



Planning Statement

For

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**

Applicant:
Authorized Agent:
Date:

**Civil Engineering and Development Department
Prudential Surveyors International Limited
March 2026**

Table of Content

Table of Content	2
Executive Summary	4
行政摘要	5
1 Introduction	6
2 Site Context	6
2.1 The Site and its Surroundings.....	6
3 Background	8
3.1 Policy Context	8
3.2 Development Context.....	8
3.3 Public Consultation	8
4 Planning and Land Contexts	8
4.1 Statutory Planning Context.....	8
4.2 Land Status	9
5 Proposed Centre	9
5.1 Architectural Design Concept	9
5.2 Major Development Parameters	10
5.3 Proposed Operation Management	10
6 Technical Justifications Supporting the Section 16 Application	12
6.1 Traffic	12
6.2 Environmental	12
6.3 Visual and Landscape.....	22
6.4 Sewage.....	23
6.5 Drainage	23
6.6 Water Supply Requirement	23
6.7 Archaeological Baseline Review (ABR).....	23
7 Planning Justifications	25
7.1 Take Forward the Government Policies	25
7.2 In line with the Planning Intention of the Approved OZP	25
7.3 Suitable Location and Enhancing Connectivity	25
7.4 Compatible with the Surrounding Building Typologies.....	25
7.5 Eco-friendliness and Enhanced Biodiversity in Design	26
7.6 No Adverse Environmental, Traffic, Sewage, Drainage, Water Supply, Visual and Landscape, and Archaeological Impacts	26
7.7 No Objections or Adverse Comments from the Public	26
8 Conclusion	27

List of Figures

<i>Figure 1.1</i>	<i>Site Location Plan</i>
<i>Figure 1.2</i>	<i>OZP Planning Context of the Surroundings</i>
<i>Figure 2.1</i>	<i>Site Photos</i>
<i>Figure 2.2</i>	<i>Site Area and Surrounding Plan</i>
<i>Figure 2.3</i>	<i>Existing Context of the Surroundings</i>
<i>Figure 2.4</i>	<i>Building Height Profile of the Surroundings</i>
<i>Figure 4.1</i>	<i>Extract of Schedule of Uses of “CPA” of the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23</i>
<i>Figure 4.2</i>	<i>Extract of Explanatory Statement of “CPA” of the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23</i>
<i>Figure 7.1</i>	<i>Urban Design Diagram</i>
<i>Figure 7.2</i>	<i>Building Envelope Comparison: Single-storey Scheme and Two-storeys Scheme</i>

List of Tables

<i>Table 5.1</i>	<i>Development Parameters of the Proposed Centre</i>
<i>Table 6.1</i>	<i>Air Quality Objectives for Hong Kong</i>
<i>Table 6.2</i>	<i>Recommended Buffer Distance for Air Sensitive Uses</i>
<i>Table 6.3</i>	<i>Air Quality Monitoring Data (Tung Chung Station, 2020 – 2024)</i>
<i>Table 6.4</i>	<i>Air Pollutant Concentrations Extracted from the PATH-v3.0 Model with Year 2028 Emission Inventory</i>
<i>Table 6.5</i>	<i>Identified Representative Air Sensitive Receivers during Construction Phase</i>
<i>Table 6.6</i>	<i>The AADT of Local Distributor at Lantau Island from the Annual Traffic Census 2024</i>
<i>Table 6.7</i>	<i>Estimated Road Traffic Noise Level</i>
<i>Table 6.8</i>	<i>Review of Historical Aerial Photographs</i>
<i>Table 6.9</i>	<i>Summary of Incident Records</i>

List of Appendices

<i>Appendix A</i>	<i>Summary of Public Comments</i>
<i>Appendix B</i>	<i>Block Plan</i>
<i>Appendix C</i>	<i>Notional Landscape Plan</i>
<i>Appendix D</i>	<i>Swept Path Analysis</i>
<i>Appendix E</i>	<i>Locations of Representative Air Sensitive Receivers and PATH Grids</i>
<i>Appendix F</i>	<i>Air Buffer Distance and Fresh Air Intake Locations</i>
<i>Appendix G</i>	<i>Habitat Map and Species of Conservation Importance</i>
<i>Appendix H</i>	<i>Aerial Photos</i>
<i>Appendix I</i>	<i>Photos of Existing Conditions and Site Walkover Checklist</i>
<i>Appendix J</i>	<i>Records of Land Contamination</i>
<i>Appendix K</i>	<i>Visual Impact Assessment</i>
<i>Appendix L</i>	<i>Landscape Proposal</i>
<i>Appendix M</i>	<i>Drainage Plan</i>
<i>Appendix N</i>	<i>Archaeological Baseline Review</i>

Executive Summary

Shui Hau boasts a rich ecological environment, including sandflats, wetlands, woodlands, and streams, rendering it highly suitable for promoting conservation and education. The South Development and Sustainable Lantau Office, Civil Engineering and Development Department (SSLO, CEDD) proposes to establish an education centre (the Proposed Centre) in Shui Hau. The Proposed Centre will serve as an education base promoting nature conservation of Shui Hau including the ecology of the sandflat and species of conservation importance like horseshoe crabs, etc., as well as the local traditional village culture and customs. By hosting nature and cultural activities, visitors can understand and appreciate the culture, the traditions and the natural ecology of the Shui Hau area, leading to increase in their awareness of nature conservation through direct experience.

Prudential Surveyors International Limited prepared this Planning Application on behalf of SSLO, CEDD (the Applicant) for seeking permission under Section 16 of the Town Planning Ordinance (Cap.131).

The application site, with an area of about 1,110m², falls within an area zoned “Coastal Protection Area (CPA)” on the approved South Lantau Coast Outline Zoning Plan No. S/SLC/23. It is located about 50m away from Shui Hau Sandflat, South Lantau. The Proposed Centre, with a total GFA of about 440m², comprises a single-storey structure including a multi-purpose room, a staff office and an outdoor activity lawn, together with other ancillary facilities such as plant room, utility room, washing area and toilets.

The Proposed Centre, which is an education centre with the aim to promote conservation awareness, leads to an ultimate purpose of conserving and protecting the natural environment and habitat of ecological significance in Shui Hau, thereby, in line with the planning intention of “CPA” zone. It is an essential project to take forward the Government’s conservation initiatives on Lantau. Given the nature and small scale of the Proposed Centre, with careful site planning and layout design, no adverse environmental, traffic, infrastructure, visual, landscape or archaeological impact would be induced. In view of the above, members of the Town Planning Board are respectfully requested to give favourable consideration to the Application.

行政摘要

(內文如有差異，應以英文版本為準)

水口擁有豐富的生態環境，包括沙坪、濕地、林地和溪流，非常適合推廣保育和教育。有見及此，土木工程拓展署南拓展及可持續大嶼辦事處擬議在水口建立一所教育中心（擬議中心）。中心作為教育基地會推廣水口的自然保育，包括沙坪生態及具保育價值的物種如馬蹄蟹等，以及當地的傳統鄉村文化和習俗。透過舉辦自然生態及鄉村文化為本的活動，讓訪客了解和尊重當地文化、傳統及自然生態，並透過親身體驗提高對自然保育的意識。

測建行有限公司代表土木工程拓展署南拓展及可持續大嶼辦事處（申請人）準備此規劃申請，就《城市規劃條例》第 16 條（第 131 章）提出規劃許可申請。

申請地點面積約 1,110 平方米，位於大嶼山南岸分區計劃大綱核准圖編號 S/SLC/23 上的「海岸保護區」內。該地點距離南大嶼水口沙坪約 50 米。擬建中心總建築面積約 440 平方米，包括 1 座單層建築，設有多用途室、職員辦公室和戶外活動草坪，以及其他附屬設施，如機電房、沖洗區和洗手間。

擬議中心符合「海岸保護區」的規劃意圖，通過教育和推廣保育意識來保護水口的自然環境及具生態意義的棲息地。這是政府在大嶼山倡議保育的重要項目。考慮到擬議中心的性質及規模細小，經過精心的場地規劃和佈局設計，不會對環境、交通、基礎設施、視覺、景觀或考古產生不利的影響。因此，懇請城市規劃委員會委員對該申請作出積極考慮。

1 Introduction

- 1.1.1 Prudential Surveyors International Limited (PSIL / the Consultant) prepared and submitted this Planning Application on behalf of the South Development and Sustainable Lantau Office, Civil Engineering and Development Department (the Applicant) for a proposed education centre in Shui Hau (the Proposed Centre), situated on the Lantau Island, under Section 16 of the Town Planning Ordinance (Cap.131).
- 1.1.2 The Applicant is pursuing the beneficial use of the rich natural, historical and cultural resources of South Lantau for sustainable leisure and recreational and educational facilities under the context of the South Lantau Eco-recreation Corridor (the Corridor), which covers Cheung Sha, Shui Hau, Shek Pik and Pui O. Shui Hau, given the high ecological value, will focus on providing nature-based education facility. One of the proposals under the Corridor is to establish an education centre in Shui Hau. 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. Per the Broad Use Terms set out by the Town Planning Board (the TPB), the proposed use is regarded as ‘Field Study / Education / Visitor Centre’ use.
- 1.1.3 The Application Site (the Site) (**Figures 1.1 and 1.2** refer) falls within an area zoned “Coastal Protection Area” (“CPA”) under the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23 (the OZP). With reference to the Schedule of Uses for “CPA” zone, the proposed use ‘Field Study / Education / Visitor Centre’ is a Column 2 use. As such, a planning application to the TPB is required.
- 1.1.4 The purpose of this Planning Statement is to furnish the members of the TPB with details of the development proposal, justifications on the Proposed Centre and provide other necessary information to facilitate the TPB’s consideration.

2 Site Context

2.1 The Site and its Surroundings

Site

- 2.1.1 The Site is situated along the South Lantau Road near an existing football field (Shui Hau Mini-Soccer Pitch) to the southwest. Per on-site observations from the site visit in February 2026, the Site is generally flat with low quality natural vegetation (**Figure 2.1** refers).

Surrounding Context

Existing Context

- 2.1.2 The existing uses in the surroundings are as follows (**Figures 2.1 – 2.4** refer):-
- to the east of the Site are single-storey structures;
 - to the south and southeast of the Site is Shui Hau Wan;
 - to the southwest of the Site are the Lower Wan Lung Bus Stop (Tung Chung to Tai O Bound), a football field and the Lantau Trail Section 10 (about 210m away);
 - to the west of the Site is the Shui Hau Village (about 550m away);
 - to the northwest of the Site is the Shui Hau Picnic Area of Lantau Trail Section 10; and
 - to the northeast of the Site are the Lower Wan Lung Bus Stop (Tai O to Tung Chung Bound) and a Green Education Farm (離島婦聯鄧福興紀念農場).

Planned Context

2.1.3 The planned use in the surroundings is as follows:-

- to the immediate northeast of the Site is the Drainage Services Department's (DSD's) Shui Hau Sewage Pumping Station (SPS).

