AIR VENTILATION ASSESSMENT
EXPERT EVALUATION

FOR

PROPOSED PUBLIC HOUSING DEVELOPMENT AT EX-CHA KWO LING KAOLIN MINE

27 Oct 2026

Ref No: RP19318-07-CFD-05

(APPENDIX 5)

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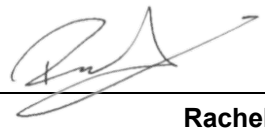
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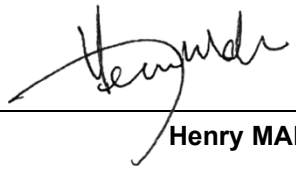
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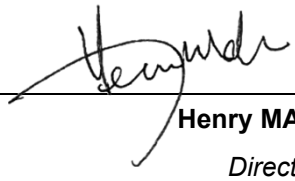
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1 INTRODUCTION

1.1 PURPOSE

BeeXergy Consulting Limited (BXG) was commissioned by Hong Kong Housing Authority (HKHA) to undertake an Air Ventilation Assessment (AVA) – Expert Evaluation (EE) to support the planning application under section 16 of Town Planning Ordinance for minor relaxation of building height restriction by 5m, from 135mPD (for southern portion) to 140mPD and from 140mPD (for northern portion) to 145mPD for the proposed public housing development at Ex-Cha Kwo Ling Kaolin Mine, Kwun Tong (the Project Site).

In conducting this AVA-EE, the following previous AVA studies related to the Project have been made reference to:

- Agreement No. CE 60/2018 (CE) Site Formation and Infrastructural Works for Proposed Public Housing Developments at Kowloon East – Feasibility Study (Oct 2021)
- Preliminary AVA Report in the form of Expert Evaluation (Final) (Ref.08.16-06)
- Report for Zoning Amendment (ZA) (Final) (Ref.: 08.17-05)

1.2 STUDY OBJECTIVES

The objectives of this study are to (i) review the existing wind environment of the Project Site and its surroundings and (ii) assess qualitatively the potential air ventilation impacts of the proposed scheme and its baseline scheme (i.e. Notional Scheme for rezoning) on the surroundings using the methodology of AVA, based on the "Housing Planning and Lands Bureau – Technical Circular No. 1/06, Environment, Transport and Works Bureau – Technical Circular No. 1/06" issued on 19th July 2006 (the Technical Circular) and *"Technical Guide for Air Ventilation Assessment for Development in Hong Kong – Annex A"* (the Technical Guide) of the Technical Circular.

1.3 STUDY TASKS

The major task of this study is to carry out an AVA-EE based on the characteristics of the site wind availability data and qualitative assessment of the wind performance under both schemes. The AVA-EE will also cover the following tasks:

- Review the existing wind environment of the Project Site;
- Assess qualitatively the potential air ventilation impacts of the proposed scheme and its baseline scheme (i.e. Notional Scheme for rezoning) on the pedestrian wind environment at Project Site;
- Identify major breezeway(s), air-path(s) & problematic area(s);
- Identify if there are any wind stagnation and wind amplification causing uncomfortable and unsafe wind environment; and
- Recommend if any further study is necessary.

2 SITE CHARACTERISTICS

2.1 PROJECT AREA AND ITS SURROUNDING AREA

The Project area is approximately 1.45 ha and is located at Ex-Cha Kwo Ling Kaolin Mine Development at ground level 32 mPD. The site is currently a formed land. The Development is situated to the southwest of Sai Tso Wan Recreation Ground, high-rise residential development of Ping Tin Estate (with existing building height up to about 200mPD) and Sceneway Garden (with existing building height up to about 153mPD); to the east of the former Cha Kwo Ling Village (CKLV); to the south of existing private housing developments including Laguna City and KOKO HILLS; and to the northwest of the Eastern Harbour Crossing.

Figure 1 shows an overview of the Development and its surrounding area.



Figure 1: Overview of the Development and its Surrounding Area



Figure 2: View of the Project Site and its Surroundings as shown on the OZP (Source: Town Planning Board)

Table 1: Building Height for Surrounding Developments around the Project Site

Name of Surrounding Developments	Building Height (mPD)
KOKO HILLS Development	+90 to +110
Planned Cha Kwo Ling Village (CKLV) Redevelopment Site	+110 to +130
Proposed VTC New Campus	+70
Proposed GIC building	Max 8 storey
Tenement building at Fan Wa Street	+9 to +38
Laguna City	+79.9 to +92.2
Tseung Kwan O – Lam Tin Tunnel (TKO-LT Tunnel)	-
Administration Building of TKO-LT Tunnel	+30
Sai Tso Wan Recreation Ground	-
Proposed Joint-User Complex	+70

2.2 BASELINE SCHEME

The Baseline Scheme represents the Notional Scheme for rezoning and comprises of one 30-storey (Block C) and two 32-storey domestic tower (Block A and B) with a building height of maximum 135 mPD and 140 mPD respectively. Block A and B are on top of a 3-story podium while Block C is on top of another 3-story podium. There is a 15m building separation between Block A and Block B&C along NE/SW direction.

Figure 3 shows the master layout plan of Baseline Scheme. The layout drawings of Baseline Scheme are provided in Appendix A.

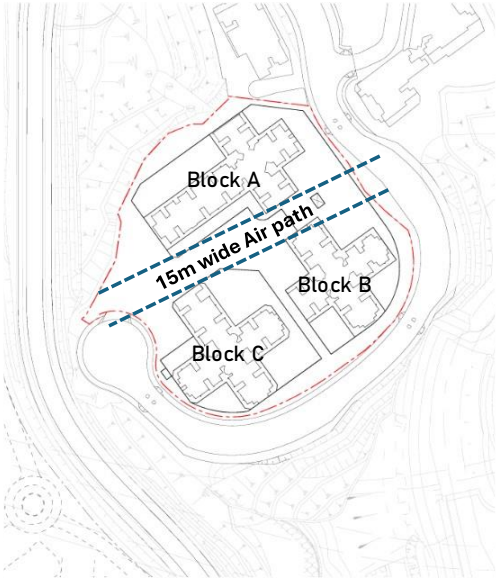


Figure 3: Master Layout Plan of Baseline Scheme

2.3 PROPOSED SCHEME

The Proposed Scheme comprises of four site-specific design blocks with 30 to 34 domestic storeys. They are on top of a three to four storeys podium.

There is a 15m building separation between Block A&B and Block C&D along NE/SW direction.

Figure 4 shows the master layout plan of Proposed Scheme. The block layout drawings of Proposed Scheme are provided in Appendix B.

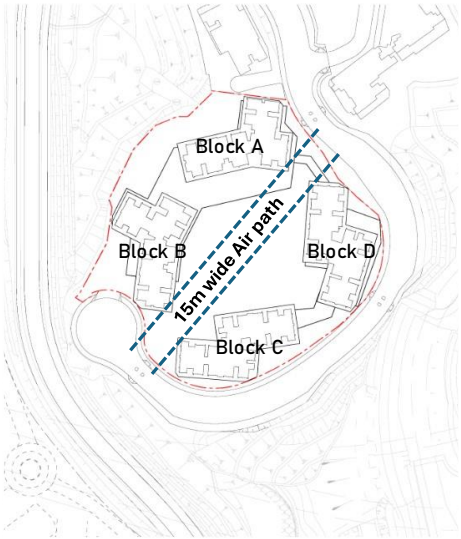


Figure 4: Master Layout Plan of Proposed Scheme

2.4 GOOD DESIGN FEATURES IN PROPOSED AND BASELINE SCHEME

Chapter 11 of "Hong Kong Planning Standards and Guideline" on Air Ventilation was referenced in order to determine the good design features in the Proposed Scheme from an air ventilation standpoint.

The following good design features of the Proposed Scheme are identified:

- Stepping building height is adopted. The towers with lower building heights (Block B: 138.84 mPD and Block C: 139.34 mPD) are located at the south-west portion of the site, which face the seafront while the tower with higher building height (Block A: 144.34 mPD And Block D: 144.84 mPD) are located at the inland portion of the site. Stepping building height concept can help optimize the wind capturing potential of development;
- Building separations of 15m along NE/SW direction allows smooth annual and summer winds passing through the site;
- Extensive G/F and podium gardens are proposed; and
- Podium gardens of approximately 5m in height are proposed

The following design issues of the Baseline Scheme are identified:

- Enclosed podium building bulk facing Ko Ling Road at the north side of the site
- Ventilation at pedestrian level was restricted by the podium form;
- Podium gardens are fragmented and small;
- The building separations are less effective to form a wind corridor facing adjacent residential development; and
- Ventilation from the east side was restricted by the domestic block A with long façade length

3 SITE WIND AVAILABILITY DATA

The characteristics of the site wind availability should be identified in order to investigate the wind performance of the Project Site. Site wind availability data could be used to assess the wind characteristics in terms of the magnitude and frequency of approaching wind from each wind direction. The simulated Regional Atmospheric Modelling System (RAMS) wind data will be referenced in this report.

3.1 RAMS WIND DATA

The Regional Atmospheric Modeling System (RAMS) wind data is adopted for qualitaive assessment as it most closely reflects the location of the Project Area.

City University of Hong Kong (CityU) utilized the meso-scale numerical model RAMS to produce site wind availability data for Hong Kong and is available at PlanD's database[1]. Based on the archived dataset, wind statistics and wind roses for each 0.5km×0.5km grid box at different height levels could be extracted. Simulated data at grid (a) corresponds to the location of the Project Area and annual wind conditions at 200m above ground are referenced in this study. The location of grid (X091, Y038), (X091, Y039), (X092, Y038) and (X092, Y039) are shown in Figure 5. The extracted wind roses show that easterlies dominate under the annual wind condition. Figure 6 and Figure 7 show the annual and summer wind roses at 200m above ground level for grid (X091, Y038), (X091, Y039), (X092, Y038) and (X092, Y039) respectively.

