Appendix C
Revised Air Ventilation Assessment (Expert Evaluation)

Prepared by

Ramboll Hong Kong Limited

PROPOSED LAND SHARING PILOT SCHEME FOR A SITE AT VARIOUS LOTS IN D.D 115, TUNG SHING LEI, YUEN LONG

AIR VENTILATION ASSESSMENT (EXPERT EVALUATION)

Date	**May 202429/05/2024 14:20:00**
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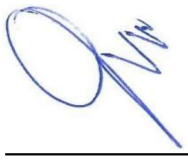
Signed	
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CHAPTERS

TABLES

FIGURES

APPENDIX

1. INTRODUCTION

1.1 Project Background

1.1.1 Subsidized Housing and Private Housing, with Retail Facilities, GIC Facilities and Transport Terminus are proposed at various lots in D.D. 115 and adjoining Government Land, Tung Shing Lei, Yuen Long, New Territories (the Application Site) under Land Sharing Pilot Scheme (LSPS).

1.1.2 Ramboll Hong Kong Limited has been commissioned by the Applicant to prepare the Air Ventilation Assessment Study report – Expert Evaluation (AVA-EE report) for the Application for Proposed Subsidized Housing and Private Housing, with Retail Facilities, GIC Facilities and Public Transport Facilities, Tung Shing Lei, Yuen Long, New Territories.

1.2 Objective

1.2.1 This AVA-EE report has been prepared to identify opportunity and good design features that can be practicably adopted in the Proposed Scheme from air ventilation standpoint and evaluate if there would be any impact on the overall air ventilation performance of the assessment area by comparing the Proposed Scheme with the "Approved Scheme" (i.e. approved rezoning Application No. Y/YL-NSW/4 for house development).

1.3 Application Site and its Environs

1.3.1 **Figure 1** shows the location of the Application Site and its environs.

1.3.2 The Application Site is currently zoned as "Residential (Group D)" ("R(D)") under Approved Nam San Wai Outline Zoning Plan (No. S/YL-NSW/8). The Application Site includes a tidal stream (along western side). Southern portion of the Application Site is a narrow strip of land for provision of access road connecting to Ho Chau Road.

1.3.3 A Fung Shui hill knoll is to the immediate north of the Application Site within "R(D)" zone. The Application Site is located to the north of Yuen Long Bypass Floodway and Yuen Long Highway. Shan Pin Tsuen is a small village cluster about 150m to the west of the Application Site. A planned residential development (Planning Application No. A/YL-NSW/274) (max. building height +75mPD) is to the immediate west of the southern portion of the Application Site. The area to the north of Fung Shui hill knoll, east and on northwest side of northern portion of the Application Site contains existing ponds and is currently zoned "Conservation Area" ("CA"), "Undetermined" ("U") or "Village Type Development" ("V").

1.4 Approved Scheme

1.4.1 A house development was proposed at the same site and approved under Section 12A planning application (No. Y/YL-NSW/4).

1.4.2 The Approved Scheme refers to the layout plan for the S12A rezoning approval (No. Y/YL-NSW/4) for houses development. The residential development under the Approved Scheme comprises 57 houses (+16.5mPD) and a clubhouse (+10.5mPD), with a domestic PR of 0.34. The 3-storey houses (11m above ground) are located above a 1-storey basement carpark/E&M floor of about 4.5m high. The Indication Plan of the Approved Scheme is shown in **Appendix 1**.

1.5 Proposed Scheme

1.5.1 Under LSPS, 7 residential towers (T1 to T8, T4 omitted) of 23 to 24 storeys are proposed at the Application Site and elevated up to +100mPD. The proposed

development also includes facilities such as retail, GIC & carpark and PTT & kindergarten. Compensation wetlands are provided at various areas in connection to existing ponds, tidal stream and planned water pond of adjacent planned development.

1.5.2 Under the Proposed Scheme, building separation with width not less than 15m and not less than 5m building setback along site boundary which could serve as air corridor have been considered. Building separations between residential towers and their alignments will be further explore at detailed design stage of the housing developments to facilitate air ventilation.

1.5.3 The Indicative Block Plan of the Proposed Scheme and sections are shown in **Appendix 2**.

2. SITE WIND AVAILABILITY DATA

2.1 Site Wind Availability Data From RAMS

2.1.1 According to the Planning Department's website, a meso-scale Regional Atmospheric Modeling System (RAMS) was used to produce a simulated 10-year wind climate at the horizontal resolution of 0.5 km x 0.5 km covering the whole territory of Hong Kong. The simulated wind data represents the annual, winter and summer wind condition at various levels, i.e. 200 m, 300 m, and 500 m above terrain.

2.1.2 The RAMS data of the grid (X: 053, Y:072) has been extracted from the Site Wind Availability Data of Planning Department's website.

2.1.3 Based on the wind roses with different heights (200, 300 or 500m) available, the 200 m site wind availability data represents wind data that takes into account the topographical effect around the Application Site. Therefore, a lower level of wind roses at 200 m height is selected to study the prevailing wind condition as it represents the incoming wind to the Application Site and considers the influence on the prevailing winds by the surrounding topography.

2.1.4 According to the wind roses at 200 m altitude, annual and summer prevailing wind directions for the Application Site are NNE, E and S whereas summer prevailing wind directions are SSE, S and SSW. **Figure 2** shows the relevant wind roses diagrams representing the frequency and wind speed distribution at 200m height in annual and summer conditions. The wind frequency data is provided in **Table 2.1** below.

Table 2.1 Summary of RAMS Data and Wind Direction at 200m

Wind Direction	Probability for Annual Condition (%)	Probability for Summer Condition (%)
N	2.9%	1.2%
NNE	**15.8%**	1.8%
NE	8.6%	1.7%
ENE	6.5%	2.6%
E	**16.9%**	9.4%
ESE	9.0%	5.5%
SE	6.0%	8.2%
SSE	6.6%	**12.2%**
S	**11.2%**	**23.7%**
SSW	5.1%	**12.0%**
SW	3.0%	7.7%
WSW	1.9%	4.2%
W	2.4%	4.9%
WNW	1.6%	2.6%
NW	1.3%	1.4%
NNW	1.3%	1.0%

Note: Bolded characters highlighted in grey represent the selected prevailing wind directions for evaluation.

2.2 Topography

2.2.1 The Application Site is located in the inland Yuen Long area. The surrounding is topographically flat and the ground elevation gradually increases on the further south side of Yuen Long Highway. To the north to east of the Application Site is area including Fung Shui hill knoll and Kam Tin River without any building mass. It is expected that annual NNE, E and S prevailing winds can penetrate the Application Site and reach its

downstream areas thus existing site wind availability and immediate surrounding is anticipated to be satisfactory. To the further northeast and south side of the Application Site is Kai Kung Leng (4km apart) and Tai Lam Country Park (more than 3km apart) with higher topography (up to about 560mPD at Kai Kung Leng and 250mPD at Tai Lam Country Park). The influence to the wind flow pattern around the Application Site is minimal due to long separation.

2.3 Building Morphology

2.3.1 All noise barriers, elevated structures, planned and committed development, if any, are considered in this report. After checking by the site visit for existing developments and the published information in Statutory Planning Portal under the Town Planning Board regarding planned / committed developments in the model area, the Application Site is surrounded by some high-rise to low-rise developments, e.g. planned residential development (Planning Application No. A/YL-NSW/274) to the southwest, some village type developments or some temporary structures to the east, north, southwest and west.

2.3.2 Under the existing wind condition, the building density of the surrounding is considered low. The surrounding areas are either abandoned ponds or erected with low-rise buildings including scattered development such as Shan Pui, Shan Pin Tsuen, Wong Uk Tsuen and some temporary building structures to the west.

2.3.3 To the further south of the Application Site is Small Traders New Village and Yuen Long Small Traders New Village Public School. Remaining areas are either open storage area or abandoned ponds and meander. Potential building blockage effect due to the surrounding existing developments (to the northwest and south) are considered low.

2.3.4 The planned development (Planning Application No. A/YL-NSW/274) to the southwest consists of residential towers ranging from 26.9mPD to 75mPD. The separation distance between building blocks of the Proposed Development and this planned development is at least 160m. Wind from southwest will be blocked under SW wind but generally not affected under prevailing wind directions.

2.3.5 Moreover, there are noise barrier (up to about 5m high) along Yuen Long Highway which is separated by around 270m from the nearest building of the Application Site. These building structures will likely block air flow at pedestrian level (2m above ground) in some extent, but should not affect wind availability at the Application Site and nearby area.

2.4 Summary of Existing Site Wind Availability

2.4.1 According to the wind availability data, the annual wind directions of the area include NNE, E and S.

2.4.2 From **Table 2.1Table 2.1** above, the wind probability from the E direction is 16.9 % and is considered to be the most dominant annual wind direction for the area. The NNE (15.8 %) and S (11.2 %) wind are also dominant annual prevailing wind directions other than the E wind.

2.4.3 Under annual NNE and E wind, wind flow via the abandoned ponds to the Application Site. The surrounding traffic network and open space already opens up areas for wind penetration.

2.4.4 During summer condition, prevailing winds from the SSE, S and SSW are the dominant wind directions. Similar to annual wind conditions, it is anticipated that the surrounding traffic network and open space shall open up area for wind penetration. For the prevailing SSW wind, wind will flow on east side of the planned high-rise development

to the Application Site In addition, Yuen Long Highway acts as wind corridor for SSW wind direction.

2.4.5 **Figure 3** and **Figure 4** show the identified major air corridors / paths under the annual and summer wind conditions.

3. EXPERT EVALUATION OF AIR VENTIALTION PERFORMACE OF THE PROPOSED DEVELOPMENT

3.1 Important Areas

3.1.1 Important surrounding areas that the public would often access have been identified as the following:

- Roads surrounding the Application Site (Ho Chau Road, Kam Tin River and Yuen Long Highway; and
- Nearby residential and village-type developments.

3.2 Evaluation of Merit/Demerit of Design Features of the Proposed Development

3.2.1 Under the Proposed Scheme, various good design feature beneficial to air ventilation such as separation of building from site boundary, optimal building disposition and building separation advantageous to prevailing wind penetration are incorporated.

- Building separation (not less than 15m), aligning approximately along E-W direction, is proposed to be incorporated particularly in the areas between the development site boundary where the private housing and public housing sites adjoins. This separation facilitates wind penetration mainly from E direction to benefit its downstream areas. The provision and alignment of other possible building separation will be further explored at detailed design stage.
- Building separation (not less than 15m), aligning approximately along NNE-SSW direction, is proposed to be incorporated. Some portion of prevailing SSW wind can flow through this building separation and reach downward areas. The provision and alignment of other possible building separation will be further explored at detailed design stage.
- Building setback (for residential portion) from the eastern, southern and western boundaries of the Application Site. These setbacks (not less than 5m) facilitate wind penetration mainly from NNE, E, S, SSE and SSW direction to benefit its surrounding areas.

