dusty loads are required to be securely covered to prevent dust dispersion as per Air Pollution Control (Construction Dust) Regulation • The Site will undergo regular spraying with water on construction day, in alignment with the dust suppression measures outlined in the Air Pollution Control (Construction Dust) Regulation. Wheel washing system at exit points of the site will be provided • Excavation activities will be strategically sequenced to minimize the duration and extent of dust-generating operations at the Site • A limited number of powered mechanical equipment and vehicles will be utilized at the Site. The non-road mobile machinery used at the Site will follow the prescribed emission standards and requirement under Air Pollution Control (Non-road Mobile Machinery)	• Given no openable window and fresh air-intake will be located within the 5m buffer distance with reference to Hong Kong Planning Standards and Guidelines, no adverse air quality impact on the Proposed Centre due to vehicular emission arising from South Lantau Road is anticipated

Aspects	Construction phase	Operation phase
	(Emission) Regulation • Appropriate mitigation measures under EPD's Recommended Pollution Control Clauses (Air Pollution Control) for Construction Contracts will be implemented during the construction phase to minimise air quality impacts on the Site • Before works commence, the Contractor will submit their working methods, construction plant/equipment lists, and air pollution control plans for inspection and approval	
Noise	• Quality Powered Mechanical Equipment recognized by EPD will be used • Appropriate mitigation measures under EPD's Recommended Pollution Control Clauses (Noise Control) for Construction Contracts, such as use of quieter construction plants (e.g. mini-excavators and noise enclosures), will be implemented during the construction phase to minimise noise impacts on the Site and its surroundings • Construction Noise Management Plan will be prepared by in accordance with ProPECC PN 1/24 "Minimizing Noise from Construction Activities"	• With reference to "Good Practices on Ventilation System Noise Control", partial enclosures and silencers will be applied for the mechanical ventilation and air conditioning system equipment to achieve noise attenuation • Prior to the operation phase, commissioning test will be conducted to ensure the fixed plant noise could comply with relevant noise criteria as stipulated in the HKPSG • A regular plant maintenance programme will be developed and implemented so that equipment is properly operated and serviced in order to maintain a controlled level of noise
Waste management	• The inert C&D materials generated during the construction will be reused on-site as far as practicable. The remaining materials will be dispatched to public filling reception facilities or other	• Recycling bins will be provided to promote recycling of waste • General refuse will be collected on a regular basis and delivered to the refuse transfer station by a reputable

Aspects	Construction phase	Operation phase
	construction sites for reuse • Non-inert C&D materials such as timber and woody materials generated from tree felling and vegetation clearance will be systematically delivered to the Yard Waste Recycling Centre in Y-Park for recycling • Non-inert C&D materials such as paper, plastic, steel, and glass will be reused and recycling wherever feasible • A trip-ticket system will be implemented to monitor the disposal of C&D material at landfills and public fill reception facilities, as appropriate, and to control fly tipping • All dump trucks engaged on site will be equipped with GPS or equivalent automatic system for real time tracking and monitoring of their travel routes and parking locations • Appropriate mitigation measures under EPD's Recommended Pollution Control Clauses (Waste Management) for Construction Contracts will be implemented during the construction phase • Waste Management Plan will be prepared for waste management and reduction • If chemical wastes are to be produced at the construction site, the Contractor will be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes	waste collector to avoid odour nuisance or pest / vermin problem • For yard waste generated, the 3R principles - Reduce, Reuse, and Recycle - will be duly considered. Priority will be given to reuse and recycling options wherever practicable, thereby minimising the quantity of yard waste requiring final disposal

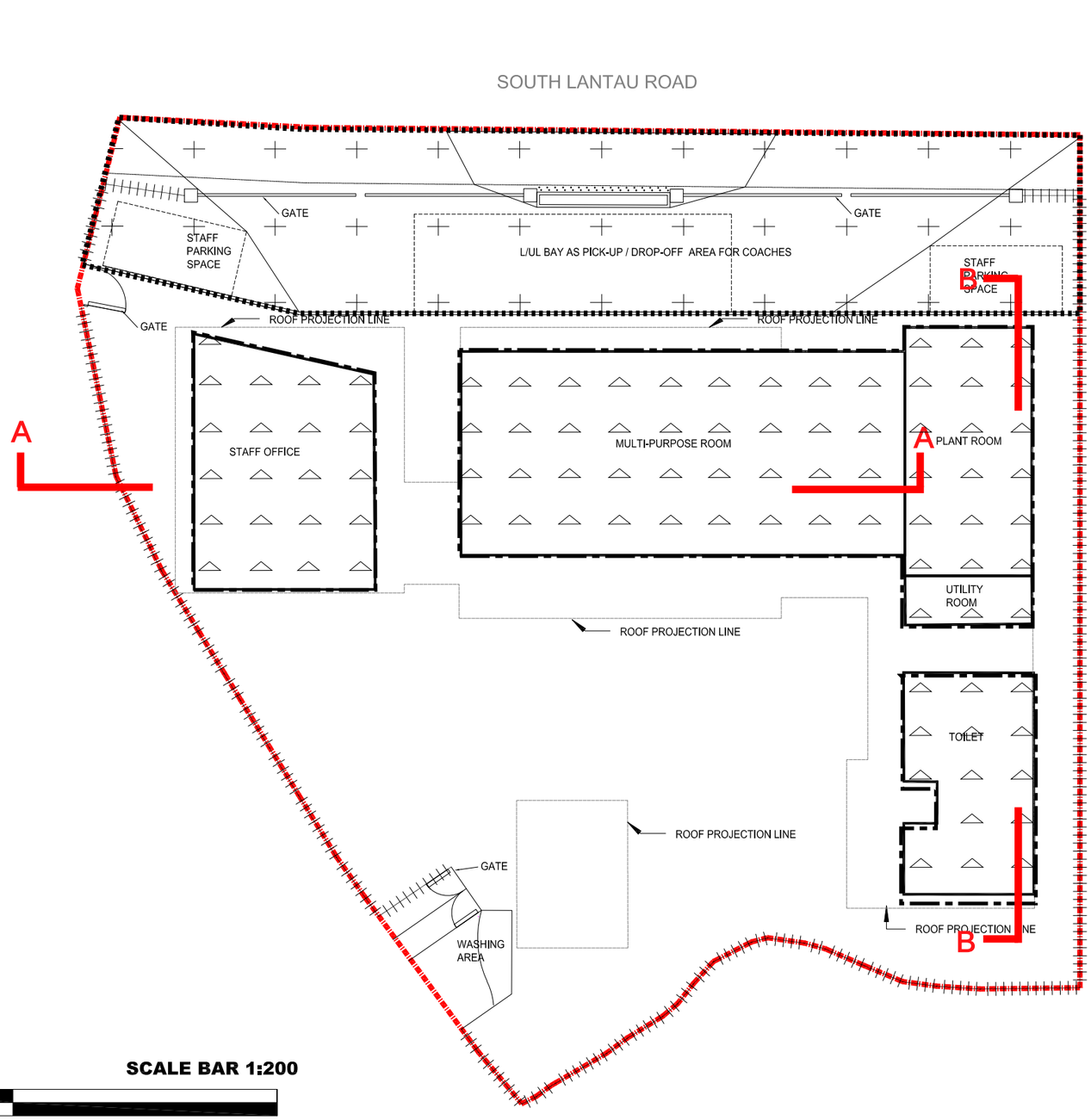
Aspects	Construction phase	Operation phase
Ecology	• Temporary works areas, storage areas and human activities associated with the construction works will be confined within the Site • Robust fencing will be used to fence off the Site to ensure the construction works will not encroach onto adjacent habitat areas • Good practices with respect to drainage aspect as mentioned in under this Annex will be implemented. In the event of rain or at any time when rainstorms are likely to happen, exposed surface within the works area would be covered by tarpaulin or by other means.	• Mitigation measures with respect to lighting and bird friendly design aspects mentioned under this Annex will be incorporated • The well-vegetated riparian area will be retained as far as practicable with the supplementary planting of whip mix
Drainage	• Silt removal facilities, i.e. sand/silt traps, recommended in Appnedix A1 of ProPECC PN2/24 will be installed • Good site practices in accordance to ProPECC PN 2/24 "Construction Site Drainage" and Environmental, Transport and Works Bureau Technical Circular (Works) No. 5/2005 "Protection of natural streams/rivers from adverse impacts arising from construction works", DSD Technical Circular No. 1/2017 "Temporary Flow Diversions and Temporary Works Affecting Capacity in Stormwater Drainage System", DSD Practice Note No. 1/2004 "Design Rainfall Depth for Temporary Works within the Dry Season", will be implemented • A watercourse protection zone will be established at a minimum distance of 3 metres from the bank of the adjacent watercourse, within which no material	• The sewage generated from the Proposed Centre will be stored in an underground tank • A licensed service provider will collect and dispose of the stored sewage regularly • Monthly inspection and regular desilting will be carried out by the service provider to avoid excess buildup within the tank • Monitoring sensors will be installed to keep monitoring the sewage level of the tank to prevent sewage overflow • Provision for facilitating future connection to the nearby public sewerage, when available, will be allowed

