

**METRO PLANNING COMMITTEE**  
**OF THE TOWN PLANNING BOARD**

**MPC Paper No. 16/13**  
**For Consideration by**  
**the Metro Planning Committee on 22.11.2013**

**PROPOSED AMENDMENTS TO**  
**THE APPROVED SOUTH WEST KOWLOON OUTLINE ZONING PLAN**  
**NO. S/K20/28**

**PROPOSED AMENDMENTS TO  
THE APPROVED SOUTH WEST KOWLOON  
OUTLINE ZONING PLAN NO. S/K20/28**

**1. Introduction**

This paper is to seek Member's agreement that:

- (a) the proposed amendments to the approved South West Kowloon Outline Zoning Plan (OZP) No. S/K20/28 as shown on the draft OZP No. S/K20/28A (**Attachment I**) and its Notes (**Attachment II**) are suitable for exhibition for public inspection under section 5 of the Town Planning Ordinance (the Ordinance); and
- (b) the revised Explanatory Statement (ES) of the OZP (**Attachment III**) is an expression of the Town Planning Board (the Board)'s planning intentions and objectives for various land use zonings of the OZP, and should be published together with the draft OZP.

**2. Status of the Current OZP**

- 2.1 On 8.1.2013, the Chief Executive in Council (CE in C), under section 9(2) of the Ordinance, approved the draft South West Kowloon OZP, which was subsequently renumbered as S/K20/28. On 18.1.2013, the approved South West Kowloon OZP No. S/K20/28 (**Plan 1**) was exhibited for public inspection under section 9(5) of the Ordinance.
- 2.2 On 7.5.2013, the CE in C referred the approved OZP No. S/K20/28 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the Gazette on 16.5.2013 under section 12(2) of the Ordinance.

**3. Proposed Amendments to the OZP**

The proposed amendments are mainly related to the rezoning of a site at Fat Tseung Street West to "Residential (Group A)11" ("R(A)11") for Home Ownership Scheme (HOS) development, and the rezoning of a waterfront site at Lin Cheung Road (also known as Cheung Sha Wan Wholesale Food Market (CSWWFM) Phase 2 site) to "R(A)12", "Comprehensive Development Area" ("CDA"), "CDA(2)", "Government, Institution or Community" ("G/IC") and "Open Space" ("O") for public housing, private housing/hotel development, GIC uses and open space respectively.



#### **4. Rezoning of Fat Tseung Street West Site (Proposed Amendment Item A)**

##### **The Site and Its Surrounding**

- 4.1 The site (about 0.62 ha) (**Plan 5**), bounded by Sham Mong Road, Fat Tseung Street West and Ying Wa Street, comprises an area largely zoned “G/IC” (about 0.46 ha), and partly zoned “O” (about 0.15 ha) and shown as ‘Road’ (about 0.01 ha) on the current OZP.
- 4.2 The “G/IC” portion is currently occupied as temporary works area. It is originally reserved for a proposed Government complex comprising a wet market, a district library and an indoor sports centre. The “O” portion is currently occupied by a 5-a-side soccer pitch (**Plans 5 and 9**).
- 4.3 To the immediate north of the site are sewage screening plant, the planned West Kowloon Law Courts Building (under construction) and an “O” zone (**Plan 5**). To the west are mainly private residential developments including Banyan Garden, Liberte, The Pacifica and Aqua Marine (known as the ‘Four Little Dragons’ by the locals) and a “CDA” site reserved for comprehensive redevelopment of existing warehouses known as North West Kowloon Reclamation (NWKR) Site 4 (**Plan 3**).
- 4.4 The site is adjacent to St. Margaret’s Co-educational English Secondary and Primary School to the east (**Plan 5**). To the south across Sham Mong Road is NWKR Site 6 zoned “CDA” for comprehensive public rental housing (PRH) development with provision of open space, social welfare and Government facilities and public transport interchange (PTI). Further to the south across West Kowloon Highway is the waterfront site at Lin Cheung Road (under Proposed Amendment Items B to J) (**Plan 3**).
- 4.5 The site is within an area where there are a number of public housing estates, private housing developments and GIC facilities, with good accessibility from various public transportation modes including buses and Mass Transit Railway (MTR) (**Plan 3**). Given the setting of the site and the pressing need for public housing, it is considered that the proposed HOS development will not be considered incompatible with the land use character of the surrounding areas.

