

Appendix H

Visual Impact Assessment

**Application for Amendment of Plan
Under Section 12A of the Town
Planning Ordinance (Cap. 131) for
Proposed Innovation and Technology
Hub at Various Lots in D.D. 82 and
D.D. 86 and Adjoining Government
Land, Man Kam To, New Territories**
Visual Impact Assessment

Final | Dec 2023

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 287082

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1 Introduction

- 1.1.1 This Visual Impact Assessment (VIA) is prepared based on the Town Planning Board Guidelines (TPB PG) No. 41, in support of the Planning Application under Section 12A of the Town Planning Ordinance (Cap. 131) for the Amendment of Plan for the Proposed Innovation and Technology Hub (“the Proposed Amendment”) at various lots in D.D. 82 and D.D. 86, and Adjoining Government Land, Man Kam To, New Territories (“the Application Site”) (**Figure 1**).
- 1.1.2 As envisaged in the national *14th Five-year Plan* and the *Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area*, Hong Kong is positioned as an innovation and technology (I&T) hub to make good use of its unique advantages in the Greater Bay Area (GBA) and its solid science and technology foundation. The *Northern Metropolis Development Strategy* promulgated in 2021 Policy Address has identified the northern part of the New Territories as the prime location to be transformed into an international I&T hub encouraging cross-boundary cooperation. In view that Man Kam To has been released from restricted access since 2016, it is in high time to unleash the development potential of unused land resources here and leverage its geographical proximity to Shenzhen, aligning with the national and city-level development directions.
- 1.1.3 To facilitate the development of the proposed I&T Hub, the Applicant proposes amendments to the Approved Man Kam To Outline Zoning Plan No. S/NE-MKT/4 (“the OZP”) by rezoning the Application Site from “Agriculture” (“AGR”), “Green Belt” (“GB”) and “Government, Institution or Community” (“G/IC”) zones to a tailor-made “Other Specified Uses” annotated “Innovation and Technology Hub” (“OU(I&T Hub)”) zone, with a maximum domestic gross floor area (GFA) of 170,400m² and a maximum non-domestic GFA of 365,180m², and maximum building heights (BH) of 80, 90, 110 and 120 meters above Principal Datum (mPD) for four sub-areas respectively.
- 1.1.4 An Indicative Scheme has been formulated to demonstrate the feasibility of the Proposed Amendment for creating a well-equipped world-class I&T Hub in Man Kam To area of Northern Metropolis. The Indicative Scheme has accommodated R&D Centres, Data Centres, Ancillary Dormitories of about 1,392 units for I&T talents, a Commercial Centre, and Other Residential Development equivalent to about 2,320 private residential units, to realise a work-play-live community favourable to cultivating a

creative and innovative ambiance. In view of the needs of future residents and users of the I&T Hub and a Transport Interchange has been proposed to be incorporated into the Indicative Scheme.

- 1.1.5 According to Point (f) of Para. 2.3 of the TPB PG No. 41, it states that a VIA is required when “*the proposal involves upzoning or rezoning of a site from nondevelopment use to development use which will result in loss of visual openness on-site or off-site from key public viewing points*”. Hence, a VIA is prepared to assess the visual impact of the Indicative Scheme.
- 1.1.6 The completed *Preliminary Feasibility Study on Developing the New Territories North* (NTN Preliminary Study) has formulated broad land use concepts for three potential development areas (PDAs) in NTN, which includes Ma Kam To Logistics Corridor. Considering that a large portion of the Application Site has fallen into the study area of the NTN Preliminary Study and been zoned as “Logistics Industries” (with a plot ratio (PR) of 3 and BHR of 70mPD) in the Broad Land Use Concept Plan, a Reference Scheme with two multi-storey buildings for logistics operation with PR 3.0 and BH of 70mPD has been formulated. The Reference Scheme is included in the VIA report for reference purpose only.
- 1.1.7 The VIA examines the visual impacts of the Indicative Scheme in comparison with the existing condition, which conforms the requirement of the OZP Compliant Scheme consisting of AGR, GB, and G/IC zones, and the proposed mitigation measures aiming to alleviate the impacts.
- 1.1.8 This VIA evaluates the visual compatibility and degree of anticipated visual impacts of the Indicative Scheme on the Visually Sensitive Receivers (“VSRs”) relevant to the Application Site. Based on the following Assessment, the VIA comments on the visual acceptability of the Indicative Scheme.
- 1.1.9 The outline for the VIA is set out below:
- **Section 2** outlines the visual context of the Application Site and its Surrounding Area;
 - **Section 3** describes the main design principles for the Proposed Amendment;
 - **Section 4** identifies the Assessment Area and the viewing points (“VPs”);
 - **Section 5** assesses the visual impacts; and

- **Section 6** concludes the VIA.

2 Visual Context of the Application Site and Its Surrounding Areas

2.1 Introduction

2.1.1 The Application Site, with a site area of about 125,863m², is located at Man Kam To in the North District. Within the Application Site, the Development Site (where the proposed I&T Hub will be developed) has an area of about 102,461m². It is on a gentle sloping from site level of about 6mPD near Ping Yuen River to 25mPD near Lo Shue Ling. It was formerly the Frontier Closed Area (FCA) and to its immediate north across Shenzhen River is the city of Shenzhen. The Application Site is a piece of unused land awaiting development. Majority of the land is covered with unmanaged vegetation and fallow agricultural land with a cluster of trees observed in the southeastern part of the Application Site. The current access road leading to the River Ganges Pumping Station is included as part of the Application Site. There is no brownfield operation in the Application Site.

2.2 Visual Context in the Local and Wider Areas

2.2.1 The Application Site is surrounded by a mix of land uses, characterised as follows:

2.2.2 To the **immediate north** of the Application Site is the River Ganges Pumping Station which is zoned “G/IC”. To the **further north** across Lin Ma Hang Road and Shenzhen River is the city of Shenzhen. It is mainly characterised by urbanised areas with medium to high-rise commercial and residential development. On the other side of Lin Ma Hang Road and Shenzhen River is occupied by Luo Fang Wastewater Treatment Plant which is responsible for treating municipal wastewater for the city of Shenzhen.

2.2.3 To the **northeast** of the Application Site across Ping Yuen River is the Ta Kwu Ling Village, which is zoned “Recreational” (“REC”) and mainly comprising of hobby farm, small parcels of farmland, unmanaged overgrowth, and village type settlements. Ta Kwu Ling Police Station, which is at the junction between Ling Ha Hang Road and Ping Che Road, is a Grade 3 historic building. To the **further northeast** is the Liantang/Heung Yuen Wai Boundary Control Point (LT/HYW BCP). It is the seventh land-based boundary control point located between Hong Kong

and Shenzhen which provides direct access facilities for both passengers and vehicles for realising the transport planning principle of “East in-East Out”. The cargo clearance facilities at LT/HYW BCP are opened in 2020 for use by cross-boundary goods vehicles to facilitate freight transport.

- 2.2.4 To the **east** of the Application Site is the indigenous villages – Chow Tin Tsuen, Fung Wong Wu and Lei Uk which are zoned as “Village Type Development” (“V”) and mainly occupied by village type settlements, vegetation and farmlands. A piece of Fung Shui Woodland zoned “GB” with ancestral graves is found within the “V” zone of Chow Tin Tsuen. Moreover, there are three Grade 3 historic buildings located in Fung Wong Wu, including Ng Ancestral Hall, Village Houses, Nos. 35-37 Fung Wong Wu and Yeung Ancestral Hall (Ta Kwu Ling). To the **further east** is the North East New Territories Landfill (NENT Landfill) within the “Other Specified Uses” (“OU”) zone and the Robin’s Nest (Hung Fa Leng) zoned “GB” in the backdrop.
- 2.2.5 To the **immediate south** of the Application Site is fallow agricultural land and inactive farmlands zoned “GB” and “AGR”. To the **further south** is Hung Lung Hang zoned “GB” and “AGR”. Current uses in the area include hobby farms, active and fallow farmlands, vegetation, a venue for motocross courses, and various brownfield operations such as open storage for construction materials and containers.
- 2.2.6 To the **immediate west** of the Application Site is Ta Ku Ling Ling Ying Public School zoned “G/IC” and Lo Shue Ling zoned “GB”. The hilly ridge of Lo Shue Ling rises to about 75mPD. The MacIntosh Fort (Nga Yiu), which is a Grade 2 historic building, is zoned “G/IC” on the ridge of Lo Shue Ling and is currently occupied by radio and community equipment for the use of Hong Kong Police Force. To the **further northwest** is villages zoned as “V”, including Muk Wu Nga Yiu, Muk Wu and San Uk Ling, surrounded by “AGR” and “GB” zones. To the **further west** is an area occupied by boundary crossing facilities, fresh food boundary-crossing and inspection facilities zoned as “OU” and “G/IC”. The area includes Man Kam To (MKT) Boundary Control Point, MKT Livestock Monitoring Station and MKT Food Inspection Facilities for monitoring the safety of imported food.
- 2.2.7 The key visual elements in the vicinity of the site include visual resources such as Lo Shue Ling as the hill backdrop to the west of the Application Site and Ping Yuen River which has undergone river training works to the northeast. To the further northeast is the NENT Landfill with the ridgeline

of Robin's Nest to the east and Wutong Mountain of Shenzhen to the north-northeast. Physical structures in the surrounding area include the high metal fence along the boundary of the Frontier Closed Area, Luo Fang Wastewater Treatment Plant across Shenzhen River, and the on-going development of columbarium, crematorium, and related facilities at Sandy Ridge Cemetery to the southwest. In Kong Nga Po, which is in the southeast of the Application Site, about 19 hectares of land is undergoing site formation and infrastructure works for police facilities.

2.2.8 The Sheung Shui/ Fanling New Town and Kwu Tung North/ Fanling North New Development Areas (NDA) are the major development in the wider context. The Fanling North NDA is located at approximately 2.7km away from the Application Site to its southwest. The area consists of three Outline Zoning Plans (OZPs), namely Approved Fanling North OZP No. S/FLN/2, Draft Fanling/Sheung Shui OZP No. S/FSS/25, and the approved Kwu Tong North OZP No. S/KNT/2. The three OZPs consist of a variety of land uses, including "Residential (Group A)" primarily intended for high-density residential development as one of the major zonings and "Other Specified Uses" ("OU") annotated with "Business and Technology Park" in sites near Fanling Highway.

2.2.9 Moreover, the planning context in the vicinity of the Application Site is anticipated with fast changes in the near future owing to the development of the Northern Metropolis. According to the *Northern Metropolis Development Strategy*, in reviewing the function of Man Kam To Control Point and its neighbouring area, where the Application Site is situated, there is a chance to expand its development capacity. The Man Kam To Development Corridor and the New Territories North (NTN) New Town are proposed with emerging commercial and residential development opportunities. This trend would continue to transform the Application Site's nearby environment significantly in the future.

2.3 Reference Scheme

2.3.1 According to the completed *Preliminary Feasibility Study on Developing the New Territories North* (Preliminary NTN Study), sites near LT/HYW BCP have been identified for possible development of Science Park/ Industrial Estates. Portion of the Application Site has been included in the Ta Ku Ling PDA and planned for "Logistics Industries" (with PR 3 and

BH of 70mPD) under both Scenarios I and II in the Broad Land Use Concept Plan of the Study.

- 2.3.2 The Reference Scheme of the Application Site is developed based on the proposed land uses and development parameters of the Preliminary NTN Study. With reference to the logistics industries-related building footprints suggested in previous studies, two logistic centres are proposed as the Reference Scheme which is included in the VIA for reference purpose.

3 The Indicative Scheme

3.1 Vision of Creating a World-class Innovative and Technology Hub in the Northeast New Territories

- 3.1.1 Strategically located at the branch-off of the Eastern Knowledge and Technology Corridor and in proximity to the LT/HYW BCP, the Application Site is in a prime location to be developed into a smart city inspired I&T Hub and to facilitate frequent cross-boundary technological interaction and cooperation. As a private initiative, the Indicative Scheme is well positioned to take advantage of the flexibility and agility in decision making and could be more responsive to market trends and opportunities than its government backed counterparts. Committed anchor tenants include China Mobile International and EVOC Group which plan to set up international R&D facilities in the proposed I&T Hub to attract global top talents and promote the growth of I&T industry.