3.2.2 Further discussion of the scheme based on the good design features above is included below.

Air corridors/ Air paths

3.2.3 **Figure 3** and **Figure 4** illustrate the prevailing winds from annual and summer wind directions for the Approved Scheme. **Figure 5** and **Figure 6** illustrate the prevailing winds from annual and summer wind directions for the Proposed Scheme.

3.2.4 Major wind corridors nearby the Application Site are along E-W axis through open space, Ho Chau Road, Kam Tin River and Yuen Long Highway. These wind corridors are comparable for the Approved Scheme and the Proposed Scheme.

3.2.5 It is noted that there are low-rise houses (+16.5mPD) within the Application Site under the Approved Scheme. The annual and summer prevailing wind would flow atop the clusters of low-rise houses and would skim over the Application Site to reach the downward areas further apart. It is expected wind blockage is limited to area at immediate leeward location only. Therefore, slightly lower wind availability would be expected within the Application Site and its immediate surrounding.

3.2.6 Under the Proposed Scheme, it is not likely that wind can flow atop the development and reach pedestrian level then easily. Therefore, building setbacks (not less than 5m)

and building separations (not less than 15m) are provided to enhance the ventilation performance at pedestrian level. There are proposed building setbacks from site boundary at pedestrian level from the eastern, southern and western boundaries of the Application Site, with the width of about 6m, 21m, 10m respectively. These building setbacks would allow more effective NNE, E, S, SSE and SSW prevailing wind penetration across the Application Site. In addition, there are building separations of not less than 15m and aligned with prevailing wind directions (say, NNE, E, SSW wind) to allow wind penetration. Therefore, it is anticipated that overall unfavourable impact in terms of wind environment would be minimal.

Building Disposition and Development Permeability

3.2.7 Under the Approved Scheme, despite closely clustered residential houses, the proposed low-rise houses of 11m above ground would allow wind flowing atop the houses and reach its downwind area eventually. Wind availability would be reduced only among the immediate downwind area. It is expected that it would not result in any significant impact to most of the surroundings in terms of air ventilation.

3.2.8 Under the Proposed Scheme, various building gaps are incorporated into the design of the proposed development at the Application Site, which would allow the wind penetration in annual and summer prevailing wind conditions. There are building separations proposed to facilitate SSW wind flow along this building separation towards surrounding areas. S wind penetration can likely be allowed (façade capable to welcome and divert S wind to the gap). Furthermore, building separation to facilitate E wind towards the Application Site will also be explored at detailed design stage.

3.2.9 By comparing to the Approved Scheme, the overall building footprint of the proposed building blocks in the Proposed Scheme would impose some blockage to the winds. Moreover, it is apparent that the towers in the Proposed Scheme would be wider when compared to the Approved Scheme. It is anticipated that the towers would block some portions of wind towards downwind areas and the decrease of wind flow to further downwind areas would be expected. However, considerable number of building separation (not less than 15m) and setbacks allow prevailing winds penetrate through the residential towers and thus increase airflow towards the leeward areas. Especially for building separations (not less than 15m) between T8 and T7 as well as T2 and T3, they divert NNE, E and S winds towards the planned residential development (Planning Application No. A/YL-NSW/274) and pedestrian accessible areas including Ho Chau Road under annual condition. While for summer condition, the 15m-wide building gaps allow dominant prevailing winds (SSW and W wind) penetrating through the building blocks and reaching downwind areas. Therefore, it is anticipated that unfavourable impact in terms of wind environment would be mitigated in certain degree and minimised.

3.2.10 Since various mitigation measures/ wind enhancement features are incorporated in the design of the Proposed Scheme, it would allow wind penetration across the Application Site and ameliorate the impact in certain extent.

Building Height

3.2.11 The proposed maximum building height of the Proposed Scheme at +100mPD is higher than the maximum building height permissible in the Approved Scheme (+16.5mPD). Theoretically, the Proposed Scheme with higher buildings would result in more wind blockage impact and it is more difficult for wind to pass over the building and come to the pedestrian level when compared to the Approved Scheme. Thus, there will be slightly lower wind availability in the downwind areas (under E wind) and planned residential development, Shan Pin Tsuen, Wong Uk Tsuen (under NNE wind) in

comparison to the Approved Scheme. Since the planned residential development is located at the southwest side of the Application Site, the high-rise buildings of the planned residential development would have some additional influence on the air ventilation performance of the surrounding areas at pedestrian level. Wind wake area would be created as the incoming wind deflect and flow around the building tower (see illustration in **Appendix 3**). It is expected the wake area would slightly impact the wind availability within the Application Site and its leeward side.

3.2.12 There would be blockage effect due to higher building height. Yet, the provision of building separations (not less than 15m) would mitigate the impact in some degree and allow wind to flow to downwind area.

3.3 Directional Analysis of the development

As discussed in **Sections 2.1** and **2.3**, winds from NNE, E and S directions are annual prevailing winds whereas winds from SE, SSE and SSW are dominant in the summer.

NNE Wind

3.3.1 Under NNE wind condition, the massing of proposed high-rise developments would inevitably obstruct some pedestrian wind flow. With the provision of building separations between T7/T8, between T2/T3 (not less than 15m), and alignment to be further explored at detailed design stage, and building setback along northern and eastern side of the site boundary (about 10m and 6m respectively), the NNE wind would penetrate through these building separations, setbacks and reaching the Application Site and further penetrate the downstream areas including the southwestern side of the Application Site. Therefore, the unfavourable impact in terms of wind availability on the surrounding areas is expected to be reduced.

E Wind

3.3.2 Under E wind, the massing of proposed high-rise developments would inevitably obstruct some pedestrian wind flow. It is anticipated that the wind availability would be slightly lower among the downwind areas of the Application Site under the Proposed Scheme.

However, under the Proposed Scheme, the proposed building setback along the southern boundary (about 21m) and open spaces within the Application Site would facilitate the wind flowing through this setback area and reaching the downward areas. In addition, it is considered that the building separations between public and private housing portion (not less than 15m) and alignment to be further explored at detailed design stage would help to alleviate the potential impact of the proposed development. Therefore, it is anticipated that impact on leeward area would be minimised.

S Wind

3.3.3 S wind will mainly flow along the abandoned ponds and open spaces. As shown in **Figure 5** & **Figure 6**, there are building setback along the eastern and western side of the site boundary (about 6m and 10m respectively). These would allow S wind flow through the Application Site and towards the downward areas easier. Some portion of S wind would flow along the proposed access road and penetrate through the building separation between T1/T2 (not less than 15m) to supply air ventilation to the public housing portion at pedestrian level.

3.3.4 In addition, while the building separation between T7/T8 and T2/T3 (not less than 15m) are not exactly orienting to S wind direction, the building façade should be able to divert S wind to pass through the building separation to downwind area. Furthermore, the high-rise buildings of the Proposed Scheme could block the S wind

and wind wake would be occurred at the leeward side. It is expected that the wind availability under S wind would be slightly lower.

3.3.5 However, the high-rise building of private housing portion could generate downwash wind from high level wind flow. The high-level wind will flow downward and towards the pedestrian level including Ho Chau Road and nearby open spaces. The high-rise building of public housing portion could also generate downwash wind and provide air ventilation to the building separation between public and private portion. The downwash wind would further circulate within the Application Site through the building separation. It is expected the impact on wind environment at the northern part of Application Site is less significant.

SSE wind

3.3.6 SSE wind would mainly flow from along the surrounding traffic network and open space. Under the Proposed Scheme, proposed development would block the winds from reaching its surrounding areas on leeward side which are generally pond areas. Slight reduction of wind availability at the downstream areas would be expected.

3.3.7 Similar to S wind, the high-rise building of the proposed development in the Proposed Scheme would block some portion of the incoming wind to flow through the Application Site. Slightly lower wind availability would be resulted at the northern site boundary. On the other hand, the high-rise buildings would capture some portion of high-level SSE winds and would create high-level wind and flow to the pedestrian level within the Application Site and the adjacent surrounding areas. In addition, as the building setback from the south-eastern and south-western side of the boundary are provided (about 45 m and 6m respectively), more SSE winds could flow around the massing of the proposed development to the downward areas. Therefore, it is anticipated that impact on downward area would be minimised.

SSW Wind

3.3.8 Under SSW wind, the planned residential development (to the SW) is likely at or close to upwind location and can slightly reduce the wind availability to the Application Site. The proposed high-rise development may further obstruct wind flow to its downwind areas. It is anticipated that there would be reduced wind availability at the surroundings.

3.3.9 However, various building design measures are proposed to be incorporated in the proposed development. Some portion of SSW wind can flow through the building separation between T7/T8, between T2/T3 (not less than 15m), and alignment to be further explored at detailed design stage, and reach the downwind areas. Building separations can facilitate the penetration of SSW prevailing wind through the Application Site and enhance the wind environment within the Application Site and the downward areas.

3.3.10 As there would be high-rise buildings under the Proposed Scheme, more downwash effect would be induced to benefit area nearby. It is expected that the wind availability under the Proposed Scheme would not be adversely impacted. In conjunction, building separations and setbacks to be further developed at detailed design stage that can increase wind penetration through the Application Site. Therefore, the unfavourable impact in terms of wind availability on the surrounding areas is expected to be reduced.

3.4 Summary of Relative Air Ventilation Performance

3.4.1 The air ventilation performance of the Approved Scheme and the Proposed Scheme has been appraised. Under the Approved Scheme, it consists of 57 houses and a clubhouse with maximum building height of +16.5mPD. Under the Proposed Scheme,

high-rise building is proposed and building separations and building setbacks along site boundary which could serve as air corridor are provided.

3.4.2 Building separations (not less than 15m) and alignment to be further explored at detailed design stage will facilitate wind flow of prevailing wind. Besides, the building setbacks from the site boundary (not less than 5m) to facilitate the wind flows.

3.4.3 In addition, the proposed building height of the Proposed Scheme (23 to 24 storeys above ground) is higher than that of the Approved Scheme (about 3 storeys above ground). The high-rise buildings of the Proposed Scheme might impose more blockage at higher level. However, the proposed building separations and building setback in the proposed development would increase the overall wind permeability of the Application Site to mitigate the wind blockage effect by high-rise building development in some degree. To summarise, various good design measures have been incorporated to mitigate air ventilation impact so that the Proposed Scheme is considered unlikely to impose significant impacts on the surrounding areas in air ventilation perspective.

4. CONCLUSION

4.1.1 A qualitative assessment on the air ventilation performance of the Proposed Development has been carried out.

4.1.2 According to the findings of this AVA-EE, the annual prevailing wind comes from NNE, E and S directions while the summer prevailing wind comes from SSE, S and SSW directions. After considering the potential environmental impacts on the Application Site, the layout of the Proposed Development has carefully considered and incorporated the good design in air ventilation aspect. Taking into consideration of the existing topography, the location of the existing built areas and tentative mitigation measures to be further explored in detailed design stage, it is considered that the Proposed Development would not have significant adverse impact on surrounding environment.