##### **Rezoning Proposal (Plan 5)**

- 4.6 It is proposed to rezone the site from “G/IC”, “O” and area shown as ‘Road’ to “R(A)11” with a maximum domestic plot ratio (PR) of 6.5, a maximum non-domestic PR of 1.5 and a maximum building height (BH) of 120mPD. It is estimated that about 680 HOS flats can be provided. The proposed development intensity for the “R(A)11” site is in line with the PR restrictions of other residential sites in the vicinity with a domestic PR of about 6 to 6.5 and a non-domestic PR of about 1.5 in general (**Plan 4**).
- 4.7 To ensure that there will be no net loss of open space and planned GIC facilities in the Sham Shui Po (SSP) district, the affected existing 5-a-side soccer pitch, and planned district library and indoor sports centre will be reprovisioned within NWKR Site 6 (**Plan 3**) to the satisfaction of the Leisure and Cultural Services

Department (LCSD). The Food and Environmental Hygiene Department indicates that there is no plan to build a new market within the planned Government complex at Fat Tseung Street West. Hence, no reprovisioning of the planned wet market is required at NWKR Site 6.

#### Air Ventilation and Visual Considerations

- 4.8 The Housing Department (HD) commissioned a consultant to conduct a quantitative air ventilation assessment (AVA) by Initial Study for the Fat Tseung Street West site and the Lin Cheung Road site, assessing the air ventilation performance of both developments under baseline scheme scenario (i.e. without rezoning) and proposed scheme scenario (i.e. with rezoning).
- 4.9 In general, the overall ventilation performance is similar for both the baseline scheme and proposed scheme scenarios. In annual wind condition, the site spatial average velocity ratio (SVR) is 0.11 for baseline scheme and 0.12 for proposed scheme scenarios, while the local spatial average velocity ratio (LVR) is 0.11 for both baseline scheme and proposed scheme scenarios. With appropriate design, the building façade of the proposed HOS development can direct downwash wind to the pedestrian level and the incorporation of building gap between HOS blocks helps to minimize possible adverse air ventilation impact. Hence no significant adverse ventilation impact would be induced by the proposed HOS development to the adjacent schools sites, Sham Mong Road and Lin Cheung Road.
- 4.10 The AVA findings indicate that an average VR of 0.14 would be resulted at Fat Tseung Street West under the proposed scheme in summer wind condition when appropriate building layout and 22m-wide central non-building area (NBA) to be incorporated at NWKR Site 6, while a VR of 0.15 is noticed at Fat Tseung Street West under the baseline scheme scenario in summer wind condition.
- 4.11 As illustrated in the photomontages on **Plans 11a and b**, the visual impact of the proposed HOS development is insignificant. Given the site is situated in close proximity to the existing high-rise residential developments (such as Fu Cheong Estate and 'Four Little Dragons') and the planned residential developments at the three CDAs (i.e. MTR Nam Cheong Station development, NWKR Site 6 and NWKR Site 4) with comparable height, the proposed HOS development will blend in with the backdrop of high-rise developments and is considered compatible with its visual context.

#### Traffic, Environmental and Infrastructure Considerations

- 4.12 Concerned government departments including Environmental Protection Department (EPD), Transport Department (TD), Drainage Services Departments (DSD) and Water Supplies Department (WSD) advise that no insurmountable problem is anticipated from the rezoning of the Fat Tseung Street West site for HOS development from traffic, environmental and infrastructural points of view.

- 4.13 As the future HOS development would be guided by a planning brief (PB), HD would be required to undertake relevant detailed assessments, including AVA, traffic impact assessment (TIA), environmental assessment study (EAS) (including sewerage impact assessment (SIA)), visual impact assessment (VIA), etc. as appropriate to demonstrate that the development/redevelopment is acceptable. In this regard, TD suggests that a TIA shall be conducted to assess the traffic demand and recommend traffic measures (where appropriate) to improve the vehicular access arrangement and pedestrian safety, and EPD requires an EAS to confirm the environmental acceptability of the residential development proposal and to ensure that the potential environmental impacts will be addressed. DSD also advises that a SIA is required to be submitted for assessment of the sewage impact to the local sewerage system, in particular the SIA shall identify any upgrade to the local sewerage system is required.