3.2 Fostering an Energetic Community with Job Opportunities, Supporting Ancillary Facilities, and a Quality Living Environment

- 3.2.1 The proposed high-tech belt with R&D Centres and Data Centres will create significant job opportunities and support technological innovation. Ancillary dormitories and communal facilities will facilitate the interaction and collaboration among I&T talents. Residential development will also echo with the government efforts in increasing flat supply for local northern population. The Indicative Scheme with a mixed land uses will foster a vibrant community with diversified landscape and open space provision promoting a quality, liveable and smart lifestyle.
- 3.2.2 The general planning and design principles of the Indicative Scheme are described in **Section 3.3** below.

3.3 General Planning and Design Principles

- 3.3.1 The Indicative Scheme envisions the significant role of Man Kam To as a new development area in the northeastern New Territories neighbouring Shenzhen City and the convenient cross-boundary facility in LT/ HYW BCP, with high potential for developing the I&T industry. In the formulation of the Indicative Scheme at the Application Site, careful thoughts have been put into the building and layout design in order to

develop the Application Site as a comprehensive development with four functional and interacting components – a high-tech belt of R&D Centres along the riverside promenade, purpose-built Data Centres to support I&T discovery, Ancillary Dormitories to promote the interaction and well-being of technology talents, and Other Residential Development to help accelerate the transformation of the NTN New Town. Key design elements are summarised as below.

- 3.3.2 **Catering for the Growing Demand for R&D Spaces to Support I&T Industry** – In view of the high occupancy rates of the existing technology infrastructure and the growing demand for R&D facilities, the proposed I&T Hub can provide additional floorspace to steer the development of I&T industries and to attract a wide range of technology enterprises. Their business includes but not limited to external technical cooperation, international market expansion, R&D and sales of technology products, such as edge intelligence for industrial internet, application development and professional platform construction. Becoming one of the drivers for I&T development, the Indicative Scheme with an aim to create world-class I&T Hub can complement and contribute to the existing technology infrastructure by building clustering effect and expanding the current technology community to boundary location to further leverage regional collaboration opportunities.
- 3.3.3 **Establishing Purpose-Built Data Centres with High Flexibility for Customisation** – To sustain the growth of digital economy in Hong Kong, data centres perform as essential information and communications technology infrastructure supporting different economic sectors and catalyst for development of new applications. The availability of sufficient data centres is important for developing Hong Kong into an international I&T Hub. There are technical specifications for data centre construction. Special headroom with high floor-to-floor height is required to accommodate data centre equipment such as cooling of special equipment and servers. Data centre development also requires high floor loading and flexible floor layouts to meet operational need. Therefore, the proposed I&T Hub by private initiatives will provide an excellent location for setting up purpose-built high-tier data centre which can cater the needs of the potential I&T tenants.
- 3.3.4 **Attracting Top-notch Talents by Providing an All-round Environment with Ancillary Dormitories and Other Supporting Facilities** – The proposed I&T Hub not only is a workplace for I&T industries but also an all-round vibrant community for people to “work, live, play”. The

Indicative Scheme is equipped with on-site ancillary dormitories accommodating I&T talents who are working there. Situated close to the R&D Centre, the Ancillary Dormitories can foster collaboration of talents across fields which will be conducive to the advancement of I&T industry in Hong Kong. The provision of high-quality and convenient accommodation also provides an incentive to talents from mainland China and other countries to work there. Given the diversified landscape, active and passive open space and supporting facilities in the Indicative Scheme, the proposed I&T Hub is aspired to be a vibrant community with thriving I&T ecosystem.

- 3.3.5 Unleashing the Development Potential of Vacant Private Land by Providing More Than 2,000 Residential Flats close to the future NTN New Town** – In view of the prime location of the Application Site in proximity to the NTN New Town and persistently large housing demand, the Proposed Amendment is intended to unleash the development potential of unused, fragmented land lots to provide about 2,320 units which greatly increase the housing supply in the transforming area. The Proposed Amendment will help facilitate the transformation of the Northern Metropolis and echo with the Government’s continuous efforts in increasing housing supply via private initiatives.
- 3.3.6 Respecting the Village Environment and Local Contexts** – Given its proximity to Chow Tin Tsuen which is an indigenous village, the Indicative Scheme has carefully considered the local contexts and paid due respect to the village culture. The boundary of the Application Site has been adjusted to ensure no encroachment on the Village Environs Boundary of Chow Tin Tsuen & Fung Wong Fu & Lei Uk and the permitted burial ground. A cluster of woodlands is observed in the south-eastern portion (which is currently zoned as “GB”). Given its nature as Fung Shui Woodland for the locals, it has been excluded from the Application Site. Careful and sensitive landscape treatment along the Development Site boundary near the Fung Shui Woodland will further be introduced to minimise any potential impacts on trees and to soothe the interface between the new development and the natural resources and existing village. To ensure undisrupted teaching and learning at Ta Ku Ling Ling Ying Public School, a Right of Access will be reserved in the Indicative Scheme for teachers, students and parents’ daily use. Also, the alignment of the proposed access road connecting to Lin Ma Hang Road will

be optimised to avoid impacts on the operation of the River Ganges Pumping Station.

3.3.7 Adopting Sensitive Design to Minimise Impacts on the Surroundings

– An overall interesting BH profile, building separation and wind corridors will be incorporated to increase physical and visual permeability of the Indicative Scheme. Taking into account the lower course of Ping Yuen River and the existing village type development to the southeast of the Application Site, the building layout has set back from the Development Site boundary and reserved a planting strip long the boundary to allow for dense, layered structure of planting and preservation of an existing tree cluster. With a more than 10m difference in the existing site level, the suitable site formations have been carefully studied in order to minimise the extent excavation, and cut and fill on the Site. A sensitive landscape design and tree preservation proposal for the working space and residential area shall be incorporated to enhance compatibility of the Proposed Amendment with the neighbouring environment. A 2m to 14m-wide soft edge has been set along the boundary of the Development Site boundary. Screening treatments, such as tree plantings/ green wall will be proposed between the Development Site and Ta Ku Ling Ling Ying Public School to minimise the sense of visual instruction generated from the Indicative Scheme during the operational phase.

3.3.8 Optimising the Overall Building Bulk and Wind Penetration by Accommodating Basement Car Park and Wind Corridors

– In order to reduce the overall building bulk of the Indicative Scheme while providing car parking spaces according to the high-end standards, carparks will be provided at basement levels. With the consideration of the prevailing annual and summer wind directions, a total of four wind corridors of 30m will be introduced to enhance air ventilation and visual permeability. Building separations of at least 15m are also ensured for annual wind entering the Application Site from the north-northeast direction to penetrate through. Together with the three wind corridors aligning in east and east-southeast directions, the potential impacts on the nearby Chow Tin Tsuen and Ta Ku Ling Ling Ying Public School can be minimised. They also function as visual corridors through which workers and residents can enjoy the greeneries provided in the Site and the natural resources, i.e. the views of Ping Yuen River and Lo Shue Ling, in the surrounding. As illustrated in **Figure 2**, public viewers and residents in the vicinity can enjoy views to Lo Shue Ling and the sky from the east of the proposed development from three of the 30m-wide building separations incorporated into the Indicative Scheme.

- 3.3.9 Providing Multi-Level Pedestrian Connectivity, Riverside Promenade and a Landscape Network** – Enhanced pedestrian mobility is one of the key aspects to improving the quality of the community and contributing to a healthy lifestyle and a safe walking environment. A comprehensive and user-friendly multi-level pedestrian network, both vertical and horizontal, connecting all facilities including the floors for R&D Centres, Data Centres, Commercial Centres with GIC facilities on the ground floor, will be provided to improve the pedestrian connectivity in the area. Uninterrupted access including age-friendly and barrier-free access among the proposed facilities and the surroundings will be provided wherever technically possible. Building separations and wind corridors will be utilised as scenic green connectors towards the riverside promenade. It will provide direct, unobstructed, and convenient social linkages for the pedestrians.
- 3.3.10 Offering Supporting Facilities to Serve the Needs of the New Population and Users of the I&T Hub** – Taking into account the future tenants living in the Ancillary Dormitories and other residents, The Indicative Scheme has taken into account the need for educational and transport facilities arising from the anticipated population. A kindergarten has been proposed in a convenient location close to the Ancillary Dormitories and other residential development. The size and locational requirement of the educational facilities have strictly followed the requirements stated in the HKPSG and the Operational Manual for Pre-primary Institutions (Version 2.2) released by the Education Bureau. Besides, a Transport Interchange and bus stops have been incorporated in the Indicative Scheme to serve the tenants, residents, and visitors of the I&T Hub.
- 3.3.11 Offering Sufficient Open Space and Recreational Facilities for a “Work, Live, Play” Community** – The Indicative Scheme will also assure that local open space provision will be adequately provided in ancillary dormitories and residential development in accordance with HKPSG standard through a comprehensive design. Some pocket sitting-out spaces and amenity tree plantings are proposed along the riverfront and grasscrete pavers is proposed along the EVA behind the building cluster of Data Centre in the I&H Hub. Other recreational facilities, such as jogging trails and ballcourt and active recreational areas, such as mini-gym and multi-functional sport area, are incorporated at different levels of the Scheme. For residential neighbourhood, sufficient activity spaces including swimming pool, open lawn area, children’s play area, thematic gardens, courtyards, as well as a zen trail with pocket gardens is proposed around

the preserved Fung Shui Woodland to create a peaceful outdoor space for sitting out and relax. A 10m-wide riverside promenade will be provided between the river course of Ping Yuen River and three towers of R&D Centre, serves as leisure and social space for employees and residents of the I&T Hub, and offers a pleasant view of the river and quality local open space for use.

3.4 Proposed Development Parameters

- 3.4.1 The Indicative Scheme consists of three R&D Centre (16 storeys) providing GFA of about 268,780m² and Data Centres (12 storeys) providing GFA of about 86,400m² to nurture the development of I&T industry. One Commercial Centre (6 storeys) with a GFA of about 9,276m² and a kindergarten with a GFA of about 724m² will support the daily needs of the working and living population. There are three Ancillary Dormitories providing 1,392 units of various sizes for tech talents and their family members, accommodating about 3,758 people. The provision of dormitories within the I&T Hub as an integral part is essential to the operational needs and functioning of I&T Hub and considered as ancillary facilities.
- 3.4.2 For the remaining development, there are five towers of Other Residential Uses to house about an anticipated population of about 6,264. The provision of residential units in addition to the Ancillary Dormitories will provide more housing choices to attract and house top-notch I&T talents and their families. It will also contribute to the creation of an all-round, vibrant “work, live, play” community in the I&T Hub. A four-storey standalone clubhouse with an outdoor swimming pool is proposed to be situated closely to the Ancillary Dormitories and Other Residential Uses. Ancillary parking spaces are to be provided at the basement levels.
- 3.4.3 The proposed development parameters of the Indicative Scheme are summarised in **Table 3.1**. Please refer to Appendix A of the Supporting Planning Statement for the Indicative Scheme.

Table 3.1 Key Development Parameters of the Indicative Scheme

	Indicative Scheme
Application Site Area ⁽¹⁾	About 125, 863m ²
Development Site Area	About 102, 461m ²
Total Plot Ratio (PR) ⁽²⁾	5.23
- Non-Domestic PR	3.57
- Domestic PR	1.66
Total Gross Floor Area (GFA)	535,580m ²

- Non-Domestic GFA		365,180m ²
<i>R&D Centre</i>		268,780m ²
<i>Data Centre</i>		86,400m ²
<i>Commercial Centre</i>		9,276m ²
<i>Kindergarten</i> ⁽³⁾		724m ²
- Domestic GFA		170,400m ²
<i>Ancillary Dormitories</i>		63,900m ²
<i>Other Residential Uses</i>		106,500m ²
- Clubhouse GFA ⁽⁴⁾		3,500m ²
Building Height		
<i>R&D Centre</i>	Building Height	83m
	mPD	90mPD
	No. of Storeys ⁽⁵⁾	16
<i>Data Centre</i>	Building Height	72m
	mPD	73mPD
	No. of Storeys ⁽⁵⁾	12
<i>Commercial Centre</i>	Building Height	30m
	mPD	37mPD
	No. of Storeys ⁽⁵⁾	6
<i>Ancillary Dormitories</i>	Building Height	99m
	mPD	99-102.15m
	No. of Storeys ⁽⁶⁾	30-31
<i>Other Residential Uses</i>	Building Height	99-105.3m
	mPD	120mPD
	No. of Storeys ⁽⁶⁾	30-32
Anticipated No. of Working Population		6,207
<i>R&D Centre</i> ⁽⁷⁾		5,375
<i>Data Centre</i> ⁽⁸⁾		432
<i>Commercial Centre</i> ⁽⁹⁾		400
No. of Units		3,712
<i>Ancillary Dormitories</i>		1,392
<i>Other Residential uses</i>		2,320
Average Flat Size ⁽¹⁰⁾		37.7m ²
Anticipated Population ⁽¹¹⁾		10,022
<i>No. of Tenants of Ancillary Dormitories</i>		3,758
<i>No. of Population of Other Residential Uses</i>		6,264
Local Open Space		Not less than 13,126m ²
<i>For Workers</i>		Not less than 3,104m ²
<i>For Residents</i>		Not less than 10,022m ²
Target Completion Year		2028

⁽¹⁾ Application Site includes the Development Site and remaining land parcels adjoining the Development Site for better rationalisation of boundary and land use zoning.