4.1.3 The Proposed Scheme will incorporate effective mitigation measures such as more building separation with width not less than 15m and aligned with prevailing wind directions, and not less than 5m setback from site boundary. Moreover, these wind corridors based on building separation will be oriented with prevailing wind direction where practicable and with sufficient separation distance to maintain good air ventilation performance. While higher building height would impose more blockage effect, the proposed building separations and building setback would mitigate the blockage problem in some extent. Therefore, the Proposed Scheme is unlikely to impose significant impacts on the surrounding sites from air ventilation perspective as compared with the Approved Scheme.

Figures

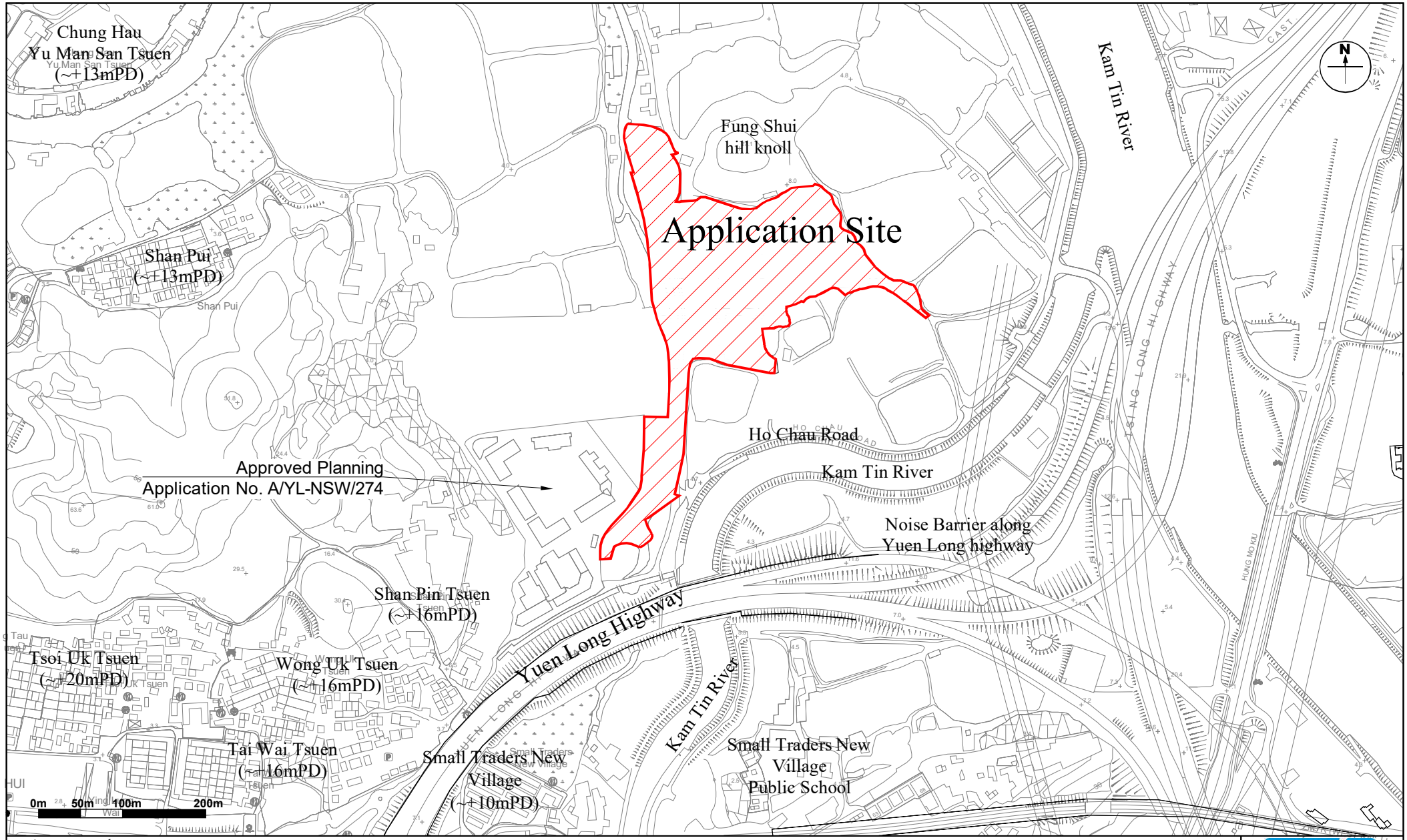

Figure: 1	RAMBOLL
Title: Location of the Application Site and its Environ	Drawn by: CC Checked by: CC
Project: Land Sharing Pilot Scheme - Application for Proposed Subsidized Housing and Private Housing, with Retail Facilities, GIC Facilities and Public Transport Facilities, Tung Shing Lei, Yuen Long, New Territories	Rev.: 1.1 Date: Jul 2023

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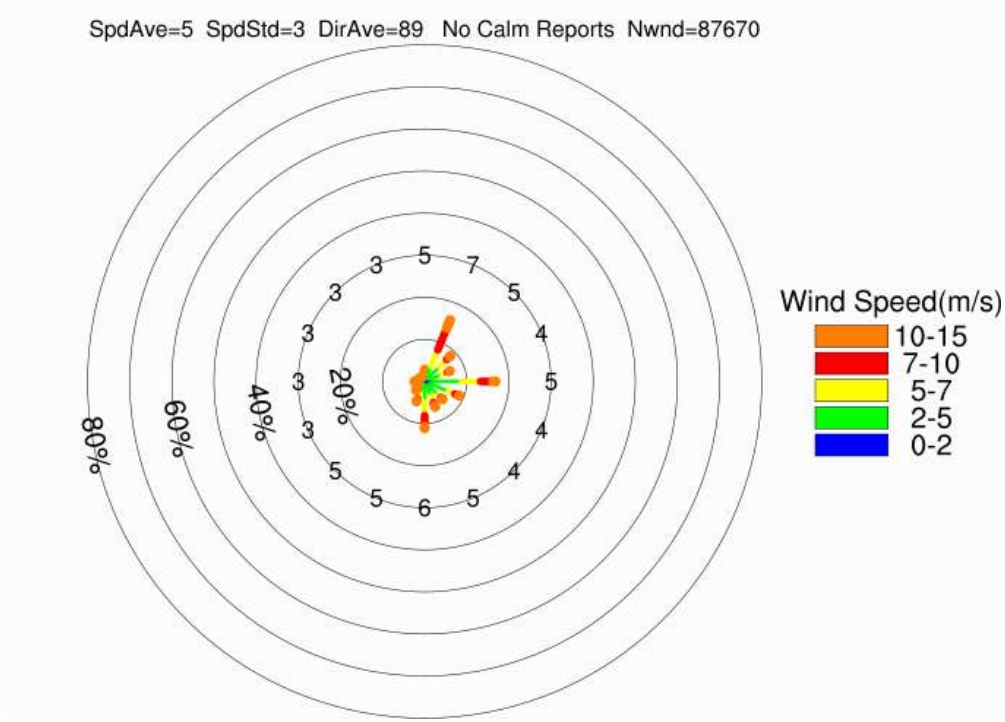
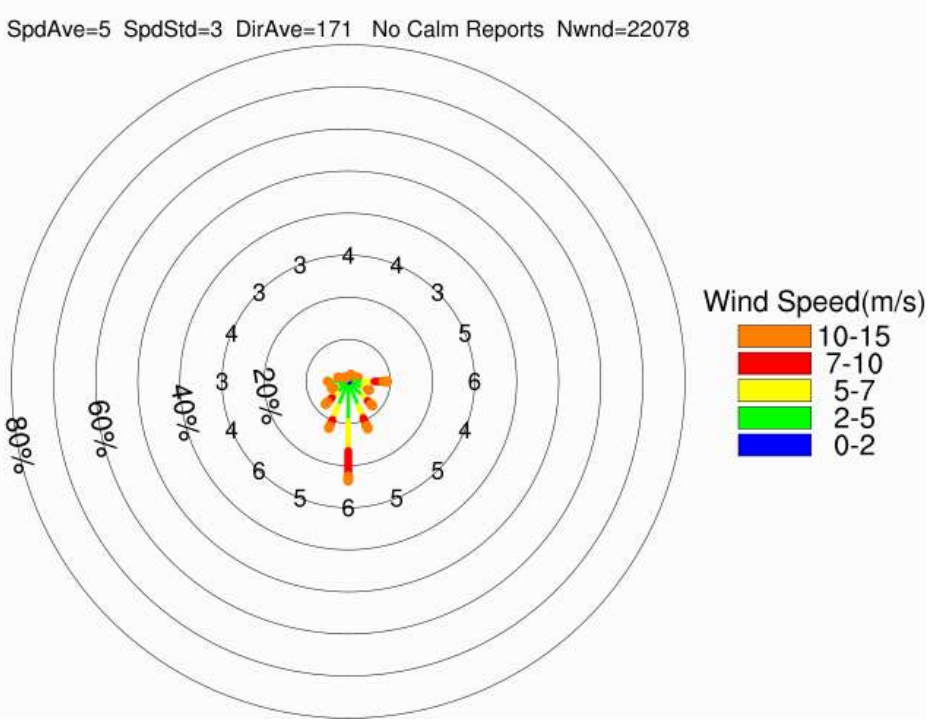


Annual



Summer

Figure: 2	RAMBOLL
Title: Windrose Diagram representing V∞ of the Area under Concern at 500m above ground (X:053, Y:072)	Drawn by: CC Checked by: CC
Project: Proposed Land Sharing Pilot Scheme for a Site at Various Lots in D.D 115, Tung Shing Lei, Yuen Long	Rev.: 1.0 Date: Aug 2021