## **5. Rezoning of Lin Cheung Road Site (Proposed Amendment Items B to J)**

### The Site and its Surroundings

- 5.1 The site (about 9.65 ha) (**Plan 3**) is bounded by Lin Cheung Road to the northeast, Hing Wah Street West Road to the northwest and the existing CSWWFM to the southeast. The site is mainly zoned “Other Specified Uses” annotated “Cargo Working Area, Wholesale Market and Industrial-Office” (“OU(Cargo Working Area, Wholesale Market and Industrial-Office)”) and partly zoned “OU(Wholesale Market)”, and with a small portion zoned “OU(Pier)” and an area shown as ‘Road’ on the current OZP.
- 5.2 The site is originally intended to accommodate CSWWFM Phase 2 development and related industrial and cargo handling uses. It is situated on the South West Kowloon waterfront and enjoys good accessibility with the nearby MTR Nam Cheong Station in the east, and is no longer required for wholesale market use. Land and locational requirements for wholesale market use would continue be studied to identify other suitable sites for wholesale market use.
- 5.3 The inland portion of the site is currently used as a temporary fee-paying public car park and cargo storage under Short Term Tenancy (STT) which can be terminated upon a three-month notice. The waterfront portion is temporarily allocated to the Highways Department (HyD) until 31.8.2015 as a barge loading point for the Guangzhou-Shenzhen-Hong Kong Express Rail Link project (**Plan 10**).
- 5.4 The site is located to the south of Lin Cheung Road, the elevated West Kowloon Highway and the MTR Airport Express and Tung Chung Line (**Plan 3**). To the southeast is the existing CSWWFM for vegetables and fish, to the west is a ferry depot of New World First Ferry Limited and some shipyards and to the northwest, there is an “Industrial” (“I”) site across Hing Wah Street West. Currently, the western portion of the “I” site is used by New World First Bus as a temporary bus depot while the eastern portion is occupied by a temporary bus parking depot of Citybus Limited under STT, which would be terminated upon population intake of the Lin Cheung Road site. The Stonecutters Island

Sewage Treatment Works and the West Kowloon Refuse Transfer Station are located at a distance of about 600m and 700m respectively to the southwest.

- 5.5 Across Lin Cheung Road and the elevated West Kowloon Highway are mainly public and private housing developments intermixed with GIC uses, including the proposed PRH development at NWKR Site 6, the proposed HOS development at Fat Tseung Street West site (under proposed Amendment Item A), the proposed comprehensive residential and commercial development at Nam Cheong Station, and the public housing estate of Fu Cheong Estate. Further north are the public housing estate of Hoi Lai Estate and the private residential developments, i.e. 'Four Little Dragons' (**Plan 3**).

### The Rezoning Proposal (**Plans 2, 6 and 7**)

#### Land Uses (**Plan 6**)

- 5.6 Covering an area of 9.65 ha at the waterfront with good accessibility, rezoning of the site for residential uses would help meet the pressing demand for housing land supply. As the site is at a prime waterfront location, it is considered suitable for residential use and not incompatible with the existing residential character in the north and northeast. HD had also requested for the provision of public housing land in this part of SSP District. Both public and private housing are proposed for the site.
- 5.7 According to TD, a new two-way public road is required to serve the site and the ingress/egress should be located at Hing Wah Street West to the west of the site. The new road is proposed to run in an east-west direction across the centre of the site, dividing the Lin Cheung Road site into two portions. To the north of the road, i.e. the inland portion is proposed for public housing development including HOS and PRH while the whole waterfront portion to the south of the road is suitable for private residential development. To minimize the noise impact from the existing CSWWFM, a hotel is proposed at the southeastern corner of the site to separate the CSWWFM from the proposed private residential development in the waterfront. However, flexibility is allowed for private residential use at the site if the future project proponent could demonstrate that the noise impact could be addressed through proper mitigation measures.
- 5.8 At the eastern and western ends of the site, a 8-storey standard primary school is proposed to meet the additional demand generated by the population brought about by the development and a 5-storey social welfare facility block is proposed to serve the district needs according to Social Welfare Department's requirement. The facilities to be provided in the social welfare block include residential care home/day care centre for the elderly, children's home, hostels for mentally/physically handicapped persons, care and attention home for the disabled persons, etc. The school with full air-conditioning and suitable disposition would help screen the noise problems from the CSWWFM while the social welfare block with suitable disposition would help separate the noise sources from the nearby ferry depot and shipyards in the west.

- 5.9 To further minimize the interface problem with the existing CSWWFM, an environmental buffer area of 20m to 25m wide is proposed in the eastern part of the site. The buffer area will also act as a pedestrian walkway from the MTR Nam Cheung Station to the waterfront promenade. Another 20m to 30m wide environmental buffer area is proposed along the northern boundary of the site to increase the separation of the proposed residential development from Lin Cheung Road and the railway.
- 5.10 A waterfront promenade of about 350m long and 20m wide incorporating a disused pier of the existing CSWWFM is proposed along the southwestern boundary of the site for public enjoyment. It would provide an opportunity to further extend the waterfront promenade in the long run when opportunity arises.
- 5.11 Three breezeways of varying width (about 45m, 22m and 30m) which generally align with the major roads (i.e. Hing Wah Street West, Fat Tseung Street West and Tonkin Street West respectively) will be provided in the western, middle and eastern part of the site respectively and designated as non-building areas (NBAs) to ensure that the proposed developments would not cause adverse air ventilation impact (**Plan 6**). Moreover, there are drainage reserves running from Lin Cheung Road towards the waterfront. These NBAs and drainage reserves will also serve as visual corridors to enhance permeability of the development. To optimize the use of the NBA and drainage reserve straddling the residential sites in both the inland and waterfront portions in the middle, two public open spaces (POS) are proposed (**Plan 6**). These POS will serve as a district focal point and will also provide a convenient pedestrian connection to the waterfront promenade.
- 5.12 In addition to the pedestrian walkway in the east as mentioned in paragraph 5.9, the existing footbridge to the west of the site linking with Sham Mong Road across West Kowloon Highway will be extended to connect with NWKR Site 6.