⁽²⁾ PR and GFA calculations are based on Development Site. May not add up due to rounding.

⁽³⁾ The kindergarten with 6-classroom of about 724m² GFA fulfils the minimum floor space requirement specified in the EBD's *Operation Manual for Pre-primary Institute*. Indicative only, subject to detailed design.

⁽⁴⁾ According to APP-104, a maximum area of 3,500m² can be applied for GFA concession for a development with domestic GFA of >100,000m² to 125,000m². The clubhouse GFA (intended for use by residents of Other Residential Uses) is proposed to be exempted from GFA calculation.

⁽⁵⁾ The no. of storeys excludes basement carparks.

⁽⁶⁾ The no. of storeys excludes 1-storey lobby and basement carparks.

⁽⁷⁾ An assumption of 50m² per worker is assumed for R&D Centre, with reference to Employment Density Guide (3rd Ed.) in the UK.

⁽⁸⁾ An assumption of 200m² per worker is assumed for Data Centre, with reference to Employment Density Guide (3rd Ed.) in the UK.

⁽⁹⁾ An assumption of 25m² per worker is assumed for commercial uses (retail, F&B), with reference to HKPSG Chapter 5.

⁽¹⁰⁾ Average flat size is assumed as 37.7m² which has excluded area required for corridor, lift shaft, lobby, staircase, etc.

⁽¹¹⁾ A person per flat (PPF) ratio of 2.7 is assumed, according to the average household size of the Territory and North District in 2021 Census.

4 Assessment Area and Selection of Viewing Points

- 4.1.1 According to the TPB PG-No. 41, the Assessment Area is defined by approximately three times of the building height (BH) of the Proposed Amendment. Since the Notional Scheme has adopted a stepped BH profile, the tallest BH is taken as a conservative approach to assessment, i.e. about 105.3m from the ground. The Assessment Area is hence drawn approximately 316m (i.e. 105.3m x 3) from the boundary of the Application Site. Viewing points (VP) are selected within and beyond the Assessment Area with consideration of their public usage and visual sensitivity (**Figure 2**).
- 4.1.2 The Urban Design Guidelines in the HKPSG have identified specific vantage points for the consideration of the harbourfront development (Figure 3 of Chapter 11 of HKPSG refers). As the Indicative Scheme at the Application Site is not visible from any specific vantage points, no strategic viewing points are applicable to the assessment.
- 4.1.3 When assessing the potential visual impacts of the Indicative Scheme, the classification of VPs is categorised in **Table 4.1** below:

Table 4.1 Classification of Visual Sensitivity

Receivers	Main Activities	Sensitivity
Recreational	Those viewers who would view the Application Site while engaging in recreational activities	High
Travellers	Those viewers who would view the Application Site from vehicles or on foot	Medium
Occupational	Those viewers who would view the Application Site from their workplaces	Low

- 4.1.4 A total of 9 VPs including short, medium, and long ranges are considered to be most affected by any development on the Application Site as detailed in the following section (**Figure 3**).
- 4.1.5 While the MacIntosh Fort (Ngau Yiu) is located within the Assessment Area, based on the site visit in December 2022, the dense vegetation and tall trees surrounding the MacIntosh Fort (Ngau Yiu) on Lo Shu Ling have shielded direct views to the Application Site. Hence this VP is not chosen for assessment.

5 Assessment of Visual Impact

5.1.1 This Section evaluates the visual impact of the Indicative Scheme by comparing it with the Baseline Scheme. Reference is made to TPB PG No. 41 and the visual appraisal for the Indicative Scheme is carried out on the basis of:

- Visual composition,
- Visual obstruction,
- Effect on public viewers and
- Effect on visual resources.

5.1.2 The overall visual resultant impact of the Indicative Scheme on the visual sensitive receivers is appraised based on the classifications of visual impacts as set out in paragraph of 4.11 of the TPB PG No. 41, which includes:

- Enhanced;
- Partly enhanced/partly adverse;
- Negligible;
- Slightly adverse;
- Moderately adverse and
- Significantly adverse.

VP 1: Chow Tin Tsuen Playground (Figure 4)

5.1.3 This VP is taken inside Chow Tin Tsuen Playground. This short-range VP is located approximately 75m to the east of the Application Site and has a direct view to the Indicative Scheme. It represents views of users who engage in recreational activities in the basketball court and Children's Play Area. Therefore, the visual sensitivity is considered **high**.

5.1.4 **Effects on Visual Composition** – The visual composition of this VP comprises of park furniture such as benches and lamp post as well as facilities of the basketball court and children's play area in the foreground. A public toilet and lush tall trees can be observed in the middle-ground, behind which the Application Site is located. The Indicative Scheme protrudes from the Chow Tin (1) Public Toilet and the dense tree crowns, blocking a portion of the open sky view in the background. Notwithstanding, with the incorporation of the 30m-wide building

separation between R5 and AD1, a visual corridor is introduced to preserve the direct view of the open sky and reduce the overall building mass of the Indicative Scheme. In addition, the lower portion of the Indicative Scheme will be screened by the existing tall trees in the middle-ground, reducing its visual impact. Therefore, the effect on visual composition of the Indicative Scheme is **slightly adverse** as compared to the Existing Condition.

- 5.1.5 **Effects on Visual Obstruction** – Despite partially blocking the open sky view in the background, the 30m-wide building separation between R5 and AD1 has preserved some of the sky view, mitigating the visual bulkiness of the Indicative Scheme. The stepped building height profile has also enabled some sky view above the AD1. Thus, the visual obstruction is considered as **moderately adverse**.
- 5.1.6 **Effects on Public Viewers** – The VP is located at the Children’s Play Area next to the basketball court, in which public viewers mainly engage in recreational activities. Due to the close distance to the Application Site, the visual effects on public viewers can hardly be neglected. However, the trees in the middle-ground have served as a visual relief, screening off large portion of the buildings. Thus, a **moderate** visual effect on public viewers is identified.
- 5.1.7 **Effects on Visual Resources** – The visual element in this VP is the open sky view on the background and the dense trees in the middle ground. As a short-range VP, the buildings reduce the openness of the sky by screening part of the open sky view behind the Public Toilet. However, the 30m-wide building separation between R5 and AD1 incorporated into the Indicative Scheme has preserved a clear direct view of the sky view and mitigates the visual impact. Dense trees are also still clear in sight. Thus, the effects on visual resources are **slightly adverse**.
- 5.1.8 In the Reference Scheme, the LC2 protrudes from the Chow Tin (1) Public Toilet, blocking a portion of the open sky view in the background, in a similar manner. In comparison, the Indicative Scheme demonstrates a more interesting building form, breaking the visual monotony of the logistic centres in the Reference Scheme. Also, the Indicative Scheme does not impose additional pressure to the public viewers compared to the Reference Scheme.
- 5.1.9 Considering the proximity of the VP to the Application Site, the buildings in the Scheme inevitably block some of the open sky view. In view of the

mitigation measure of wide building separation and the screening effect of the natural resources in the middle ground, the visual impact of the Indicative Scheme to this VP is **moderately adverse**.

VP 2: Ta Ku Ling Ling Ying Public School (Figure 5)

- 5.1.10 This short-range VP is located immediately next to the Application Site. It represents views of the service users and workers of the Ta Ku Ling Ling Ying Public School, including teachers, students, and parents. This VP is taken at the entrance of the School. Public viewers will have a direct view towards the Application Site when entering and leaving the School. Therefore, the visual sensitivity is considered **medium**.
- 5.1.11 **Effects on Visual Composition** – The visual composition from this VP comprises plants, shrubs and trees along two sides of the paved access road to the School in the foreground, the mature Fung Shui Woodland in the middle ground and the ridgeline of Robin’s Nest and distant sky view in the background. The Application Site is located immediately on the two sides of the access road. In the Indicative Scheme, DC3 and AD2 are situated on the two sides of VP and are visible behind the shrubs and trees in the foreground. With the introduction of soft landscape edge along the Development Site boundary, green resources are still the main visual composition in this view. Moreover, the clear direct view of the Fung Shui Woodland, ridgeline and open sky view in the background is preserved through the 30m-wide building separation in the Indicative Scheme. As such, the visual composition is subject to **slightly adverse** impact from this VP.
- 5.1.12 **Effects on Visual Obstruction** – While the Indicative Scheme will screen parts of the sky view on the two sides of this VP, unobstructed views towards the Fung Shui Woodland, ridgeline and open sky view are maintained through the wide building separation. Therefore, the impact of the Indicative Scheme on visual obstruction is **moderately adverse**.
- 5.1.13 **Effects on Public Viewers** – Given that the VP is located immediately next to the Application Site, the Indicative Scheme is noticeable from such a close distance. While the public viewers who pass through this VP briefly when entering or leaving the school are expected to have a less open sky view on the two sides, DC3 and the lower portion of AD2 are screened and softened by the tree plantings along the boundary of the Indicative Scheme. With the wide building separations between DC3 and AD2, the direct view towards the Fung Shui Woodland of Chow Tin Tsuen and

Robin's Nest is preserved, providing a visual relief for public viewers. Hence, the impact on public viewers is considered **slight**.

- 5.1.14 **Effects on Visual Resources** – While a portion of the open sky view will be obstructed by the Indicative Scheme, a permeable view towards the Fung Shui Woodland of Chow Tin Tsuen in the middle ground and the ridgeline of Robin's Nest is maintained in the Indicative Scheme. The soft edge of greening along the boundary of the Indicative Scheme will help mitigate the **slightly adverse** effect on visual resources.
- 5.1.15 Although the negative visual impact of the Indicative Scheme can be mitigated by the incorporation of a 30m-wide building separation providing a sense of visual relief, the overall effect of the Indicative Scheme from this VP is considered **slightly adverse**.

VP 3: Lo Shue Ling (Figure 6)

- 5.1.16 This short-range VP is located at a distance of 180m to the west of the Application Site and is at an elevation of about 74.8mPD with a direct view towards the Application Site. It represents views of hikers and people engaging in recreational activities who would climb up Lo Shue Ling. Viewers from the VP clearly oversee the Application Site and its vicinity area and are sensitive to changes of the visual environment. Therefore, the visual sensitivity is considered **high**.
- 5.1.17 **Effects on Visual Composition** – The foreground of this VP is occupied by trees, fallow agricultural land and low-rise village houses. The LT/HYW BCP, Heung Yuen Wai Highway, Northeast New Territories Landfill on Hong Kong side, and clusters of high-rise development on Shenzhen side are in the middle ground. The ridgeline of Robin Nest and that of Wutong Mountain with the Shenzhen TV Tower erected are in the background. Notwithstanding the Indicative Scheme will screen off the existing fields in the foreground, the continuous ridgelines and open sky view are maintained in the Indicative Scheme with a stepped building height profile descending from 120mPD to 80mPD. Moreover, building separations between R&D1 and R&D2, as well as DC3 and AD1 serve as important visual relief and corridors. Rooftop gardens, plantings and vertical vegetation on buildings will compensate the screened off green features. As such, the existing visual composition will be changed but in a positive manner and **slightly adverse** with a touch of architectural interest.