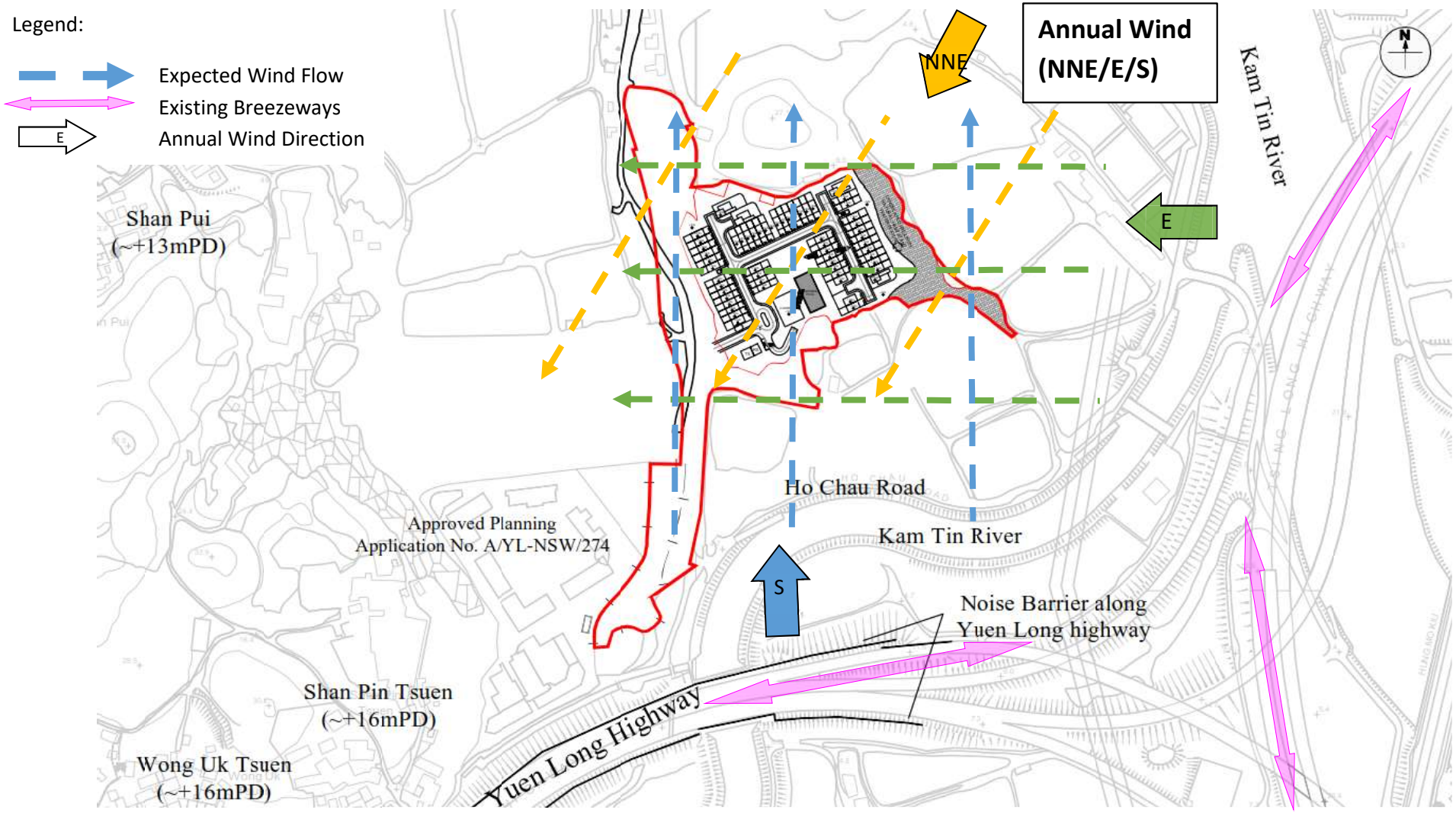


Figure: 3	RAMBOLL
Title: Illustration of Wind Flow from Annual Wind Directions for Approved Scheme	Drawn by: MK Checked by: CC
Project: Proposed Land Sharing Pilot Scheme for a Site at Various Lots in D.D 115, Tung Shing Lei, Yuen Long	Rev.: 1.6 Date: Jan 2024

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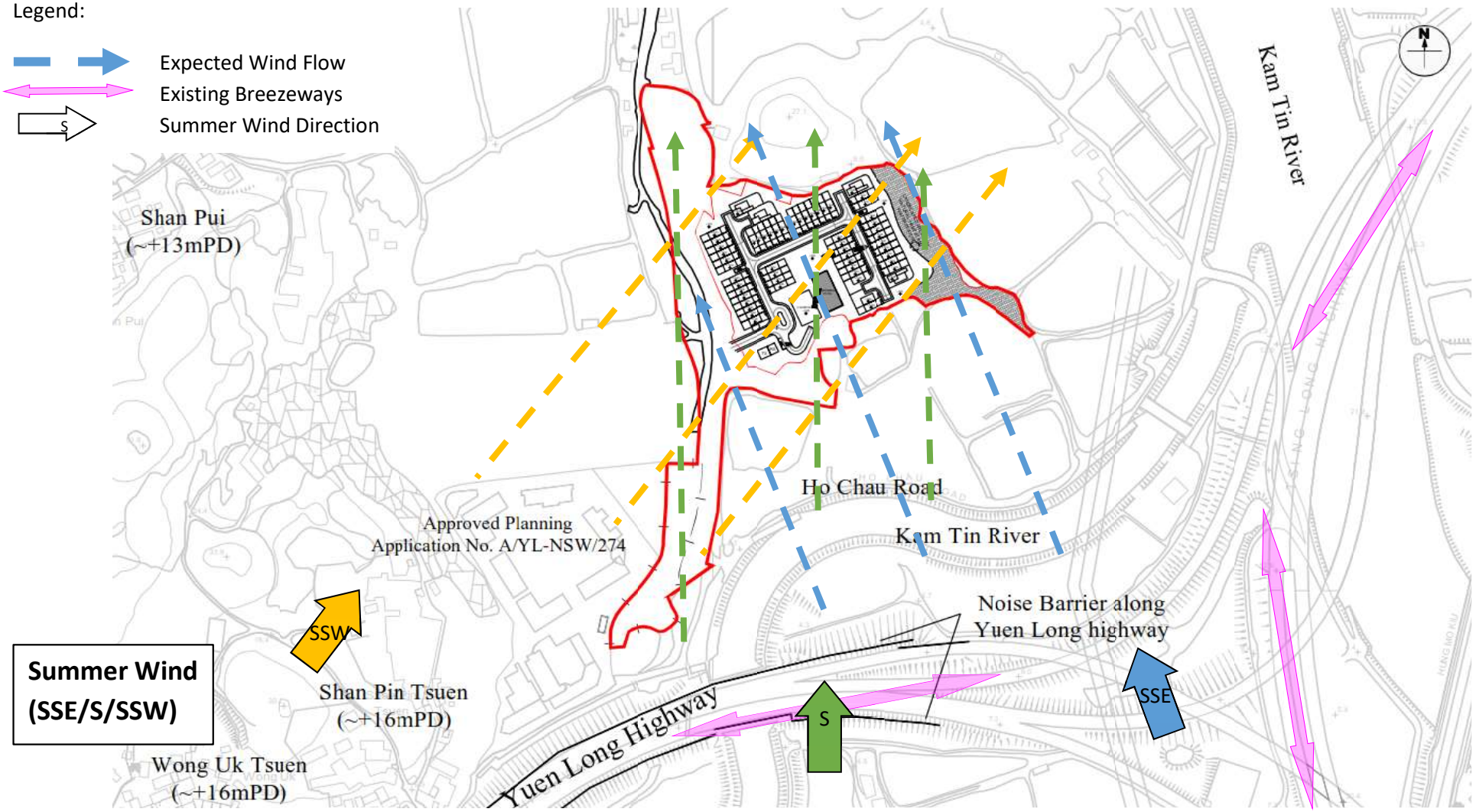

Figure: 4	RAMBOLL
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	Date: Jan 2024

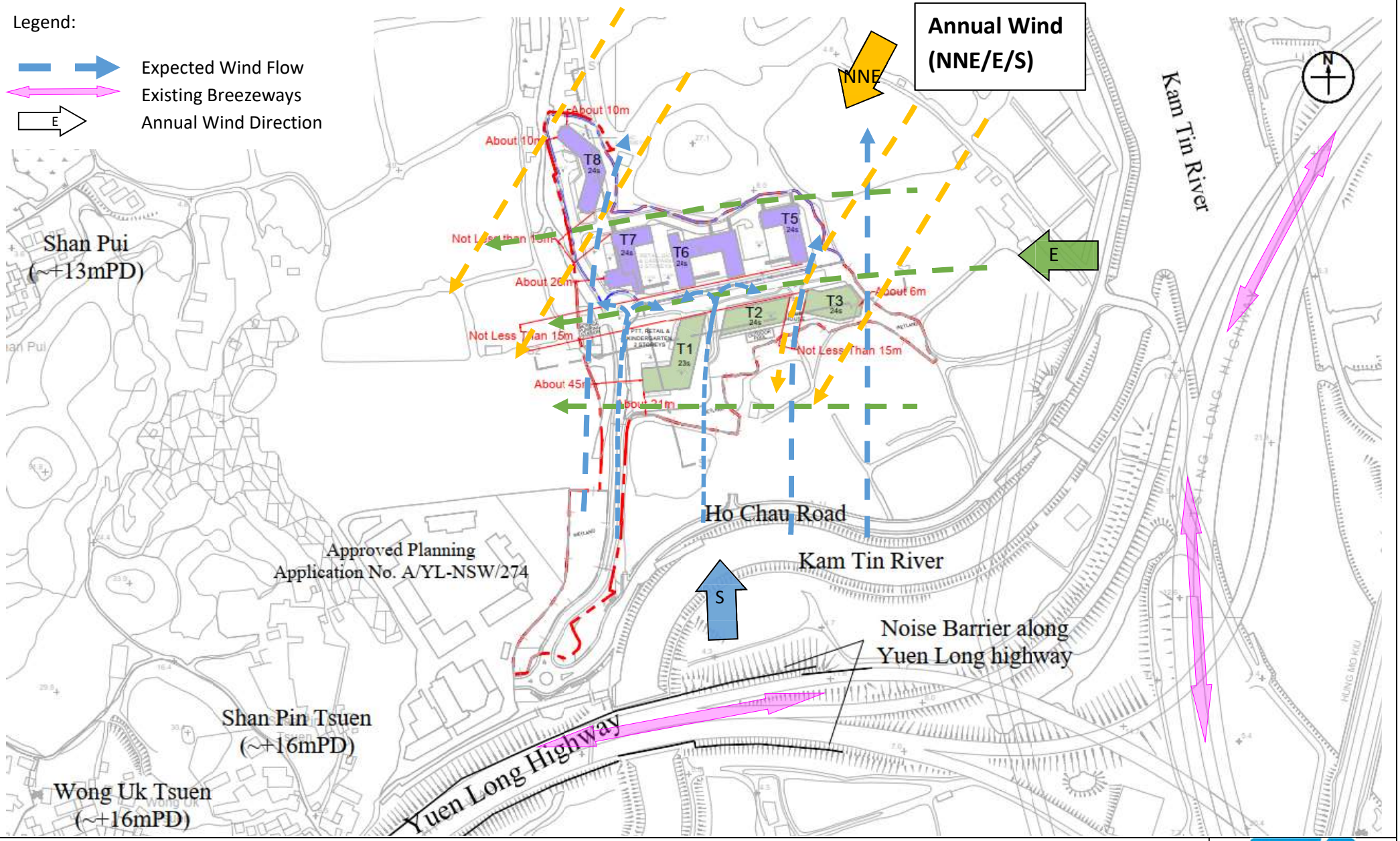

Figure: 5	RAMBOLL
Title: Illustration of Wind Flow from Annual Wind Directions for Proposed Scheme	Drawn by: MK Checked by: CC
Project: Proposed Land Sharing Pilot Scheme for a Site at Various Lots in D.D 115, Tung Shing Lei, Yuen Long	Rev.: 1.7 Date: May 2024