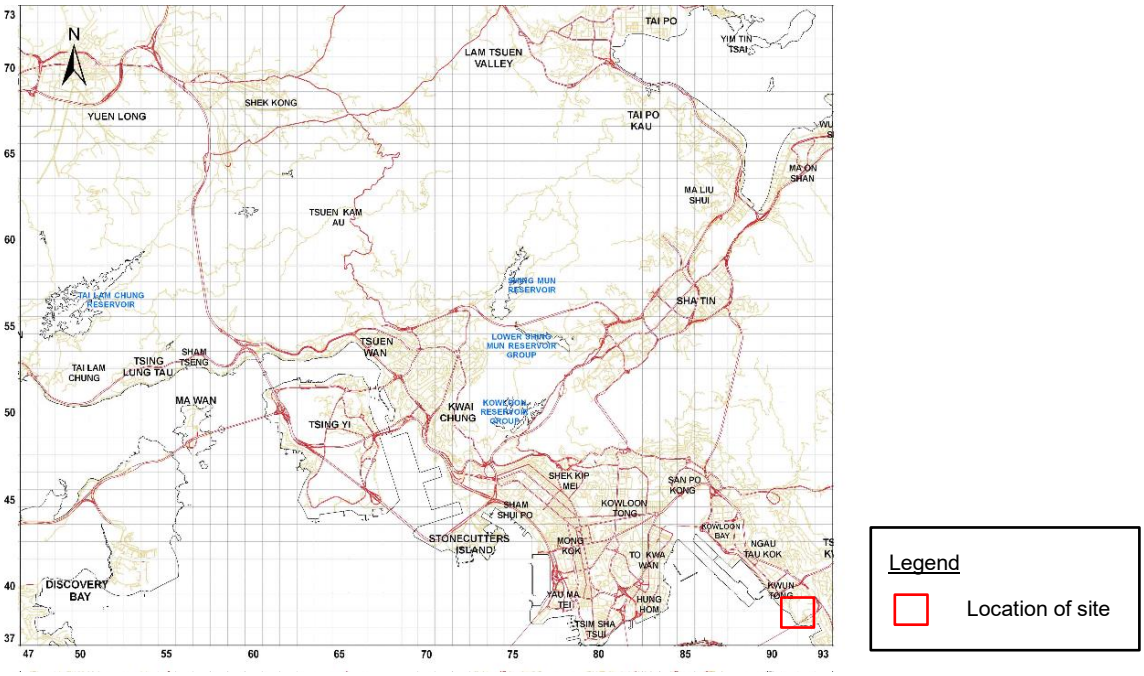
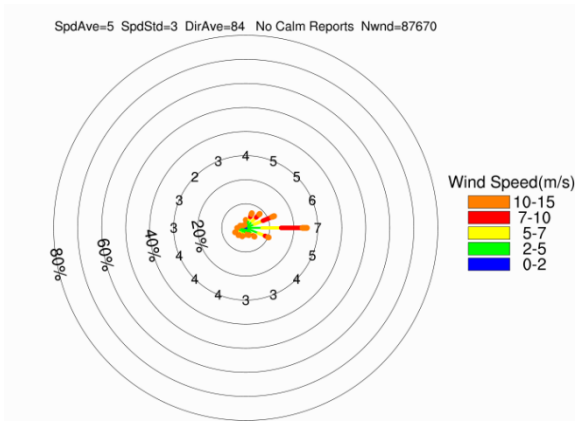
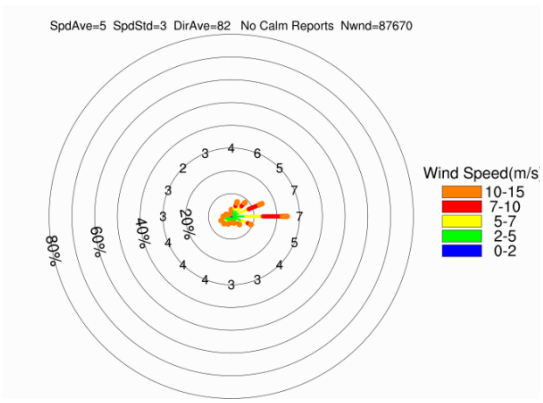


Figure 5: Location of the Selected RAMS Wind Data - Grid (X091, Y038), (X091, Y039), (X092, Y038) and (X092, Y039)

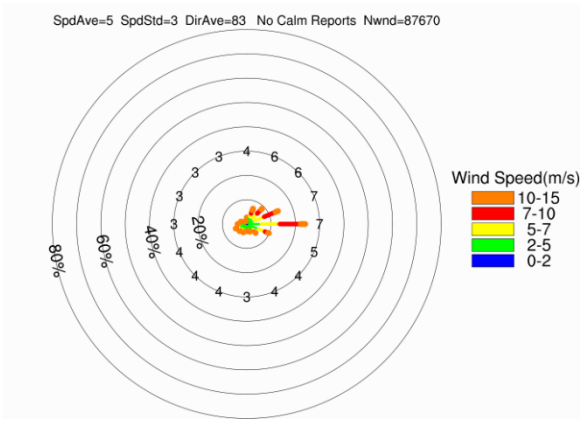
[1] http://www.pland.gov.hk/pland_en/info_serv/site_wind/site_wind/index.html



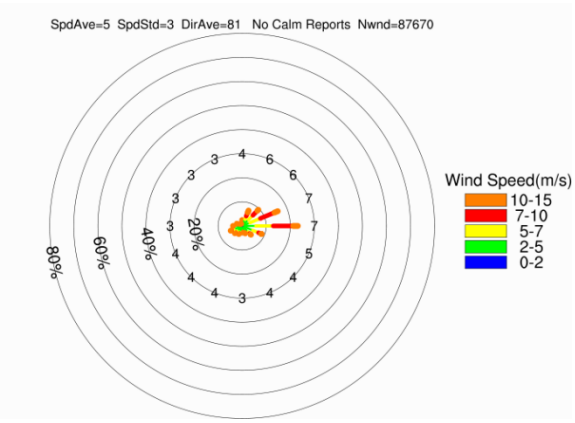
X091, Y038



X091, Y039

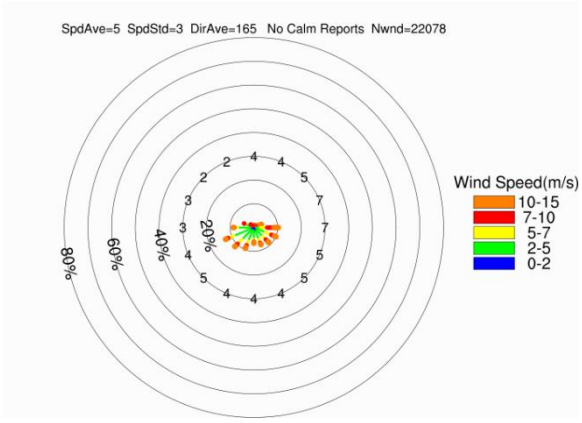


X092, Y038

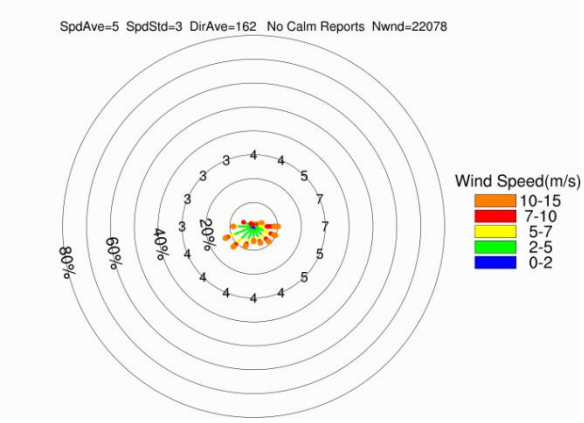


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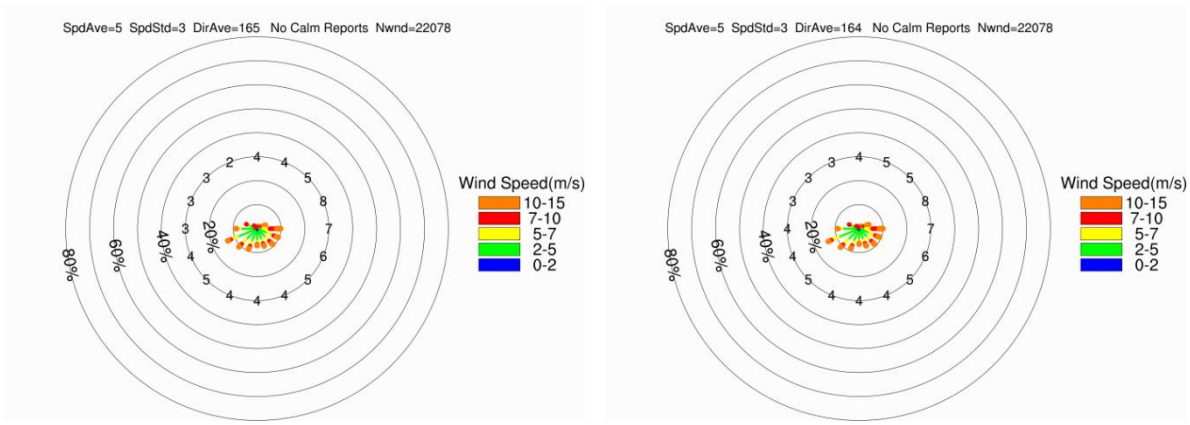
Figure 6: Annual Wind Rose at 200m – Grid (X091, Y038), (X091, Y039), (X092, Y038) and (X092, Y039)



X091, Y038



X091, Y039



X092, Y038 X092, Y039

Figure 7: Summer Wind Rose at 200m – Grid (X091, Y038), (X091, Y039), (X092, Y038) and (X092, Y039)

According to the RAMS wind data of the Project Site, NE, ENE, E and ESE winds are identified as the annual prevailing wind direction while E, ESE, SE, SW and WSW winds are identified as the summer prevailing wind direction for the Project Site.

Apart from the RAMS wind data, with reference to the "Development of ex-Cha Kwo Ling Kaline Mine Site – Design and Construction - Additional Services No.6 (Agreement No. CE 3/2014 (CE))", it is concluded that north-easterly (NE), the east north easterly (ENE), the east south easterly (ESE) and easterly (E) wind dominates the annual wind conditions, while the summer wind mainly comes from the southeast (SE) and the southwest (SW) directions.

3.2 SITE WIND AVAILABILITY FOR CURRENT STUDY

Table 2 is a summary of the prevailing wind directions for the Project Site. The annual and summer prevailing wind are shown in Figure 8.