2.1.4 Separately, with the aim to enhancing convenience to the general public, the Applicant is pursuing minor local improvement works, such as bus lay-by(s), pedestrian crossing(s), roadside parking spaces and toilet facilities, for implementation in Shui Hau. A study is being conducted for ascertaining the scope of works in consultation with relevant departments.

3 Background

3.1 Policy Context

Policy Address

- 3.1.1 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. To enhance Hong Kong's appeal as a premier tourism destination, the 2024 Policy Address announced expediting the development of the Corridor. Furthermore, in the Development Blueprint for Hong Kong's Tourism Industry 2.0 released in December of the same year, the development of the Corridor is listed as one of the key measures to promote island tourism. One of the proposals under the Corridor is to establish an education centre in Shui Hau.

3.2 Development Context

- 3.2.1 The Site was originally intended to be reserved for DSD's Shui Hau SPS under the project of Outlying Islands Sewerage Stage 2 South Lantau Sewerage Works.
- 3.2.2 With the DSD's agreement obtained in May 2024, the Site is released by DSD for the Proposed Centre. DSD's Shui Hau SPS would be located at the immediate northeast of the Site.

3.3 Public Consultation

- 3.3.1 From May to July 2024, the Applicant conducted a series of public engagement exercises (PE exercises) to collect public comments on the proposals recommended for the Corridor, including the Proposed Centre.
- 3.3.2 Throughout the PE exercise period, public comments were received via comment form and written submission (through online comment form, email, phone, fax and mail). Briefing sessions with various stakeholders, including Legislative Council, Island District Council, South Lantau Rural Committee, local residents, and organizations, were conducted. The public generally agreed that Shui Hau should be positioned for nature education and indicated support to the establishment of the Proposed Centre. A summary of the comments is provided in **Appendix A**.
- 3.3.3 On 3 February 2026 and 9 February 2026 respectively, the Applicant briefed the South Lantau Rural Committee and the Community Involvement, Culture and Recreation Committee of the Islands District Council on the Proposed Centre. Both committees expressed support on the Proposed Centre.

4 Planning and Land Contexts

4.1 Statutory Planning Context

- 4.1.1 The Site falls within an area zoned "CPA" on the OZP. The planning intention of the "CPA" zone is to *"conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion. It is also intended to safeguard the beaches and their immediate hinterland and to prevent haphazard ribbon development along the South Lantau Coast"* (**Figure 4.1** refers).

- 4.1.2 There is a general presumption against development in the “CPA” zone. According to the Schedule of Uses of “CPA” zone under the Approved 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*” (**Figure 4.1** refers).
- 4.1.3 Per the associated Schedule of Uses, the Proposed Centre, which is an education centre, is a Column 2 use and may be permitted with or without conditions on application to the TPB. As such, this application to the TPB is required.

4.2 Land Status

- 4.2.1 The Site is Government Land.

5 Proposed Centre

5.1 Architectural Design Concept

- 5.1.1 Since “CPA” zone is a sensitive area requiring much-needed careful attention, the Proposed Centre is designed with the concept of “blend-into-nature” aiming to seamlessly blending in with the surrounding areas. The Proposed Centre is configured in an “L” shape, clustering the development to the north and northwest of the Site while preserving significant outdoor space and allowing direct access to the Shui Hau Sandflat. Pavilion with projecting eaves create a verandah that meanders around the outdoor activity lawn, providing an intermediate space that harmonizes the built environment with the natural surroundings. The Proposed Centre integrates nature-based landscape design, with green roof and vertical greening to provide green coverage for birds and insects to inhabit, thereby enhancing local biodiversity.
- 5.1.2 The Proposed Centre adopts sustainable building design elements to blend seamlessly with the surrounding natural environment. These include using a photovoltaic system to supplement the centre’s electricity needs, employing bio-filtration / detention and infiltration rain garden to recycle water and rainwater for irrigation, incorporating skylights at roof to enhance natural daylighting in the building, using permeable paving on ground surfaces to promote rainwater infiltration and reduce the burden on the drainage system. To enable visitors to appreciate the importance of natural ecology, the Proposed Centre incorporates biophilic design elements to foster a connection between visitors and nature. These include planting species suitable for butterfly foraging and habitation, installing bird houses and perches for birds, and providing “insect hotels” for insects to reside.
- 5.1.3 To minimize the building height, the architect has adopted a 40% site coverage by accommodating all necessary indoor facilities in a single-storey arrangement for the Proposed Centre. To further reduce the building bulk, the sizes of individual facilities have been meticulously designed to meet operational needs. The proposed 40% site coverage is to strike a balance between the covered area for necessary indoor facilities and the open-air landscaped area. The building orientation and layout have been carefully considered to respect the surrounding topography and to serve as a transition from the road-side environment along South Lantau Road to the northwest of the Site to the natural setting near Shui Hau Wan to the southeast of the Site.
- 5.1.4 The architect keeps minimal building height to minimize visual impact viewing from sensitive visual receivers, whilst keeping its optimal building efficiency in terms of internal circulation and barrier-free access arrangement. This is to better blend in with the existing surrounding. The multi-purpose room features a series of folding partitions, allowing for seamless integration with the outdoor activity lawn as needed. Clad in textured bamboo panels evokes the appearance of tree bark, further enhancing its connection to the natural setting. A set of block plans and notional landscape plans are enclosed in **Appendix B** and **Appendix C**.

5.2 Major Development Parameters

5.2.1 The Proposed Centre comprises single-storey structures with an outdoor activity lawn (**Appendix B and C** refer).

5.2.2 The Proposed Centre accommodates:-

- associated facilities including a multi-purpose room, a staff office and an outdoor activity lawn;
- ancillary facilities including plant room, washing area and toilets;
- 1 no. of loading / unloading (L/UL) bay as pick-up / drop-off area within the Site with footpath, road kerbs, railing, sign posts, etc. for coaches; and
- 2 nos. of staff parking spaces.

5.2.3 The development parameters of the Proposed Centre are as follows:-

Development Parameters	Proposed Centre
Site Area:	1,110 sq.m.
Total Floor Area:	About 440 sq.m.
Plot Ratio:	About 0.4
Proposed Main Uses:	Education Centre with associated facilities, including a multi-purpose room, a staff office and an outdoor activity lawn
Ancillary Uses to the Proposed Use:	Plant room, washing area and toilets
Greenery Coverage:	Not less than 20% of the site area
Site Coverage:	About 40% (including roofed-over area)
Maximum Building Height (@ Main Roof):	About 4.35m
Loading / Unloading (L/UL) Bay:	1 no. of L/UL bay as pick-up / drop-off area for coaches
Parking Space:	2 nos. of staff parking spaces
Anticipated Date for Commencement of Work:	Q1 2027
Anticipated Completion Date:	Q2 2028

Table 5.1: Development Parameters of the Proposed Centre

5.2.4 The construction of the Proposed Centre is anticipated to commence in Q1 2027 and be completed in Q2 2028.

5.3 Proposed Operation Management

5.3.1 Upon completion, the Proposed Centre will be managed by the government. The government will invite tenders to engage service providers for the centre's operation, including arranging staff and organising activities. The government will be responsible for the centre's routine maintenance, including the building structure and mechanical and electrical installations.

5.3.2 It is expected that the daily operation of the Proposed Centre would require about 5 nos. of on-site staff. The operation hours of the Proposed Centre would be from 9:30am – 4:30pm on Mondays, Wednesdays to Sundays and public holidays. It would be closed on every Tuesday (except public holidays). The Proposed Centre will organise conservation and culture based activities in collaboration with nearby villagers, non-governmental organisations, and educational groups. These include exhibitions, seminars, talks, workshops, and guided tours to enhance visitors' awareness of environmental conservation and their understanding of rural culture. Activities at the Proposed Centre will primarily be conducted on a pre-registration basis to facilitate activity planning and participant management.

- 5.3.3 The South Lantau Road is subject to a Closed Road Permit system. 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. The Proposed Centre will disseminate information about transport suggestions through various channels, including activity registration forms and confirmation letters and social media, to encourage individual visitors to use public transport and groups to use coaches to reach the Proposed Centre.

6 Technical Justifications Supporting the Section 16 Application

6.1 Traffic

- 6.1.1 The Proposed Centre is positioned as an education base promoting nature conservation of Shui Hau as well as the local traditional village culture and customs. The education activities will be conducted mainly via appointment-based registration to facilitate event arrangement and visitor management. No notable increase of visitors to Shui Hau in addition to the visitors to the Proposed Centre is anticipated.
- 6.1.2 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 Permit¹ issued by the Transport Department (TD). 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.
- 6.1.3 The Proposed Centre is located next to the Lower Wan Lung Bus Stop (Tung Chung to Tai O Bound), where it is well served by public buses including Routes No.1 (Mui Wo Ferry Pier < > Tai O), 2 (Mui Wo Ferry Pier < > Ngong Ping), 4 (Tong Fuk < > Mui Wo Ferry Pier), 11 (Tung Chung Station Bus Terminus < > Tai O), 11A (Shek Pik < > Tung Chung Station Bus Terminus), 23 (Ngong Ping < > Tung Chung Tat Tung Road Bus Terminus) and N1 (Mui Wo Ferry Pier < > Tai O).
- 6.1.4 For daily operation and visits, 1 no. of L/UL bay for coach will be provided within the Site to minimise the possible impact on South Lantau Road. 2 nos. of staff parking spaces will be provided within the Site to support the operation of the Proposed Centre. The swept paths can be found in **Appendix D**.
- 6.1.5 In addition, 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 any existing right-of-way, is not anticipated.
- 6.1.6 In view of the above, no significant impact on the road capacity would be induced by the Proposed Centre.

6.2 Environmental

Air Quality

- 6.2.1 The relevant legislations, standards and guidelines applicable to the assessment of air quality impacts include the following:-
- Air Pollution Control Ordinance (APCO) (Cap. 311)
 - Statutory framework to regulate, prevent, and control air pollution from stationary and mobile sources. It enables the setting of Air Quality Objectives (AQOs), licensing of specified processes, control of emissions from factories, vehicles, vessels, non-road mobile machinery, and asbestos-related work. The AQOs stipulate the maximum allowable concentrations over specific periods for typical pollutants, should be met. The relevant AQOs are listed in **Table 6.1**.

¹ All roads on South Lantau are closed roads, motorists who wish to access the closed roads are required to hold a valid Lantau Closed Road Permit under the Driving on Lantau Island Scheme (the Scheme). The number of daily quotas on Mondays to Fridays, except public holidays, under the current Scheme is 50 (including 10 quotas for electric private cars).

Pollutants	Averaging Time	Concentration Limit ($\mu\text{g}/\text{m}^3$) ^[1]	Number of Exceedance Allowed per Calendar Year
Respirable Suspended Particulates (RSP or PM_{10}) ^[2]	24-hour	75	9
	Annual	30	N/A
Fine Suspended Particulates (FSP or $\text{PM}_{2.5}$) ^[3]	24-hour	37.5	18
	Annual	15	N/A
Nitrogen Dioxide (NO_2)	1-hour	200	18
	24-hour	120	9
	Annual	40	N/A
Sulphur Dioxide (SO_2)	10-min	500	3
	24-hour	40	3
Ozone (O_3)	8-hour	160	9
	Peak season	100	N/A
Carbon Monoxide (CO)	1-hour	30,000	0
	8-hour	10,000	0
	24-hour	4,000	0
Lead (Pb)	Annual	0.5	N/A

Table 6.1: Air Quality Objectives for Hong Kong

Notes:

- [1] Concentration of gaseous pollutants is adjusted to a reference temperature of 293K and a reference pressure of 101.325kPa.
[2] Suspended particulates in air with a nominal aerodynamic diameter of $10\mu\text{m}$ or smaller.
[3] Suspended particulates in air with a nominal aerodynamic diameter of $2.5\mu\text{m}$ or smaller.