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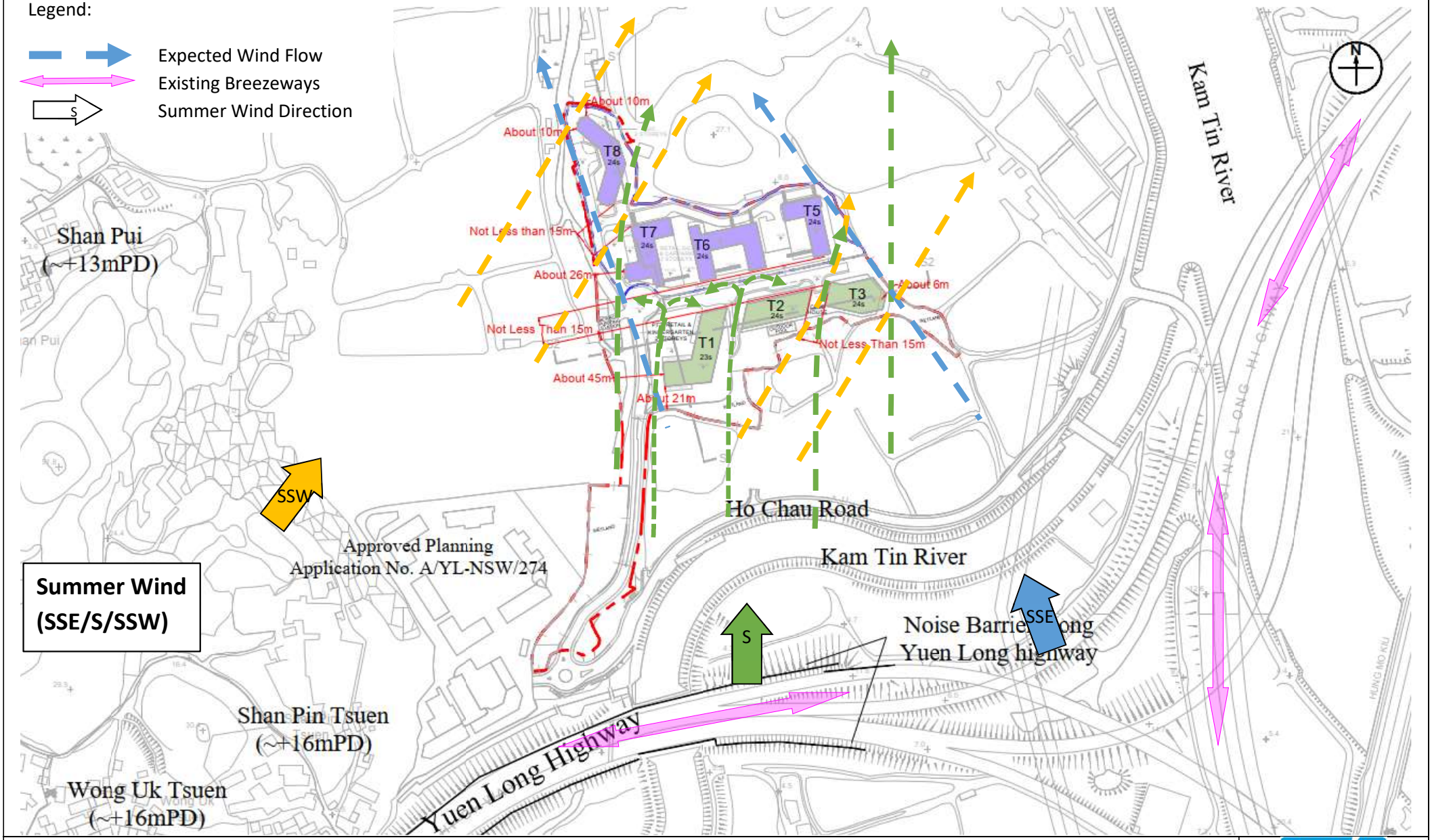


Figure: 6	RAMBOLL
Title: Illustration of Wind Flow from Summer Wind Directions for Proposed Scheme	Drawn by: MK Checked by: CC
Project: Proposed Land Sharing Pilot Scheme for a Site at Various Lots in D.D 115, Tung Shing Lei, Yuen Long	Rev.: 1.7 Date: May 2024

Appendix 1

The Indicative Block Plan of the Approved Scheme

Area (WBA) of the Deep Bay area. The Site is currently vacant and grassed over. There is no existing fish pond within the Site.

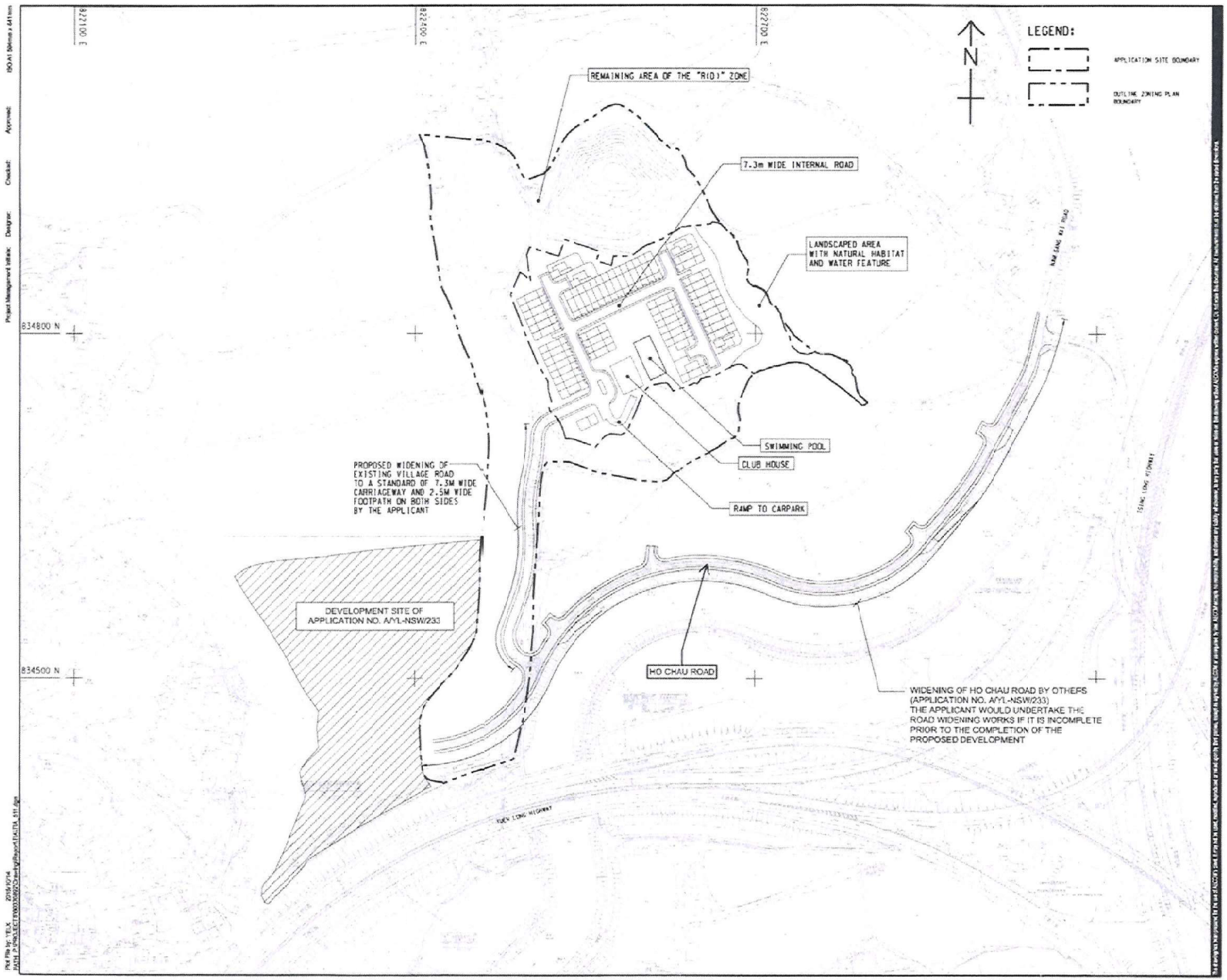
1.2 According to the applicant's indicative development scheme, the proposed residential development comprising 57 houses and a club house, has a domestic PR of 0.34. The 3-storey houses (11m above ground) are located above an 1-storey basement carpark/E&M floor of about 4.5m high. Apart from the private open space/communal garden of not less than 210 m^2, a Landscaped Area with Natural Habitat and Water Feature (LANHWF) with an area of not less than 4,770 m^2 is proposed at the eastern portion of the Site. The vehicular ingress/egress is at the south-western corner of the Site connecting to an existing village road leading to Ho Chau Road in the south. The proposed development is tentatively scheduled for completion by 2022. The Master Layout Plan (MLP), Landscape Master Plan (LMP), section plan and floor plans of the proposed development are at **Drawings Z-1a, Z-1b to Z-6** respectively.

1.3 The proposed development parameters of the indicative development scheme are as follows:

Site Area	30,160 m^2 (about)
Total Domestic GFA	Not more than 10,150 m^2
Domestic Plot Ratio (PR)	Not more than 0.34
Site Coverage (SC)	17.6%
No. of Houses	57
No. of Storeys[(1)]	3 storeys (over one storey basement)
BH (to the main roof)	Not more than 11m above ground and a basement car park/E&M floor of 4.5m below ground
Average Unit Size	178 m^2
Persons Per Flat	3.68
Proposed Population	210
Club House	
Floor Area[(2)]	Not more than 5% of the total domestic GFA
No. of Storeys[(1)]	1 storey
BH (to the main roof)	Not more than 5m above ground
Private Open Space[(3)]	Not less than 210 m^2
Landscaped Area with Natural Habitat and Water Feature	Not less than 4,770 m^2
Total Parking Spaces[(4)]	116
Resident Car Parking Spaces	114
Visitor Car Parking Spaces	2
Motorcycle Parking Spaces	Nil
Loading/Unloading Bays	1

(1) Excluding one storey basement car park/E&M floor of about 4.5m in height
(2) About 508 m^2 (i.e. not more than 5% of the proposed domestic GFA).
(3) Refers to communal open space within the proposed development and excludes private gardens of individual houses.
(4) 2 accessible car parking spaces proposed to be reserved for persons with disabilities

1.4 In support of the rezoning application, the applicant has submitted supplementary planning statement and technical assessments including Landscape Design and Tree Preservation Proposals, Traffic Impact Assessment (TIA), Ecological Impact Assessment (EcoIA), Environmental Assessment (EA), Drainage Impact Assessment (DIA), Sewerage Impact Assessment (SIA) and Water Supply and Site



AECOM

PROJECT
SECTION 12A APPLICATION FOR PROPOSED AMENDMENTS TO THE OUTLINE ZONING PLAN IN SUPPORT OF PRIVATE RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS IN D.D. 115, TUNG SHING LEI, YUEN LONG

CLIENT

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

A	OCT.14	MINOR AMENDMENTS	
ISS NO.	DATE	DESCRIPTION	CHK.