Table 2: Prevailing Wind Directions of the Project Site

Prevailing Wind Direction	RAMS Wind Data
Annual	NE, ENE, E and ESE
Summer	E, ESE, SE, SW and WSW

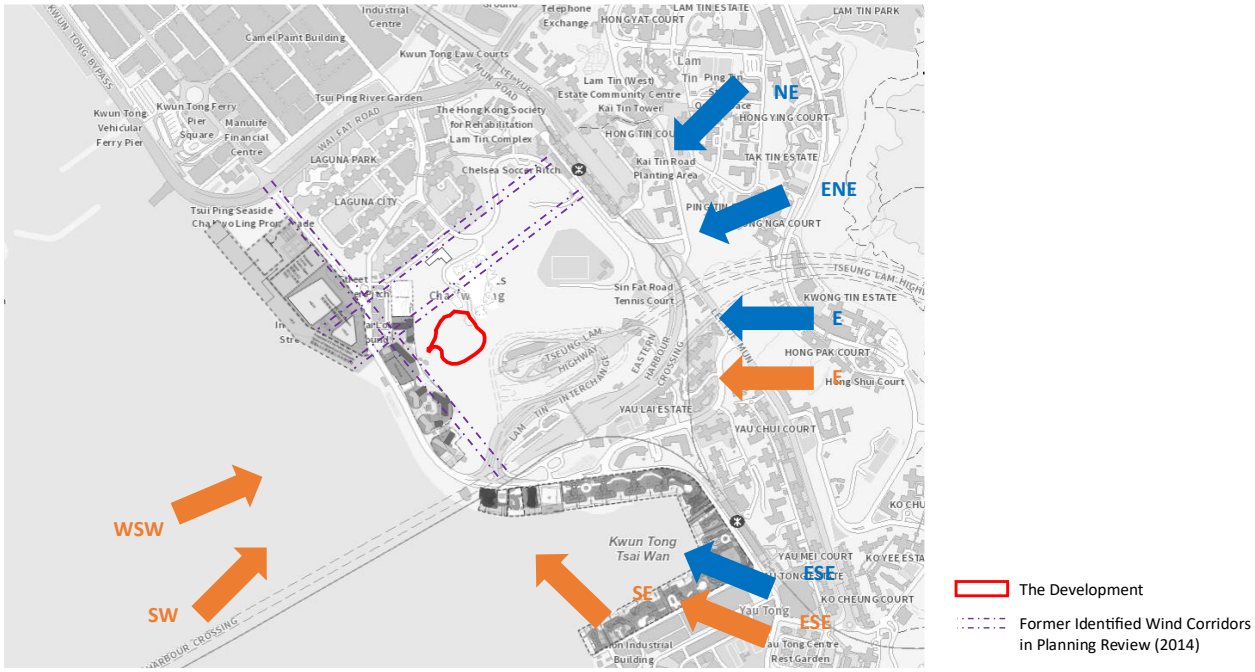


Figure 8: Annual and summer prevailing wind at the Project Site

4 EXISTING WIND ENVIRONMENT

The Project Site is located within the Approved Cha Kwo Ling, Yau Tong, Lei Yue Mun Outline Zoning Plan no. S/K15/29, which is currently zoned as “Residential (Group A) 9” (“R(A)9”). It is surrounded by residential developments, GIC building, open spaces and green belt.

The annual prevailing winds are mainly from NE, ENE, E and ESE directions; whereas under summer wind condition, the prevailing winds are from E, ESE, SE, SW and WSW directions.

Under annual wind condition, the prevailing E wind from farther Black Hill would penetrate the Hong Nga Court through the building gaps and reach Sai Tso Wan. As the Development is located at the downhill of the Sai Tso Wan, the E wind would be directed along the hill and reach the east side of the Development. The ENE wind is also anticipated to skim through the Sai Tso Wan and reach the east side of the Development. A portion of the ENE wind would penetrate the building separation of the KOKO HILLS Development, and reach the north-west side of the Development. The NE wind is diverted by the Sceneway Garden and then runs along the Sin Fat Road as the major breezeway. It is then diverted by the KOKO HILLS Development and run reaches the north-west side of the Development.

Under summer wind condition, the Development is situated on the windward side of the Sai Tso Wan. The Planned Cha Kwo Ling Village Redevelopment site, Proposed VTC New Campus and low-rise buildings are located at the south-western and west side of the Development. The prevailing winds would carry the sea breeze and enter the Development through the Proposed VTC New Campus and the building separation of the Planned Cha Kwo Ling Village Redevelopment.

5 QUALITATIVE ANALYSIS OF THE BASELINE SCHEME AND PROPOSED SCHEME

5.1 NE WIND

The NE wind is the annual prevailing wind direction for the Project Site. High dense residential buildings, such as Sceneway Garden and Sai Tso Wan Recreation Ground, are located at the north-east of the Project Site. These residential buildings act as a shield and divert the incoming NE wind. It is expected the NE wind would travel from two main breezeway (Blue Arrow (1) & (3)). However, the mid-level wind would not be significantly affected and would directly reach the Project Site (Orange Dotted Arrow (2)).

It is expected that the NE wind would travel from two main breezeway. The NE wind is diverted by the residential buildings, including Sceneway Garden and Laguna City. Due to the low-rise nature of the buildings, the NE wind would run along the south-east side of Laguna City and skim over the buildings at Cha Kwo Ling Road. A portion of the NE wind would reach the KOKO HILLS Development and be further diverted and reach the Project Site.

For both Proposed and Baseline Scheme, the high-level NE wind is expected to skim over the residential buildings and the open spaces, reaching the north-east side of the Project Site. The provision of 15m-wide building separation along the NE/SW direction for the Proposed Scheme parallel to the incoming NE wind. The alignment of the Baseline Scheme is slightly different from the Proposed Scheme. Yet, the building separations in both cases minimizes the blocking effect, allowing the NE wind to pass through the Project Site freely. The NE wind would reach the open sea via the building separations of the Planned (CKLV) Redevelopment site.

Furthermore, as the Project Site is located at the toe of a hilly terrain, the towers would capture the high-level wind, resulting in an expected downwash effect. The surrounding area would be benefited.

It is expected that the good design feature in both Baseline Scheme and Proposed Scheme (i.e. 15m-wide building separation for the Baseline Scheme and 15m-wide building separation for the Proposed Scheme) will serve as effective wind mitigation measures, improving the ventilation environment. The Proposed Scheme is expected to have no adverse impact when compared to the Baseline Scheme, indicating its effectiveness in maintaining a favourable wind environment.

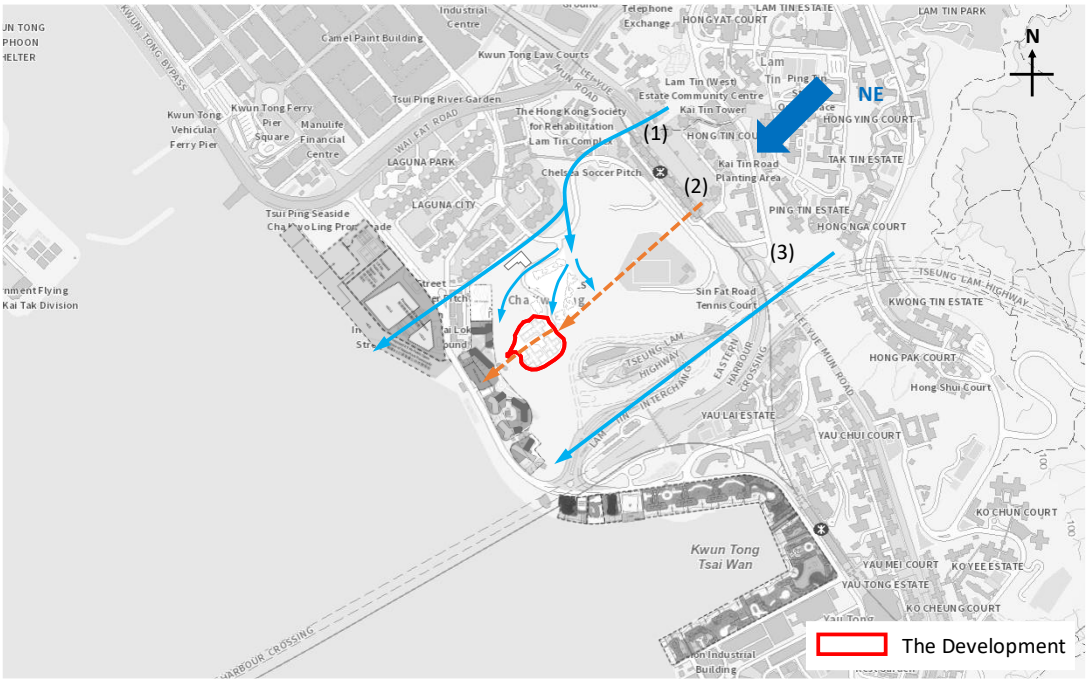


Figure 9: Wind Flow of Baseline Scheme under NE wind

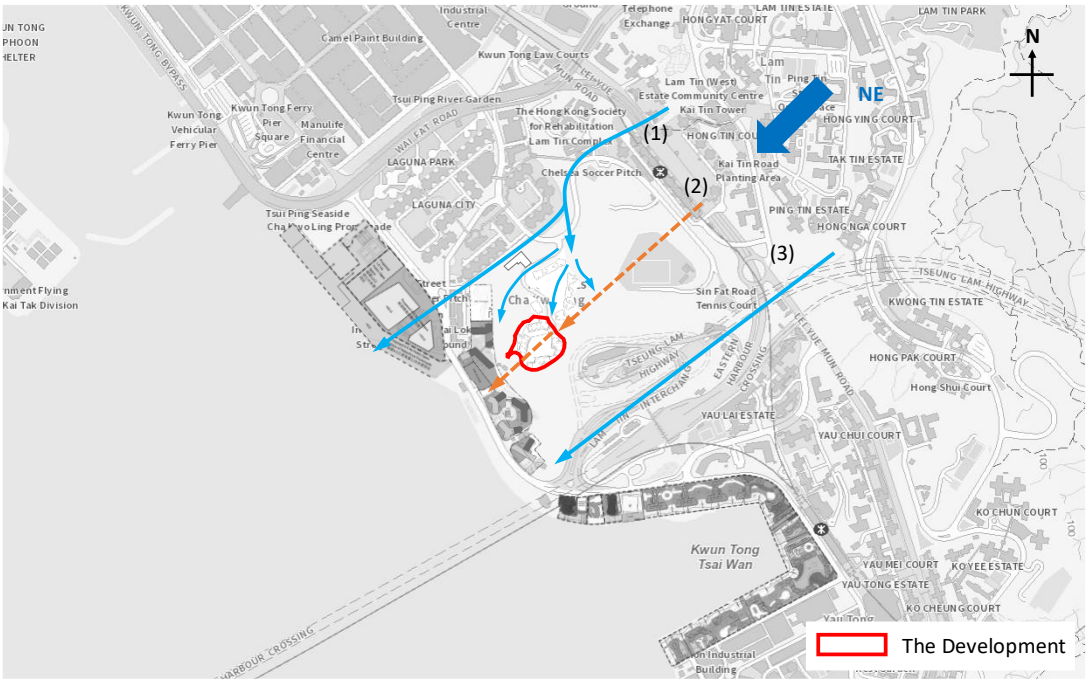


Figure 10: Wind Flow of Proposed Scheme under NE wind

5.2 ENE WIND

The ENE wind is the annual prevailing wind direction for the Project Site. The incoming ENE wind is partially shielded by the Sceneway Garden. The ENE wind would skim over Sai Tso Wan and be diverted by the KOKO HILLS Development (Blue Arrow (1)). However, the mid-level ENE wind would not be significantly affected by the hilly terrain of Sai Tso Wan, allowing it to reach the Project Site directly (Orange Dotted Arrow (2)).

Considering both KOKO HILLS Development and the Project Site are located at the relatively lower ground level than the Sai Tso Wan, the towers of the KOKO HILLS Development would capture and divert the incoming ENE wind. It is expected that the wind would run along the lower terrain and reach the east side of the Project Site, the podium level of the Project Site would enjoy the downwash wind. The wind would further travel along the edge of the terrain and reach the Planned CKLV Redevelopment and sea area. (Blue Arrow (1)).

In the Baseline Scheme, the mid-level ENE would skim over the Sai Tso Wan and reach the Project Site. The wind would then continue its path towards the sea, passing through the building separation of the Baseline Scheme and the Planned CKLV Redevelopment site (Orange Dotted Arrow (2)).