*Proposed Zonings (Plans 2 and 7)*

- 5.13 To ensure a better planning control over the development at a prominent location at the waterfront, the waterfront portion of the site is proposed to be rezoned to two “CDA” sites. The major part of the site to the south of Hing Wah Street West is zoned “CDA” for private residential development with a maximum GFA of 91,770m<sup>2</sup> (equivalent to a gross PR of 4.8) and a maximum BH of 100mPD. The eastern part of the waterfront portion is proposed to be rezoned to “CDA(2)” for private residential/hotel development with a maximum GFA of 34,770m<sup>2</sup> (equivalent to a gross PR of 7.1) and a maximum BH of 100mPD. The proposed development intensity of the two “CDA” sites is generally in line with the PR restrictions of other residential zones in the district an overall PR of 8 to 9 (domestic PR of about 6.5 to 7.5 and a non-domestic PR of about 1.5) in general.
- 5.14 Under the “CDA” zoning, a PB will also be prepared to set out the detailed planning requirements and to guide the future development to ensure proper planning control. The future project proponent is required to submit a Master Layout Plan (MLP) and relevant technical assessments including AVA, TIA, EAS, DIA, SIA and VIA with necessary mitigation measures as stipulated in the

Notes of the OZP for approval of the Board.

- 5.15 The inland portion for public housing development is proposed to be rezoned to “R(A)12” with a maximum domestic and non-domestic GFA of 205,000m<sup>2</sup> and 16,000m<sup>2</sup> respectively (equivalent to a gross PR of 6.2) and a maximum BH of 120mPD. It will provide a total of about 3,400 flats for HOS and PRH. The proposed development intensity is considered compatible with the PR restrictions of other residential zones in the district with a domestic PR of about 6.5 to 7.5 and a non-domestic PR of about 1.5 in general (**Plan 4**). A PB will be prepared to set out the detailed planning requirements and to guide the public housing development to ensure a proper planning control. HD will be required to conduct relevant detailed assessments, including AVA, TIA, EAS, SIA and VIA to demonstrate that the development is acceptable.
- 5.16 As explained in paragraph 5.11 above, the NBAs and drainage reserves in the middle part of the site could be utilized to provide POS of not less than 3,600m<sup>2</sup> and not less than 3,800m<sup>2</sup> in the “CDA” and “R(A)12” zones respectively (**Plan 6**). The POS requirement will be stipulated under the Notes of the two zones. The waterfront promenade along the southwestern boundary of the site is proposed to be rezoned to “O”.
- 5.17 The site for a standard primary school and a social welfare block at the eastern and western corners are proposed to be rezoned to “G/IC” subject to a maximum BH of 8 storeys and 5 storeys respectively to accommodate the required facilities.
- 5.18 The vehicular access road in the centre part of the site and the proposed pedestrian walkway along the eastern boundary of the site is proposed to be designated as areas shown as ‘Road’.

Urban Design and Visual Considerations

- 5.19 The proposed maximum BH of 100mPD for the “CDA” and “CDA(2)” sites and 120mPD for the “R(A)12” site are generally in line with the urban design concept of stepped BH profile with BH descending from the residential developments in the north and northeast, namely the ‘Four Little Dragons’ including The Pacifica (168-185mPD), Liberte (173mPD), Banyan Garden (154-183mPD) and Aqua Marine (148mPD) and the proposed public housing development (140mPD) at NWKR Site 6, towards the waterfront (**Plan 3**).
- 5.20 The photomontages on **Plans 12a and b** illustrate the indicative scheme at Lin Cheung Road site when viewed from Sham Shui Po Sports Ground and Lai Chi Kok Park respectively which are vantage points easily accessible by the public. It is noted that the visual impact of the proposed developments with BH restrictions of 100mPD and 120mPD from these two vantage points is not significant. Besides, for the proposed “CDA” and “CDA(2)” zones, the future project proponent will need to submit a VIA as part of the MLP submission for the approval of the Board at the planning application stage to ensure that the design and layout of the future development would not create adverse visual impact on the surrounding.

- 5.21 In addition, the photomontages on **Plans 12c and d** illustrate the massing of the indicative development at Lin Cheung Road site viewed from Stonecutters Island Fire Services Department Diving Base and the Hoi Lai Estate respectively. The proposed BHs of the developments are generally compatible with the surrounding residential developments.