Aspects	Construction phase	Operation phase
	stockpiling and construction activities will be allowed • A watercourse protection proposal, covering drainage layout, erosion and sediment control measures, monitoring plan and emergency spill response procedures, will be prepared prior to construction • Precautionary actions for rainstorms will be taken with reference to the guidelines in Appendix A2 of ProPECC PN 2/24 • In the event of rain or at any time when rainstorms are likely to happen, exposed surface within the works area would be covered by tarpaulin or by other means • Construction debris and spoil would be covered up and /or disposed of as soon as possible • Sufficient mobile toilets will be provided in the works area, with a licensed waste collector employed to clean the toilets on a regular basis. All discharges during the construction phase of the Project are required to comply with the WPCO-TM issued under Section 21 of the WPCO • Waste oil will be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance • Oil and fuels should only be used and stored in designated areas which have pollution prevention facilities • Oil interceptors will be provided in the drainage system where necessary and regularly emptied to prevent the release of oil and grease in the storm water drainage system	

Aspects	Construction phase	Operation phase
	• Intercepting channels shall be provided to prevent storm runoff from washing across exposed soil surfaces	
Traffic	• The traffic generated from vehicles delivering construction plant and materials during construction stage will be limited and traffic impact is not anticipated	• The education activities will be conducted mainly via appointment-based registration to facilitate event arrangement and visitor management • Information will be disseminated through various channels about public transport means to the Proposed Centre and the routing to the Proposed Centre for schools and groups who will arrange coach as transport means for their participants • 1 no. of L/UL bay for coach will be provided within the Site to minimise the possible impact on South Lantau Road • During the construction period, the Applicant will establish a traffic management liaison group (TMLG) to discuss and vet the temporary traffic arrangements (TTAs) for the Proposed Centre. TMLG comprises the Hong Kong Police Force, the Transport Department as well as the Applicant's site supervision team and contractor. In addition, the Applicant will set up telephone hotline and closely liaise with the local community for prompt response to public enquiries or complaints.

Aspects	Construction phase	Operation phase
Monitoring, Inspection and Reporting	• Regular checking will be conducted to ensure satisfactory implementation of necessary mitigation measures on site • Requirements for conducting regular site environmental monitoring will be specified in the contract documents. "Emergency and response plan" will also be specified for prompt notification of any environmental non-compliance events and responsive actions needed to be taken	-
Lighting and bird friendly design	• Lighting provision to meet operational requirement or for safety and security purpose will be allowed as minimum as practicable and carefully controlled at night to minimize potential light impact. Lighting will be switched off or dimmed down when it is not operationally required • All luminaires will be downward-facing and appropriately shielded • No direct glare will be directed towards adjacent habitat areas, particular the adjacent watercourse and sandflat • A lighting plan, covering illumination contour drawings, lighting fixture details orientation and shielding arrangements will be prepared before commencement of the construction	• Lighting provision to meet operational requirement or for safety and security purpose will be allowed as minimum as practicable. Lighting will be switched off or dimmed down when it is not operationally required • All luminaires shall be downward-facing and appropriately shielded • No direct glare shall be directed towards adjacent habitat areas • Bird friendly design will be incorporated to minimise the risk of bird collisions, including applying high contrast visual markers on exterior glass surfaces and switching off or dimming down the lighting when it is not operationally required

Attachment 4



LEGEND:

SITE BOUNDARY

FENCE

EXTENT OF EXCAVATION AND FILLING FOR FOUNDATION WORKS

AREA OF FILLING = ABOUT 291sq.m.
DEPTH OF FILLING = FROM 2.2m to 5.7m

AREA OF EXCAVATION = ABOUT 291sq.m.
DEPTH OF EXCAVATION = FROM 2.8m to 6.3m

EXTENT OF EXCAVATION AND FILLING FOR L/UL BAY AND STAFF PARKING SPACE

AREA OF FILLING = ABOUT 260sq.m.
DEPTH OF FILLING = FROM 0.1m to 0.5m

AREA OF EXCAVATION = ABOUT 260sq.m.
DEPTH OF EXCAVATION = FROM 0.1m to 0.5m

REMARKS:

PROPOSED MAXIMUM HEIGHT OF BUILDING = 4.35m

*FOR INDICATIVE USE ONLY

File Name : -
Source : -

CEDD 土木工程拓展署 Civil Engineering and Development Department

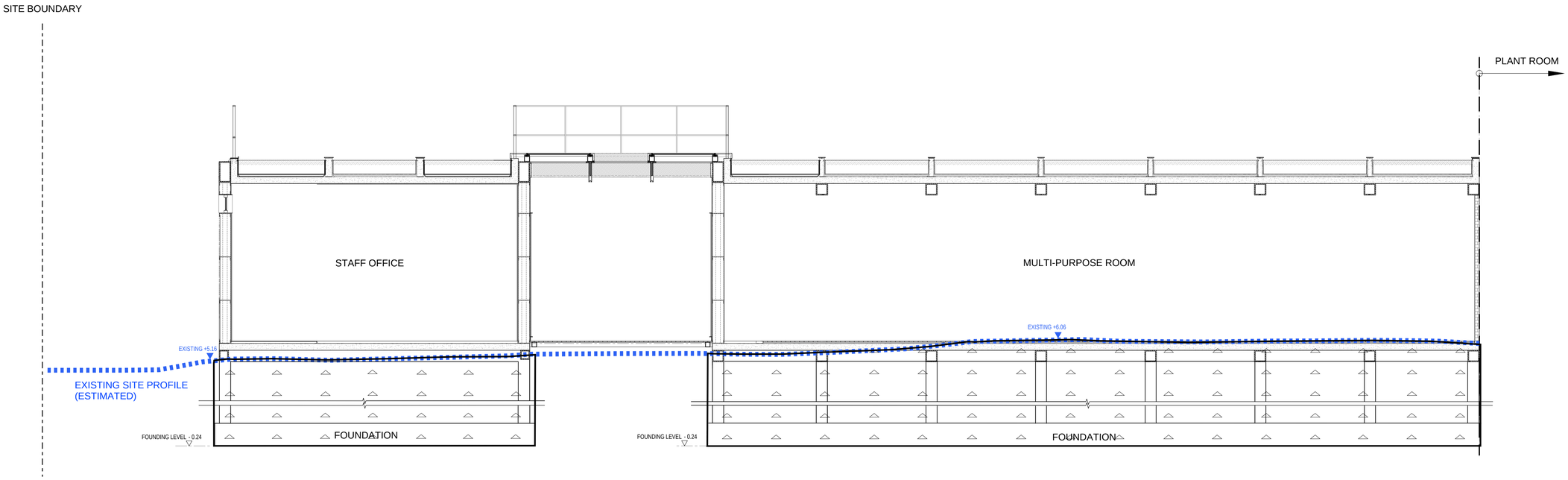
PRUDENTIAL SURVEYING · LAND ADVISORY · VALUATION 測建行

JOB TITLE:
Section 16 Application for
Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong

Drawing Title
EXCAVATION AND FILLING PLAN

Rev	Description	Date
-	Submission	10/04/2026

Drawn: WC | Date: 10/04/26
Checked: HT | Approved: HT
Scale: 1:200@A3
Drawing No.: SUPPLEMENTARY FIGURE
Rev.: -



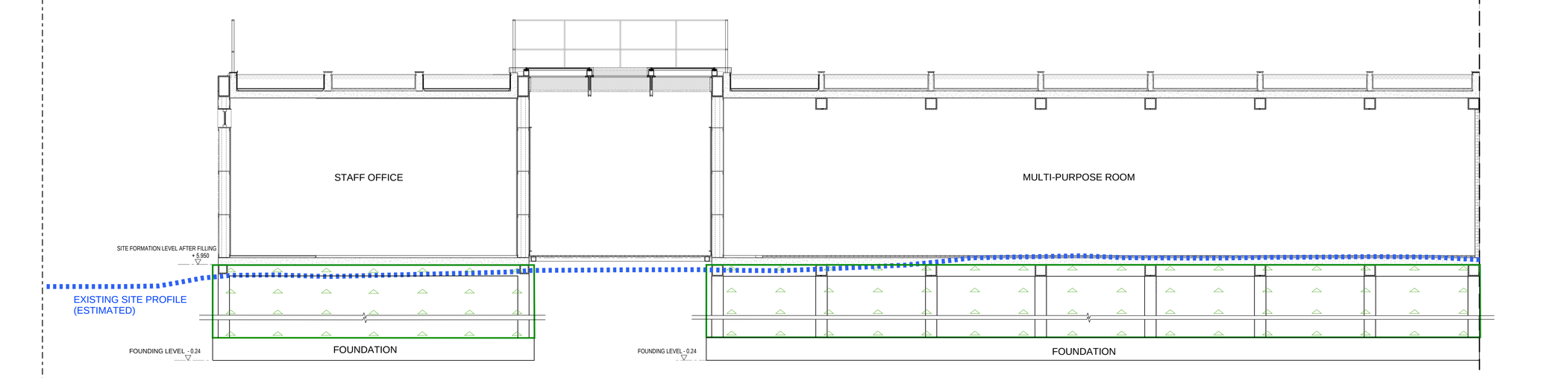
SECTION A - A

N.T.S.

LEGEND:

EXTENT OF EXCAVATION FOR FOUNDATION WORKS

DEPTH OF EXCAVATION = FROM 5.4m TO 6.3m



SECTION A - A

N.T.S.

LEGEND:

EXTENT OF FILLING FOR FOUNDATION WORKS

DEPTH OF FILLING = 5.7m

Revision	Date	Description			Initial
	Designed	Checked	Drawn	Checked	
Initial					
Date					

Approved

Agreement no.