- 5.1.18 **Effects on Visual Obstruction** – Given that the Indicative Scheme consists of mixed development, the existing fields, village settlements and foothills in the middle ground will be blocked. The ridgelines and open sky view in the background are unaffected by the Indicative Scheme. To minimise the impacts, the incorporation of various building separations ranging from 15m to 30m will help retain visual permeability through view corridors. Architectural design features such as the use of finishing materials, colours, and façade will be given extra consideration during the detail design stage for better visual compatibility. Therefore, the impact of the Indicative Scheme on visual obstruction is **slightly adverse**.
- 5.1.19 **Effects on Public Viewers** – Public viewers at this VP are mostly hikers engaging in recreational activities and overseeing the village settlements in Ta Kwu Ling and the urbanised city of Shenzhen. The Indicative Scheme incorporated with design features including a stepped building height profile, various building separations, rooftop garden and soft-edge landscape treatment will lessen the visual impacts on this VP. Although there is a change in landscape, special consideration on architectural design and green features in the site will bring visual interest. With high-rise development in the urbanised Shenzhen in close distance, the Indicative Scheme will to the Application Site and its surroundings. Therefore, the impact of the Indicative Scheme on public views from this VP is considered **slightly adverse**.
- 5.1.20 **Effects on Visual Resources** – The Indicative Scheme will cause no changes to the key visual resources of this VP, including the ridgelines of Robin’s Nest and Wutong Mountain as well as the open sky. The Indicative Scheme will be in harmony with the cityscape of Shenzhen with compatible development intensity. Therefore, impact of the Indicative Scheme on the visual resources of the area will be **negligible**.
- 5.1.21 In the Reference Scheme, two Logistic Centres with large, monotonous building footprints and car ramps are visible from this VP and screen part of the existing fields. Compared with the bulky and monotonous Logistic Centres, the Indicative Scheme adds visual interest to the views from this VP with its architectural design and is well-blended with the urban development on the Shenzhen side while preserving the mountain ridgelines and sky view.
- 5.1.22 Although the Indicative Scheme will screen part of the existing fields and village settlements in the foreground, the openness of the sky and the continuous ridgelines remains as a significant visual component. Various

positive visual elements are also added, including a stepped building height profile, appropriate building gaps to avoid wall effect, rooftop gardens and the soft edge along the boundary to soften the building mass. Therefore, the Indicative Scheme will cause **slightly adverse** visual impact from this VP with the incorporation of design mitigation measures in place.

VP 4: Fung Wong Wu Village Hall (Figure 7)

- 5.1.23 This medium-range transient VP is at a distance of about 330m to the east of the Application Site. It represents views of residents of Fung Wong Wu who will pass through this area when they enter or leave the village. The Indicative Scheme will be visible in the background with open area, refuse collection facilities, car parking spaces, and lush trees in the fore- and middle-ground. Therefore, the visual sensitivity is considered **medium**.
- 5.1.24 **Effects on Visual Composition** – The visual composition of this VP comprises dense shrubs and trees in the middle ground, filling up a large portion of the viewpoint with a backdrop of the open sky. Hard-paved driveway with car parking spaces available for villagers' use, refuse and recyclables collection bins are in the foreground. The Indicative Scheme with the building heights varying from 80mPD to 110mPD, protrudes from the tree canopy and screen part of the sky view. Nevertheless, the dense trees still screen off large portions of the buildings. With a stepped building height profile from the hillside to the riverside and provision of rooftop gardens on DC2 and R&D3, the Indicative Scheme will exist in harmony with the surrounding environment. Therefore, the impact on visual composition is considered **slightly adverse**.
- 5.1.25 **Effects on Visual Obstruction** – The major visual components of the VP are the open space area outside the Village Hall in the foreground, trees in middle ground, and the open sky view in the background. Though the Indicative Scheme reduces the distant sky view, the incorporation of a stepped building height profile and two 30m-wide visual corridors between AD2 and DC3 as well as between DC3 and R&D3 will provide clear visual corridors towards the open sky view which will be largely preserved. With these design measures adopted, the visual bulkiness of the Indicative Scheme will be reduced and a permeable view towards the key visual resources is maintained. Therefore, the visual impacts on visual obstruction and visual permeability are considered **slightly adverse**.

- 5.1.26 **Effects on Public Viewers** – Though the public viewers who are primarily villagers of Fung Wong Wu would notice the high-rise development of the Application Site, they pass by the VP mostly for commuting purpose or gather only at special occasions. As the line of trees in the foreground will largely screen off the lower portion of the Indicative Scheme and a permeable view towards the open sky view is preserved through the wide building separations, the visual impact of the Indicative Scheme is marginal. Therefore, the visual impact on public viewers is **negligible**.
- 5.1.27 **Effects on Visual Resources** – The key visual resources at this VP are the lush trees in the foreground and the open sky in the background. Although the Indicative Scheme will block some of sky view, only the upper parts of the buildings protrude from the tree crowns. With the wide building separations incorporated in the Indicative Scheme, these visual resources are largely retained. The rooftop gardens in DC3 and R&D3 also resonate with the existing green resources. Hence the effects on visual resources are **slightly adverse**.
- 5.1.28 Overall speaking, although the Indicative Scheme would reduce portion of the distant sky view, the incorporation of building separations and a stepped building height profile will reduce the overall visual bulkiness and the open sky view remains as a significant visual component at this VP. Therefore, the visual impact of the Indicative Scheme is considered **slightly adverse** with the mitigation by design measures.

VP 5: Muk Wu Nga Yiu Minibus Stop (Figure 8)

- 5.1.29 This VP at around 340m to the northwest of the Application Site is a minibus stop on Lin Ma Hang Road. This VP is to access medium-range visual impacts on transient passengers and villagers of Muk Wu Nga Yiu who have a view towards the Application Site when waiting for minibus. Therefore, the visual sensitivity is considered **medium**.
- 5.1.30 **Effects on Visual Composition** – The visual composition from this VP consists of the paved road surface of Lin Ma Hang Road and temporary structures on the fellow agricultural land opposite to the Muk Wu Nga You in the foreground. Dense trees, a high-voltage power tower and transmission lines on Lo Shue Ling are in the middle ground against the backdrop of the open sky view. The Application Site is in the background of the VP behind Lo Shue Ling. In the Indicative Scheme, a minor upper portion of the R&D2 and R&D3 will be visible from this VP with screening by tree canopies in middle ground. While the major portions of

R&D Centres will be screened by the hill and lush trees, the incorporation of rooftop gardens in R&D Centres further enhance the compatibility of the Indicative Scheme with the surrounding environment. Hence, the potential impact on visual composition is **negligible**.

- 5.1.31 **Effects on Visual Obstruction** – The Indicative Scheme will block a minor part of the open sky view behind the high-voltage power transmission lines on Lo Shue Ling. Notwithstanding, the lush vegetation in the middle ground and the open sky view in the background are largely maintained. The Indicative Scheme has also adopted considerate design measures such as rooftop garden and separation of building blocks to better integrate with the surroundings and enhance visual permeability. Therefore, the impact of the Indicative Scheme on visual obstruction is **negligible**.
- 5.1.32 **Effects on Public Viewers** – Public viewers from this VP are transient pedestrians waiting for minibus at the roadside of Lin Ma Hang Road. Being a medium-range VP, the R&D Centres which are slightly taller than Lo Shue Ling will only screen a minor portion of the distant sky view. The magnitude of change can hardly be noticed by the passengers who are transient in nature. Therefore, the impact of the Indicative Scheme on public viewers of this VP is **negligible**.
- 5.1.33 **Effects on Visual Resources** – The lush vegetation and ridgeline of Lo Shue Ling, as well as the open sky view in the background are the key visual resources of this VP. In the Indicative Scheme, only a tiny portion of the sky view behind the ridgeline of Lo Shue Ling will be screened. Nevertheless, the openness of the sky remains the significant visual component of the VP. The incorporation of design measures such as rooftop gardens have been added to help the Indicative Scheme better blend in with the dense tree canopies in the middle-ground. Therefore, the impact on visual resources by the Indicative Scheme of this VP is **negligible**.
- 5.1.34 While minor portions of the tip of the R&D Centres protrude from Lo Shue Ling, the Indicative Scheme blends into the surroundings with majority of the buildings screened off by the existing trees on Lo Shue Ling. The extent of open sky view being screened off by the Indicative Scheme is minimal. Design measures including building separations and rooftop gardens have been incorporated to mitigate the potential visual impacts and to better blend in with the lush tree canopies on the hill. Thus, the Indicative Scheme will bring **negligible** visual impact at this VP.

VP 6: Ta Kwu Ling Police Station Bus Stop (Figure 9)

- 5.1.35 This medium-range VP is at a distance of about 500m to the northeast of the Application Site across Ping Yuen River. This bus stop serves the residents of nearby villagers and is next to the Ta Kwu Ling Police Station which is a Grade 3 historic buildings. It represents the views of transient passengers waiting for bus at this VP and workers of the Police Station who walk past this road junction when commuting. Therefore, the visual sensitivity is considered **medium**.
- 5.1.36 **Effects on Visual Composition** – The visual composition of this VP consists of paved road surface of Lin Ma Hang Road, a bus shelter on the left, and the Ta Kwu Ling Police Station on the right in the foreground, shrubs and trees in fellow agricultural land of Ta Kwu Ling Village in the middle ground and distant sky view in the background. The three R&D Centres in the Indicative Scheme will be partly screened off by the vegetations and partly protrude from the shrubs. The provision of rooftop gardens on top of the R&D Centres also add visual interests and compatibility with the surrounding. The impact of the Indicative Scheme on the visual composition of VP is considered **negligible**.
- 5.1.37 **Effects on Visual Obstruction** – The proposed R&D Centres will slightly reduce the distant sky view. Yet, the Indicative Scheme has incorporated wide building separations – one 15m-wide and one 30m-wide respectively, to avoid wall effect and enable a view of the sky view in the background through the visual corridors. The openness of the sky remains as a significant component of this VP. Hence, the impact of the Indicative Scheme on visual obstruction is considered **negligible** with mitigation design measures in place.
- 5.1.38 **Effects on Public Viewers and Visual Resources** – At this VP, public viewers either wait for bus under the shelter or drive through this road junction to enter Ping Che Road/ continue on Lin Ma Hang Road. With the vegetation in the middle ground screening off the lower portion of R&D Centres, the Indicative Scheme is unlikely to generate extract visual impact on transient passengers. Although the Indicative Scheme will block a small part of the distant sky view, the extent of open sky view remains largely the same. Moreover, visual access to the Tak Ku Ling Police Station, which is a Grade 3 Historic Building, will be maintained. Therefore, the impact of the indicative Scheme on public viewers and visual resources are **negligible**.

- 5.1.39 While the extent of the three R&D Centres in the Indicative Scheme is larger than the Logistic Centre 2 in the Reference Scheme when viewing from this VP, the additional visual blockages by the Indicative Scheme which has incorporated with building separations (15m and 30m wide respectively) is considered minor when compared to the Reference Scheme.
- 5.1.40 Considering the reasons above, the Indicative Scheme will bring **negligible** visual impact on the area.

VP 7: Man Kam To Bus Terminus (Figure 10)

- 5.1.41 This long-range transient VP at about 900m to the southwest of the Application Site is a bus terminus near the junction of Man Kam To Road/ Lin Ma Hang Road. This bus terminus serves nearby villages such as San Uk Ling, and workers of Man Kam To Control Point, Food and Livestock Inspection Facilities and other relevant facilities. Opposite to it is the cargo waiting area for goods vehicle clearance at Man Kam To Control Point. It represents views of people waiting for bus and cross-boundary drivers who will pass through Man Kam To. Therefore, the visual sensitivity is considered **medium**.
- 5.1.42 **Effects on Visual Composition** – The visual composition of this VP comprises paved vehicular road, low-rise village houses and mature trees in San Uk Ling, and a refuse collection point at the junction of Lin Ma Hang Road/ Man Kam To Road in the foreground. The ridgeline of Wutong Mountain and Shenzhen TV Tower is visible in the background with open sky view. The Application Site is located in the background of the VP behind San Uk Ling and Lo Shue Ling (which is screened by the mature trees from this VP). As the Indicative Scheme will be entirely screened, the impact on visual composition is considered **negligible**.
- 5.1.43 **Effects on Visual Obstruction, Public Viewers and Visual Resources** – The village houses of San Uk Ling and Lo Shue Ling will completely screen both the Indicative Scheme. As such there is **negligible** impact brought by the Indicative Scheme on visual obstruction, public viewers, and visual resources.
- 5.1.44 Based on the above, as the Indicative Scheme will be entirely screened by the village houses of San Uk Ling and Lo Shue Ling, the visual impact of the Indication Scheme is considered **negligible**.