- Air Pollution Control (Construction Dust) Regulation
 - A subsidiary regulation under APCO that requires contractors to adopt dust suppression measures (e.g., watering, covering dusty materials, enclosures, equipment cleaning) during construction activities and mandates notification of certain works to reduce dust emissions from construction sites, to the acceptable level.
- Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation
 - The Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation comes into effect on 1 June 2015. Under the Regulation, non-road mobile machinery (NRMMs), except those exempted, are required to comply with the prescribed emission standards. From 1 September 2015, all regulated machines sold or leased for use in Hong Kong must be approved or exempted with a proper label in a prescribed format issued by EPD. Starting from 1 December 2015, only approved or exempted NRMMs with a proper label are allowed to be used in specified activities and locations including construction sites. The Contractor is required to ensure the adopted machines or non-road vehicle under the Project could meet the prescribed emission standards and requirement.
- Air Pollution Control (Fuel Restriction) Regulations (Cap. 311I)
 - The Air Pollution Control (Fuel Restriction) Regulations were enacted in 1990 to impose legal control on the type of fuels allowed for use and their sulphur contents in commercial and industrial processes to reduce sulphur dioxide (SO_2) emissions. In April 2025, this Regulation was amended to tighten the limit on the sulphur content of liquid fuel for industrial and commercial use from 0.005% to 0.001%.

- Hong Kong Planning Standards and Guidelines (HKPSG)
 - Table 3.1 of the HKPSG Chapter 9 has recommended the buffer distance to minimise the potential impacts from vehicular and industrial chimney emissions on the open space, which is also applicable to air sensitive uses in the vicinity. **Table 6.2** below summarises the required buffer distance for the air sensitive uses recommended in the HKPSG.

Pollutant Sources		HKPSG Recommended Buffer Distance
Industrial Chimney	Difference in Height between Industrial Chimney Exit and the Subject Site	for active and passive recreational uses
	<20m	>200m
	20-30m	>100m
	30-40m	>50m
	>40m	>10m
Odour Sources	Crematoria	>200m
	Stock wagon washing Areas	
	Livestock Yards	
	Wholesale Fish and Poultry Markets	
	Sewage Treatment Works	
Road and Highways	Trunk Road and Primary Distributor	>20m
	District Distributor	>10m
	Local Distributor	>5m
Dusty Uses	Non-construction-related Activities	>100m

Table 6.2: Recommended Buffer Distance for Air Sensitive Uses

6.2.2 The nearest EPD air quality monitoring station (AQMS) to the Site is located in Tung Chung. The Hong Kong Air Quality Objectives (AQOs) and the recent five years (2020 – 2024) annual average concentrations of air pollutants relevant to the Proposed Centre are summarised in **Table 6.3**. In general, the recorded pollutant concentrations met the prevailing AQOs, except that the 19th highest 24-hour average FSP and annual average FSP concentrations in Years 2021 and 2024, the 10th highest 8-hour average O₃ concentration in Years 2020, 2022 and 2024, and the peak season average O₃ concentration in Years 2024 did not meet with the prevailing AQOs.

Pollutant	Parameter	AQO ^[1]	Pollutant Concentration (µg/m ³) ^{[2][3]}				
			2020	2021	2022	2023	2024
Respirable Suspended Particulates (RSP)	10th Highest 24-hour	75 (9)	66	63	57	51	57
	Annual	30	25	26	23	22	23
Fine Suspended Particulates (FSP)	19th Highest 24-hour	37.5 (18)	34	38	36	28	39
	Annual	15	14	17	14	14	16
Nitrogen Dioxide (NO ₂)	19th Highest 1-hour	200 (18)	113	115	94	118	114
	10th Highest 24-hour	120 (9)	64	61	51	58	64
	Annual	40	28	26	25	26	31
Sulphur Dioxide (SO ₂)	4th Highest 10-Min	500 (3)	24	19	26	22	15
	4th Highest 24-hour	40 (3)	8	9	11	11	9
Ozone (O ₃)	10th Highest 8-hour	160 (9)	168	158	171	156	186
	Peak season	100	90	82	89	79	106
Carbon Monoxide (CO)	1st Highest 1-hour	30,000 (0)	1,530	1,240	1,170	1,280	1,670
	1st Highest 8-hour	10,000 (0)	1,388	1,073	1,151	1,095	1,256

Pollutant	Parameter	AQO ^[1]	Pollutant Concentration ($\mu\text{g}/\text{m}^3$) ^{[2][3]}				
			2020	2021	2022	2023	2024
	1st Highest 24-hour	4,000 (0)	1,157	865	1,011	1,007	1,137

Table 6.3: Air Quality Monitoring Data (Tung Chung Station, 2020 – 2024)

Notes:

[1] Values in () mean the number of exceedances allowed per calendar year.

[2] Reference conditions of gaseous pollutants concentration data: 293K and 101.325 kPa.

[3] Bold values mean exceedance of the AQO limit values.

6.2.3 Apart from the past air quality monitoring data, EPD has released a set of background levels from “Pollutants in the Atmosphere and their Transport over Hong Kong” (PATH) model PATHv3.0. The operational phase of the Proposed Centre will commence in year 2028, therefore, the relevant air pollutant concentrations in the Study Area are referenced to the PATHv3.0 data in 2028, as shown in **Table 6.4**. The locations of the Site and the concerned PATH grids are illustrated in **Appendix E**.

Pollutant	Averaging Time	AQO ^[1]	Data	Concentration Predicted by PATH v3.0 for Level 1 (0 – 17m), $\mu\text{g}/\text{m}^3$ ^{[2][3]}			
				(14,22)	(14,23)	(15,22)	(15,23)
RSP or PM10	24-hr	75 (9)	10th Highest	53.5	53.4	53.5	54.3
			No. of Exceedance(s)	0	0	0	0
	Annual	30	-	19.2	19.2	19.2	19.2
FSP or PM2.5	24-hr	37.5 (18)	19th Highest	31.6	31.8	31.8	31.6
			No. of Exceedance(s)	5	6	5	6
	Annual	15	-	11.7	11.7	11.6	11.7
NO ₂	1-hr	200 (18)	19th Highest	75.5	66.8	79.7	71.4
			No. of Exceedance(s)	0	0	0	0
	24-hr	120 (9)	10th Highest	32.5	27.7	34.6	30.8
			No. of Exceedance(s)	0	0	0	0
Annual	40	-	18.1	15.8	19.3	17.1	
SO ₂	10-min	500 (3)	4th Highest	34.5	29.1	33.6	32.6
			No. of Exceedance(s)	0	0	0	0
	24-hr	40 (3)	4th Highest	7.5	7.0	7.5	7.1
			No. of Exceedance(s)	0	0	0	0
O ₃	8-hr	160 (9)	10th Highest	178.3	180.1	179.8	177.3
			No. of Exceedance(s)	28	26	27	26
	Peak season	100	-	116.0	115.5	116.2	115.6
CO	1-hr	30,000 (0)	Maximum	577.6	579.6	577.1	584.5
			No. of Exceedance(s)	0	0	0	0
	8-hr	10,000 (0)	Maximum	543.7	543.4	545.8	551.0
			No. of Exceedance(s)	0	0	0	0
	24-hr	4,000 (0)	Maximum	509.9	512.3	515.1	517.3
			No. of Exceedance(s)	0	0	0	0

Table 6.4: Air Pollutant Concentrations Extracted from the PATH-v3.0 Model with Year 2028 Emission Inventory

Notes:

[1] Values in () mean the number of exceedances allowed per calendar year.

[2] Reference conditions of gaseous pollutants concentration data: 293K and 101.325 kPa.

[3] Bolded values mean exceedance of the AQO limit values.

- 6.2.4 The representative Air Sensitive Receivers (ASRs) during construction phases within the 500m assessment area are identified and given in **Table 6.5**. The locations are illustrated in **Appendix E**.

ASR ID	Description	Land Use	Approximate Distance from Project Area (m)	No. of Storey
A1	74 Shui Hau Village	Residential	395	3
A2	76 Shui Hau	Residential	110	2
A3	78 Shui Hau	Residential	100	1
A4	79B Shui Hau	Residential	72	1
A5	80 Shui Hau	Residential	160	1
A6	80A Shui Hau	Residential	188	2
A7	Shui Hau Soccer Pitch	Recreational	5	-
A8	Village house near Shui Hau Soccer Pitch	Residential	33	1
A9	Outlying Islands Women's Association Tang Fook Hing Farm	Recreational	70	-

Table 6.5: Identified Representative Air Sensitive Receivers during Construction Phase

Construction Phase

- 6.2.5 The construction of the Proposed Centre, with an approximate site area of 1,110m² is anticipated to generate dust, which could potentially impact nearby ASRs, particularly during excavation and the handling and transportation of Construction and Demolition (C&D) materials. Under Air Pollution Control (Construction Dust) Regulation, all trucks carrying dusty loads are required to be securely covered to prevent dust dispersion. Furthermore, the Site will undergo regular spraying with water throughout each construction day, in alignment with the dust suppression measures outlined in the Air Pollution Control (Construction Dust) Regulation. Excavation activities will be strategically sequenced to minimize the duration and extent of dust-generating operations at the Site. Given these comprehensive mitigation measures, the construction of the Proposed Centre will not result in adverse dust impacts on the nearby ASRs.
- 6.2.6 The potential air quality impacts arising from gaseous emissions produced by diesel-powered construction equipment are anticipated to be minimal, as only a limited number of powered mechanical equipment and vehicles will be utilized at the Site. The Air Pollution Control (Fuel Restriction) Regulation was enacted in 1990 to impose legal control on the type of fuels allowed for use and their sulphur contents in commercial and industrial processes to reduce sulphur dioxide (SO₂) emissions. In April 2025, the Regulation was amended to tighten the limit on the sulphur content of liquid fuel for industrial and commercial use from 0.005% to 0.001% sulphur by weight.
- 6.2.7 In addition, under the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, non-road mobile machinery (NRMMS), except those exempted, are required to comply with the prescribed emission standards. Starting from 1 December 2015, only approved or exempted NRMMS with a proper label in prescribed format issued by EPD are allowed to be used in specified activities and locations including construction sites. The NRMMS used under the Project will follow the prescribed emission standards and requirement. Given these stringent operational requirements and the limited scale of diesel-powered machinery employed, there will be no adverse air quality impacts associated with gaseous emissions during the construction phase of the Proposed Centre. 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 and its surroundings.

- 6.2.8 There is no concurrent project identified within the 500 m assessment area at the time of the assessment.