In the Proposed Scheme, the mid-level ENE wind would penetrate the Project Site via the building separation. The towers would capture the mid-level, resulting in a downwash effect that enhances the wind environment at the Project Site. It is expected that the wind would then pass through the Planned CKLV Redevelopment site and reach the sea area freely (Orange Dotted Arrow (2)).

It is expected the good design feature in both the Proposed Scheme and Baseline Scheme (i.e. 15m-wide building separation for the Baseline Scheme and 15m-wide building separation for the Proposed Scheme) serves as effective wind mitigation measures that improve ventilation performance and the wind environment. Both the Baseline Scheme and Proposed Scheme are expected to have similar outcomes in this regard.

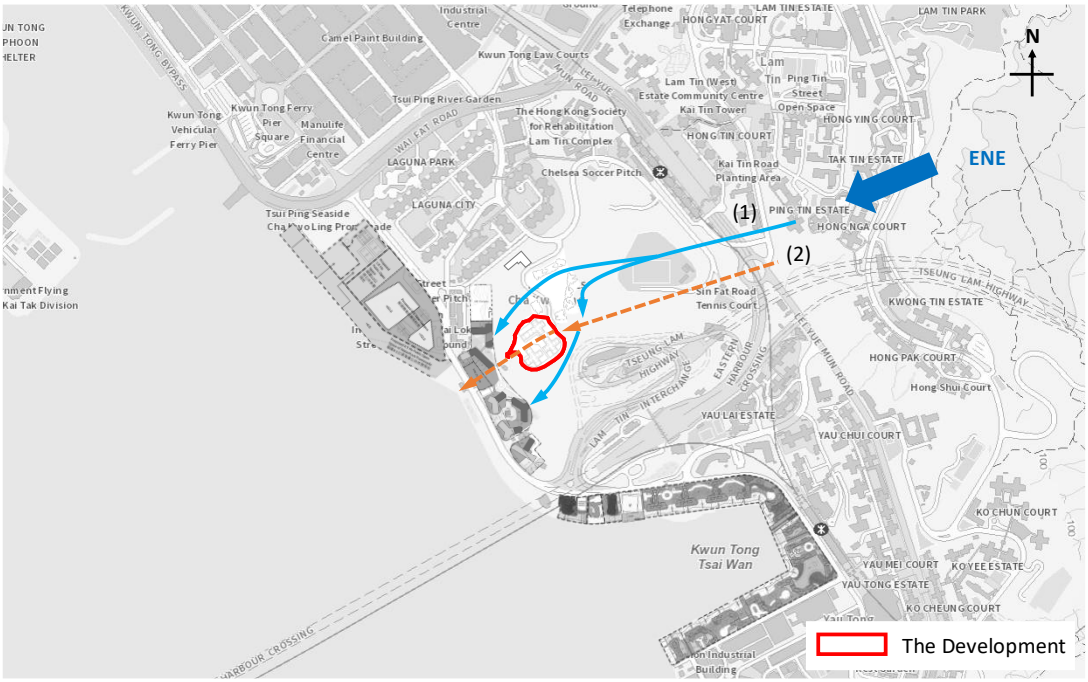


Figure 11: Wind Flow of Baseline Scheme under ENE wind

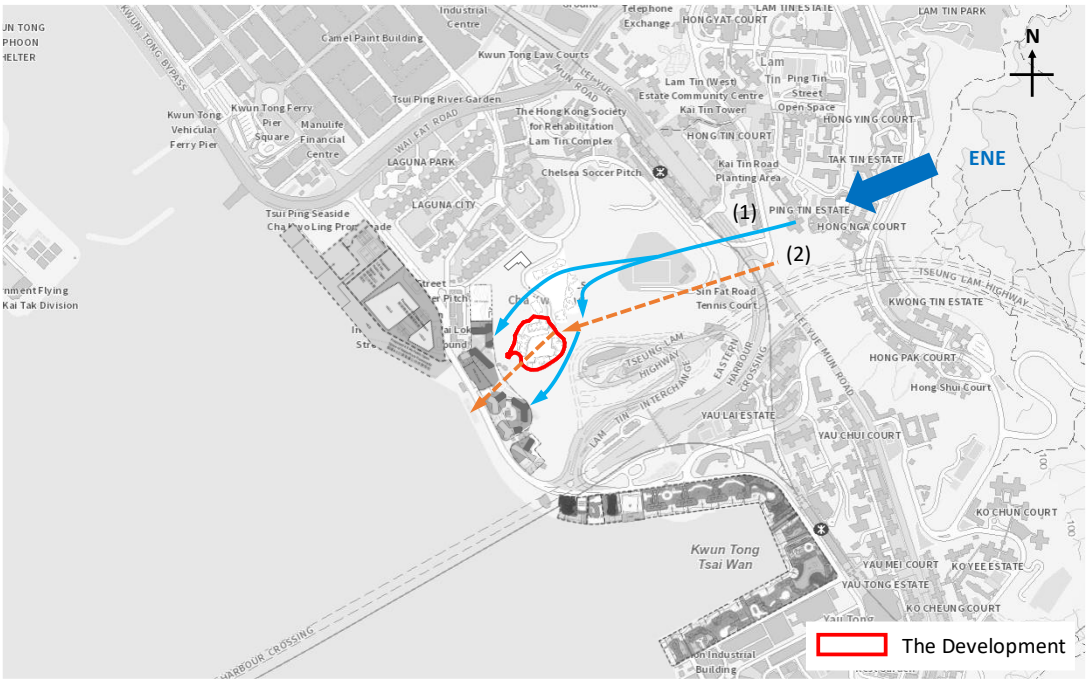


Figure 12: Wind Flow of Proposed Scheme under ENE wind

5.3 E WIND

The E wind is both annual and summer prevailing wind direction for the Project Site. The incoming mid-level E wind passes through the Sai Tso Wan and is expected to reach the east side of the Development (Orange Dotted Arrow) due to the absence of buildings. Similar to the ENE wind, the low-level E wind skims over the Sai Tso Wan Recreation Ground and reaches the KOKO HILLS Development. It is then diverted and reach the east side of the Project Site (Blue Arrow). Additionally, the Yau Lei Estate is located at the east of the Project Site, sandwiching the Tseung Lam Highway. The E wind is slightly shielded by the Yau Lei Estate.

The E wind is diverted by the KOKO HILLS Development would go down and reach the south-east side of the Laguna City. It is expected to skim over the low-rise building and reach the open sea via the building gaps of the proposed VTC New Campus (Blue Arrow (3)). A portion of the NE wind would penetrate the KOKO HILLS Development and reach the GIC Complex (Blue Arrow (4)). Similar to the ENE wind, the towers of KOKO HILLS Development would capture and redirect the wind to the lower level of the east side of the Project Site (Blue Arrow (5)).

In the Proposed Scheme, due to the downhill location of the Project Site relative to Sai Tao Wan, the mid-level E wind would directly reach the Development, resulting in a downwash effect. The wind would then pass through the building separation between the Proposed Scheme and the KOKO HILLS Development, reaching the east side of the GIC Complex. The E wind would be diverted and continue to the Planned CKLV Redevelopment Site.

The wind diverted from the KOKO HILLS Development (Blue Arrow (5)) would reach the east side of the Project Site. It would then flow along the edge of the hilly terrain and reach the sea area.

For both Proposed and Baseline Scheme, the mid-level E wind would freely reach the Project Site due to the absence of building immediately to the east of the Project Site. The provision of the building separations (15m-wide for the Baseline Scheme and 15m-wide for the Proposed Scheme) allows the incoming E wind to penetrate through and reach the sea area.

It is expected the good design feature present in both the Proposed Scheme and Baseline Scheme (i.e. 15m-wide for the Baseline Scheme and 15m-wide for the Proposed Scheme) would serve as effective wind mitigation measures, improving ventilation performance and the wind environment. The expected outcomes for Baseline Scheme and Proposed Scheme in this regard are similar.