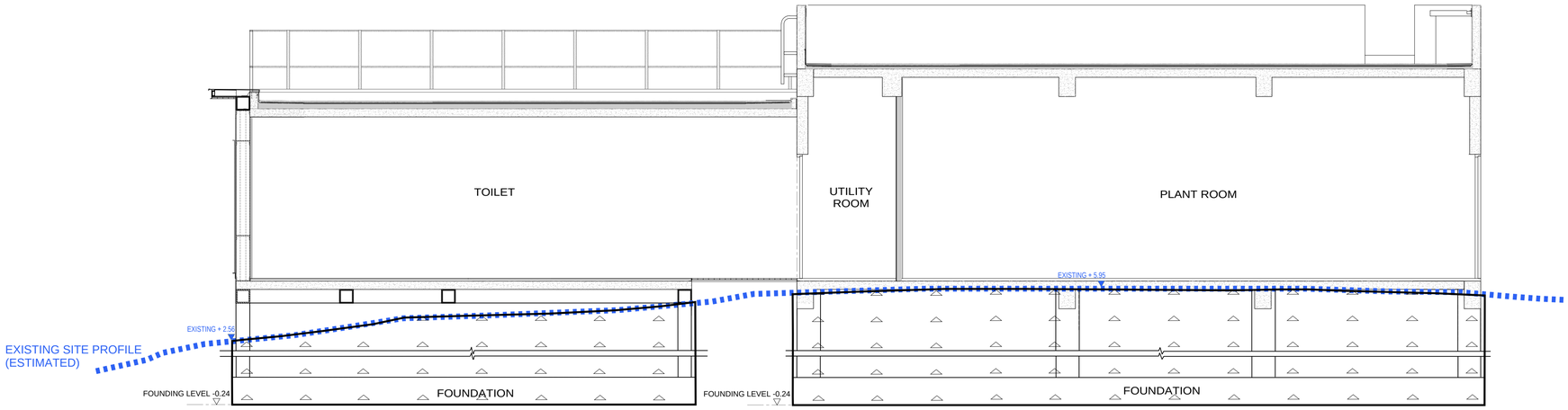
Agreement title

Drawing title

Drawing No.

Revision

Scale



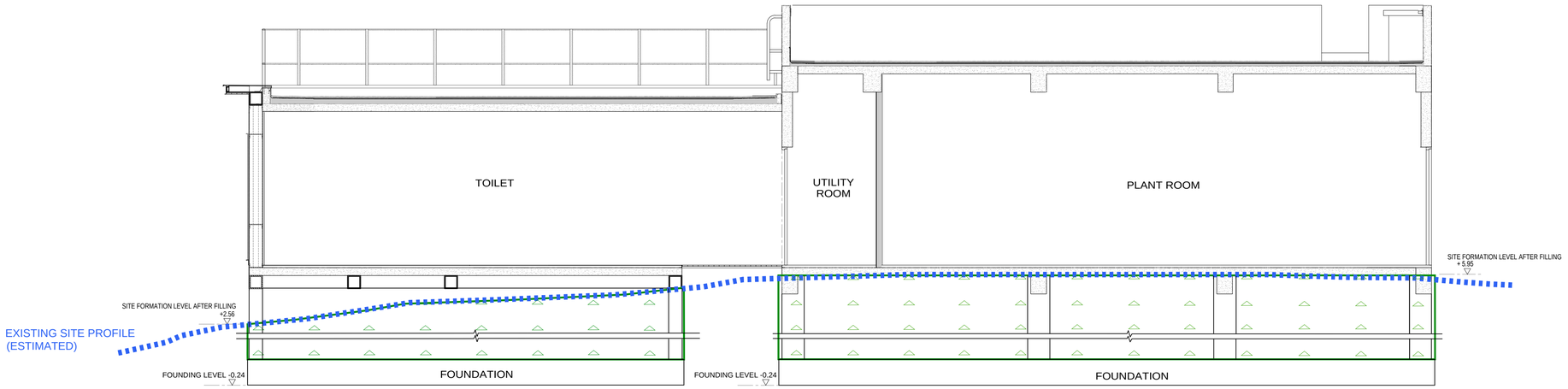
SECTION B-B

N.T.S.

LEGEND:

EXTENT OF EXCAVATION FOR FOUNDATION WORKS

DEPTH OF EXCAVATION = FROM 2.8m TO 6.2m



SECTION B-B

N.T.S.

LEGEND:

EXTENT OF FILLING FOR FOUNDATION WORKS

DEPTH OF FILLING = FROM 2.2m to 5.7m

Revision	Date	Description			Initial
	Designed	Checked	Drawn	Checked	
Initial					
Date					

Approved

Agreement no.