Operational Phase

- 6.2.9 The Proposed Centre is located next to the South Lantau Road which is the only source of vehicular emission near the Proposed Centre. According to Traffic Census 2024, South Lantau Road (Station ID5859) is classified as a rural road with an annual average daily traffic (AADT) of 2260 veh/day. Comparing with the AADT of South Lantau Road with other local distributors (LD) in Lantau Island at Tung Chung and Penny’s Bay, the AADT of LD is ranged from 1,500 to 18,260 veh/day as summarised in **Table 6.6**.

Station ID	Road Name	AADT 2024 (veh/day)
Penny’s Bay Area		
6114	Sunny Bay Road	4,460
5709	Magic Road	3,690
5710	Fantasy Road	1,500
Tung Chung Area		
5311	Yi Tung Road	16,730
5905	Tung Chung Waterfront Road & Ying Hei Road	13,860
5303	Tat Tung Road	18,260

Table 6.6: The AADT of Local Distributor at Lantau Island from the Annual Traffic Census 2024

- 6.2.10 As the HKPSG does not specify the buffer distance requirement for rural road and the AADT is only 2260 veh/day that less than most LD in Lantau Island, 5m buffer distance of LD is adopted as a conservative approach. Referring to the latest design as shown in **Appendix F**, there are no opened window and fresh air-intake would be located within the 5m buffer distance, therefore, no adverse air quality impact on the Proposed Centre from vehicular emission would be anticipated.
- 6.2.11 As mentioned in **Section 2.1.3**, a new SPS as proposed under the Project “Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works” would be located at the immediate northeast of the Site. The implementation programme of the SPS is not available at this stage. With reference to Section 7 of the Approved Environmental Impact Assessment No. AEIAR-210/2017 “Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works”, the 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. The building height of Proposed Centre would not be higher than 5m. 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 in February 2026. There was no chimney and nor pier found within 500m assessment area from the Site. The Proposed Centre 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 is 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 staff office, will not have opened windows for ventilation towards the road side. Also, referring to Traffic Census 2024, the AADT for South Lantau Road (Station ID 5859) is 2260 veh/day. As advised by traffic consultant, the maximum peak traffic flow for South Lantau Road in Year 2024 is around 210 veh/hr (2-way). According to the methodology/procedure under the "Calculation of Road Traffic Noise (CRTN)" (1988) published by Department of Transport, the estimated road traffic noise level at the nearest sensitive window based on aggressive assumption is about 68 dB(A). The breakdown of assumption and calculation is listed in **Table 6.7**. As such, no adverse noise impact to the Proposed Centre is anticipated during operation phase.

Parameters and Assumptions	Reference of CRTN	Noise Level, dB(A)
Peak Traffic Flow: 210 veh/hr	Chart 2	Basic Noise Level = 65.4
Speed Limit: 50 kph Assume 30% HV ^[1]	Chart 4	Correction: +3.2 dB(A)
% gradient = 0, based on site visit	Chart 6	0
Distance between nearest window and road kerb: Approximate 8m	Chart 7	Correction: +0.7 dB(A) ^[2]
Angle of View: Assume 180°	Chart 10	0
Road Surface: Impervious	Paragraph 16	Correction: -1 dB(A)
Predicted Noise Level in L _{10-1hr}		68.3 dB(A)

Table 6.7: Estimated Road Traffic Noise Level

Notes:

- [1] Assume 30% HV (vehicle types excluding private car and taxi) by making reference to Tung Chung Road vehicle composition.
- [2] Adopted 1.2m above ground for this single-storey structure.

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);
- Land (Miscellaneous Provisions) Ordinance (Cap. 28); and
- Public Health and Municipal Services Ordinance (Cap. 132) – Public Cleansing and Prevention of Nuisances Regulation.

Construction Phase

- 6.2.17 C&D materials generated during the construction of the Proposed Centre will comprise both inert and non-inert materials. Inert C&D materials, such as soil, rock, concrete, brick, and asphalt, will be reused on-site as far as practicable. The remaining materials are intended for dispatch to public filling reception facilities or other construction sites for reuse, provided the materials are free from plastics, chemical waste, industrial metals, and any other non-inert materials.
- 6.2.18 Non-inert C&D materials include a range of waste types, such as mixtures of topsoil, dead vegetative matter, timber, glass, paper, steel, and plastics, which are unsuitable for backfilling but can be recycled if uncontaminated. For instance, 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 before any disposal to the designated landfill site. Additionally, non-inert C&D materials such as paper, plastic, steel, and glass will be separated on-site for reuse and recycling wherever feasible prior to their disposal in landfills. To enhance the efficiency of recycling efforts, a designated area for on-site sorting of these materials will be established, equipped with appropriate containers for the temporary storage of sorted items such as metals and plastics.
- 6.2.19 The Contractor will be responsible for the on-site separation of non-inert C&D materials from inert materials to the possible greatest extent. All non-inert C&D materials will be properly disposed of at designated landfills using dump trucks. Furthermore, the Recommended Pollution Control Clauses (Waste Management) for Construction Contracts will be implemented during the construction phase to minimize the volume of excavated C&D materials. In order to monitor the disposal of C&D material at landfills and public fill reception facilities, as appropriate, and to control fly tipping, a trip-ticket system will be included as one of the contractual requirements to be implemented by the Contractor. To further prohibit illegal dumping and landfilling of C&D materials, 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.
- 6.2.20 The estimated maximum amount of general refuse generated per day during the construction period will be approximately 32.5 kg/day. It is expected that the general refuse and non-inert C&D materials from construction sites would be disposed of at landfill, while the separated recyclable materials would be sent to the nearby recycling facilities. With implementation of good site practice, proper on-site handling and storage as well as regular disposal of the wastes, no unacceptable environmental impacts would be anticipated.
- 6.2.21 The maintenance and servicing of construction plant, equipment and vehicles may generate chemical wastes such as used paint, cleaning fluids, solvents, lubrication oil and fuel. It is anticipated that the quantity of chemical waste, such as lubricating oil and solvent produced from plant maintenance will be small. The amount of chemical waste to be generated would be quantified in the Waste Management Plan (WMP) to be prepared by the Contractor. Provided that the handling, storage and disposal of chemical wastes are in accordance with Waste Disposal (Chemical Waste) (General) Regulation, no adverse environmental impacts are anticipated.

Operational Phase

- 6.2.22 It is anticipated that a small amount of general refuse such as food scraps, plastic bottles, empty containers and packaging would be generated by the visitors during operation phase.

Since the Proposed Centre serves primarily for education purpose and there are no on-site catering offers and, no significant generation of domestic waste nor municipal waste is anticipated. Participants / visitors will be encouraged to bring along personal containers for food and drinks. Notwithstanding the above, a daily general refuse generation of 220–440 kg during operation phase is estimated on conservative side with reference to Monitoring of Solid Waste in Hong Kong – Waste Statistics for 2023 published by EPD, which recorded, on average, the generation rate of municipal solid waste (MSW) was 2.15 kg/person/day and the disposal rate was 1.44 kg/person/day with recovery rate of 33%. Recycling bins will be provided to encourage recycling of waste. General refuse will be collected on a regular basis and delivered to the refuse transfer station by a reputable waste collector to avoid odour nuisance or pest / vermin problem.

- 6.2.23 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.
- 6.2.24 Chemical wastes such as used paints, lubricants and used batteries may be generated during maintenance activities. Should any chemical waste be generated during operational phase, the operator should register with EPD as a chemical waste producer. The chemical waste would be readily accepted for disposal of at the Chemical Waste Treatment Centre at Tsing Yi or other licensed facilities for final treatment and disposal by licensed chemical waste collectors. As the Proposed Centre serves for primarily education purpose, no significant amount of chemical waste associated with the maintenance activities is anticipated. With the proper management of chemical waste in accordance with Waste Disposal Ordinance, no adverse environmental impact associated with chemical waste is anticipated.
- 6.2.25 To minimise potential environmental impacts associated with the collection and transportation of waste, waste generated from the Proposed Centre will be removed in a timely manner to avoid accumulation, odour, or pest nuisance. All waste transported off-site will be conveyed using trucks with covers or enclosed containers to prevent spillage, windblown litter, or other nuisances during transit. The Contractor will obtain all necessary waste disposal permits and licences from the relevant authorities prior to arranging waste transportation and disposal. All waste will be delivered only to licensed waste disposal facilities in accordance with statutory requirements, and good handling and transportation practices will be adopted at all times to minimise environmental impacts.

Ecological

- 6.2.26 With reference to Section 5 of the Approved Environmental Impact Assessment (EIA) No. AEIAR-210/2017 “Outlying Islands Sewerage Stage 2 – South Lantau Sewerage Works”, it indicates that the site of Shui Hau SPS, which is now released for the Proposed Centre, is located within plantation habitat. There were no flora and fauna species of conservation importance recorded within the Site under the EIA. The ecological value of the Site is considered to be low to moderate under the Approved EIA Report.
- 6.2.27 Site verification surveys were conducted between June and August 2022 within 500m of the Site to validate the results of baseline ecological survey from the EIA. No flora and fauna species of conservation importance were recorded within the Site. The habitat map within 500m assessment area is shown in **Appendix G**, covering woodland, shrubland, mangrove, marsh, seasonally wet grassland, sandflat, watercourse, agricultural area, developed area and sandy shore. The baseline conditions at the Site are summarised below:-
- Mainly composed of shrubland and woodland adjacent to South Lantau Road;
 - A watercourse is immediately at the east of the Site;
 - Dominated by common plant species such as *Acacia confusa*, *Mallotus paniculatus*, *Psychotria asiatica*, *Rhus succedanea*, *Aporosa dioica*, *Microcos nervosa*, *Alangium chinense*, *Uvaria macrocarpa*, *Litsea rotundifolia* var. *oblongifolia*, and *Rhodomyrtus*

tomentosa;

- Fauna species recorded are common and widespread; and
- No flora and fauna species of conservation importance found within the Site.

6.2.28 As no flora species of conservation importance is expected to be affected by the Proposed Centre directly, protective / precautionary measures of direct impact on flora of conservation importance is considered not necessary. If trees are inevitably to be affected, numbers of tree felling and pruning will be kept as minimal as possible.

6.2.29 In order to mitigate ecological impacts, temporary works areas, storage areas and human activities associated with the construction works will be confined within the Site, to avoid loss of or damage to adjacent habitat areas due to the construction works. Robust fencing will be used to fence off the Site to ensure the construction works will not encroach onto adjacent habitat areas.

Land Contamination

6.2.30 The following EPD's guiding documents are referenced for land contamination assessment:-

- Annex 19 of the Technical Memorandum on Environmental Impact Assessment Process (Annex 19 of EIAO-TM)
- Guidance Note for Contaminated Land Assessment and Remediation (the Guidance Note);
- Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management (the Guidance Manual); and
- Practice Guide for Investigation and Remediation of Contaminated Land (the Practice Guide).

6.2.31 Land contamination assessment was undertaken in accordance with abovementioned EIAO-TM, Guidance Note, Practice Guide, Guidance Manual.