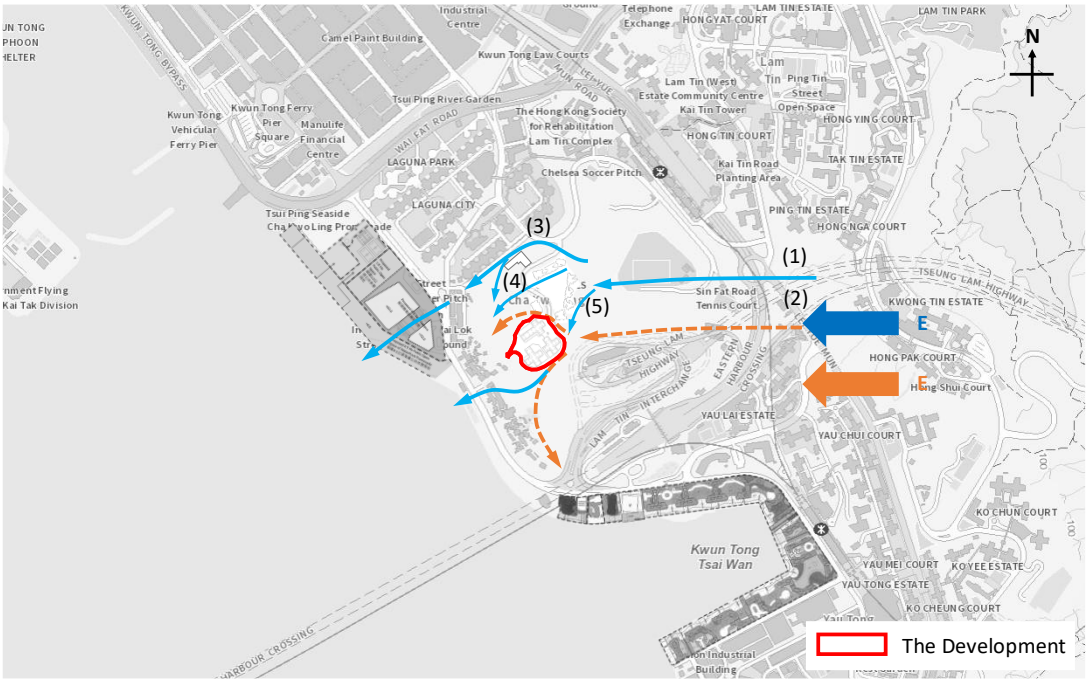


Figure 13: Wind Flow of Baseline Scheme under E wind

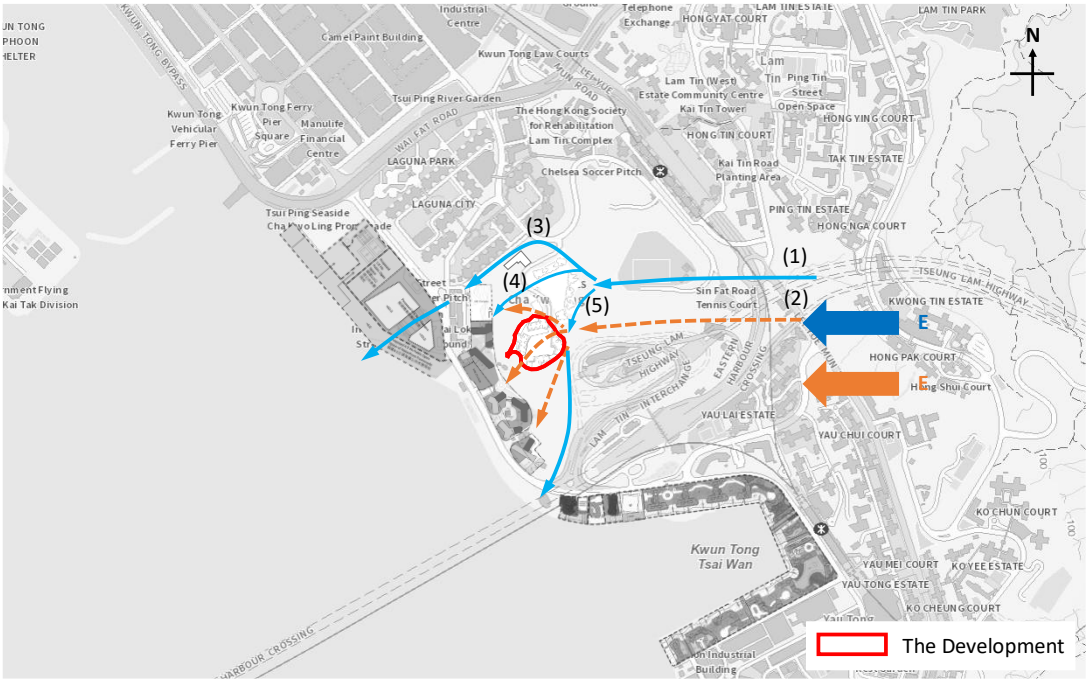


Figure 14: Wind Flow of Proposed Scheme under E wind

5.4 ESE WIND

The ESE wind is both annual and summer prevailing wind direction for the Project Site. The mid-level ESE wind skimmed over the residential buildings such as Yau Lai Estate and the Tseung Lam Highway, reaching the Project Site without obstruction.

The low-level wind is shielded by the residential buildings. When the low-level ESE wind encounters the hilly terrain, its direction changes (Blue Arrow). The low-level wind would stay at the toe of the slope. A small portion of the wind would run along the edge and reach the Project Site. The mid-level wind would skim over the Tseung Lam Highway and reach the Project Site freely (Orange Dotted Arrow).

For both Baseline and Proposed Scheme, the mid-level ESE wind is slighted diverted by the towers. The ESE wind skims over the Tsung Lam Highway and reaches the Project Site. It then passes through the building separation between the Project Site and the KOKO HILLS Development, reaching the GIC Complex (Orange Dotted Arrow (2)). A portion of the incoming wind is diverted by the KOKO HILLS Development and flows towards the Sai Tso Wan.

It is expected that the wind environment for both Baseline Scheme and Proposed Scheme is expected to be similar and the Proposed Scheme has no adverse impact when compared with the Baseline Scheme.

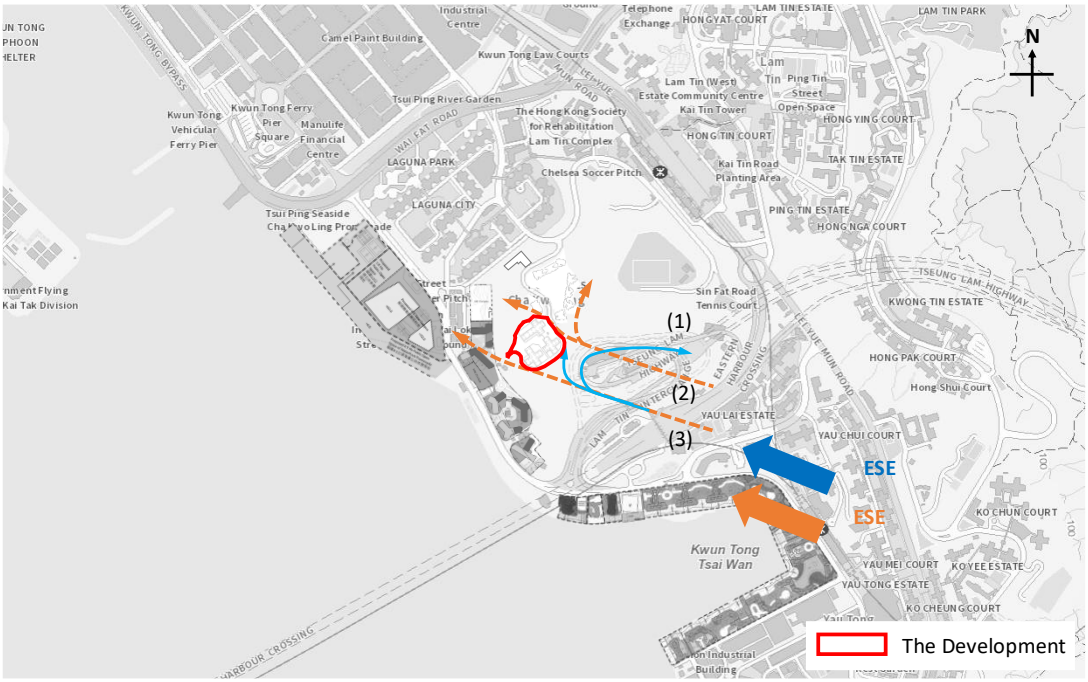


Figure 15: Wind Flow of Baseline Scheme under ESE wind

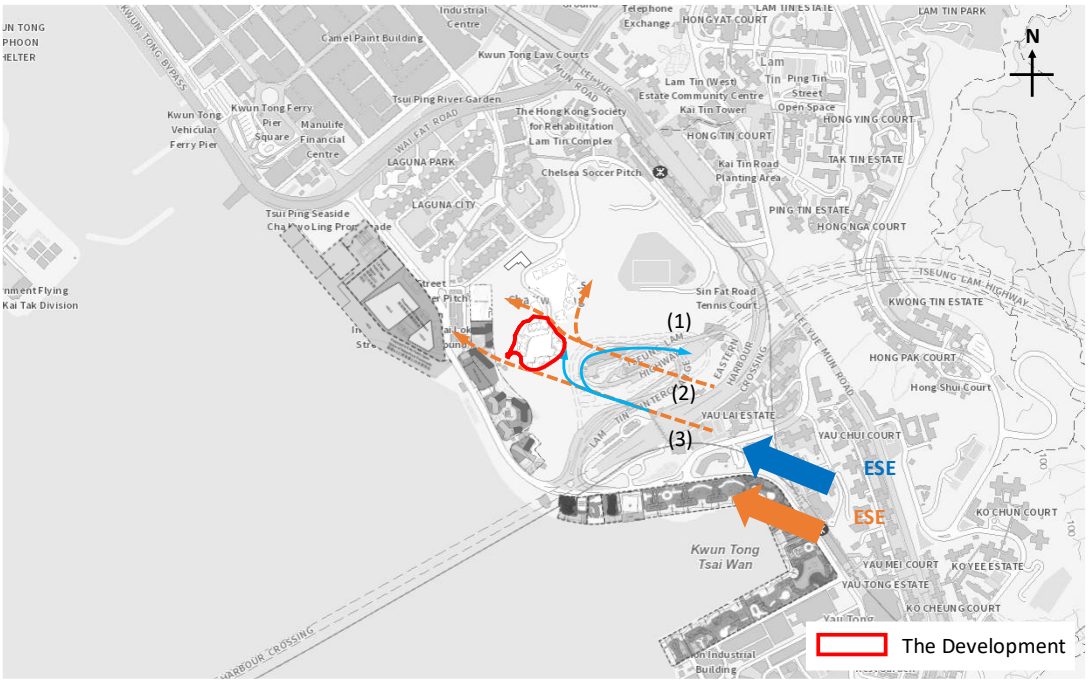


Figure 16: Wind Flow of Proposed Scheme under ESE wind

5.5 SE WIND

The SE wind is the summer prevailing wind direction for the Project Site. Tseung Lam Highway is located at the south-east Project Site with a low ground level. The Planned Yau Tong Bay Comprehensive Development is located at windward side, is expected to shield the low-level SE wind.

A portion of the low-level SE wind would pass through the Yau Tong Bay Comprehensive Development via the building gaps. The mid-level SE wind would hit and climb over the Planned Yau Tong Bay Comprehensive Development. It is expected the mid-level SE would skim over the Tseung Lam Highway and reach the Project Site directly (Orange Dotted Arrow).

For both Baseline and Proposed Scheme, the towers on the south side of the Project Site capture the mid-level wind, allowing the downwash wind to reach the low level (Orange Dotted Arrow (2)). As the Proposed Scheme is located at a higher ground level than the Planned CKLV Redevelopment Site, the diverted low-level wind would reach the sea by skimming over (Blue Arrow). The SE wind would be able to reach the south-east side of the Laguna City via Ko Ling Road.

In addition, the wind diverted by the towers would pass through the building gaps of the Planned CKLV Redevelopment Site and join the wind from the Yau Tong Bay Comprehensive Development (Orange Dotted Arrow (3)).

It is expected the wind environment for Baseline Scheme and Proposed Scheme will be similar.