STATUS
PRELIMINARY

SCALE
DIMENSION UNIT
METRES

KEY PLAN

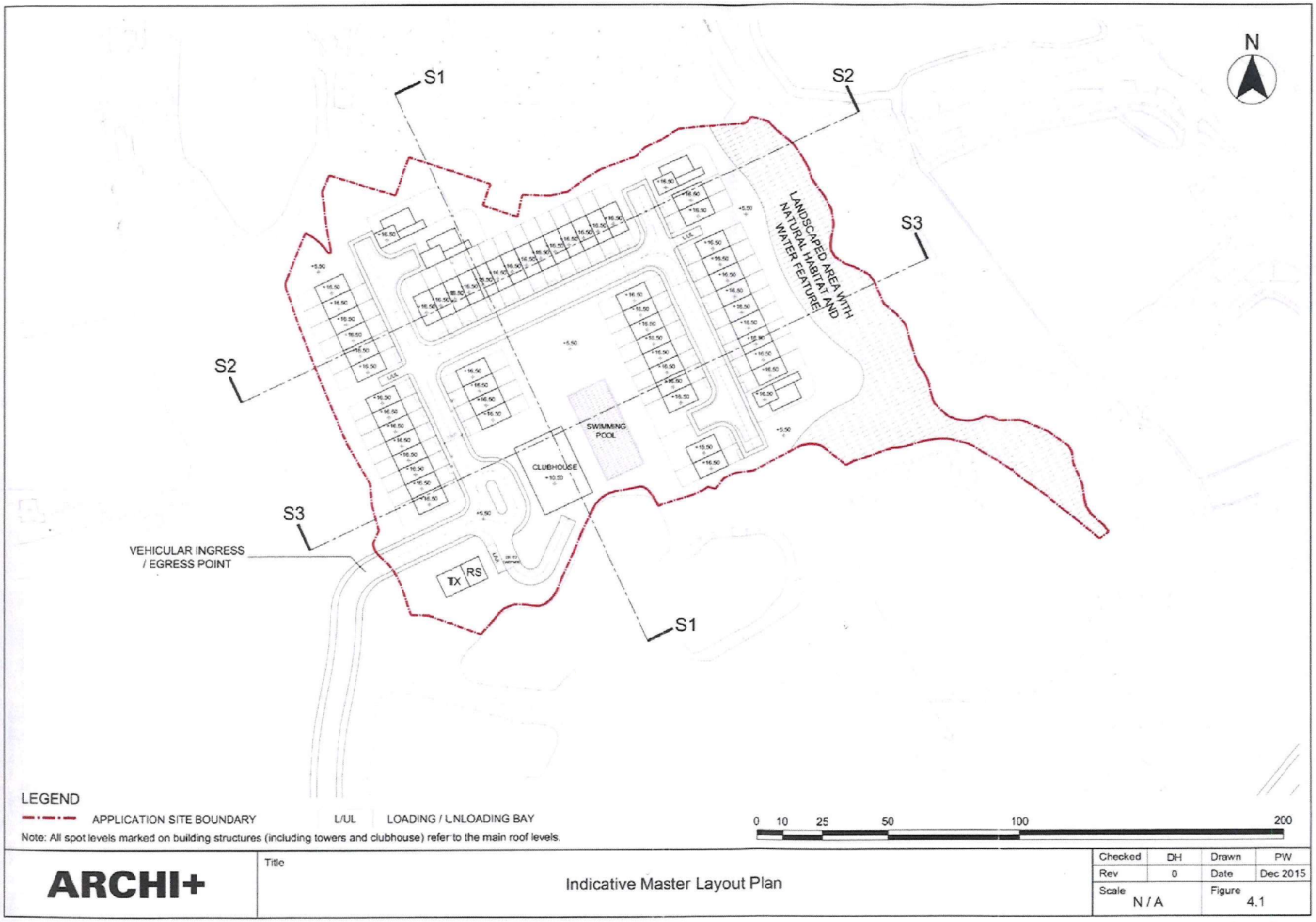
PROJECT NO.
60330892
CONTRACT NO.

SHEET TITLE
INDICATIVE MASTER LAYOUT PLAN

SHEET NUMBER
60330892/FIGURE CZ.1

(摘錄自申請人於19. 10. 2017呈交的進一步資料)
(Extract from Applicant's Further Information Submitted on 19.10.2017)

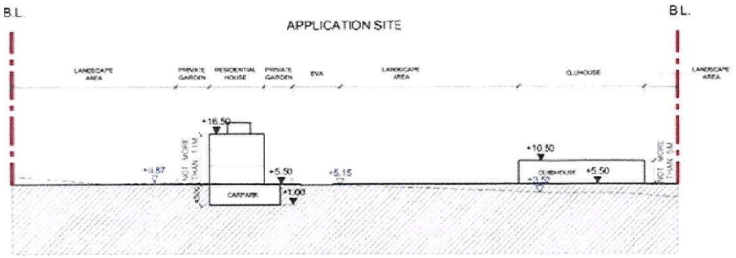
參考編號 REFERENCE No.	繪圖 DRAWING
Y/YL-NSW/4	Z-1a



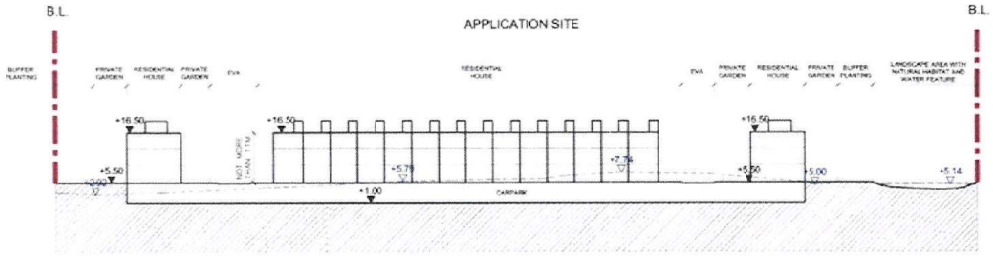
ARCHI+	Title: Indicative Master Layout Plan	Checked	DH	Drawn PW
		Rev	0	Date Dec 2015
		Scale N / A		Figure 4.1

(摘錄自申請人於 16. 12. 2015 呈交的申請書)
(Extract from Applicant's Submission of 16.12.2015)

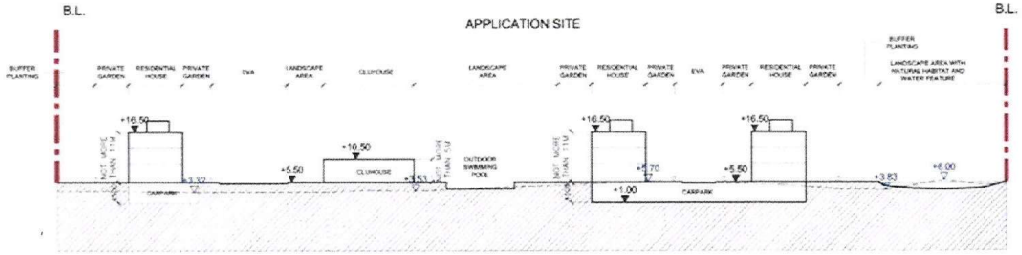
參考編號 REFERENCE No.	繪圖 DRAWING
Y/YL-NSW/4	Z-1b



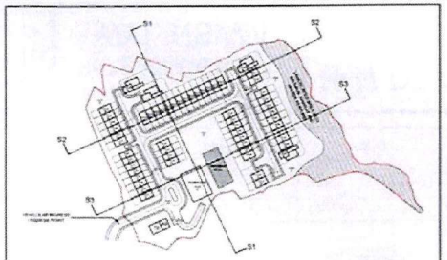
SECTION S1



SECTION S2



SECTION S3



KEY PLAN

LEGEND

APPLICATION SITE BOUNDARY

EXISTING LEVEL

Note: All spot levels marked on building structures (including towers and clubhouse) refer to the main roof levels.

0 5 10 25 50 100

ARCHI+

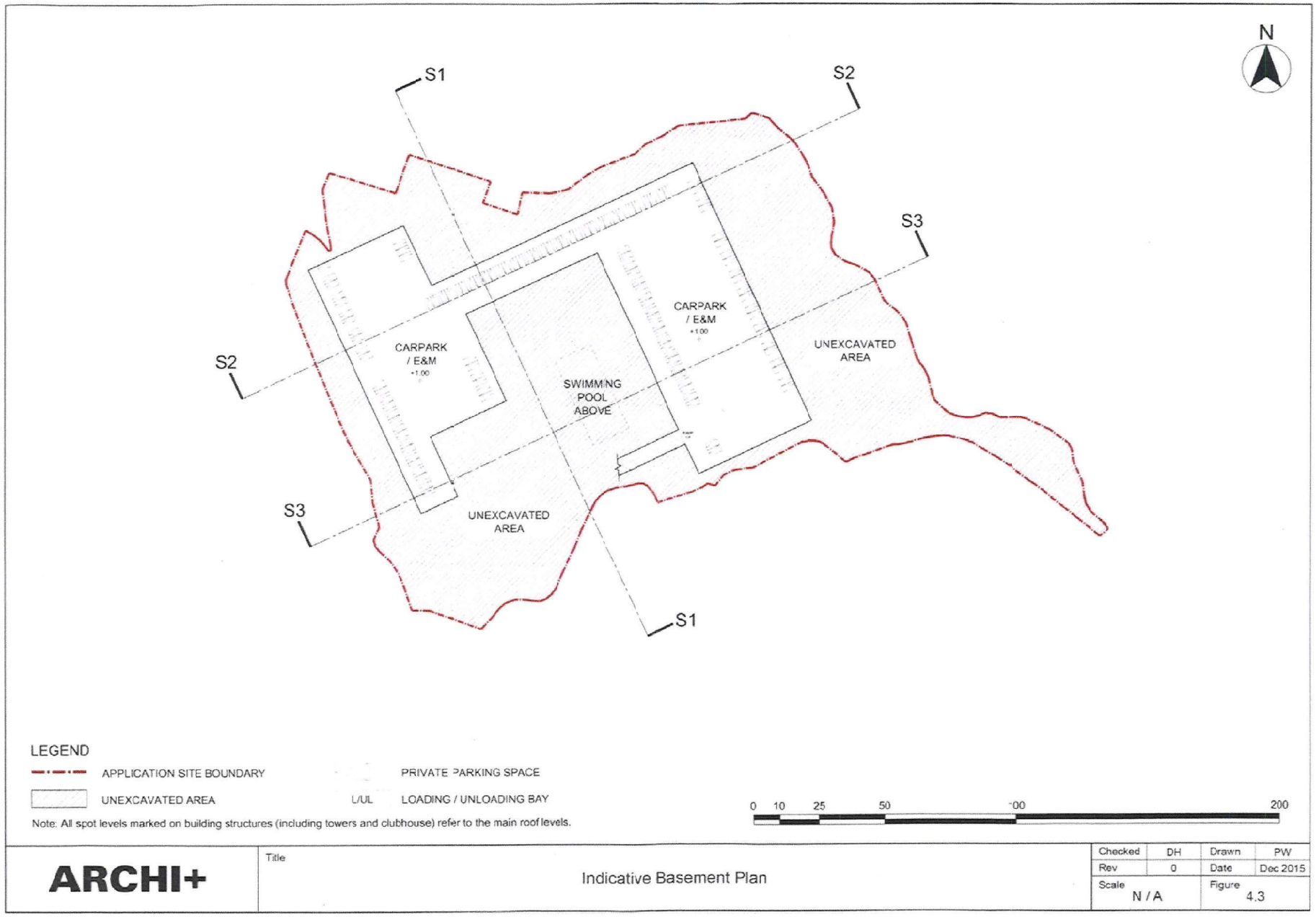
Title

Indicative Section Plan

Checked	DH	Drawn	PW
Rev	0	Date	Dec 2015
Scale	N / A	Figure	4.2

（摘錄自申請人於 16. 12. 2015 呈交的申請書）
(Extract from Applicant's Submission of 16.12.2015)

參考編號 REFERENCE No.	繪圖 DRAWING
Y/YL-NSW/4	Z-2



LEGEND

APPLICATION SITE BOUNDARY

UNEXCAVATED AREA

PRIVATE PARKING SPACE

L/UL LOADING / UNLOADING BAY

Note: All spot levels marked on building structures (including towers and clubhouse) refer to the main roof levels.