6.2.32 Site appraisal, including desktop review and site walkover, was conducted to identify the potentially contaminating activities that may pose adverse impact to the Proposed Centre. The following information was referenced for the land contamination assessment:-

- Historical aerial photos from Lands Department (LandsD);
- Hong Kong Geological Survey Maps;
- Chemical waste producer registry and chemical spillage / leakage accidents from Environmental Protection Department (EPD); and
- Records of dangerous goods and incidents from Fire Services Department (FSD)

6.2.33 If potential contaminated land use(s) were identified within the Site, the potential land contamination impacts arising from the Proposed Centre would be evaluated and appropriate mitigation measures would be recommended. A Contamination Assessment Plan (CAP) and if necessary, Contamination Assessment Report (CAR) and Remediation Action Plan (RAP) would be submitted to EPD for endorsement. Any contaminated soil and/or groundwater should be treated according to EPD's approved RAP. A Remediation Report (RR), demonstrating adequate clean-up, should be submitted to EPD for endorsement prior to the commencement of any development or redevelopment works within the Site.

- 6.2.34 Based on the historic photos, the Site was covered by shrubland and woodland. Aerial photos showing major changes are shown in **Appendix H**. Changes of land use observed are shown in **Table 6.8**.

Year	Observed Land Use
1963	Covered by agricultural land, village houses, vacant land, vegetation (shrubland and woodland)
1982	Some vacant land becomes vegetated, and some site clearances were observed.
1993	The extent of site clearances increased, only site boundary was covered by vegetations
2003	The site totally covered by shrubland and woodland
2006	No significant land use changes were observed
2012	No significant land use changes were observed
2015	No significant land use changes were observed
2022	No significant land use changes were observed

Table 6.8: Review of Historical Aerial Photographs

- 6.2.35 Site walkover was undertaken in February 2026, which confirmed that the present land uses in the vicinity of the proposed Shui Hau are rural in character. No polluting activities / sources were observed within the Site during the walkover. The proposed works boundary does not encroach upon any petrol filling stations, car repair / dismantling workshops, industrial premises or other major polluting areas. Site photos showing the existing conditions are presented in **Appendix I**.
- 6.2.36 Based on the information provided by EPD (**Appendix J** refers), there were no records of reported accidents of spillage / leakage of chemicals or any land contamination in the Site. Hence, land contamination in the Site is not anticipated. There is no registration record of chemical waste producers (CWP) within the Site.
- 6.2.37 According to FSD’s reply (**Appendix J** refers), no dangerous goods (DG) licenses have been issued near the Site. Therefore, potential land contamination associated with the storage of DG in the Site is not anticipated.
- 6.2.38 In addition, the closest reported incident is located more than 200m from the Site summarised in **Table 6.9**, hence, no land contamination issue associated with the incident in the Site is anticipated.

Item	Date	Type of Incident	Address
1	23/10/2022	Rubbish Fire	Openground near Lamp Post FB4575 of South Lantau Road

Table 6.9: Summary of Incident Records

- 6.2.39 According to the findings of desktop review and site appraisal, the Site is occupied by non-contaminating land uses (i.e. natural vegetation). The past land use of the Site did not involve potentially polluting activities, and no chemical storage, generator / transformer and other potential sources and signs of contamination were identified within the Site during the site inspection. Thus, no associated land contamination in the Site would be expected.

6.3 Visual and Landscape

- 6.3.1 The Visual Impact Assessment (VIA) concluded that overall visual impact of the Proposed Centre to its surroundings would be “Negligible to Slight Adverse” when compared to the existing site condition which is acceptable from the visual impact standpoint. Significant visual impact is not anticipated given the size and nature of the Proposed Centre. Details of which are enclosed in **Appendix K**.
- 6.3.2 A tree survey was conducted in September 2024. 35 existing trees were recorded within or near the Site, most of which exhibited poor tree form and health conditions. The tree species recorded were common species found in Hong Kong. No Old and Valuable Trees (OVTs) have been identified in accordance with DEVB TCW No. 5/2020 – Registration and

Preservation of Old and Valuable Trees, and the Forests and Countryside Ordinance (Cap. 96). There were 7 dead trees identified among the existing trees. The tree conditions, suitability for transplanting, and consideration for removal of trees were assessed (**Appendix L** refers) in accordance with the Development Bureau Technical Circular (Works) (DEVB TC(W)) No. 4/2020. The assessment concluded that: (1) 35 existing trees recorded exhibited certain level of deterioration and were not recommended for transplantation and (2) 35 existing trees recorded would conflict with the Proposed Centre. 35 existing trees were proposed to be felled with compensatory planting of 18 trees and 35 saplings within the Site, with species that benefit local biodiversity. In addition, the Proposed Centre integrates nature-based landscape design, with green roof and vertical greening to provide green coverage for birds and insects to inhabit, thereby enhancing local biodiversity.

6.4 Sewage

6.4.1 The sewage generation of the Proposed Centre is primarily from the toilet and washing area. The estimation of sewage generated from the Proposed Centre are as follows:-

- Average Dry Weather Flow from Daily Visitors: 10.8m³/day;
- Average Dry Weather Flow from Employee: 2.8m³/day; and
- Total Average Dry Weather Flow: 13.6m³/day.

6.4.2 There will be no discharge of sewage from the Proposed Centre to the local environment. The sewage generated from the Proposed Centre will be stored in an underground tank with a capacity of 127 cubic meter. 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 detect the water level of sewage within the tank to avoid sewage overflow. In this connection, no adverse sewage impact is anticipated.

6.5 Drainage

6.5.1 Surface runoffs from the Proposed Centre will be naturally drained or be properly collected by the U-Channel systems and discharged to existing drainage system. The finished ground level of the Proposed Centre is designed to be +4.8mPD to +5.8mPD, which is higher than the maximum sea level recorded at the closest tidal station in Shek Pik (i.e. +3.91mPD and +3.89mPD under the storm surge of Super Typhoon Hato in August 2017 and Mangkhut in September 2018 respectively). Therefore, the Proposed Centre has catered for the potential flood risk especially under extreme storm surges. During the construction phase, stringent control on discharge of runoff from the Site will be implemented, e.g. sand / silt traps (**Appendix M** refers). In this connection, no adverse impact on the existing drainage is anticipated.

6.6 Water Supply Requirement

6.6.1 The estimated fresh water demand for the Proposed Centre is 15.1m³/day. New water mains are proposed to tee off from the nearby existing water supply network. As the water demand is relatively small, it is expected that any potential impact to the existing water supply system due to the Proposed Centre would be minimal.

6.7 Archaeological Baseline Review (ABR)

6.7.1 With reference to the Explanatory Statement of the Approved OZP, there are seventeen Sites of Archaeological Interest (SAIs) within the OZP. The Proposed Centre falls within the Tong Fuk Miu Wan SAI. An ABR for the Proposed Centre has been carried out and concluded that the Site has a low archaeological potential (**Appendix N** refers). The assessment of the Site as low archaeological potential is also agreed in the Approved EIA Report for Outlying Island Sewerage Stage 2 – South Lantau Sewerage Works.

- 6.7.2 Pursuant to the Antiquities and Monuments Ordinance (Cap. 53), the Applicant and his / her contractor will inform the Antiquities and Monuments Office (AMO) immediately when any antiquities or supposed antiquities under the Ordinance are discovered in the course of works. The Applicant and his/her contractor will inform AMO the works schedule for AMO to conduct site inspection as and when required.

7 Planning Justifications

7.1 Take Forward the Government Policies

2023 and 2024 Policy Addresses

- 7.1.1 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. The proposed use of the Proposed Centre is in line with the Policy Address. The proposed use can also be regarded as a quick win solution to achieve the expedition mentioned in the Policy Address 2024.
- 7.1.2 South Lantau is designated for conservation purposes due to its rich natural and cultural resources, making it a vital area for conservation. The Applicant aims to create a balanced environment where education and recreation coexist, fostering a deeper connection between visitors and the natural environment. With the development of the Proposed Centre, visitors can understand and appreciate the natural ecology, the culture and the traditions of the Shui Hau area, leading to increase in their awareness of nature conservation through direct experience. This initiative will also have a spill-over effects on educational excursions for school tours by transmitting and disseminating valuable knowledge to students across Hong Kong, and promoting a generation that is more environmentally conscious.

7.2 In line with the Planning Intention of the Approved OZP

- 7.2.1 According to the Approved OZP, the planning intention for the “CPA” zone is “to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development”. The Proposed Centre intends through education to visitors and the wider public to raise public awareness in conserving the natural environment. The Proposed Centre will 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.

7.3 Suitable Location and Enhancing Connectivity

- 7.3.1 The Site is strategically located at a convenient location in proximity of the South Lantau Road, providing easy access for both visitors and locals via the South Lantau Road with nearby bus access. The proposed site location is in an area without rare or protected tree species or Registered Old and Valuable Trees (OVT) or registerable OVT. The Proposed Centre is close to the natural sandflat and local community rendering it ideal for promoting conservation and education.
- 7.3.2 From the connectivity perspective, the connectivity of the area is enhanced with the strategic location of the Proposed Centre on the curvilinear pathway along South Lantau Road. The pathway extends from Shui Hau Village to key facilities such as public restrooms, the football field, the Proposed Centre and nearby bus stops. This route is serviced by both a public road and a footpath, ensuring accessibility for users with different aims. (**Figure 7.1** refers).

7.4 Compatible with the Surrounding Building Typologies

- 7.4.1 The building height of the existing structures in the vicinity ranges from 1.8m – 3.8m. The proposed building height of 4.35m for the single-storey Proposed Centre is compatible with the surrounding context. The proposed use consists of only single-storey structures with an area of about 440 sq.m. **Figure 7.2** illustrates that when viewing from the Lower Wan Lung Bus Stop (Tai O to Tung Chung Bound), the proposed single-storey scheme is mostly unnoticeable whereas a notional two-storey scheme is much more extrusive and noticeable. The single-storey scheme has a far better degree of visual negligence than that of the two-storey scheme. From a visual perspective, the single-storey scheme is less extrusive and more

compatible with the surroundings.

7.5 Eco-friendliness and Enhanced Biodiversity in Design

- 7.5.1 The proposed landscape design aims to organize the space while appreciating the ecosystem service and respecting the natural environment. Various biophilic design and green design elements will be incorporated, including butterfly gardens, green roofs, bird boxes, etc.. Photovoltaic system will be used to supplement the energy consumption of the Proposed Centre. Large areas of accessible green space will be created to provide functional areas for users. Additionally, carefully selected native plants and trees will be included to support the local fauna of the area. The overall arrangement makes the design eco-friendly on its own terms and contribute to biodiversity.

7.6 No Adverse Environmental, Traffic, Sewage, Drainage, Water Supply, Visual and Landscape, and Archaeological Impacts

- 7.6.1 Technical justifications were provided to demonstrate there will be no insurmountable environmental, traffic, sewage, drainage, water supply, visual and landscape, archaeological issues arising from the implementation of the Proposed Centre at the Site.