#### Air Ventilation Consideration

- 5.22 As mentioned in paragraph 4.8 and 4.9 above, HD has commissioned a consultant to conduct an AVA for the Fat Tseung Street West site and the Lin Cheung Road site. The findings indicate that the overall ventilation of the baseline scheme (a low-rise wholesale market structure) as permitted under the existing land use zoning and an indicative scheme of the proposed development at the Lin Cheung Road site are quite similar. The three breezeways of varying widths which are designated as NBAs on the site would enhance the site permeability and wind penetration to the downwind side of the development. The proposed public road running parallel with the shoreline at the centre of the site would also improve wind penetration to the site. Besides, for the proposed “CDA” and “CDA(2)” zones in the waterfront portion, the future project proponent will need to submit an AVA report as part of the MLP submission for the approval of the Board at the planning application stage to ensure that the future development would not cause adverse air ventilation impact on the surrounding.

#### Traffic Consideration and Pedestrian Connections

- 5.23 HD has conducted a preliminary TIA for the whole Lin Cheung Road site (including both “R(A)12”, “CDA” and “CDA(2)” sites) and the results indicate that the proposed development will not cause adverse traffic impact to the surrounding areas. Upon completion of the proposed public housing development, HD would liaise with TD on the provision of public transport services to serve the local residents. Moreover, for the proposed “CDA” and “CDA(2)” zones, the future project proponent will need to submit a TIA report to ensure that the future development would not cause adverse traffic impact on the nearby road network. TD has no comment on the proposed rezoning.
- 5.24 In addition to the pedestrian connections in the east and west mentioned in paragraph 5.9 and 5.12 respectively above, HD will conduct a study to explore the technical feasibility for further enhancing the footbridge connection to facilitate better pedestrian connectivity to the waterfront.

#### Environmental and Infrastructure Considerations

- 5.25 To mitigate the road traffic/railway noise impact from West Kowloon Highway and Lin Cheung Road as well as the MTR Airport Express and Tung Chung Line to the proposed residential uses, single aspect building design is adopted for most of the public housing blocks in the inland portion of the site (**Plan 13**). An environmental buffer area of 20m to 30m wide is also proposed along the northern boundary of the site to mitigate the noise and air quality impacts (**Plan 6**).

- 5.26 As mentioned in paragraphs 5.8 and 5.9 above, environmental buffer area is proposed to mitigate the interface problem with the existing CSWWFM and school with full air-conditioning are proposed to separate the residential development on site. Besides, a social welfare block with suitable disposition in the western corner of the site would also help separate the noise sources from the nearby ferry depot and shipyards.
- 5.27 To address the odour concern arising from the Stonecutters Island Sewage Treatment Works located to the further southwest about 600m from the site (**Plan 3**), DSD has completed the “Harbour Area Treatment Scheme Stage 2A” (HATS 2A) project, including the provision of covers and ancillary deodourization facilities to the existing sedimentation tanks, in June 2012. DSD advised that with the completion of the HATS 2A project and the associated long-term deodourisation facilities, the sewage treatment works, under normal operation, will not generate adverse odour impact to the proposed residential uses.
- 5.28 As regards the West Kowloon Refuse Transfer Station to the southwest about 700m away from the site, EPD advised that a number of odour measures are adopted at the West Kowloon Refuse Transfer Station to reduce odour emission. A new operation contract has commenced in December 2012 which requires the contractor to strengthen odour control measures with a view to further reducing the potential odour emission.
- 5.29 EPD does not anticipate any insurmountable environmental problem from the proposed rezoning. Besides, DSD has no comment on the proposed rezoning.
- 5.30 HD has conducted a preliminary EAS which reveals that the public housing development at the northern portion of the site is not subject to any insurmountable environmental problem. HD will further revise the EAS to address any environmental concern in the detailed design stage. Moreover, under the proposed “CDA” and “CDA(2)” zones in the waterfront portion, the future project proponent will need to submit an environmental assessment report to assess any possible environmental problems and propose mitigation measures to tackle them.

## **6. Provision of GIC Facilities and Open Space**

- 6.1 In proposing the rezoning of the subject sites, the adequacy of GIC facilities and open space in the SSP District has been assessed by the Planning Department (PlanD). A table on the provision of major community facilities and open space in SSP District is at **Attachment IV**. Based on a planned population of about 521,000 persons for the SSP District (including population of the proposed residential developments relating to the proposed amendment items), apart from eight post offices, 1,406 hospital beds and 76 primary school classrooms, there is no other deficit in GIC provision in the district. As provision of post office is on premises basis and provision of hospital beds is on a regional basis, there is no need to provide these GIC facilities at the subject sites. A primary school site for 30 classrooms required by the Education Bureau is reserved at the eastern corner of the Lin Cheung Road site to help meet the demand (Item F).