0 10 25 50 100 200

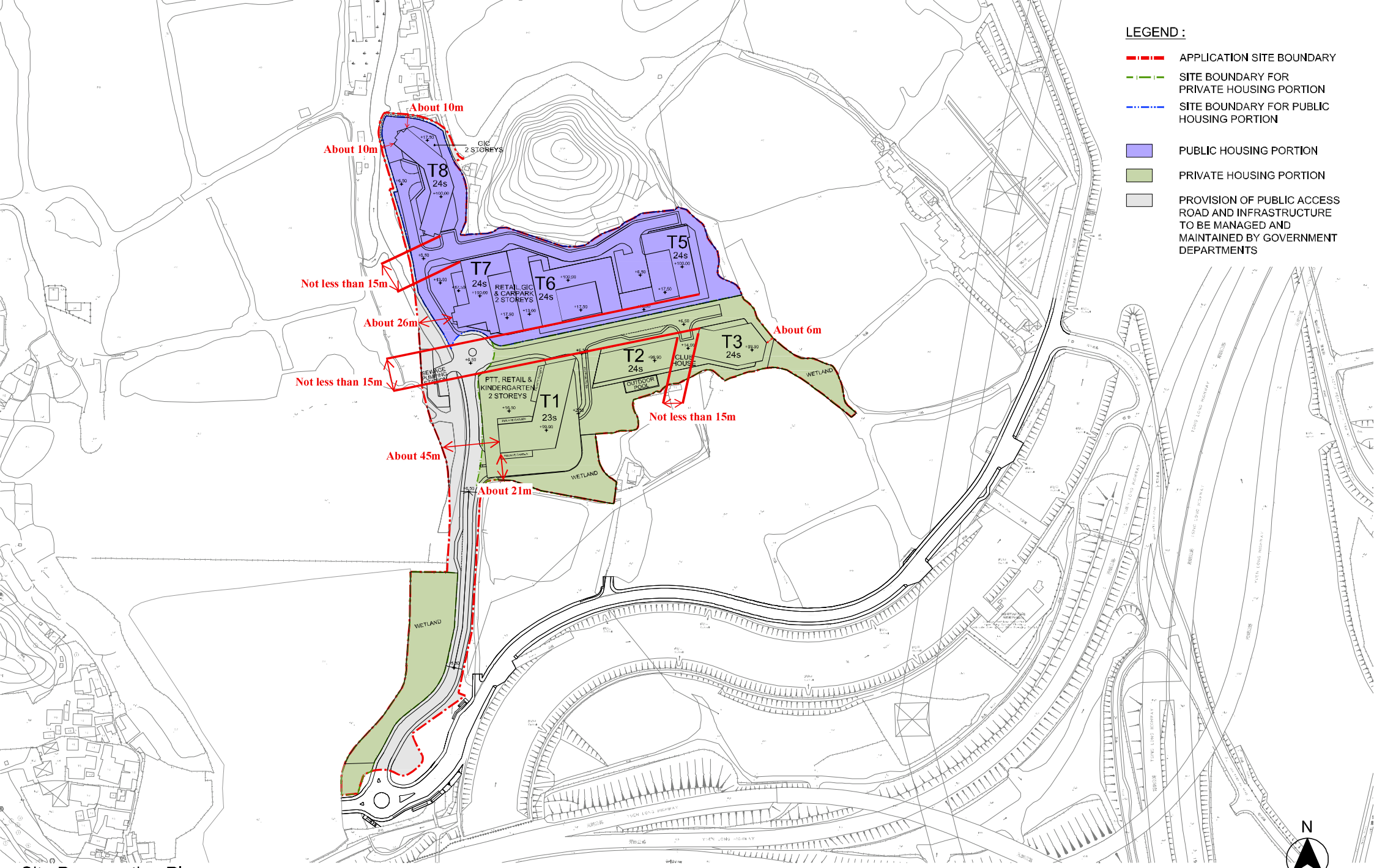
ARCHI+	Title: Indicative Basement Plan	Checked: DH / Drawn: PW	
		Rev: 0 / Date: Dec 2015	
		Scale: N / A	Figure: 4.3

(摘錄自申請人於 16.12.2015 呈交的申請書)
(Extract from Applicant's Submission of 16.12.2015)

參考編號 REFERENCE No.	繪圖 DRAWING
Y/YL-NSW/4	Z-3

Appendix 2

The Indicative Block Plan of the Proposed Scheme



Site Demarcation Plan

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115, TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 15 MAR 2024
1 : 2500 (A3)

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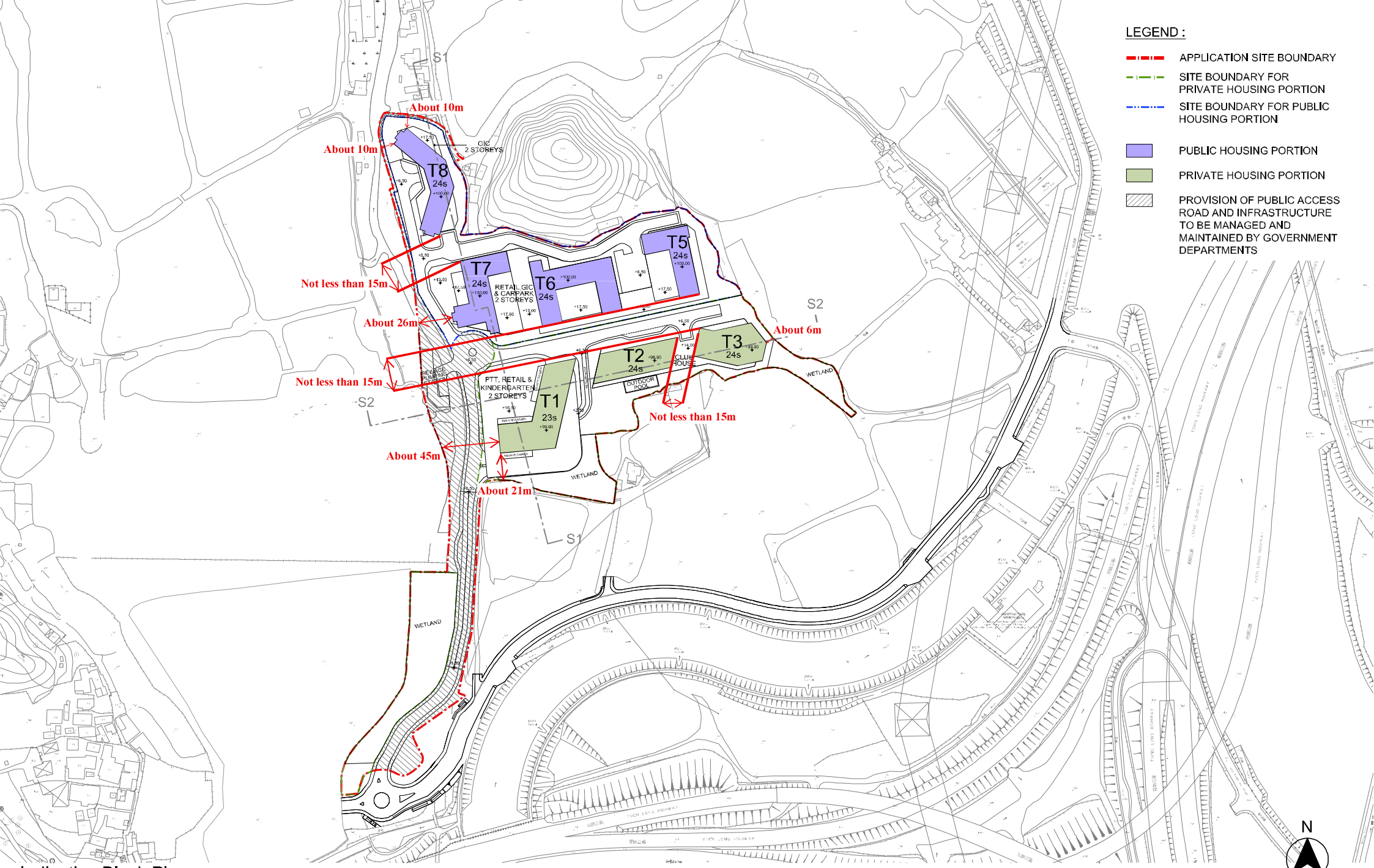

Indicative Block Plan

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115, TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 15 MAR 2024
1 : 2500 (A3)

ARCHI+
ARCHIPLUS INTERNATIONAL LIMITED

Indicative Ground Floor Plan

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115, TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 15 MAR 2024
1 : 2500 (A3)

ARCHI+
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Indicative First Floor Plan

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115, TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 05 JUL 2023
1 : 2500 (A3)