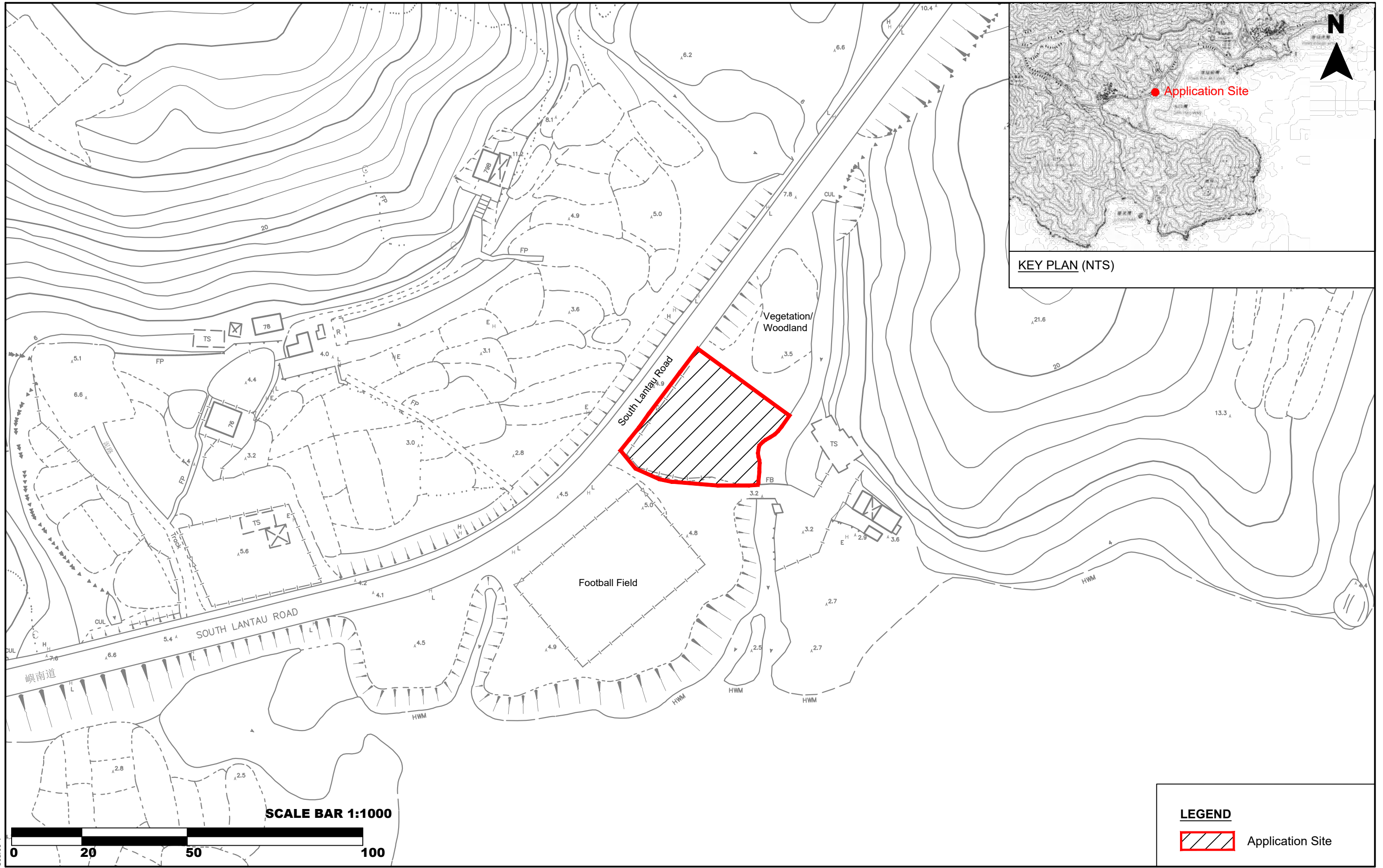
7.7 No Objections or Adverse Comments from the Public

- 7.7.1 With reference to the Para. 3.3 of this PS, the public engagement exercises on the study recommendations for formulating an Eco-recreation Corridor in South Lantau, including the development of Proposed Centre, were conducted. Public comments were received, and briefing sessions with stakeholders were carried out. Consultations were also held with the statutory and advisory bodies, including Legislative Council Panel on Development, Island District Council and South Lantau Rural Committee. The public generally agreed with the positioning of the Shui Hau area for nature education and Shui Hau is suitable for visitors who enjoy exploring the nature.

8 Conclusion

- 8.1.1 The Site falls within an area zoned “CPA” under the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23. The Applicant seeks planning permission from the TPB for the Proposed Centre.
- 8.1.2 In summary, the Proposed Centre is justified on the grounds that the Proposed Centre:
- take forward the Government Policies;
 - 2023 and 2024 Policy Addresses;
 - in line with the planning intention of the Approved OZP;
 - suitable location and enhancing connectivity;
 - compatible with the surrounding building typologies;
 - eco-friendliness and biodiversity considered in design;
 - no adverse environmental, traffic, sewage, drainage, water supply, visual and landscape, and archaeological impacts; and
 - generally support by the public.
- 8.1.3 This PS demonstrates that the Proposed Centre deserves favourable consideration by the TPB in light of the justifications provided. We trust that the TPB will see fit to accept the Proposed Centre.

Figures



File Name :
Source :



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
Site Location Plan


Rev	Description	Date

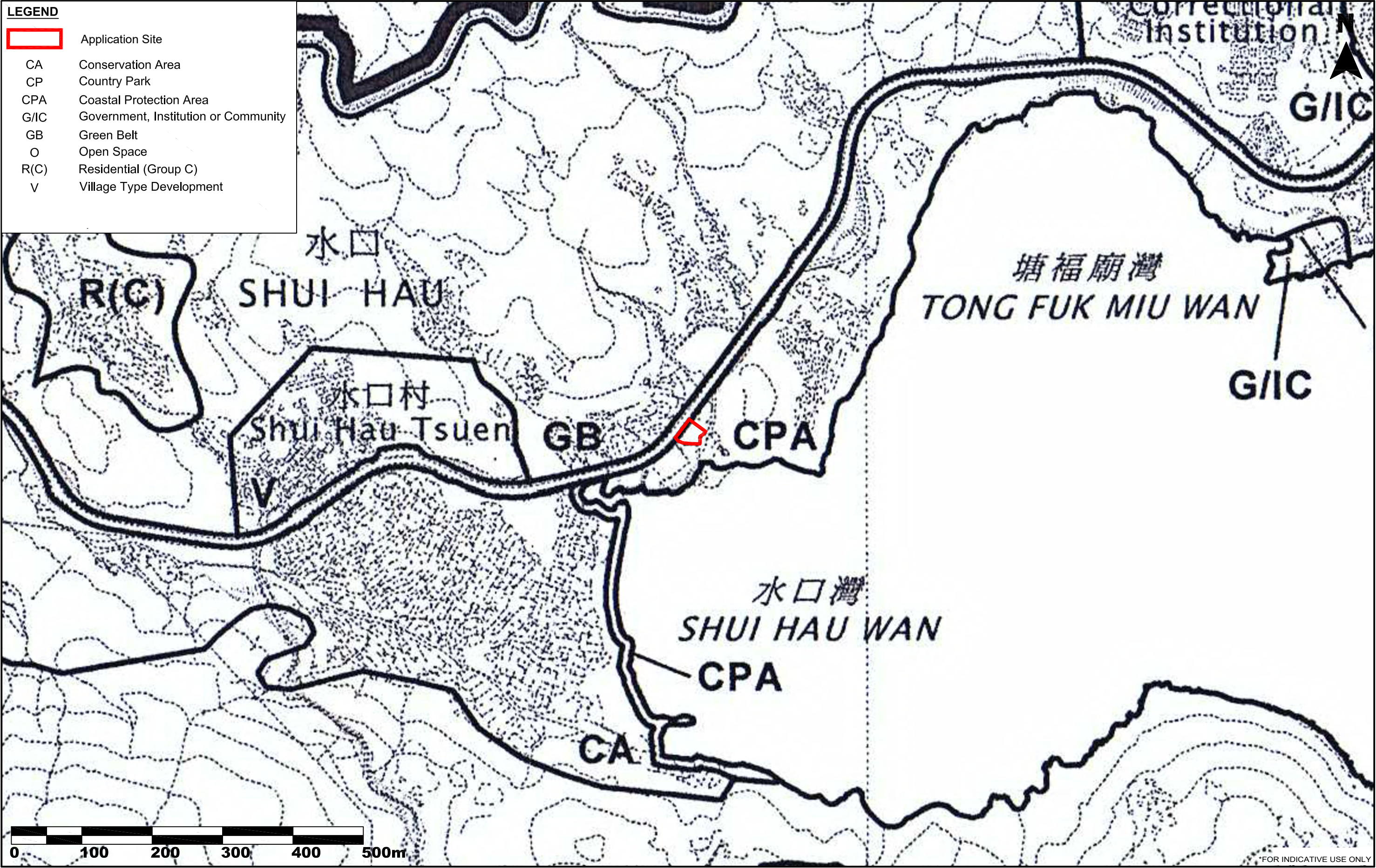
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Drawing No.	Fig. 1.1
Rev.	-

LEGEND
 Application Site

LEGEND

	Application Site
CA	Conservation Area
CP	Country Park
CPA	Coastal Protection Area
G/IC	Government, Institution or Community
GB	Green Belt
O	Open Space
R(C)	Residential (Group C)
V	Village Type Development



File Name :
Source :



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
OZP Planning Context of the Surroundings

-	Submission	18/02/2025	Drawn	HY	Date	23/09/24
			Checked	HT	Approved	RT
Rev	Description	Date	Scale	1:5 000 @ A3		

Drawing No.
Fig. 1.2
Rev. -



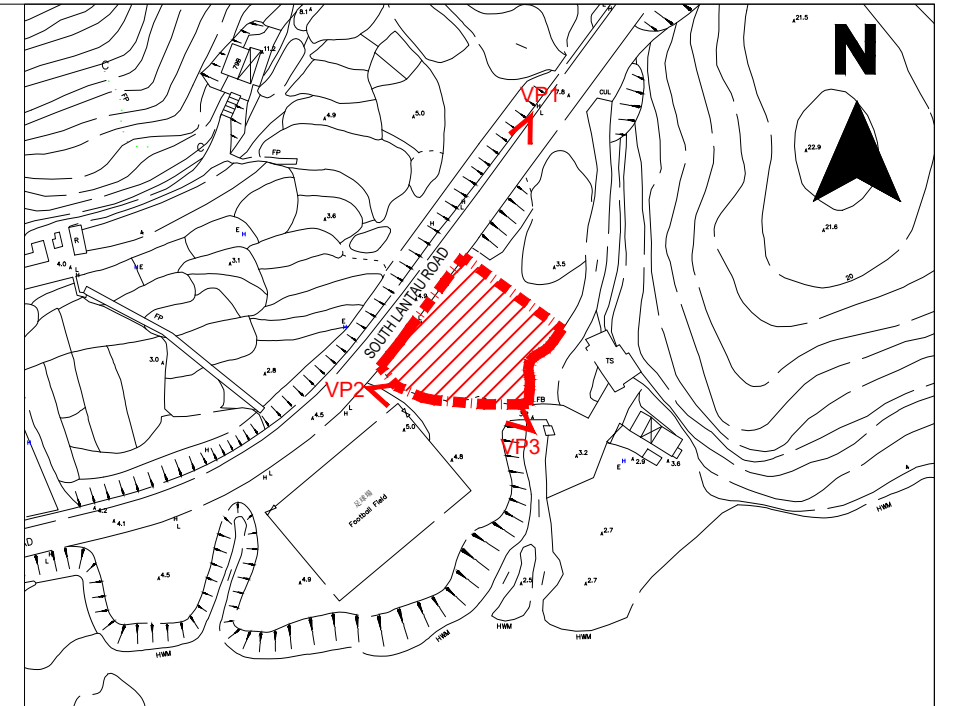
Viewing Point 1



Viewing Point 2



Viewing Point 3



KEY PLAN (NTS)