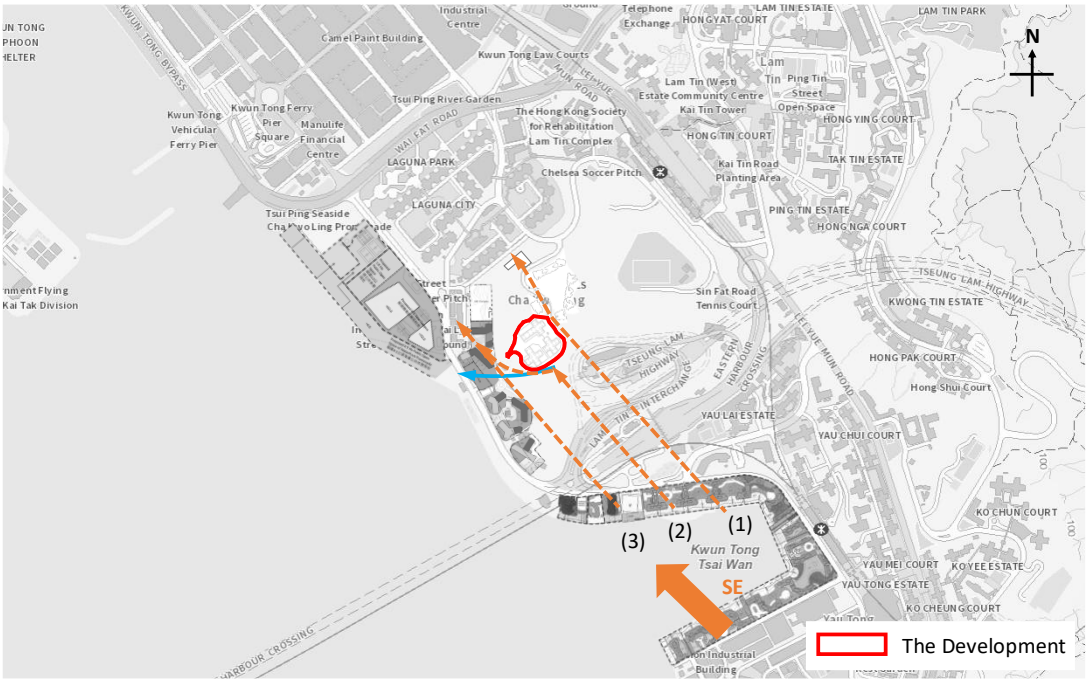


Figure 17: Wind Flow of Baseline Scheme under SE wind

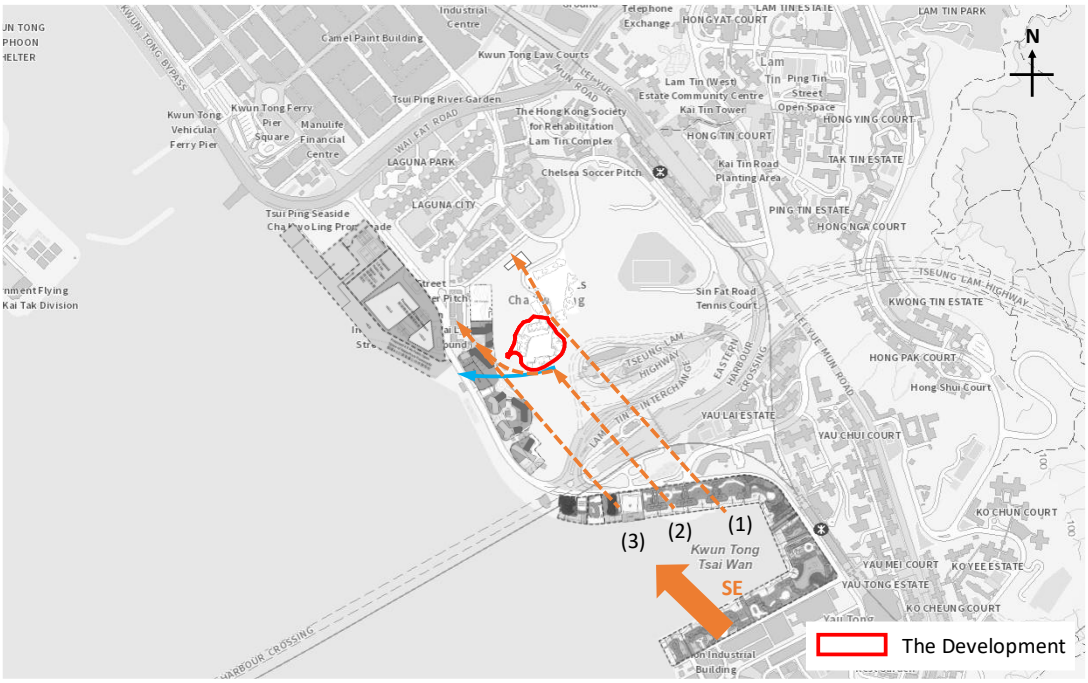


Figure 18: Wind Flow of Proposed Scheme under SE wind

5.6 SW WINDS

The SW is the summer prevailing wind direction for the Project Site. The Planned CKLV Redevelopment Site is located at the south-west with a lower ground level to the Project Site. The incoming SW sea wind would reach the Project Site via the building separation.

As the Project Site is located at a higher ground level, the mid-level wind could pass through the planned fire station (Orange Dotted Arrow (2)) and the open void of Tower 6 of planned CKLV Redevelopment Site (Orange Dotted Arrow (1)).

For both Baseline Scheme and the Proposed Scheme, the mid-level SW wind would enter the Project Site skimmed over the proposed fire station. The provision of the 15-wide and 15-wide building separation in Baseline Scheme and Proposed Scheme respectively, allows the SW wind to pass through and reach the Sai Tso Wan.

In the Proposed Scheme, the NE/SW building separation is parallel to the incoming SW wind, minimizing the obstruction of airflow (Orange Dotted Arrow (2)). The low-level wind would also reach the Project Site and be diverted by the podium to the north and to the east. The wind would then enter the KOKO HILLS Development and enhance the wind environment. In addition, due to the stepping effect caused by the difference in building height, the towers would capture the wind for the podium through downwashing.

It is expected the good design feature present in both the Proposed Scheme and Baseline Scheme (i.e. 15m-wide for the Baseline Scheme and 15m-wide for the Proposed Scheme) will serve as effective wind mitigation measures to improve the ventilation performance and wind. The wind environment for the Baseline Scheme and Proposed Scheme is expected to be similar.

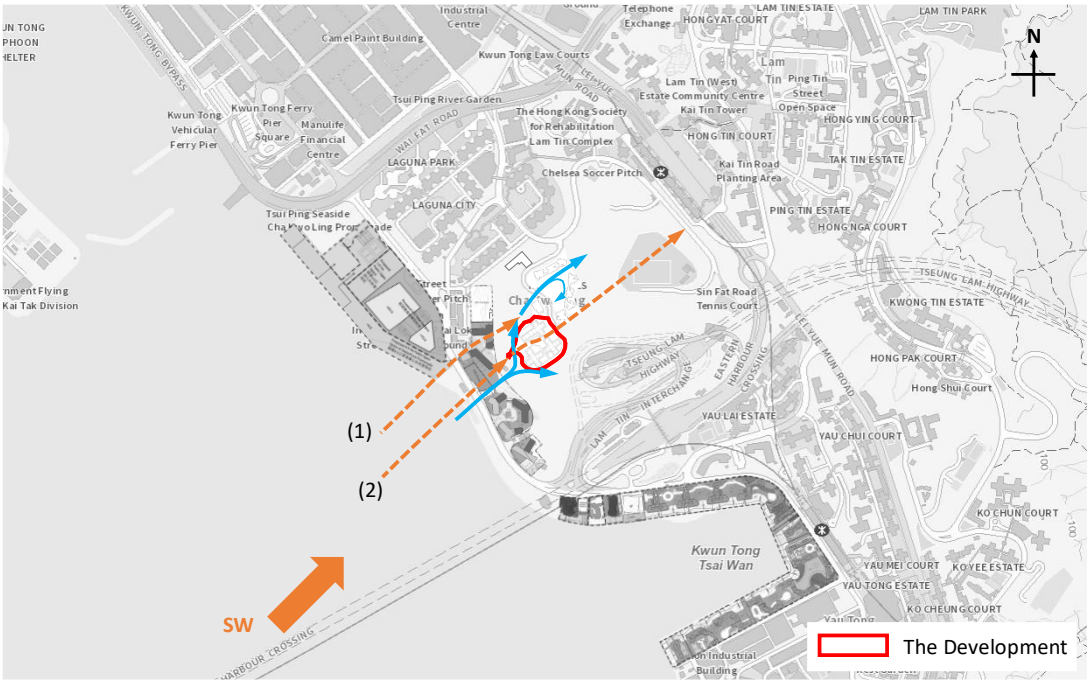


Figure 19: Wind Flow of Baseline Scheme under SW wind

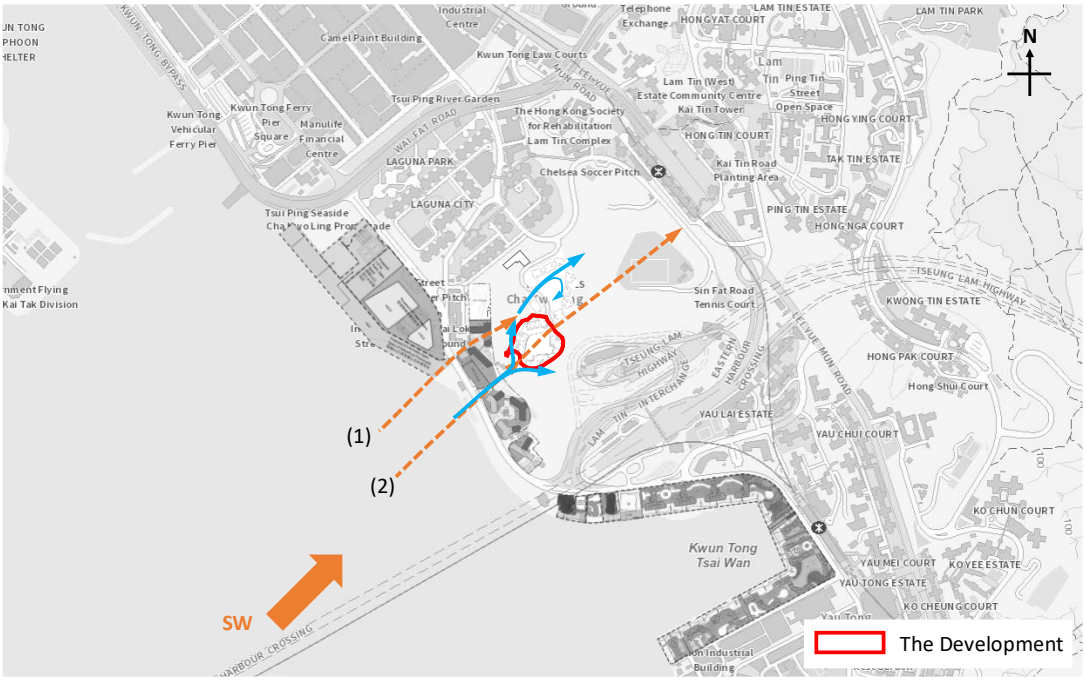


Figure 20: Wind Flow of Proposed Scheme under SW wind

5.7 WSW WIND

The WSW wind is the summer prevailing wind direction for the Project Site. Similar to the SW wind, the incoming WSW sea wind would reach the Project Site via the building separations of the planned Cha Kwo Ling Village Redevelopment. The WSW wind passes through the Proposed VTC New Campus and is slightly shielded by GIC Complex and the planned Cha Kwo Ling Village Redevelopment (Blue Arrow). As there is a relatively higher terrain located between the GIC Complex and the KOKO HILLS Development, a wake zone is expected behind the GIC Complex (Yellow Dotted Arrow). The wind from the Proposed VTC New Campus would run along the Lai Tsui Path, and a portion of the wind would be attracted by the wake zone and reach the north side of the Project Site. The building void of T6 of the planned Cha Kwo Ling Village Redevelopment allows the WSW to pass through freely and reach the north-west side of the Project Site. Similarly, a wake zone is expected between T5 and the Project Site due to the difference in ground level. The mid-level wind would be diverted by T5 and T6 of the planned Cha Kwo Ling Village Redevelopment and reach the south-west side of the Project Site. The south side of the Project Site would also experience the sea wind through the building separation.

Under the Baseline Scheme, the WSW wind will be diverted by Tower 5 of the planned Cha Kwo Ling Village Redevelopment before passing through the proposed 15m-wide building separation to reach the Site and Sai Tso Wan. Under the Proposed Scheme, the slightly realigned building separation minimizes the obstruction of airflow, allowing the WSW wind to skim over the proposed fire station and reach the Site and Sai Tso Wan.