Agreement title

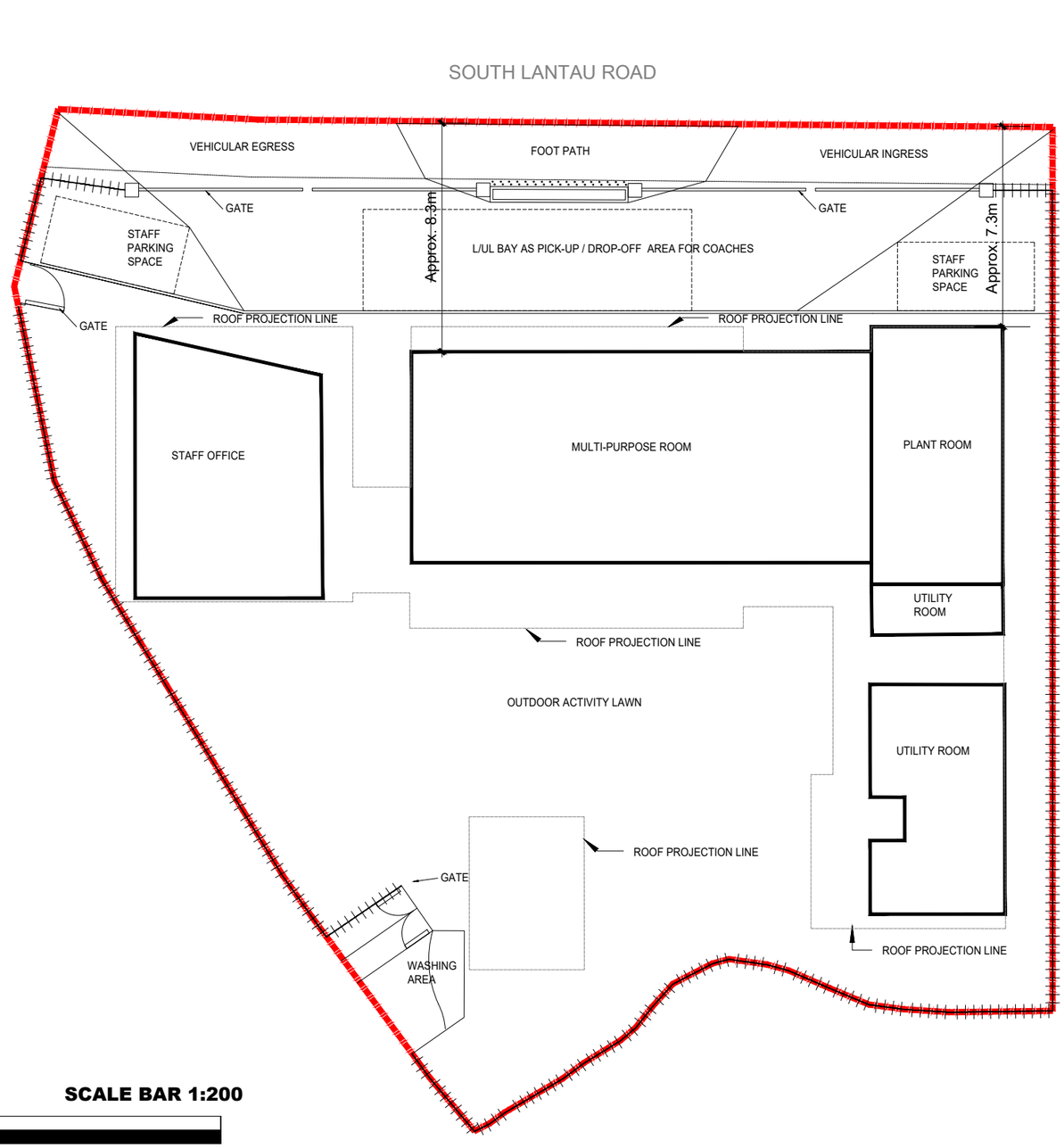
Drawing title

Drawing No.

Revision

Scale

Attachment 5



LEGEND:

SITE BOUNDARY

FENCE

REMARKS:

PROPOSED MAXIMUM HEIGHT OF BUILDING = 4.35m

*FOR INDICATIVE USE ONLY

File Name : . . .
Source : .

土木工程拓展署 Civil Engineering and Development Department	PRUDENTIAL 測建行 SURVEYING · LAND ADVISORY · VALUATION	JOB TITLE: Section 16 Application for Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong	Drawing Title: Block Plan (Ground Floor)	Drawn: WC	Date: 26/09/24	Drawing No.: Appendix B (Sheet 1 of 2)
				Checked: KC	Approved: KC	
				Scale: 1:200@A3		Rev.: B

Rev	Description	Date
-	Submission	18/02/2025
A	Drawing Update	24/03/2025
B	Layout Update	10/03/2026
C	Setting Out Update	18/05/2026

Attachment 6

5.4.2 Lower Wan Lung Bus Stop (Tung Chung to Tai O bound) on the South Lantau Road is used by visitors mainly going to/from the area. Users will tend to focus on walking rather than concentrate on the background setting as the viewers will have a transitional view with a **short** duration as the move away from the bus stop. In addition, with the setback from the road and also surrounding vegetation, the visual impact of the Proposed Centre would be minimal in nature. As such, these public viewers are considered to have a **Low Sensitivity** to visual change.

5.5 Viewing Point 4: Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) on the South Lantau Road

5.5.1 This VP of Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) on the South Lantau Road is about 45m from the Site and is situated at the road level of South Lantau Road to the northeast of the Site. This view represents the view of the pedestrian passers-by and local residents going to/from the Proposed Centre. The existing views comprises of the South Lantau Road in the foreground, the football field and surrounding vegetation in the middle ground and the surrounding vegetation in the distance background. There is also a view of the open sky in the background.

5.5.2 Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) on the South Lantau Road is used mainly by visitors at the area. Users will tend to focus on waiting for the bus or focus on walking from the Proposed Centre rather than concentrate on the background setting at this VP. As such, these public viewers are considered to have a **Low Sensitivity** to visual change.

5.6 Viewing Point 5: South Lantau Road Pedestrian Walkway

5.6.1 This short-range VP is located about 8m to the northwest of the Site, facing toward the Proposed Centre at the pedestrian level. This VP represents the view of the pedestrian passers-by and local residents going to/from the Proposed Centre. Due to the short-range distance this VP is mainly facing the Proposed Centre which is setback with ~~8.3m~~ 7.3m from the South Lantau Road carriageway. The existing views comprises of the South Lantau Road in the foreground with an unobstructed view of the open sky in the background.

5.6.2 South Lantau Road pedestrian walkway is used by visitors to the area. The pedestrian walkway is only used by a small number on a daily basis and most people are traveling by in transit only. Users will tend to focus on walking along the South Lantau Road in this VP. However, the public perception of the value attached to the view is high. The viewers will have a transitional view with a short duration as they move toward the bus stop. As such, these public viewers are considered to have a **Medium Sensitivity** to visual change.

6. Appraisal and Evaluation of Visual Impacts

6.1 Appraisal of Visual Changes

6.1.1 With reference to Para 4.10 of TPB PG-No. 41, to appraise the effects of visual changes on the assessment area and sensitive public viewers, the following aspects should be considered:-

a) *Visual Composition*

"Visual composition is the total visual effects of all the visual elements due to their variation in locations, massing, heights, dispositions, scales, forms, proportions and characters vis-a-vis the overall visual backdrop. Visual composition may result in visual balance, compatibility, harmony, unity or contrast. The appraisal should have due regard to the overall visual context and character within the wider and local contexts".

d) Slightly Adverse

"if the proposed development will, with or without mitigation measures, result in overall term some negative visual effects to most of the identified key public viewing points";

e) Moderately Adverse

"if the proposed development will, with or without mitigation measures, result in overall term negative visual effects to most of the identified key public viewing points"; and

f) Significantly Adverse

"if the proposed development will in overall term cause serious and detrimental visual effects to most of the identified key public viewing points even with mitigation measures."

6.3 Mitigation Measures

6.3.1 To address or minimise possible visual impact, the sources of impact need to be identified and suitable mitigation measures are proposed as appropriate so that the significance of impacts is reduced. Mitigation measures could relate to the building design itself (e.g. location, design, colour and façade features) or could involve the overall project design (e.g. landscaping, such as tree planting to screen a development and enhance views).

6.3.2 To address the visual impact, the Proposed Centre would adopt a low building profile design with a maximum high of 4.35m (1 storey) (**Figure 3.2** refers) which retain the background open sky view (**Figure 7.5** refers) and the building setback with ~~8.3m~~ 7.3m from the road (**Figure 3.1** refers) will provide a longer distance from the South Lantau Road pedestrian walkway to lessen the visual impact.

7. Assessment of Visual Impacts

7.1 Introduction

7.1.1 This section assesses the visual changes in visual quality for each VP comparing the Proposed Centre and the existing site.