LEGEND:





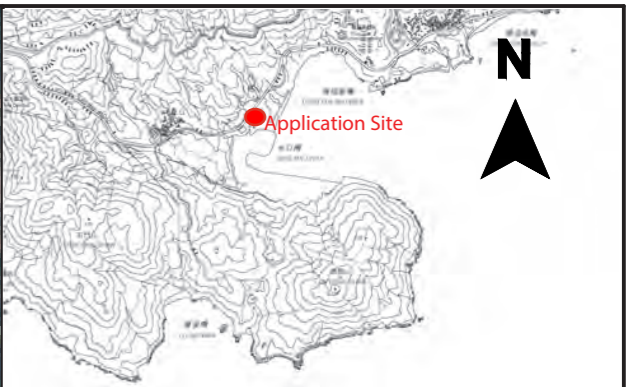
-  Application Site
-  VP1 North East View of the Site
-  VP2 West View of the Site
-  VP3 South View of the Site

PHOTO DATE: 24/09/2024(VP1,VP2), 03/10/2024(VP3)

File Name :
Source :

Drawn	WC	Date	26/09/24	Drawing No.	Fig. 2.1
Checked	KC	Approved	KC	Rev.	
Scale	AS SHOWN		Rev.	-	
Rev	Description	Date			



KEY PLAN (NTS)

Legend

Application Site

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**FOR INDICATIVE USE ONLY*

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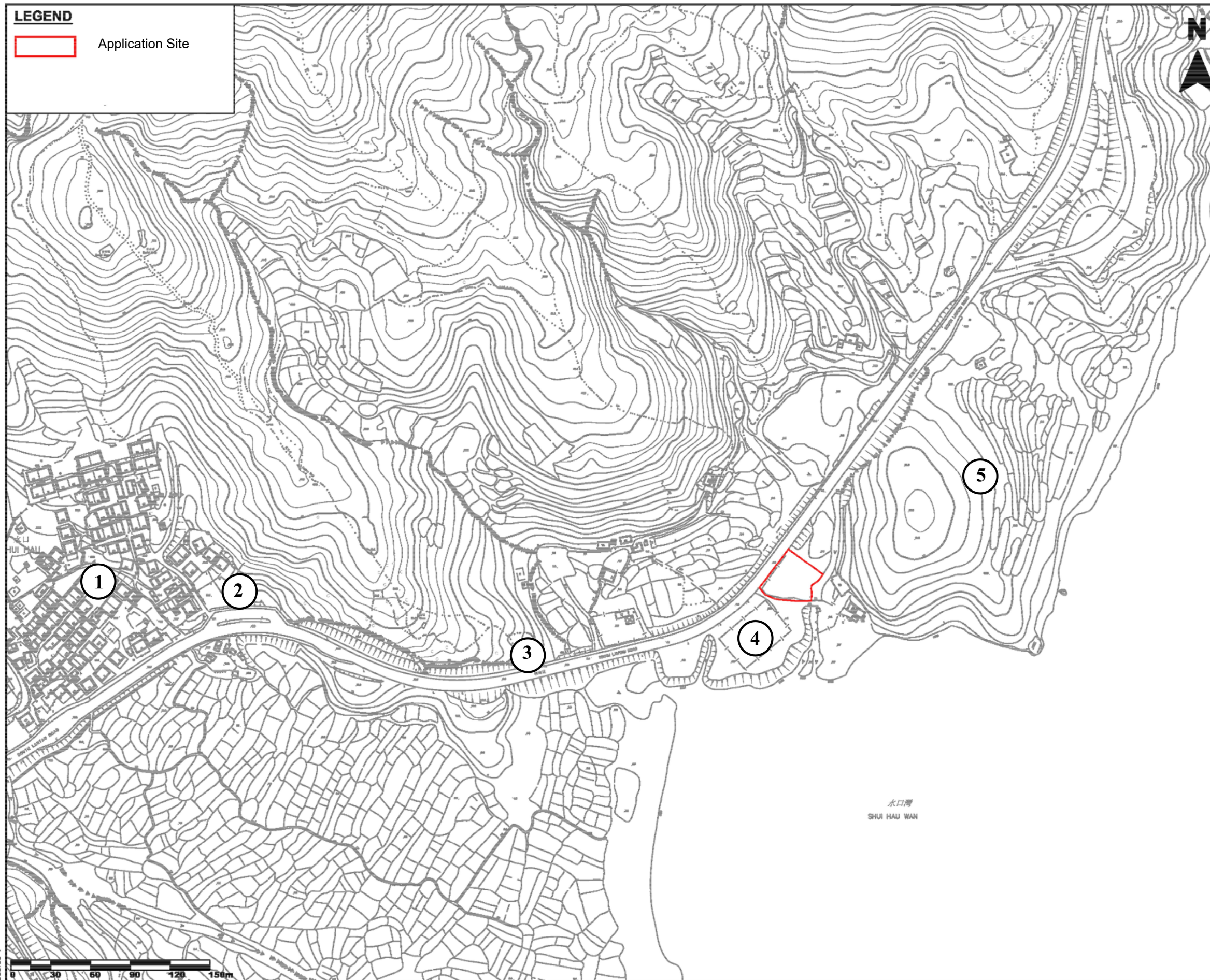
JOB TITLE:
Section 16 Application for
Proposed Shui Hau Education Centre on the Approved South
Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau,
Lantau Island, Hong Kong

Drawing Title
Site Area and Surrounding Plan

-	Submission	18/02/2025
A	Base Map Updated	24/03/2025
Rev	Description	Date

Drawn	WC	Date	23/09/24
Checked	HT	Approved	RT
Scale	A3		

Drawing No.	Fig. 2.2
Rev.	A



File Name :
Source :



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
Existing Context of the Surroundings

Rev	Description	Date

Drawn	HY	Date	23/09/24
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Drawing No.
Fig. 2.3(Sheet 1 of 2)
Rev. -



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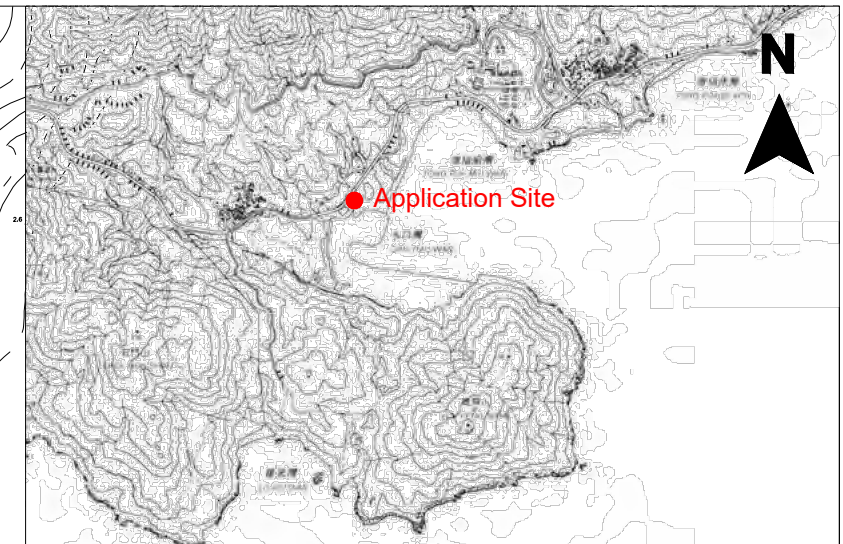
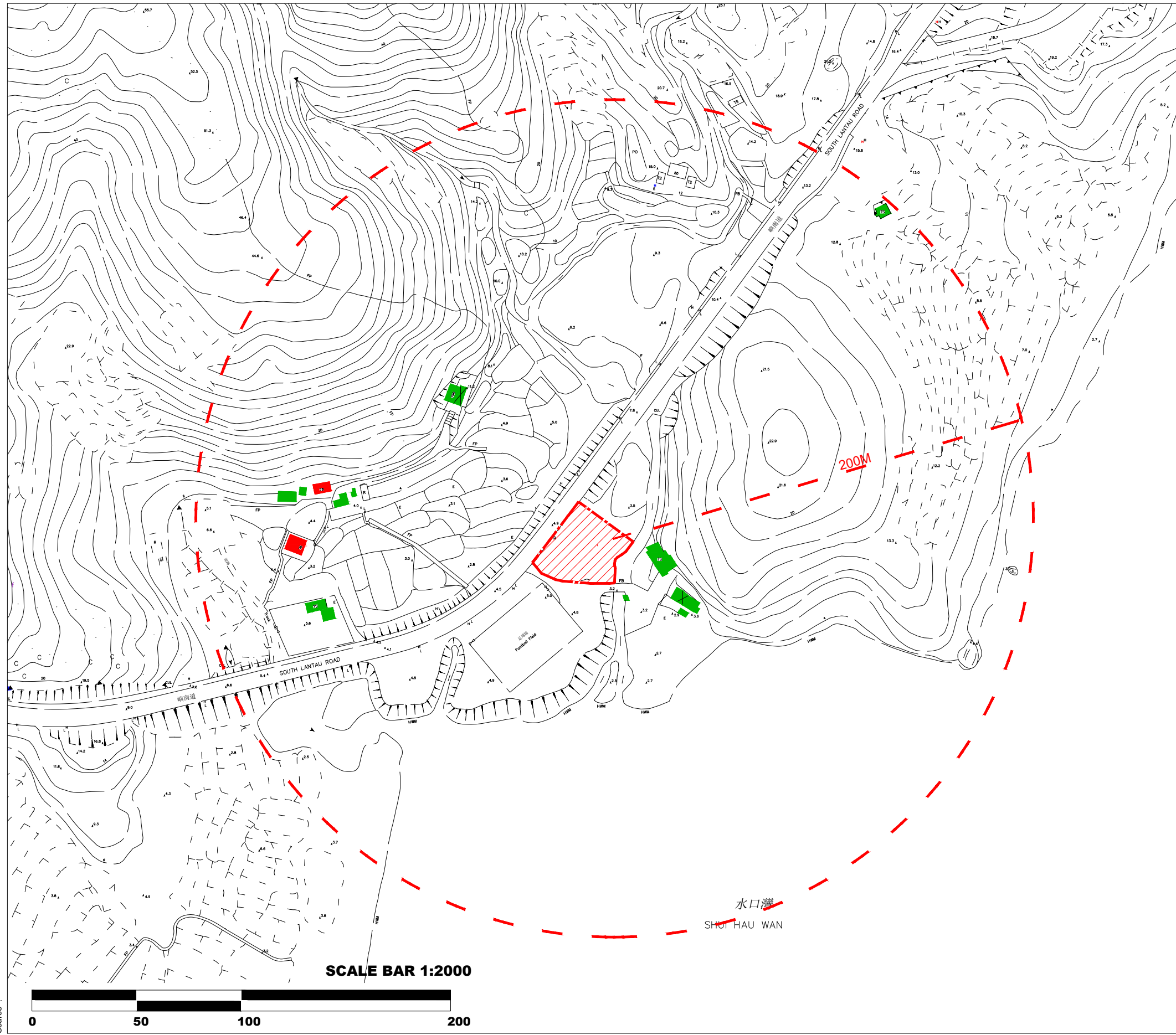
JOB TITLE:
Section 16 Application for
Proposed Shui Hau Education Centre on the Approved South
Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau,
Lantau Island, Hong Kong