In the Proposed Scheme, the NE/SW building separation is parallel to the incoming WSW wind, minimizing the obstruction of airflow (Orange Dotted Arrow). The low-level wind would also reach the Project Site and be diverted by the podium to the north and to the east. The wind would then enter the KOKO HILLS Development and enhance the wind environment. In addition, given the stepping effect due to the different in building height, the towers would capture the wind for the podium through downwashing.

It is expected the good design feature in both the Proposed Scheme and Baseline Scheme (i.e. 15m-wide for the Baseline Scheme and 15m-wide for the Proposed Scheme) is effective wind mitigation measures to improve the ventilation performance. The wind environment for Baseline Scheme and Proposed Scheme is expected to be similar.

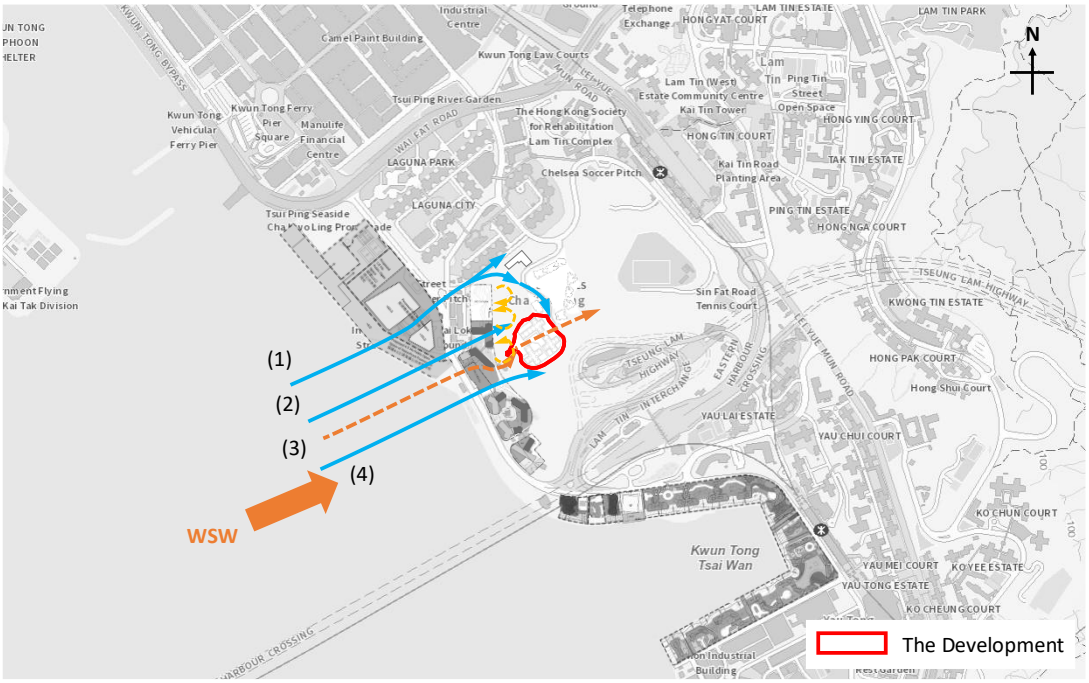


Figure 21: Wind Flow of Baseline Scheme under WSW wind

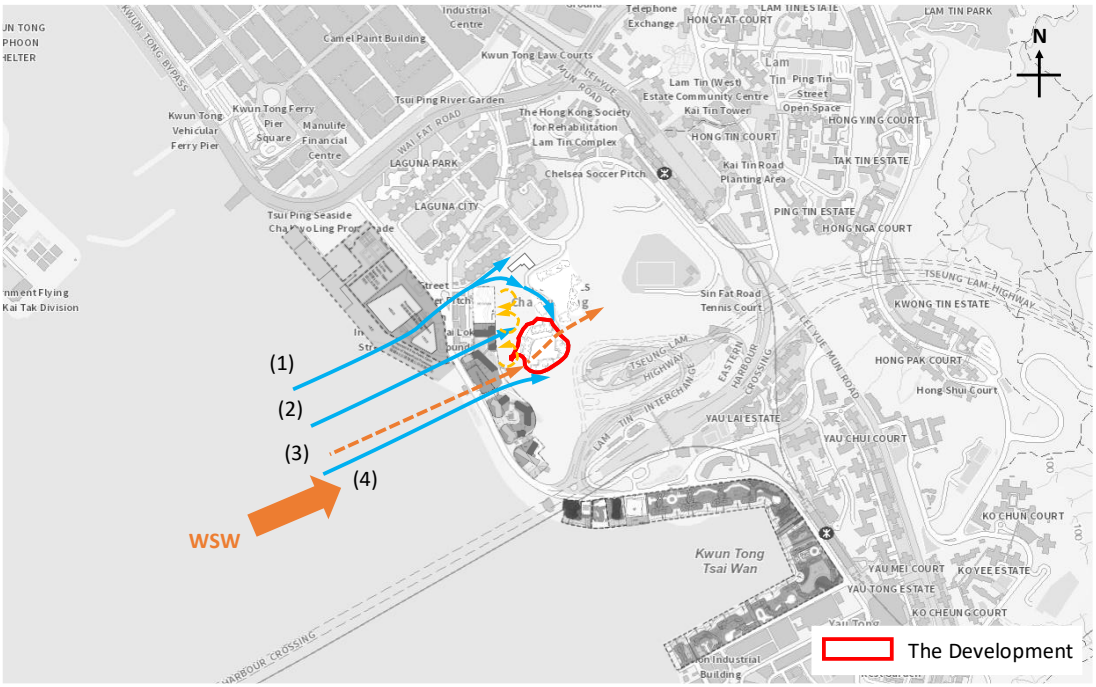


Figure 22: Wind Flow of Proposed Scheme under WSW wind

6 CONCLUSION FOR AIR VENTILATION ASSESSMENT

An Air Ventilation Assessment – Expert Evaluation (AVA-EE) was conducted to assess the ventilation performance of the areas within the Proposed Development and its immediate surroundings.

According to the site wind availability analysis, the annual prevailing wind of the Development comes from NE, ENE, E and ESE directions, and the summer prevailing wind is from E, ESE, SE, SW and WSW directions.

Under annual wind conditions, the prevailing E wind from Black Hill penetrates Hong Nga Court gaps and travels downhill across Sai Tso Wan to reach the Development's east side. Similarly, the ENE wind skims Sai Tso Wan to hit the east side, though a portion filters through the KOKO HILLS Development to reach the north-west side. Meanwhile, the NE wind is diverted by Sceneway Garden and channels down Sin Fat Road as a major breezeway; it is then further diverted by the KOKO HILLS Development before ultimately reaching the north-west side of the Development.

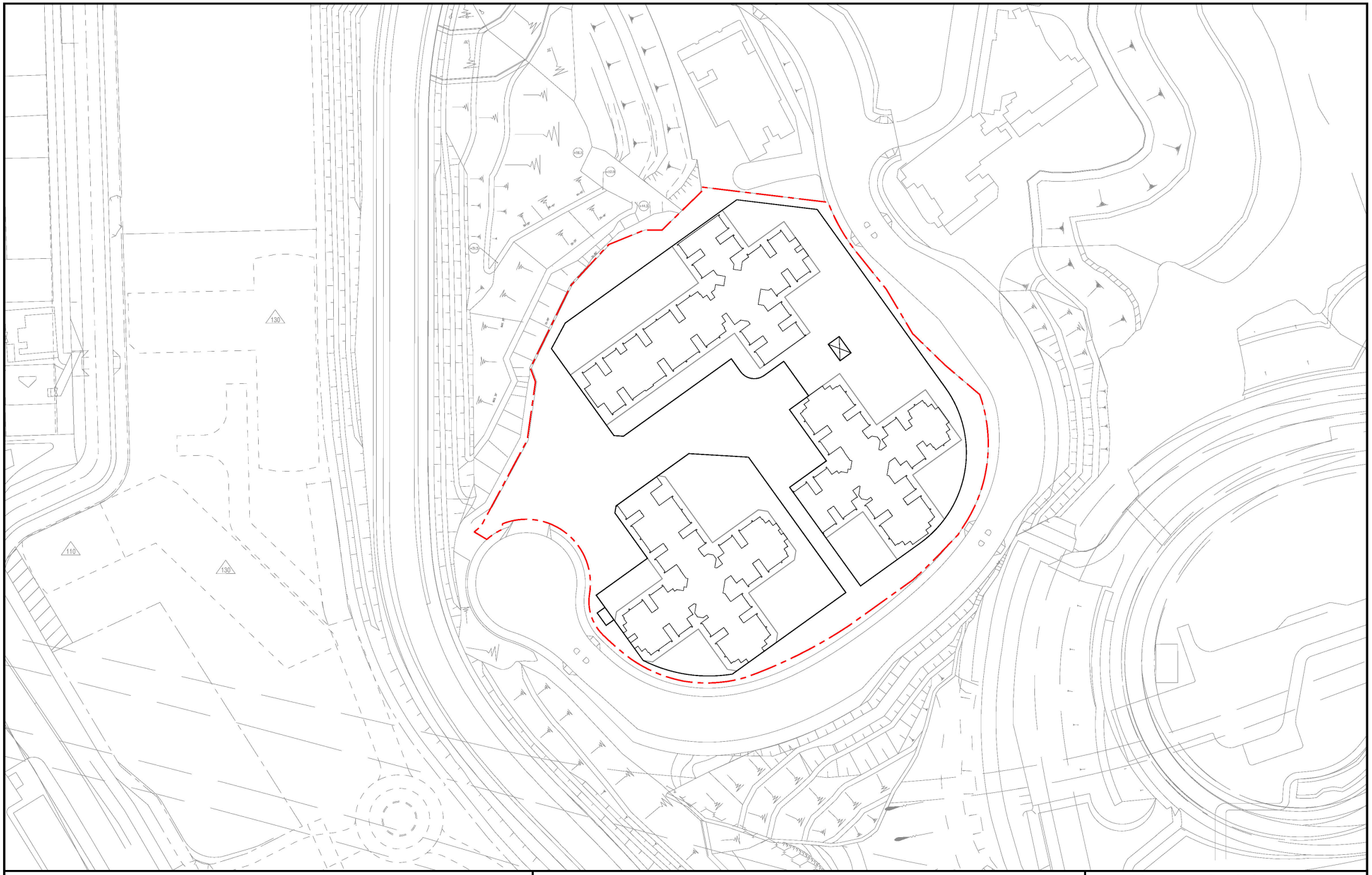
Under summer wind conditions, the Development sits on the windward side of Sai Tso Wan, with the Planned Cha Kwo Ling Village Redevelopment, Proposed VTC New Campus, and low-rise buildings situated to its southwest and west. Prevailing summer winds carry sea breezes directly into the Development, entering primarily through the open building separations of the Cha Kwo Ling Village Redevelopment site and across the Proposed VTC New Campus.