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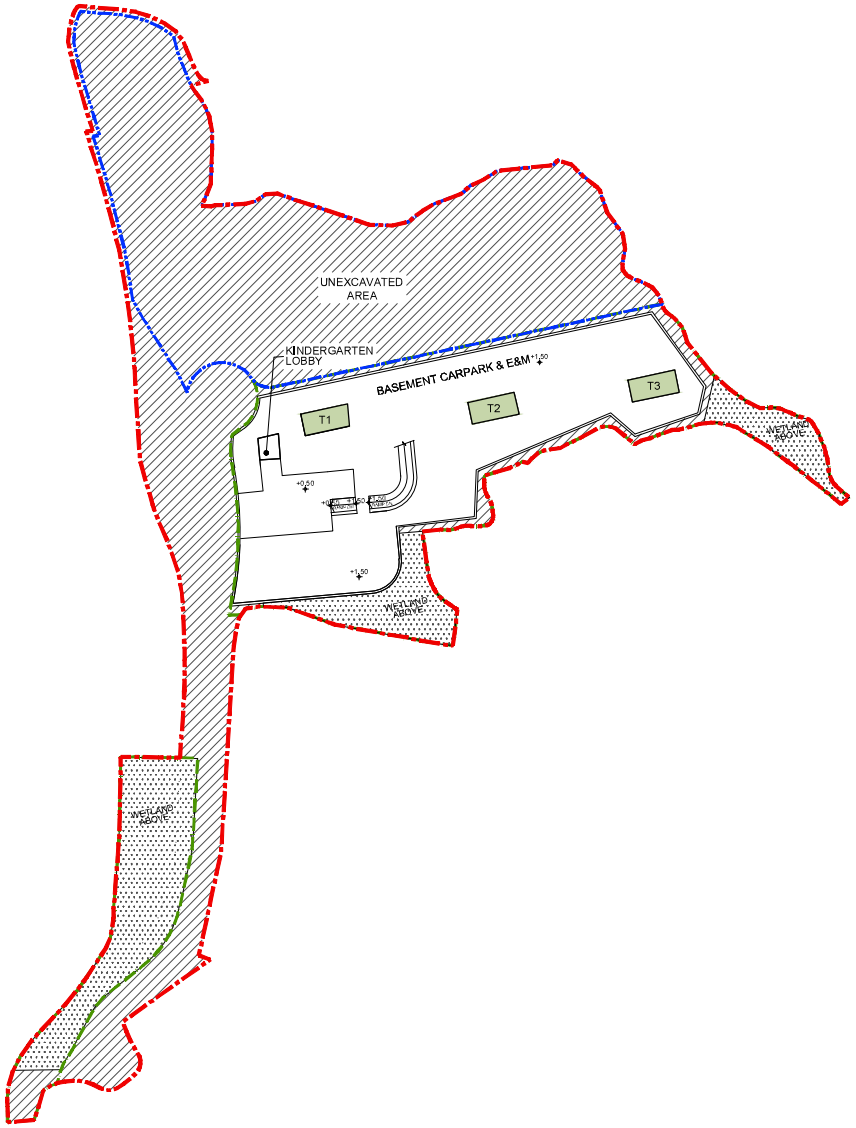
LEGEND :

- APPLICATION SITE BOUNDARY
- SITE BOUNDARY FOR PRIVATE HOUSING PORTION
- SITE BOUNDARY FOR PUBLIC HOUSING PORTION
- PUBLIC HOUSING PORTION
- PRIVATE HOUSING PORTION



N

Indicative Basement Floor Plan

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115, TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 05 JUL 2023
1 : 2500 (A3)

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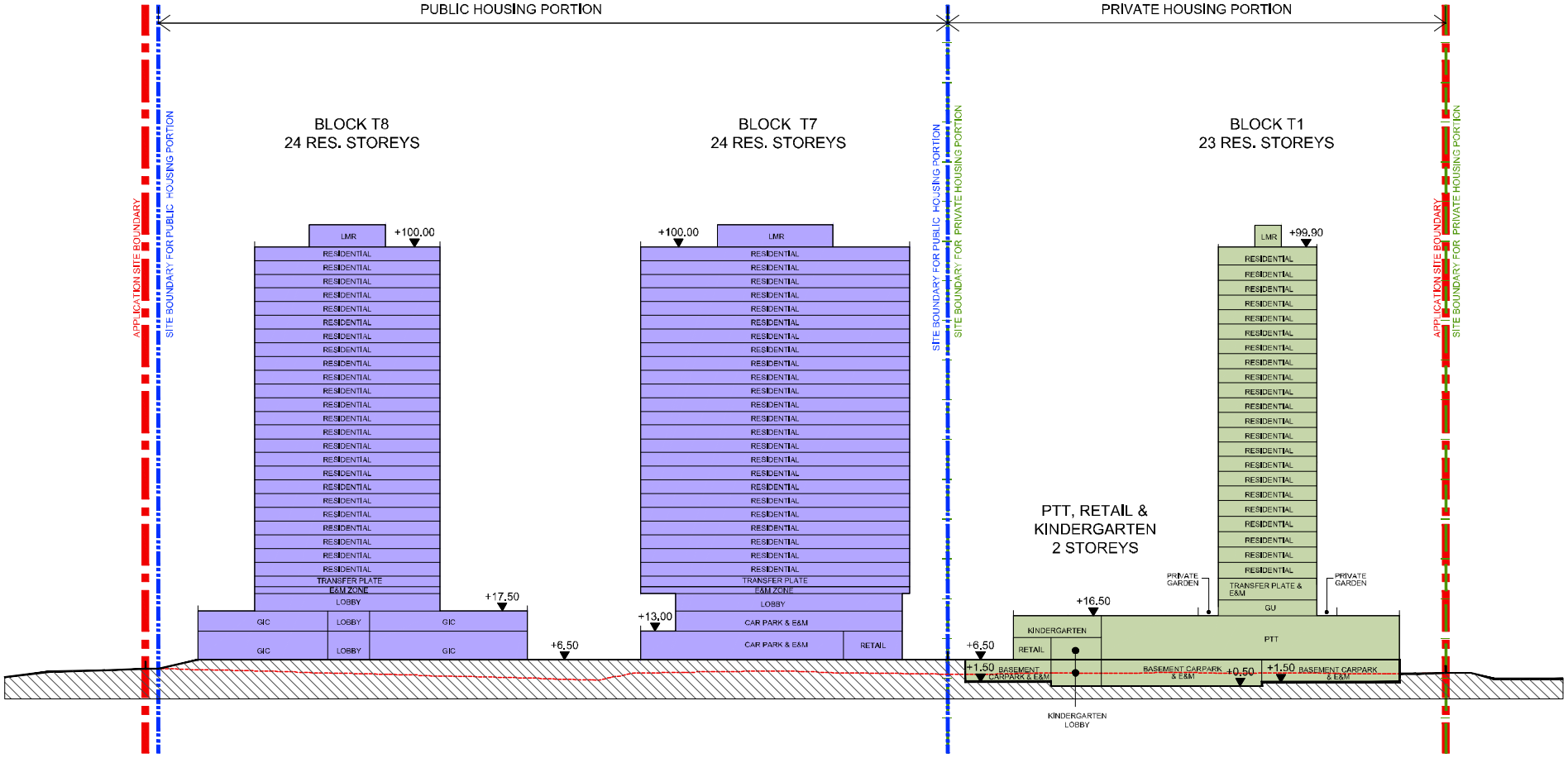

SECTION S1

Indicative Section S1

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115,
TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 05 JUL 2023
1 : 1000 (A3)

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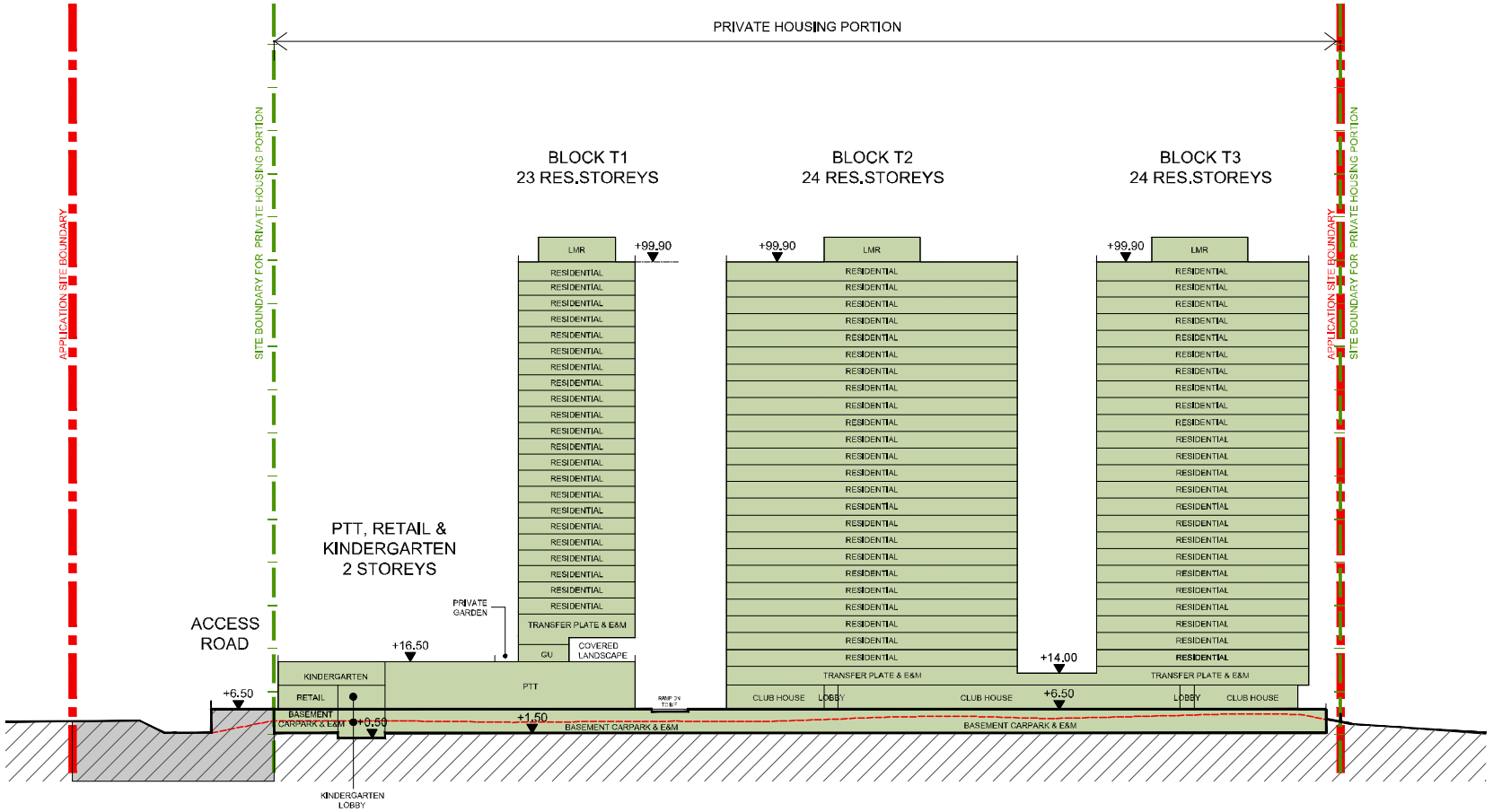
LEGEND

------ EXISTING SITE LEVEL



SECTION S2

Indicative Section S2

TUNG SHING LEI "R(D)" ZONE

PROPOSED LAND SHARING PILOT SCHEME (LSPS) FOR A SITE AT VARIOUS LOTS IN D.D. 115,
TUNG SHING LEI, YUEN LONG, THE NEW TERRITORIES

DATE : 05 JUL 2023
1 : 1000 (A3)

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Appendix 3

Illustration of Downwash Effect

Building mass will divert wind to different directions. Wind at higher elevation will flow downward so that air flow at pedestrian level will increase (see illustration below).