VP 8: A Pavilion in Hung Lung Hang (Figure 10)

- 5.1.45 This medium-range VP is at a distance of about 550m from the southern boundary of the Application Site. This pavilion is accessible via a narrow footpath which leads villagers of Chow Tin Tsuen to the burial urns of their ancestors. Given the transient nature and occasional visit of the viewers at this VP, the visual sensitivity is **medium**.
- 5.1.46 **Effects on Visual Composition** – This VP compromises a pavilion for people to rest and site in the foreground, lush vegetation and tall trees in the middle ground, and the sky view in the background. From this VP which is at a ground level of 21.2mPD, the Indicative Scheme at the Application Site is entirely screened by the dense tall crowns in the middle ground. No portion of the buildings in the Indicative Scheme can be seen from this VP. As there will be no change to the visual composition caused by the Indicative Scheme, the impact on visual composition is considered **negligible**.
- 5.1.47 **Effects on Visual Obstruction, Public Viewers and Visual Resources** – The lush, tall trees in the middle ground will completely screen the Indicative Scheme. As such, there is **negligible** impact brought by the Indicative Scheme on visual obstruction, public viewers, and visual resources.
- 5.1.48 Based on the above, as the Indicative Scheme will be entirely screened by dense vegetation and tree crowns, the visual impact of the Indication Scheme is considered **negligible** from this VP.

VP 9: Cham Shan (Figure 11)

- 5.1.49 This long-range VP is at a distance of about 2km to the southwest of the Application Site and is at an elevation of 115.5mPD. Located at a popular hiking trail, the VP represents views of hikers on the hiking trail in Cham Shan, overlooking Kong Nga Po, Hung Lung Hang, Ta Kwu Ling and the city of Shenzhen. It can assess the overall compatibility of the Indicative Scheme with the surrounding area in northern New Territories and Shenzhen. The visual sensitivity of the VP is considered **high**.
- 5.1.50 **Effects on Visual Composition** – The visual composition of this VP comprises vegetated hill slope, brownfield operations such as open container storage, a construction site in Kong Nga Po, low-rise village settlements and lush vegetation on fallow agricultural land in the

foreground. Fence along the Frontier Close Area, Heung Yuen Wai Highway, LT/ HYW BCP, NENT Landfill, and medium- to high-rise development on Shenzhen side constitute the middle ground. The ridgeline of Wutong Mountain with the Shenzhen TV Tower, clusters of high-rises in Shenzhen and the open sky view form the background. The Application Site is located in the central location of the middle ground from this VP. The Indicative Scheme comprises of a mix of uses and developments in a stepped building height profile with incorporation of a number of building separations of 15m- and 30m-width. Looking from this long-range kinetic VP, the Indicative Scheme will not alter the key visual composition, including the vegetated hill slopes and fallow agricultural land in the foreground, as well as mountain ridgelines and open sky view in the background. With the stepped down BH profile descending from the hillside to the river, it is visually compatible with the natural slope gradient. With the high-density urban development in Shenzhen within visible distance, the Indicative Scheme – an International I&T Hub, will become a landmark feature and be compatible with the visual context of the boundary area between Hong Kong and Shenzhen. Therefore, impact of the Indicative Scheme on visual composition is considered **negligible**.

- 5.1.51 **Effects on Visual Obstruction** – The Indicative Scheme will cause no visual obstruction to the key visual resources of this VP, which include the lush vegetation on the hill slopes and fallow agricultural land in the foreground and middle ground, as well as the ridgeline of Wutong Mountain and open sky view in the background. Although a minor portion of the mountain is blocked, the Indicate Scheme will not add any visual bulkiness given the high-density, high-rise cityscape of Shenzhen in the backdrop. The impact of the Indicative Scheme on visual obstruction is **negligible**.
- 5.1.52 **Effects on Public Viewers** – Public viewers at this VP are hikers engaging in recreational activities and overlooking the northeast New Territories and the city of Shenzhen. As a long-range VP, the Indicative Scheme will cause no visual change to the ridgelines and open sky view in the background at this distance. Public viewers can still enjoy an extensive view of green resources on Hong Kong side and Wutong Mountain across the river ion Shenzhen side. Moreover, the Indicative Scheme represents an interesting building layout and will form a landmark feature in the area. Therefore, the visual impact on public viewers is **negligible**.
- 5.1.53 **Effects on Visual Resources** – Key visual resources from this VP, namely the ridgeline of Wutong Mountain, cityscape of Shenzhen and open sky

views, in the background are undisturbed by the Indicative Scheme. In particular, the Indicate Scheme will echo with and be blended in the urban developments in Shenzhen which is only a river away from Hong Kong. Therefore, the impact on visual resources from this VP is **negligible**.

- 5.1.54 In comparison, the Reference Scheme presents the two Logistic Centres with a large building footprint and a featureless layout against the cityscape of the city of Shenzhen in the backdrop. The Indicative Scheme will not cause additional blockage to the cityscape of Shenzhen, ridgelines of Wutong Mountain, and the sky view as compared with the Reference Scheme. What's more, the Indicative Scheme which intends to form a landmark feature at the prominent boundary location will become a visual attractor, enhancing the quality of view from the existing condition.
- 5.1.55 Overall, the Indicative Scheme presents an interesting visual composition to public viewers from this VP. Various positive visual elements are also added, including a stepped building heigh profile from the hill side to the river side to create a touch of architectural interest, appropriate building separations to avoid wall effect and to function as visual corridors, as well as soft-edge and rooftop gardens to better blend in the buildings with the surrounding. As a long-range VP, with a number of mitigation design measures incorporated and the blending in with the visual characters of Shenzhen's cityscape in immediate background, the Indicative Scheme will only bring **negligible** visual impact. Further design measures for enhancing visual compatibility will be explored at detailed design stage in order to further reduce any possible visual impact of the proposed I&T Hub should this Amendment of Plan be approved.

5.1.56 A summarised assessment of the visual impacts when the Indicative Scheme is in place is given in **Table 5.1**.

Table 5.1 Summary of Visual Impact Assessment

VP	Visual Sensitivity	Appraisal Components				Conclusion
		Visual Composition	Visual Obstruction	Effect on Public Viewers	Effect on Visual Resources	
VP 1 Chow Tin Tsuen Playground	High	Slightly Adverse	Moderately Adverse	Moderately Adverse	Slightly Adverse	Moderately Adverse
VP 2 Ta Ku Ling Ling Ying Public School	Medium	Slightly Adverse	Moderately Adverse	Slightly Adverse	Slightly Adverse	Slightly Adverse
VP 3 Lo Shue Ling	High	Slightly Adverse	Slightly Adverse <i>(mitigated by design measures)</i>	Slightly Adverse	Negligible <i>(mitigated by design measures)</i>	Slightly Adverse <i>(mitigated by design measures)</i>
VP 4 Fung Wong Wu Village Hall	Medium	Slightly Adverse <i>(mitigated by design measures)</i>	Slightly Adverse	Negligible	Slightly Adverse	Slightly Adverse <i>(mitigated by design measures)</i>
VP 5 Muk Wu Nga Yiu Minibus Stop	Medium	Negligible	Negligible	Negligible	Negligible	Negligible
VP 6 Ta Kwu Ling Police Station Bus Stop	Medium	Negligible	Negligible <i>(mitigated by design measures)</i>	Negligible	Negligible	Negligible <i>(mitigated by design measures)</i>
VP 7 Man Kam To Bus Terminus	Medium	Negligible	Negligible	Negligible	Negligible	Negligible
VP 8 A Pavilion in Hung Lung Hang	Medium	Negligible	Negligible	Negligible	Negligible	Negligible
VP 9 Cham Shan	High	Negligible	Negligible	Negligible	Negligible	Negligible

6 Conclusion

- 6.1.1 This VIA is prepared in support of the Planning Application under section 12A of the Town Planning Ordinance (Cap.131) for Proposed Amendment to the OZP by rezoning the Application from “AGR”, “GB” and “G/IC” zones to a tailor-made “Other Specified Uses” (“OU”) annotated “Innovation and Technology Hub” (“OU”(I&T Hub”) zone, subject to a maximum domestic GFA of 170,400m² and a maximum non-domestic GFA of 365,180m², and maximum BH of 80, 90, 110 and 120 mPD for four sub-areas respectively, to facilitate the development of the Proposed I&T Hub.
- 6.1.2 Since the promulgation of the *Northern Metropolis Development Strategy*, a fast-changing planning context in the surrounding areas of the Application Site has been anticipated. The northern part of the New Territories will be transformed into an international I&T Hub with emerging commercial and residential opportunities under the staunch support from the national *14th Five-Year Plan* and the *Outline Development for the Guangdong-Hong Kong-Macao Greater Bay Area*. The Proposed Amendment also dovetails with the recently promulgated *Hong Kong Innovation and Technology Development Blueprint* to development Hong Kong into an international I&T centre at full speed.
- 6.1.3 This VIA evaluates the visual compatibility and degree of anticipated visual impacts of the Indicative Scheme in relevance to the vicinity of Application Site. The Reference Scheme included in this VIA is devised according to the proposed “logistic industries” land uses and development parameters in the completed *Preliminary Feasibility Study on Developing the New Territories North* for reference purpose.
- 6.1.4 Multiple design strategies are adopted to enhance visual interest and mitigate undesirable visual impacts of the Indicative Scheme on the surrounding visual sensitive receivers. The Indicative Scheme is carefully designed with a stepped building height profile and building separations of width varying from 15m to 30m to optimise the overall building mass and wind penetration. These building separations serving as wind and visual corridors preserve the visual access to surrounding visual resources. The incorporation of rooftop gardens and soft-edge planting along development

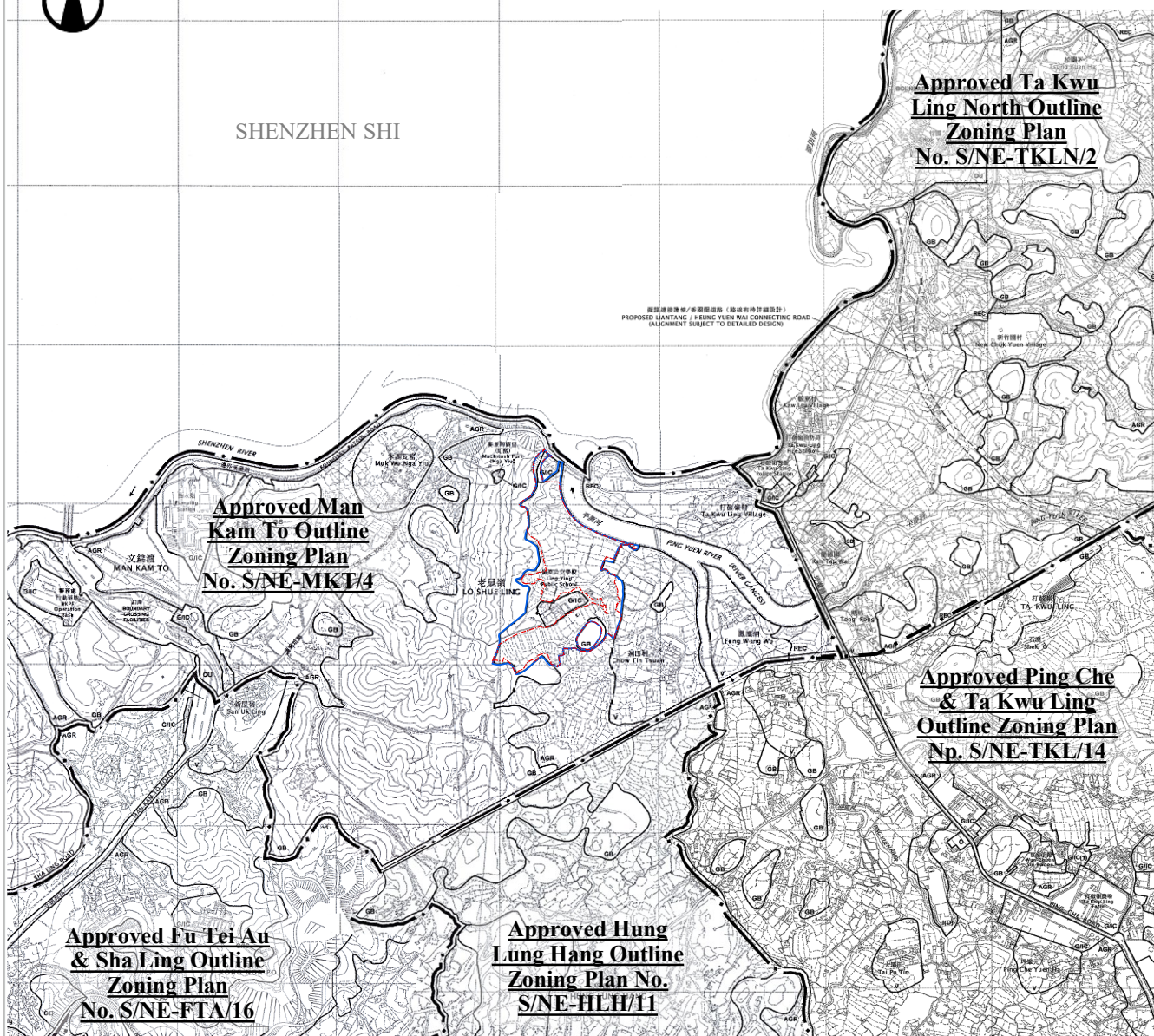
boundary also provides a smooth integration of the Scheme with the surrounding environment.