Drawing Title
Existing Context of the Surroundings

Rev	Description	Date




Drawn	HY	Date	23/09/24
Checked	HT	Approved	RT
Scale	1 : 3 000 @ A3		

Drawing No.
Fig. 2.3(Sheet 2 of 2)
Rev. -



KEY PLAN (NTS)

LEGEND:

-  APPLICATION SITE
-  EXISTING SINGLE STOREY TEMPORARY STRUCTURE / BUILDING
-  EXISTING 2 STOREY BUILDING

File Name :
Source :
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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
Building Height Profile of the Surroundings

Drawn	WC	Date	10/10/24	Drawing No.	
Checked	HY	Approved	RT	Fig. 2.4	
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Rev	Description	Date			

COASTAL PROTECTION AREA

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Agricultural Use (other than Plant Nursery)	Field Study/Education/Visitor Centre
Barbecue Spot	Government Use
Bathing Beach	Holiday Camp
Country Park*	House (Redevelopment only)
Nature Reserve	Pier
Nature Trail	Public Convenience
On-Farm Domestic Structure	Public Utility Installation
Picnic Area	Radar, Telecommunications Electronic
Wetland Habitat	Microwave Repeater, Television and/or Radar Transmitter Installation
Wild Animals Protection Area	Tent Camping Ground
	Utility Installation for Private Project

* Country Park means a country park or special area as designated under the Country Parks Ordinance (Cap. 208). All uses and developments require consent from the Country and Marine Parks Authority and approval from the Town Planning Board is not required.

Planning Intention

This zoning is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. It may also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion. It is also intended to safeguard the beaches and their immediate hinterland and to prevent haphazard ribbon development along the South Lantau Coast.



There is a general presumption against development in this zone. In general, only developments 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.

(Please see next page)

COASTAL PROTECTION AREA (Cont'd)

- Remarks
- (a) No redevelopment, including alteration and/or modification, of an existing house shall result in a total redevelopment in excess of a maximum plot ratio of 0.4, a maximum site coverage of 25% and a maximum building height of 2 storeys (7.6m), or the plot ratio, site coverage and height of the existing house, whichever is the greater.
 - (b) In determining the maximum plot ratio for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
 - (c) In determining the maximum site coverage for the purposes of paragraph (a) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, shall be included for calculation.
 - (d) Based on the individual merits of a redevelopment proposal, minor relaxation of the plot ratio/site coverage/building height restrictions stated in paragraph (a) above may be considered by Town Planning Board on application under section 16 of the Town Planning Ordinance.
 - (e) On land previously falling within the "Coastal Protection Area" zone on the South Lantau Coast Outline Zoning Plan No. S/SLC/21, any diversion of stream, filling of land or excavation of land, including that to effect a change of use to any of those specified in Columns 1 and 2 above or the uses or developments always permitted under the covering Notes (except public works co-ordinated or implemented by Government, and maintenance or repair works), shall not be undertaken or continued on or after the date of the publication in the Gazette of the notice of the draft South Lantau Coast Outline Zoning Plan No. S/SLC/13 without the permission from the Town Planning Board under section 16 of the Town Planning Ordinance.

(Please see next page)

 土木工程拓展署 Civil Engineering and Development Department	 PRUDENTIAL 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 Extract of Schedule of Uses of "CPA" of the Approved South Lantau Coast Outline Zoning Plan No. S/SLC/23	Drawn	WC	Date	26/09/24	Drawing No.
				Checked	HT	Approved	RT	
				Scale	N.T.S.			-

upgrading to the Area may be considered favourably by the Board;

(b) any development, other than those defined in paragraph (3) in Part B of the covering Notes or in conformity with this Plan or with the permission of the Board, undertaken or continued on or after the material date¹ on land within the boundary of the Regulated Area, may be subject to enforcement and prosecution actions under the Ordinance.

12.3 For any land or building falling within the boundaries of this Plan but not falling within the Regulated Area, no action is required to make the existing use of such land or building conform to this Plan, until there is a material change of use or the building is redeveloped. Any material change of such use or any other development (except minor alteration and/or modification to the development of the land or building in respect of such use which is always permitted) must be always permitted in terms of the Plan or, if permission is required, in accordance with a permission granted by the Board. The Board has published a set of guidelines for the interpretation of existing use in the urban and new town areas. Any person who intends to claim an 'existing use right' should refer to the guidelines and will need to provide sufficient evidence to support his claim. The enforcement of the zoning control mainly rests with the Buildings Department, the Lands Department and the various licensing authorities.

12.4 Planning applications to the Board will be assessed on individual merits. In general, the Board, in considering planning applications, will take into account all relevant planning considerations which may include the departmental outline development plans and layout plans for the Area, and Guidelines published by the Board. The outline development plans and layout plans are available for public inspection at PlanD. Guidelines published by the Board are available from the Board's website, the Secretariat of the Board and the Technical Services Division of PlanD. Application forms and guidance notes for planning applications can be downloaded from the Board's website and are available from the Secretariat of the Board, and the Technical Services Division and the relevant District Planning Office of PlanD. Applications should be supported by such materials as the Board thinks appropriate to enable it to consider the applications.

Index of Plan

Plan No. RA/SLC/1 – South Lantau Coast Regulated Area designated under the Town Planning Ordinance (Sheets 1 to 8)

**TOWN PLANNING BOARD
MAY 2024**

¹ Material date means 9 December 2022 as defined in section 1A(1) of the Ordinance

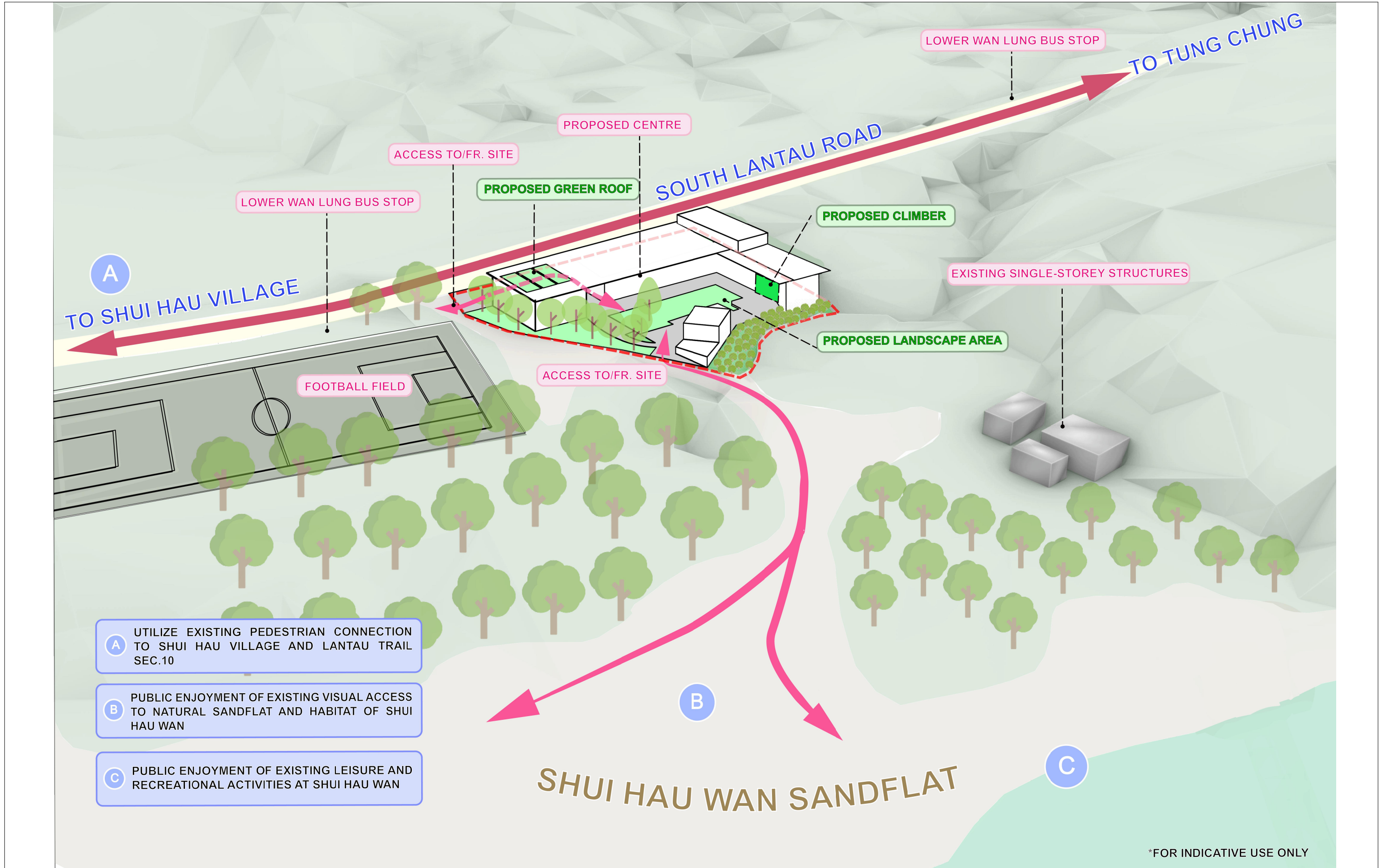
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JOB TITLE:
Section 16 Application for
Proposed Shui Hau Education Centre on the Approved South
Lantau Coast Outline Zoning Plan NO. S/SLC/23 in Shui Hau,
Lantau Island, Hong Kong

Drawing Title
Extract of Explanatory Statement of "CPA" of the Approved
South Lantau Coast Outline Zoning Plan No. S/SLC/23

		Drawn	WC	Date	26/09/24	Drawing No.	
		Checked	HT	Approved	RT	Fig. 4.2	
Rev	Description	Date	Scale	N.T.S.		Rev.	-



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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
Building Envelope Comparison - Single-storey Scheme
and Two-storeys Scheme

Rev	Description	Date

Drawn	WC	Date	04/10/24
Checked	RT	Approved	RT
Scale	NTS		

Drawing No.	Fig.7.2
Rev.	-