7.1.2 Photomontages of VPs are used to assess the visual impact of the Proposed Centre and the existing site. Please refer to **Figures 7.1 to 7.5** for the photomontages of the assessments.

7.2 Viewing Point 1 – Shui Hau Wan Sandflat

7.2.1 The view of the Proposed Centre from the Shui Hau Wan Sandflat will be approximately 195m. After construction, the Proposed Centre will not be visible to the users of this area.

Visual Composition

7.2.2 This VP is from the Shui Hau Wan Sandflat towards the Proposed Centre. The current visual composition is comprised of the view of the Shui Hau Wan Sandflat, the water front (depending on the ties) and Shui Hau Wan in the foreground with a panoramic view of Kau Nga Ling and Pak Kung Au in the background. As illustrated in **Figure 7.1**, the Proposed Centre will not be visible from this VP, due to its low building height of 4.35m (single-storey) and building setback with ~~8.3m~~ 7.3m from the road. Therefore, the Proposed Centre will have no impact on the visual composition in terms of visual balance compatibility, harmony, unity or contrast at this VP. Given the above, the effect on the existing visual composition will be **Negligible**.

not be affected by the Proposed Centre compared to the existing context, and no change to the quality and character of the assessment area will be caused due to the distance and the elevation differences.

7.3.6 In summary, the visual impact of the Proposed Centre compared to the existing site, viewed from this VP is assessed to be **Negligible**.

7.4 Viewing Point 3 – Lower Wan Lung Bus Stop (Tung Chung to Tai O bound) on the South Lantau Road

7.4.1 The view of the Proposed Centre compared to the existing site from the Lower Wan Lung Bus Stop (Tung Chung to Tai O bound) will be partially screened by the existing vegetation on the pedestrian South Lantau Road and surrounding vegetation in the foreground.

Visual Composition

7.4.2 This existing view currently comprises of the South Lantau Road in the foreground, the South Lantau Road, and surrounding vegetation in the middle ground and the surrounding vegetation in the distance background. Due to the low building height of 4.35m (single-storey) (**Figure 3.2** refers) and building setback with ~~8.3m~~ 7.3m from the road (**Figure 3.1** refers), only part of the building would be visible in the background. After construction, users will experience minimal views of the Proposed Centre compared to the existing site due to the low-profile development and the setback from the road (**Figure 7.3** refers). Given that only a small part of the building would be visible, the Proposed Centre compared to the existing site will not be too intrusive to the existing visual composition and visual character. It will form a relatively inconspicuous feature as it lies beyond the road and is partially screened by the existing football field and vegetation. In this connection, the Proposed Centre compared to the existing site will have a **Negligible** impact on the visual balance, compatibility, or harmony at this VP.

Visual Obstruction

7.4.3 The presence of the Proposed Centre compared to the existing site will not result in a large visual obstruction of the background given the low height profile and the setback from the road of the Proposed Centre. Viewing from in front of the Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) the lower part of the building of the Proposed Centre compared to the existing site is barely visible. Therefore, the degree of visual obstruction is considered **Low**.

Effect on Public Viewers

7.4.4 The current view for the pedestrians consists of the South Lantau Road in the foreground, and the surrounding vegetation in the middle ground and the vegetation in the distance background. Following construction, the public viewers will have minimally obscured views of the Proposed Centre compared to the existing site as only portions of the lower part of the building is only visible.

7.4.5 As the Proposed Centre will be setback from the South Lantau Road, the visual impact is minimal.

7.4.6 As the Proposed Centre is only single-storey and will have a setback from the South Lantau Road, the visual impact is minimal. Most of the viewers here will be of transient nature traveling to/from the bus stop, this will result in a **Slightly Adverse** in visual impact significance. The overall effect on the public viewers will be **Negligible**.

Effect of Visual Resources

7.4.7 The existing visual resources include the South Lantau Road with vegetation surrounding the open sky view in the background. The above resources would **be slightly affected** by the Proposed Centre compared to the existing context, and no change to the quality and character

of the assessment area will be caused due to the distance and the elevation differences which result in truly a **Slight** impact upon the existing Visual Elements / Resources.

7.4.8 In summary, the visual impact of the Proposed Centre with visual mitigation measures compared to the existing site, viewed from this VP is assessed to be **Slightly Adverse**.

7.5 Viewing Point 4 – Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) on the South Lantau Road

7.5.1 The view of the Proposed Centre compared to the existing site from Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) will be partially screened by surrounding vegetation in the foreground.

Visual Composition

7.5.2 This existing view comprises of the South Lantau Road in the foreground, the surrounding vegetation in the middle ground and the surrounding vegetation in the distance background. Due to the low building height of 4.35m (single-storey) (**Figure 3.2** refers) and building setback with ~~8.3m~~ 7.3m from the road (**Figure 3.1** refers), only part of the exterior wall would be visible in the background. After construction, users will experience minimal views of the Proposed Centre compared to the existing site due to the low-profile, setback design and the screening from the surrounding natural vegetation. Although the Proposed Centre drive a minimal view, the clearance of vegetations within the site boundary open up part of the sky view above the Proposed Centre, the overall visual composition will be slightly affected (**Figure 7.4** refers). Given that only part of the exterior wall would be visible, the Proposed Centre as compared to the existing site, will be slightly intrusive to the existing visual composition and visual character. In this connection, the Proposed Centre will have a **Slightly Adverse** impact on the visual balance, compatibility, or harmony at this VP.

Visual Obstruction

7.5.3 The presence of the Proposed Centre compared to the existing site will not result in a large visual obstruction of the background given the low height and setback of the Proposed Centre compared to the existing site. Viewing from in front of the Lower Wan Lung Bus Stop (Tai O to Tung Chung bound) the Proposed Scheme is barely visible. Therefore, the degree of visual obstruction is considered **Low**.

Effect on Public Viewers

7.5.4 The current view for the pedestrians consists of the South Lantau Road in the foreground, the surrounding vegetation in the middle ground and the vegetation surrounding in the distance background. Following construction, the public viewers will have minimally obscured views from the Proposed Centre compared to the existing site as only a small portion of the building is visible.

7.5.5 As the Proposed Centre will be setback from the South Lantau Road, the visual impact is minimal. Most of the public viewers here will be of transient nature traveling to/from the bus stop, this will result in a **Slightly Adverse** in visual impact significance. The overall effect on the public viewers is **Negligible**.

Effect of Visual Resources

7.5.6 The existing visual resources include the surrounding vegetation. Part of the vegetation will be lost and changed to open sky in the Proposed Centre. The above resources would **be Slightly affected** by the Proposed Centre compared to the existing context, and there is little change to the quality and character of the assessment area will be caused due to the distance and the elevation differences which result in **Slightly Adverse** impact upon the existing Visual Elements / Resources.