- 6.2 There is a surplus provision of open space in SSP District (12.49 ha of local open space and 14.04 ha of district open space). There will also be a surplus provision of open space in future (9.58 ha of local open space and 12.34 ha of district open space). LCSD has no objection to the rezoning of the “G/IC” and “O” sites at Fat Tseung Street West for residential use, on the understanding that HD agrees to temporarily re-provision the affected soccer pitch between the release of the existing facility and completion of the permanent facility as well as to re-provision a 5-a-side soccer pitch and other affected GIC facilities (i.e. the planned district library and indoor sports centre) within the NWKR Site 6 (**Plan 3**) to his satisfaction.
- 6.3 Beside, the proposed public waterfront promenade at the Lin Cheung Road site and the public open space within the “CDA” site will be constructed by the future developer and handed over to the Government for management and maintenance.

## **7. Proposed Amendments to the Matters shown on the OZP**

The proposed amendments as shown on the draft South West Kowloon OZP No. S/K20/28A (**Attachment I**) are as follows:

### **Fat Tseung Street West Site (Plan 5)**

#### **7.1 Item A** (about 0.62 ha)

Rezoning the site from “G/IC”, “O” and an area shown as ‘Road’ to “R(A)11” for HOS development subject to a maximum BH restriction of 120mPD in accordance with paragraph 4.6 above.

### **Lin Cheung Road Site (Plan 7)**

#### **7.2 Item B** (about 1.93 ha)

Rezoning the southwestern portion of the site from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)” to “CDA” for private residential development subject to a maximum BH restriction of 100mPD in accordance with paragraph 5.13 above.

#### **7.3 Item C** (about 0.49 ha)

Rezoning the southeastern portion of the site from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)” to “CDA(2)” for private residential or hotel development subject to a maximum BH restriction of 100mPD in accordance with paragraph 5.13 above.

#### **7.4 Item D** (about 3.59 ha)

Rezoning the northern portion of the site from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)” and an area shown as ‘Road’ to

“R(A)12” for public housing development subject to a maximum BH restriction of 120mPD in accordance with paragraph 5.15 above.

7.5 **Item E** (about 0.43 ha)

Rezoning the western corner of the site from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)” to “G/IC” for a social welfare block subject to a maximum BH of 5 storeys in accordance with paragraph 5.17 above.

7.6 **Item F** (about 0.62 ha)

Rezoning the eastern corner of the site from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)”, “OU(Wholesale Market)” and an area shown as ‘Road’ to “G/IC” for a primary school subject to a maximum BH of 8 storeys in accordance with paragraph 5.17 above.

7.7 **Item G** (about 0.99 ha)

Rezoning a strip of land along the waterfront and a disused pier of the existing CSWWFM from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)”, “OU(Wholesale Market)” and “OU(Pier)” to “O” to provide a public waterfront promenade in accordance with paragraph 5.16 above.

7.8 **Item H** (about 1.60 ha)

Rezoning the strips of land in the middle and along the eastern boundary of the site from “OU(Cargo Working Area, Wholesale Market and Industrial-Office)” and “OU(Wholesale Market)” to an area shown as ‘Road’ to provide a vehicular access and a pedestrian walkway respectively in accordance with paragraph 5.18 above.

7.9 **Item J**

Designating NBAs within the site for air ventilation purpose and visual corridors in accordance with paragraph 5.11 above.

**8. Proposed Amendments to the Notes of the OZP**

The proposed amendments to the Notes of the OZP (with additions in ***bold and italics*** and deletions in ‘~~crossed-out~~’) are at **Attachment II** for Members’ consideration. The proposed amendments are summarised as follows:

8.1 **“R(A)” zone**

- (a) In connection with Item A above, a remark is added to stipulate a maximum domestic and non-domestic PR of 6.5 and 1.5 respectively, and a maximum BH restriction on Plan for the new “R(A)11” zone.
- (b) In connection with Item D above, a remark is added to stipulate a maximum domestic and non-domestic GFA of 205,000m<sup>2</sup> and 16,000m<sup>2</sup>

respectively, and a maximum BH restriction on Plan for the new “R(A)12” zone. A public open space of not less than 3,800m<sup>2</sup> shall be provided in this zone.

- (c) Provision has also been made for minor relaxation of the PR/GFA/BH restrictions.
- (d) A remark is added to clarify the PR/GFA restrictions stipulated on land designated as “R(A)1” to “R(A)4”, “R(A)11” and “R(A)12”.
- (e) A remark is added to clarify that free-standing purpose-designed buildings solely for accommodating GIC facilities should be deducted in calculating site area for the purpose of determining the PR of a site in “R(A)” sub-zones.