- 6.1.5 A total of 9 VPs are assessed in this VIA and all are identified with negligible or slightly adverse impacts when the above mitigation design measures are in place, and with high compatibility with the character of the adjoining Shenzhen city. Based on the above, the Indicative Scheme is considered to be fully acceptable in terms of visual impact.

Figures



SHENZHEN SHI



LEGEND



Application Site

Development Site

ZONING

AGR

Agriculture

GB

Green Belt

V

Village Type Development

G/IC

Government, Institution or Community

G/IC(1)

Government, Institution or Community (1)

OU

Other Specified Uses

REC

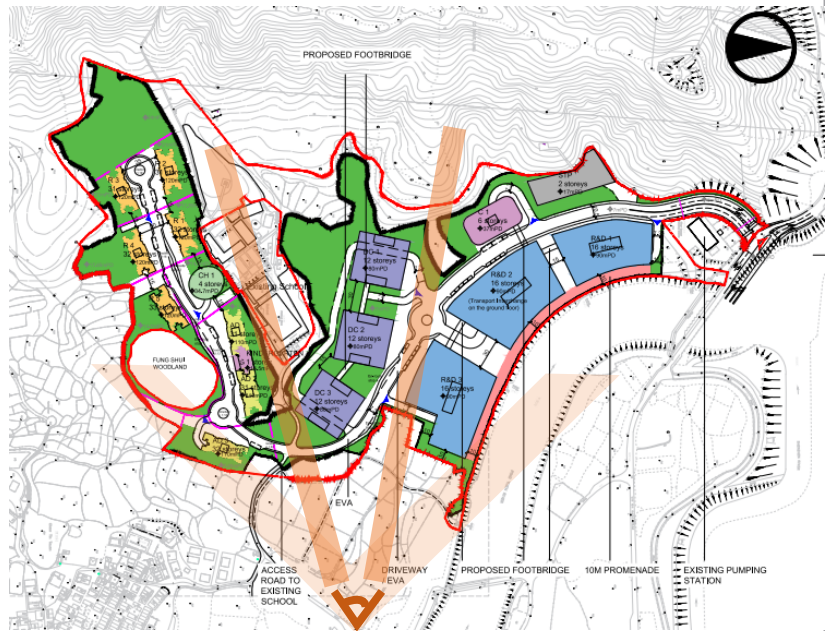
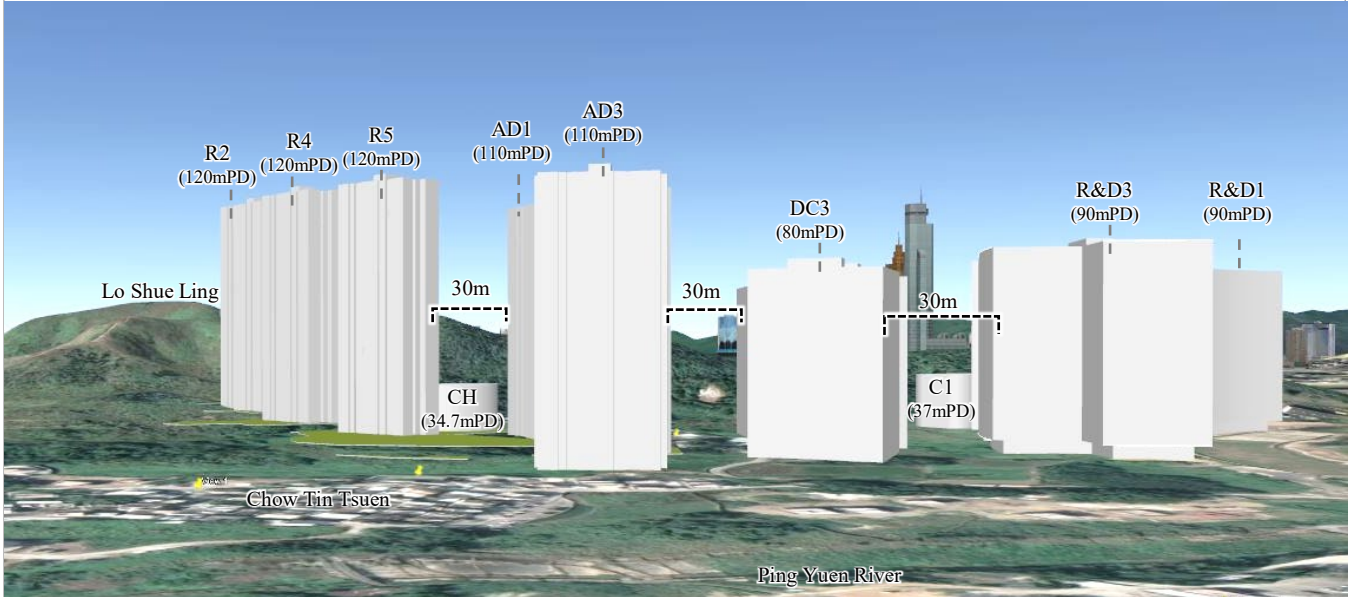
Recreation

I(D)

Industrial (D)

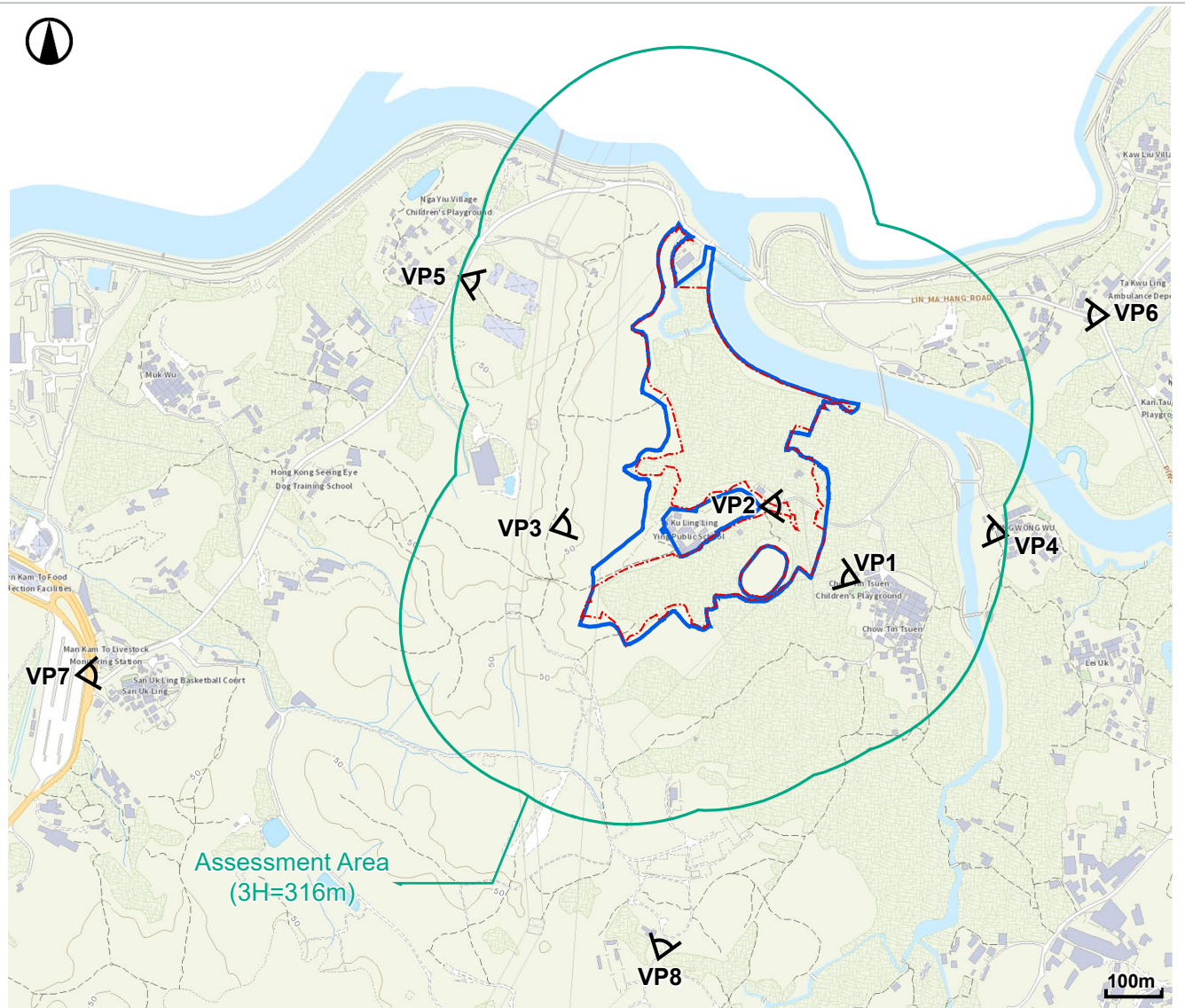
Figure No. 1	Scale -	Figure Title Location Plan
ARUP	Date July 2022	Source Extracted from Outline Zoning Plan No. S/NE-MKT/4, No. S/NE-FTA/16, No. NE-HLH/11, No. S/NE-TKLN/2, and No. S/NE-TKL/14

Illustration of the Building Separations of the Indicative Scheme



Indicative Architectural Scheme

Figure No. 2	Scale -	Figure Title Illustration of the Building Separations of the Indicative Scheme
ARUP	Date Feb 2023	Source -



LEGEND

- Application Site
- Development Site
- Assessment Area (3H = about 316m)

Viewing Point (VP)

- VP1:** Chow Tin Tsuen Playground
- VP2:** Ta Ku Ling Ling Ying Public School
- VP3:** Lo Shue Ling
- VP4:** Fung Wong Wu Village Hall
- VP5:** Muk Wu Nga Yiu Minibus
- VP6:** Ta Kwu Ling Police Station Bus Stop
- VP7:** Man Kam To Bus Terminus
- VP8:** A Pavilion in Hung Lung Hang
- VP9:** Cham Shan