7.5.7 In summary, the visual impact of the Proposed Centre with visual mitigation measures compared to the existing site, viewed from the VP is assessed to be **Slightly Adverse**.

7.6 Viewing Point 5 – South Lantau Road Pedestrian Walkway

7.6.1 This VP is 8m away from the Proposed Centre. When compared to the existing site from South Lantau Road Pedestrian Walkway, the Proposed Centre is **visible**.

Visual Composition

7.6.2 This existing view comprises of the South Lantau Road in the foreground, the South Lantau Road and surrounding vegetation in the middle ground. After construction, users will experience a view of the façade of the Proposed Centre compared with the existing site (**Figure 7.5** refers). Given that the building would be visible, the Proposed Centre will be a part of the visual character. Due to the low building height of 4.35m (single-storey) (**Figure 3.2** refers) and building setback with ~~8.3m~~ 7.3m from the road (**Figure 3.1** refers), it will form a feature as it lies beyond the road and the low building height will enlarge the open sky view in the backdrop. In this connection, the Proposed Centre compared to the existing site will have a **contrast impact** effect on the visual balance and compatibility or harmony at this VP.

Visual Obstruction

7.6.3 The presence of the Proposed Centre will result in a visual obstruction of the background. However, the setback design allows viewers to have a spacious view and more open sky as a part of the backdrop. As the proposed maximum height of the building is lower than the existing vegetation and more open sky view will be compensated in the backdrop. Therefore, the degree of visual obstruction is considered **Low**.

Effect on Public Viewers

7.6.4 The current view of the pedestrians consists of the South Lantau Road in the foreground, the dense vegetation, the lamp pole and signage. Following construction, the dense vegetation green view will be replaced by the building façade with maximum height 4.35m which open up more open sky. However, the viewers will have a transitional view with a short duration as they move toward the bus stop and the majority of visual resources in the existing view is the dense vegetation, it leads the public viewers to have a **Moderate** change of views from this VP.

Effect of Visual Resources

7.6.5 The existing visual resources include the dense vegetation and some open sky view as a background. The dense vegetation will be replaced by the façade and open sky. Due to the low building height of Proposed Centre, more open sky will be available. Existing vegetation would be lost but more open sky view will be gained. This would in **Slightly Adverse** impact upon the existing Visual Elements / Resources.

7.6.6 In summary, the visual impact of the Proposed Centre with visual mitigation measures, viewed from the VP is assessed to be **Slightly Adverse**.

8. Conclusion

8.1.1 The Proposed Centre is a single-storey structure with maximum building height of about 4.35m. Given the low building height and its surrounding building height profile, the Proposed Centre in its location is considered reasonable.

8.1.2 After the implementation of the proposed mitigation, the Proposed Centre with visual mitigation measures has a **Slight** visual impact.

8.1.3 Based on the analysis of the appraisal of visual impact on the Visual Composition, Visual Obstruction, Effect on Public Views and Effect on Visual Resources, **Table 8.1** below presents the overall visual impact of the Proposed Centre to the receivers of each VP.

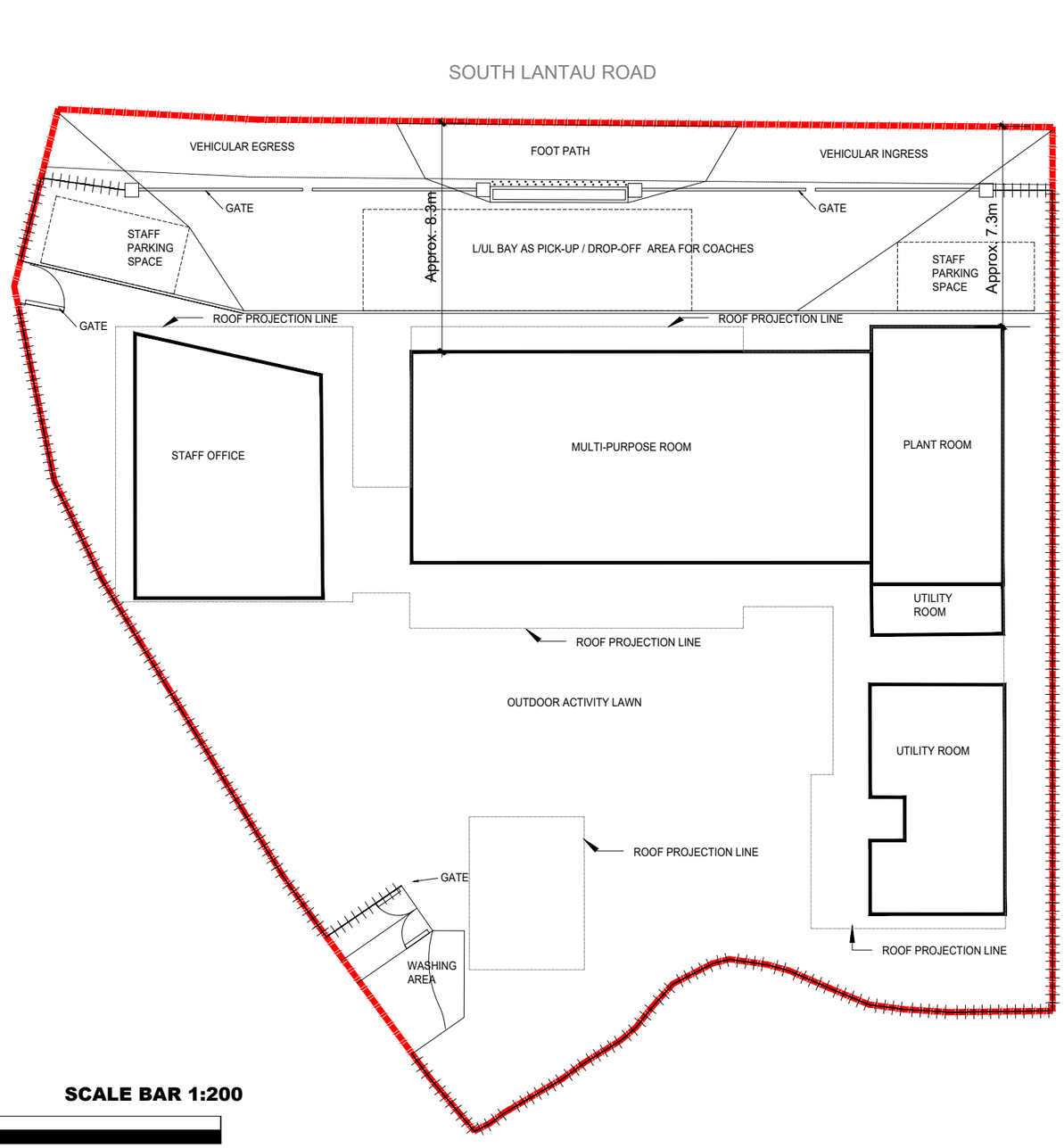
Viewing Point (VP)	Distance from the Site	Receivers	Visual Sensitivity	Visual Impact of the Proposed Centre
VP1 – Shui Hau Wan Sandflat	195m	Visitors and users of the sandflat	Low	Negligible
VP2 – Shui Hau Wan	38m	Visitors and users of the beach and the sandflat	Low	Negligible
VP3 – Lower Wan Lung Bus Stop (Tung Chung to Tai O bound) on the South Lantau Road	47m	Pedestrians to and from the Shui Hau Area	Low	Slightly Adverse
VP4 – Lower Wan Lung Bus Stop (Tai O to Tung Chung) on the South Lantau Road	45m	Pedestrians to and from the Shui Hau Area	Low	Slightly Adverse
VP5 – South Lantau Road Pedestrian Walkway	8m	Visitors and users of South Lantau Road pedestrian walkway	Medium	Slightly Adverse