The following good design features are identified in the Proposed Scheme which are provided to minimize the adverse air ventilation impact to the downwind regions:

- Stepping building height is adopted. The towers with lower building heights (Block B: 138.84 mPD and Block C: 139.34 mPD) are located at the south-west portion of the site, which face the seafront while the tower with higher building height (Block A: 144.34 mPD And Block D: 144.84 mPD) are located at the inland portion of the site. Stepping building height concept can help optimize the wind capturing potential of development;
- Building separations of 15m along NE/SW direction allows smooth annual and summer winds passing through the site;
- Extensive G/F and podium gardens are proposed; and
- Podium gardens of approximately 5m in height are proposed

From the above expert review, the Proposed Scheme is not expected to create any significant adverse air ventilation impact to the surroundings while compared with Baseline Scheme with incorporation of the aforementioned good design measures.

APPENDIX A
DRAWINGS OF THE BASELINE SCHEME



PROJECT
PUBLIC HOUSING DEVELOPMENT AT EX-CHA KWO LING KAOLIN MINE

DRAWING TITLE
BASELINE SCHEME

房 屋 署
HOUSING DEPARTMENT

DRAWING NO.

DATE:
09/2026

APPENDIX B
DRAWINGS OF THE PROPOSED SCHEME



PROJECT

PUBLIC HOUSING DEVELOPMENT AT
EX-CHA KWO LING KAOLIN MINE

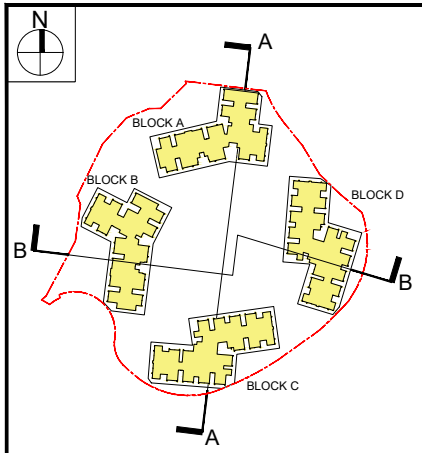
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PROPOSED SCHEME

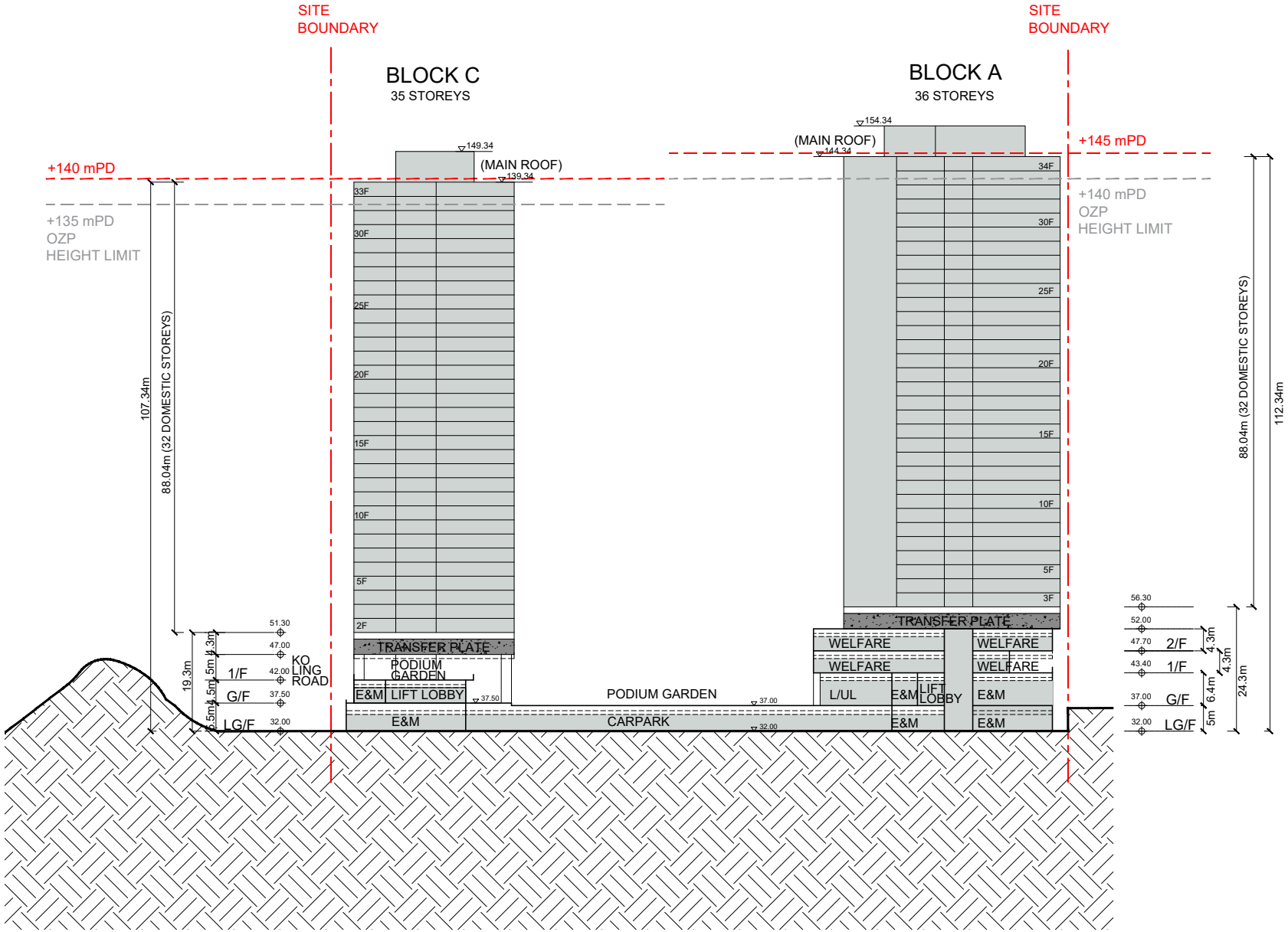
房 屋 署
HOUSING DEPARTMENT

DRAWING NO.

DATE:
10/2026



KEY PLAN N.T.S.



NOTE:
DESIGN IS SUBJECT TO CHANGE AT DETAILED DESIGN STAGE AND PROVISION OF PUBLIC FACILITIES IS SUBJECT TO GOVERNMENT.

PROJECT
PUBLIC HOUSING DEVELOPMENT AT EX-CHA KWO LING KAOLIN MINE, KWUN TONG

DRAWING TITLE
SECTION A-A (FOR ILLUSTRATION)

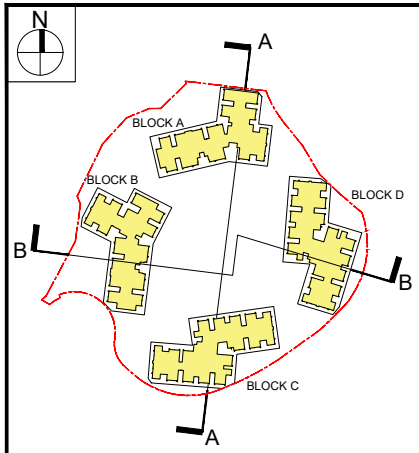
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HOUSING DEPARTMENT

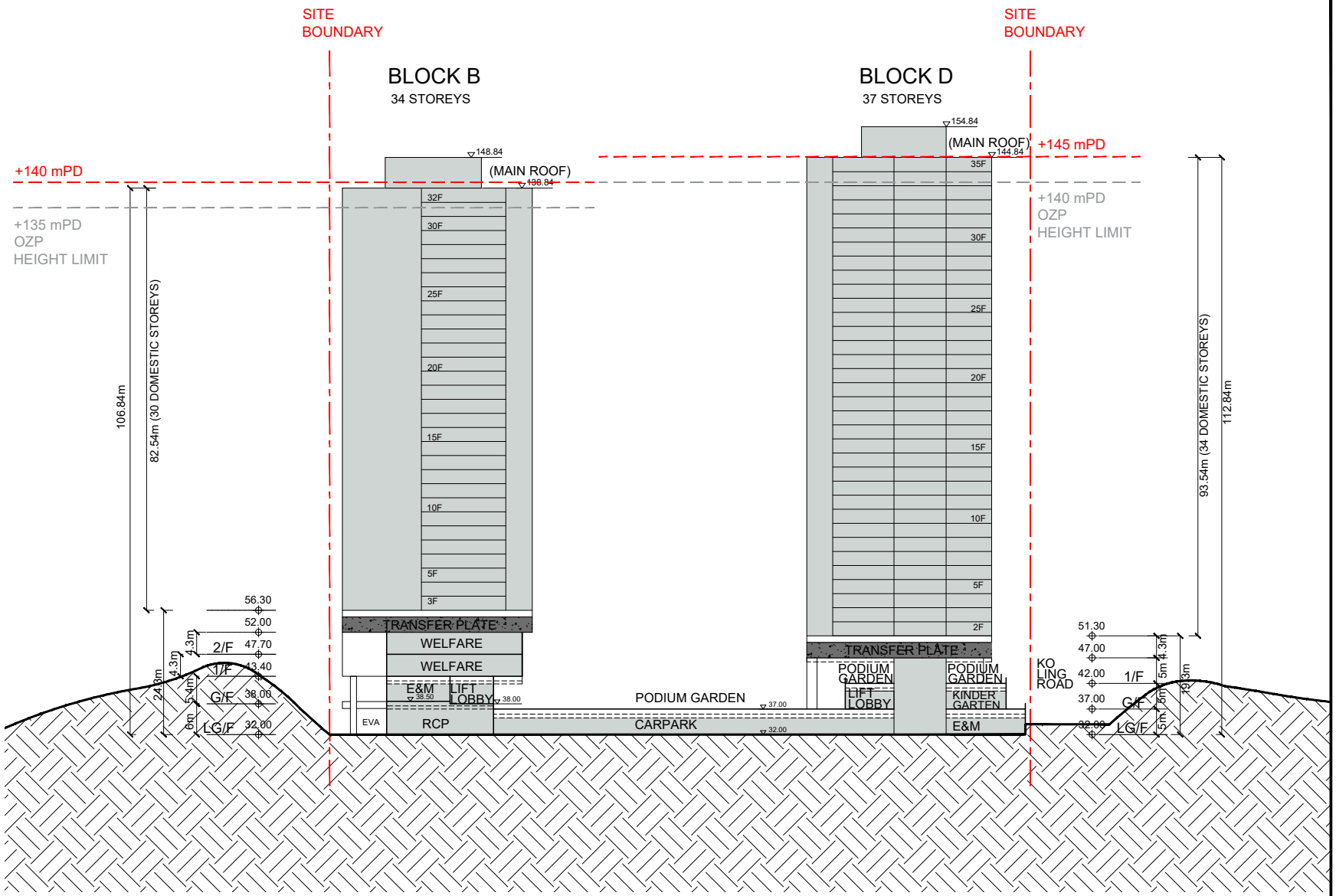
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DATE: 09/2026

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N.T.S.



NOTE:
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PROJECT
PUBLIC HOUSING DEVELOPMENT AT EX-CHA KWO LING KAOLIN MINE, KWUN TONG

DRAWING TITLE
SECTION B-B (FOR ILLUSTRATION)

SCALE 1:1200 (A4)

房 屋 署
HOUSING DEPARTMENT

DRAWING NO. KT32NH/-/A/LO-08

DATE: 10/2026

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