## 8.2 “CDA” zone

In connection with Item B above, a remark is added to stipulate a maximum GFA of 91,770m<sup>2</sup> and a maximum BH restriction on Plan for this “CDA” zone. Provision has also been made for minor relaxation of the aforesaid GFA and BH restrictions. A public open space of not less than 3,600m<sup>2</sup> shall be provided in this zone. A remark is also added to require the submission of AVA and VIA reports as part of the MLP submission for approval of the Board for this “CDA” zone.

## 8.3 “CDA(2)” zone

In connection with Item C above, a new set of Notes for the “CDA(2)” zone is added. A remark is added to stipulate a maximum GFA of 34,770m<sup>2</sup> and a maximum BH restriction on Plan for the “CDA(2)” zone. Provision has also been made for minor relaxation of the aforesaid GFA and BH restrictions.

## 8.4 “G/IC” zone

In connection with Items E and F above, remarks are added to stipulate a maximum BH restriction on Plan for the two “G/IC” zones respectively. Provision has also been made for minor relaxation of the aforesaid BH restriction.

## 8.5 “OU(Cargo Working Area, Wholesale Market and Industrial-Office)” zone

The Notes for this zone is deleted.

## 8.6 “OU(Public Utility Depot Including Electricity Substation)” zone

A remark is added for the provision of minor relaxation of the GFA restriction.

## 8.7 “OU(Institutional Facility and Hostel Use)” zone

A remark is added for the provision of minor relaxation of the GFA and BH restrictions.

#### 8.8 NBA requirements

Remarks are added to incorporate the NBA requirements and a minor relaxation clause for such requirements in the Notes of the “CDA”, “R(A)12” and “G/IC” zones.

### 9. Revision to the Explanatory Statement (ES) of the OZP

The ES has been revised to take into account the proposed amendments as mentioned in the above paragraphs. The opportunity has also been taken to update the general information for the various land use zones to reflect the latest status and planning circumstances of the OZP. The proposed amendments to the ES of the OZP (with additions in ***bold and italics*** and deletions in ‘~~crossed-out~~’) are at **Attachment III** for Members’ consideration.

### 10. Plan Number

Upon exhibition for public inspection, the Plan will be renumbered as S/K20/29.

### 11. Consultation

#### 11.1 Departmental Consultation

The proposed amendments have been circulated to relevant bureaux/departments for comment. Comments from relevant bureaux/departments have been incorporated into the above paragraphs, where appropriate. The following bureaux/departments have no objection to/no comment on the proposed amendments :

- (a) Secretary for Education;
- (b) Secretary for Food and Health;
- (c) District Land Officer/Kowloon West, Lands Department;
- (d) Director of Environmental Protection;
- (e) Director of Social Welfare;
- (f) Director of Food and Environmental Hygiene;
- (g) Director of Leisure and Cultural Services;
- (h) Director of Agriculture, Fisheries and Conservation;
- (i) Director of Fire Services;
- (j) Director of Electrical and Mechanical Services;
- (k) Commissioner for Transport;
- (l) Commissioner of Police;
- (m) Chief Building Surveyor/Hong Kong West, Buildings Department;
- (n) Chief Highway Engineer/Kowloon, HyD;
- (o) Chief Engineer/Railway Development 2-3, Railway Development Office, HyD;
- (p) Chief Engineer/Mainland South, DSD;
- (q) Chief Engineer/Project Management, DSD;

- (r) Chief Engineer/Development(2), WSD;
- (s) Project Manager/Kowloon, Civil Engineering and Development Department;
- (t) Government Property Administrator;
- (u) Chief Architect/CMD2, Architectural Services Department;
- (v) Chief Town Planner/Urban Design & Landscape, PlanD; and
- (w) Director of Marine.

## 11.2 Public Consultation

The public consultations and PlanD's responses for the Fat Tseung Street West site and Lin Cheung Road site are summarized below. Details are contained in **Attachment V**.

### **Fat Tseung Street West Site**

- (a) On 5.3.2013, the Sham Shui Po District Council (SSPDC) was consulted on the rezoning proposal of the Fat Tseung Street West site. SSPDC had no objection to the rezoning proposal and urged relevant government departments to provide the detailed design and findings of various technical assessments of the proposed HOS development once available.
- (b) Since March 2013, public comments on the proposed HOS development at the Fat Tseung Street West site have been received. A number of local residents, some SSPDC members, concern groups and the adjacent St. Margaret's Co-educational English Secondary and Primary School have expressed concerns, mostly adverse comments on the proposed HOS development. HD also conducted a community engagement workshop on 9.7.2013 to collect local and stakeholders' views on the proposed HOS development at Fat Tseung Street West and the proposed PRH development at NWKR Site 6.
- (c) The major views received from the public as well as those solicited during HD's community engagement workshop are summarized as follows:
  - original planning intention of providing low-rise development and open space within the GIC cluster should not be abandoned without justifications;
  - the proposed HOS development is incompatible with the land uses of the vicinity;
  - nuisance to future occupants from daily operation of the adjacent school;
  - adverse air ventilation, visual and traffic impacts;
  - inadequate consultation on the rezoning proposal; and
  - inefficient use of resource for demolishing and reprovisioning the existing 5-a-side soccer pitch.