Table 8.1: Summary of Assessment of Visual Impact

8.1.4 To address the visual impact, the Proposed Centre would adopt a low building profile design with a maximum high in 4.35m (single-storey) (**Figure 3.2** refers) which would open up the background of open sky view and building setback with ~~8.3m~~ 7.3m from the road (**Figure 3.1** refers) will provide a spacious distance from the South Lantau Road pedestrian walkway to lessen the impact.

8.1.5 The VP1 and VP2 will experience **Negligible** visual impacts. For VP1 and VP2, the severity of impact is **Negligible** due to the distance of the view and screening by the vegetation. The Proposed Centre compared to the existing site will not affect the existing view currently enjoyed by the users at these VPs. For VP3 and VP4, the impact is **Slightly Adverse** due to the combined factor of the distance of the Proposed Centre and the surrounding landscape. For the VP5, the impact is **Slightly Adverse** due to the short-range viewing distance. However, given the setback from the road and landscaping screening, the viewers would only notice a small portion of the development. Therefore, all visual impact would be minimally affected due to the scale of the Proposed Centre.

8.1.6 This VIA concludes that the overall visual impact of the Proposed Centre at the Site to its surroundings would be **Negligible to Slightly Adverse** when compared to the existing site which is acceptable from the visual impact standpoint given the size and nature of the Proposed Centre.



LEGEND:

SITE BOUNDARY

FENCE

REMARKS:

PROPOSED MAXIMUM HEIGHT OF BUILDING = 4.35m

*FOR INDICATIVE USE ONLY

File Name : . . .
Source : .

土木工程拓展署 Civil Engineering and Development Department	PRUDENTIAL 測建行 SURVEYING · LAND ADVISORY · VALUATION	JOB TITLE: Section 16 Application for Proposed Shui Hau Education Centre on the Approved South Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau, Lantau Island, Hong Kong	Drawing Title: Block Plan (Ground Floor)	Drawn: WC	Date: 26/09/24	Drawing No.: Fig 3.1 (Sheet 1 of 2)
				Checked: RT	Approved: RT	
				Scale: 1:200@A3		Rev.: B

Rev	Description	Date
-	Submission	18/02/2025
A	Drawing Update	24/03/2025
B	Layout Update	10/03/2026
C	Setting Out Update	18/05/2026

Attachment 7

major odour generating equipment and processes will be confined inside the substructure / superstructure. The exhaust, located at the roof top of the SPS, will be the only odour emission source of SPS. The air inside the SPS will be collected and passed through the deodorization facility with odour removal efficiency not less than 99.5%. Referring to the odour contour plot presented in Figure 7.7 (1.5m), Figure 7.14 (5m) and Figure 7.21 (7.6m) of the Approved EIA Report, the predicted odour levels at the boundary of the SPS would be less than 1 odour unit, which was well below the odour criterion. In fact, the building height of Proposed Centre would not be higher than 5 m. Therefore, no adverse odour impact to the Proposed Centre is anticipated.

6.2.12 Vehicular emission is mainly the air pollutant emission source in the study area. Site visit was conducted on 3 February 2026, there was no chimney and nor pier found within 500m assessment area from the Site. This project would not have any industrial chimney.

Noise

Construction Phase

6.2.13 Construction activities such as excavation, site formation and building works may pose noise impact. As the scale of construction works is small, the number and size of mechanical plant and equipment involved will be minimal. Quality powered mechanical equipment and quieter plant will be used to mitigate the noise at the source. Appropriate mitigation measures under EPD's Recommended Pollution Control Clauses (Noise Control) for Construction Contracts will be implemented during the construction phase to minimise noise impacts on the Site and its surroundings.

Operational Phase

6.2.14 During operational phase, mechanical ventilation and air conditioning system (MVAC) equipment installed at the Proposed Centre may incur fixed noise. The MVAC equipment will be enclosed within the building except the outdoor units of the air conditioning system on roof. The planned fixed noise sources of the Proposed Centre will be designed to comply with the noise standard as stipulated in the HKPSG. With reference to "Good Practices on Ventilation System Noise Control" (GP-VS), partial enclosures and silencers will be applied to achieve noise attenuation. Prior to the operation phase, commissioning test will be conducted to ensure the fixed plant noise could comply with relevant noise criteria. A regular plant maintenance programme will be developed and implemented so that equipment is properly operated and serviced in order to maintain a controlled level of noise. With implementation of aforementioned mitigation measures, no adverse fixed noise impact due to the Proposed Centre would be anticipated.

6.2.15 Considering that induced road traffic during operation of the Proposed Centre is low and all vehicles travelling on the closed roads on Lantau are required to possess valid Lantau Closed Road Permits, significant increase in road traffic noise level is not anticipated. Therefore, there will be no adverse noise impact from induced traffic during operation phase. The Proposed Centre, including the office and multi-purpose room will be equipped with air-conditioning and do not rely on opened windows for ventilation. As such, no adverse road traffic noise impact to the Proposed Centre is anticipated during operation phase.

Waste Management

6.2.16 The relevant legislation, standards and guidelines on assessment of waste management implications include:-

- Waste Disposal Ordinance (Cap. 354);
- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
- Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N);