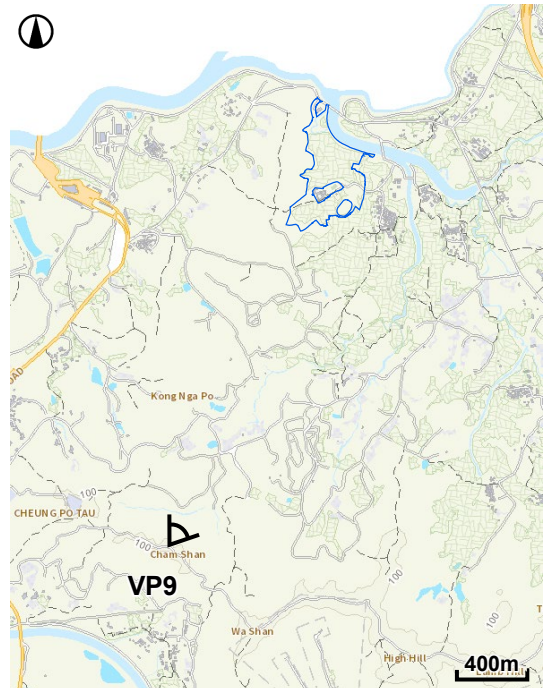
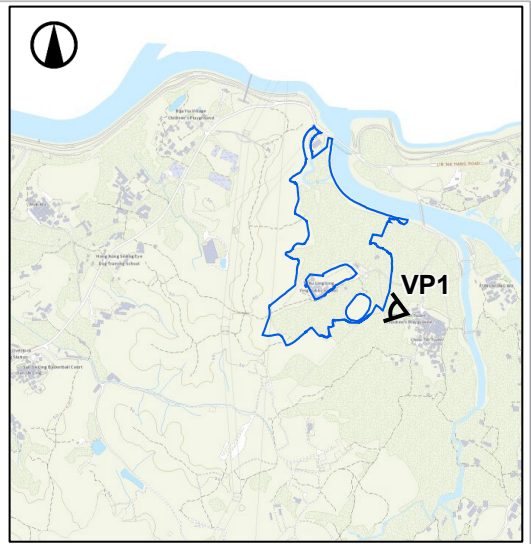


Figure No. 3	Scale -	Figure Title Assessment Area and Location of Viewing Points
ARUP	Date Dec 2022	Source GeoInfo Map

Existing Condition



Key Plan

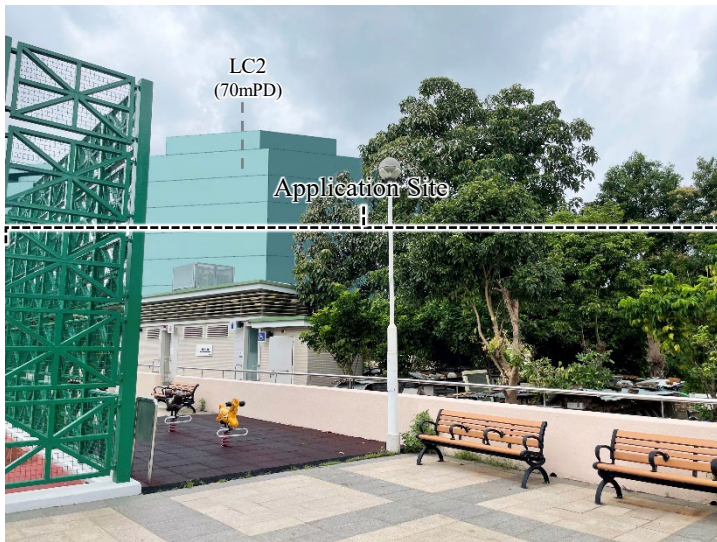
Indicative Scheme



LEGEND

- Residential Tower
- Ancillary Dormitory

Reference Scheme

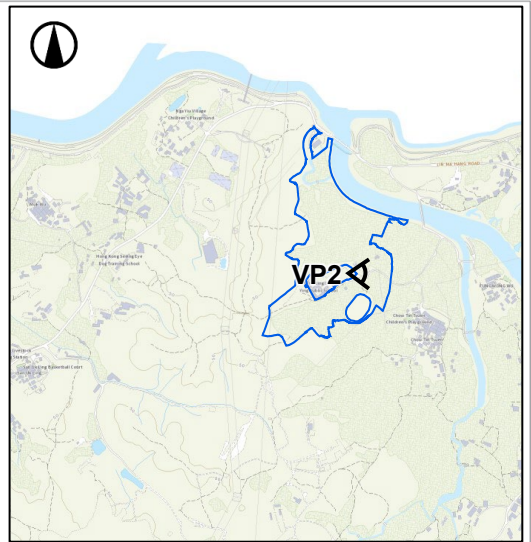


LEGEND

- Logistics Centre

Figure No. 4	Scale -	Figure Title Viewing Point 1: Chow Tin Tsuen Playground
ARUP	Date July 2022	Source -

Existing Condition



Key Plan

Indicative Scheme



LEGEND

- Ancillary Dormitory
- Data Centre

Reference Scheme

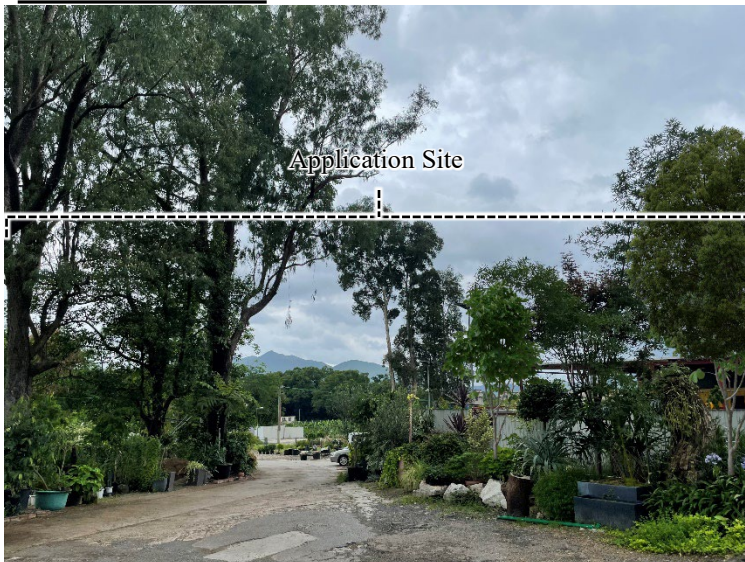
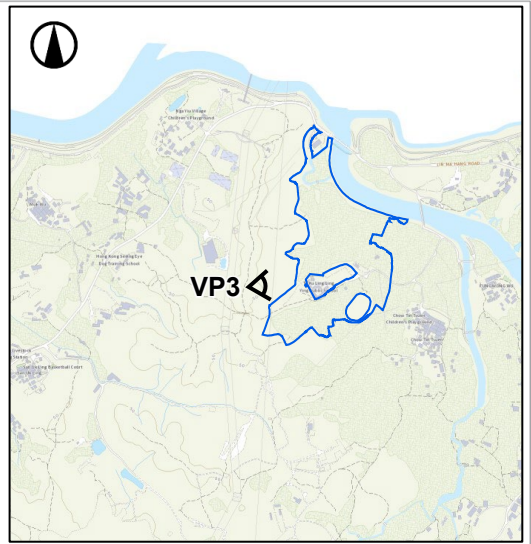


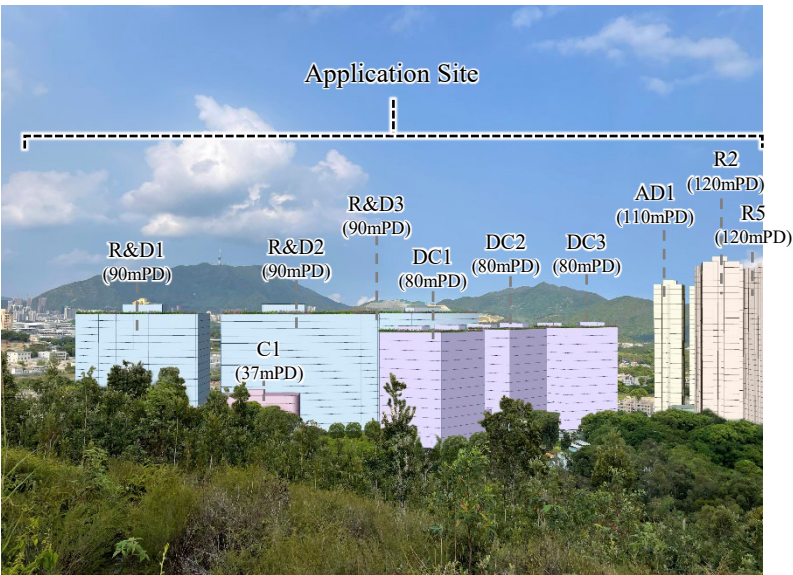
Figure No. 5	Scale -	Figure Title Viewing Point 2: Ta Ku Ling Ling Ying Public School
ARUP	Date July 2022	Source -

Existing Condition



Key Plan

Indicative Scheme



LEGEND

- R&D Centre
- Ancillary Dormitory
- Data Centre
- Residential Tower
- Commercial Centre

Reference Scheme

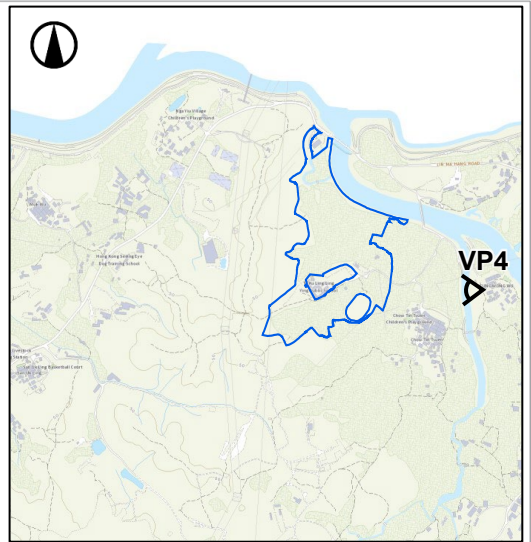


LEGEND

- Logistics Centre

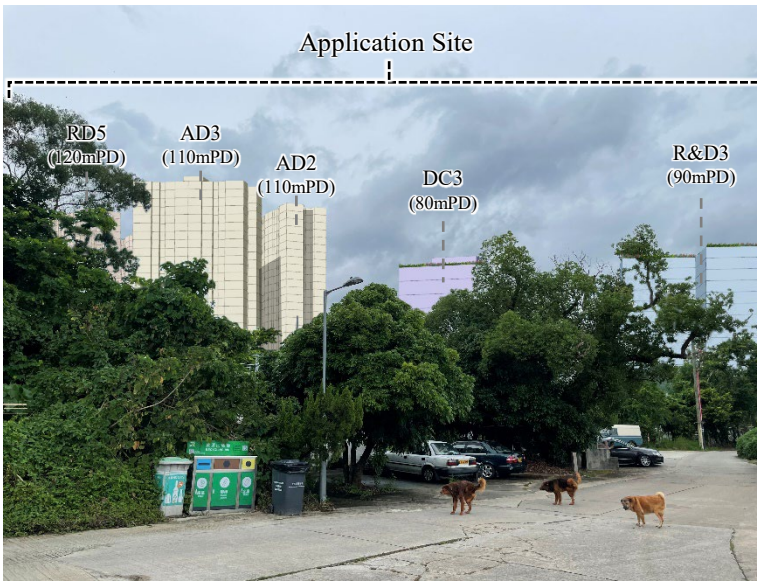
Figure No. 6	Scale -	Figure Title Viewing Point 3: Lo Shue Ling
ARUP	Date July 2022	Source -

Existing Condition



Key Plan

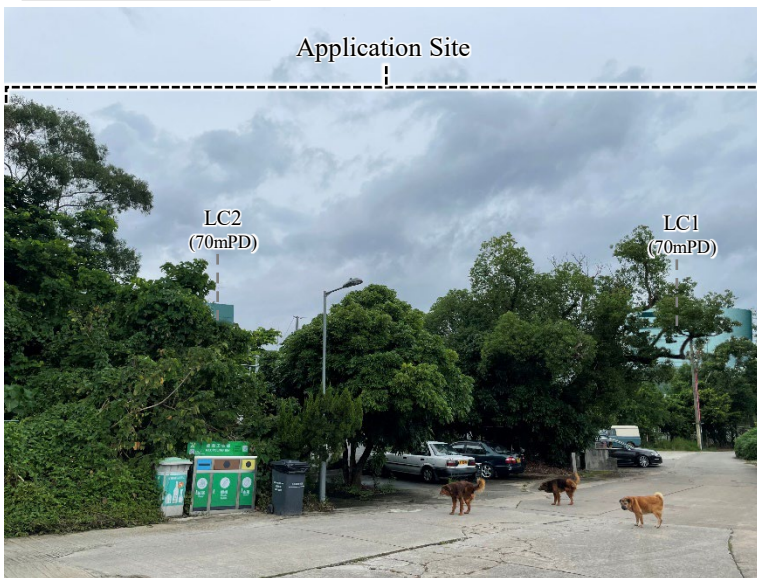
Indicative Scheme



LEGEND

- R&D Centre
- Ancillary Dormitory
- Data Centre
- Residential Tower

Reference Scheme

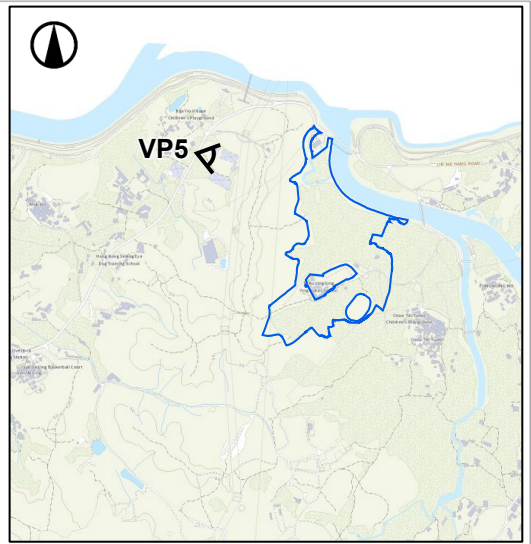


LEGEND

- Logistics Centre

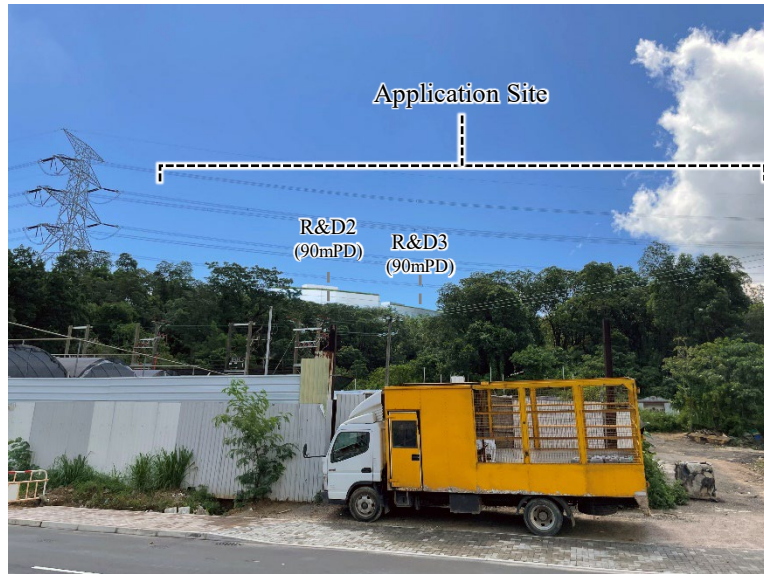
<i>Figure No.</i> 7	<i>Scale</i> -	<i>Figure Title</i> Viewing Point 4: Fung Wong Wu Village Hall
ARUP	<i>Date</i> July 2022	<i>Source</i> -

Existing Condition



Key Plan

Indicative Scheme



LEGEND

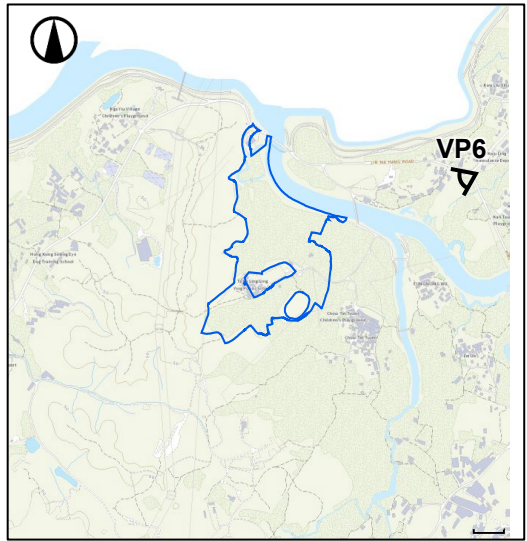
— R&D Centre

Reference Scheme



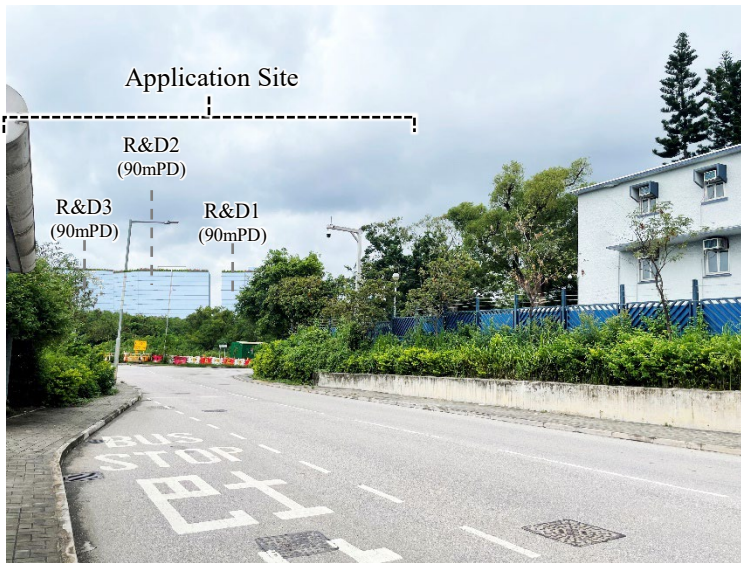
Figure No.	Scale	Figure Title
8	-	Viewing Point 5: Muk Wu Nga Yiu Minibus Stop
ARUP	Date July 2022	Source -

Existing Condition



Key Plan

Indicative Scheme



LEGEND

■ R&D Centre

Reference Scheme

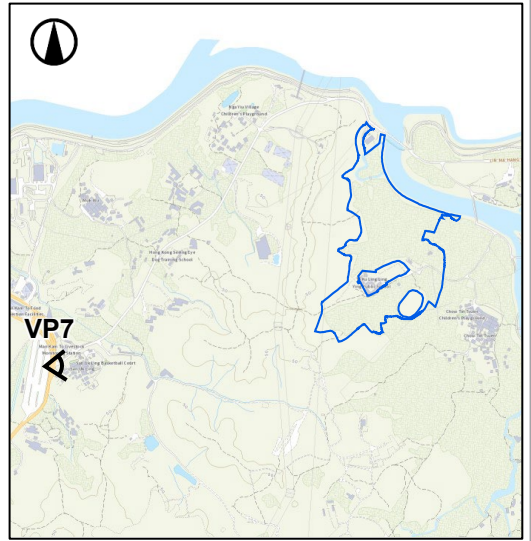


LEGEND

■ Logistics Centre

Figure No.	Scale	Figure Title
9	-	Viewing Point 6: Ta Kwu Ling Police Station Bus Stop
ARUP	Date July 2022	Source -

Existing Condition



Key Plan

Indicative Scheme

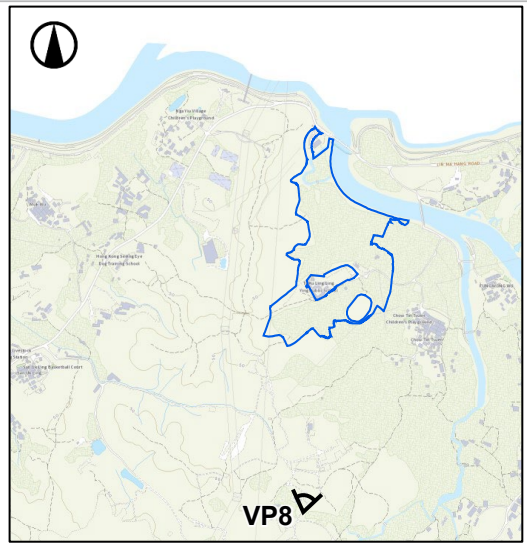


Reference Scheme



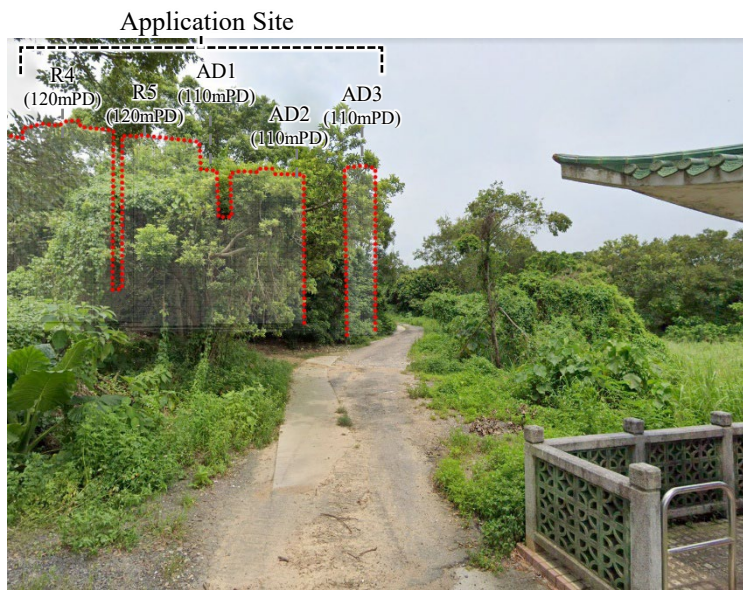
<i>Figure No.</i> 10	<i>Scale</i> -	<i>Figure Title</i> Viewing Point 7: Man Kam To Bus Terminus
ARUP	<i>Date</i> July 2022	<i>Source</i> -

Existing Condition



Key Plan

Indicative Scheme

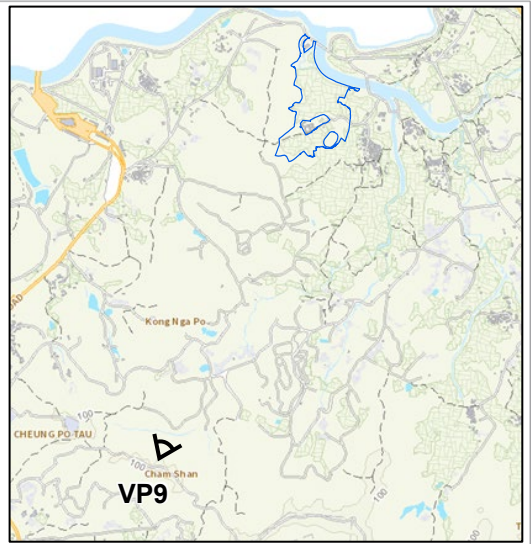
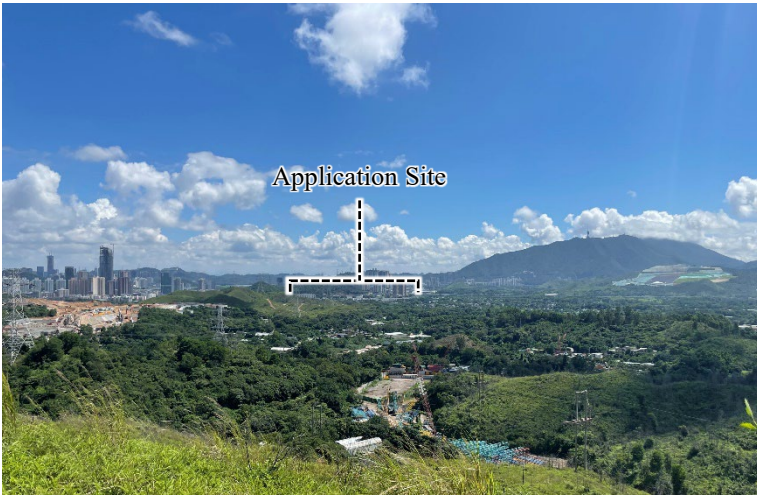


Reference Scheme



Figure No.	Scale	Figure Title
11	-	Viewing Point 8: A Pavillon in Hung Lung Hang
ARUP	Date July 2022	Source -

Existing Condition



Key Plan

Indicative Scheme



LEGEND

- R&D Centre
- Ancillary Dormitory
- Data Centre
- Residential Tower
- Commercial Centre

Reference Scheme



LEGEND

- Logistics Centre

Figure No. 12	Scale -	Figure Title Viewing Point 9: Cham Shan
ARUP	Date July 2022	Source -