- (d) The Vice-Principal of the St. Margaret's Co-educational English Secondary and Primary School further submitted a proposal for swapping the proposed HOS site at the Fat Tseung Street West site with the proposed primary school site at the Lin Cheung Road site (proposed Amendment Item F) (**Plans 7 and 8**).
- (e) Two SSPDC members submitted a discussion paper on the proposed HOS development at the Fat Tseung Street West site for the SSPDC meeting on 3.9.2013. They objected to the proposed HOS development and suggested considering using three undeveloped Government sites in Cheung Sha Wan area (two zoned "G/IC" and one zoned "O") for meeting the demand for HOS flats (**Plan 14**).

### **PlanD's Responses**

#### *Planning Intention and Land Use Compatibility*

- Since the affected existing and planned facilities originally at the Fat Tseung Street West site will be reprovisioned within the NWKR Site 6 (**Plan 3**) to LCSD's satisfaction, LCSD has no objection to the rezoning proposal. Moreover, the proposed HOS development is considered not incompatible with the surrounding schools and high-density residential developments (**Plans 3 and 4**).

#### *Air Ventilation, Visual and Traffic Impacts*

- The quantitative AVA conducted by HD demonstrates that the proposed HOS development would not induce significant adverse air ventilation impact. As discussed in paragraph 4.11 above, the visual impact is insignificant. TD advises that no insurmountable traffic problem is anticipated.

#### *Public Consultation*

- Due to the increasing public concern on land use and planning issues, SSPDC was consulted on the rezoning proposal on 5.3.2013, prior to submission to the Board for consideration. HD also organized a community engagement workshop to collect views from stakeholders on 9.7.2013. All public comments received during SSPDC meeting, engagement workshop and other written comments have been considered in formulating the proposed amendment items.

#### *Replacement Sites*

- The site swapping proposal and the replacement sites proposal are considered not acceptable on land use, environmental and visual grounds.

### **Lin Cheung Road Site**

- (a) On 18.6.2013, the SSPDC was consulted on the rezoning proposal of the

Lin Cheung Road site and a motion was passed at the meeting. While the DC supported more housing development in the area, the Government was required to consider the balanced development of the community, the accessibility and development of the waterfront promenade with a view to optimizing land resources, enhancing economy and vibrancy in the district, and to consult the local residents.

- (b) On 16.7.2013, HD organized a community engagement workshop to collect local and stakeholders' views on the rezoning proposal. The participants included local residents, traders of wholesale markets and concern groups. Their views are summarized as follows:

Supporting Views

- Some participants welcomed the proposed housing development at the Lin Cheung Road site to meet the acute housing demand. The diversified land uses would help improve employment opportunities.

Opposing Views/Concern Expressed

- *too many public housing* – SSP District has too many public housing and the ratio of PRH/HOS provision should be reviewed;
  - *environmental nuisances* – the site is not suitable for residential development due to noise and odour nuisances from nearby uses;
  - *adverse air ventilation impact* – the proposed high-rise development would block the prevailing wind causing adverse air ventilation impact;
  - *inadequate open space/GIC facilities* – the increase in population from the proposed developments at the site and NWKR Site 6 would lead to inadequate provision of open space and GIC facilities;
  - *more diversified uses* – leisure and cultural facilities such as performance venue and town hall should be provided at the site to attract more visitors;
  - *inadequate transport facilities/pedestrian connections* – more public transport facilities should be provided to connect with the centre of SSP District. Pedestrian connections with the nearby developments should be improved; and
  - *waterfront promenade* – the proposed waterfront promenade should be extended and with improved pedestrian connection.
- (c) Other written comments on the rezoning proposal of the site were received from DC members, local residents, concern groups and some Legislative Council (LegCo) members. They expressed concerns mainly on: (i) the incompatible land uses and BH; (ii) lack of planning control; (iii) ratio of PRH/HOS; (iv) adverse air, visual and environmental impact from the

proposed development; (v) nuisances from nearby roads and land uses; (vi) insufficient provision of GIC facilities; (vii) insufficient transport facilities; and (viii) relocation of the wholesale markets in SSP District. Some LegCo members requested for an extension of the public consultation.

### **PlanD's Responses**

#### *Land Use Compatibility and BH Profile*

- The proposed housing development at the site is to meet the acute housing need and it is not incompatible with the surrounding land uses which are mainly residential and GIC uses.
- The proposed BH restrictions of 120mPD and 100mPD descending towards the waterfront are visually compatible with the nearby developments (**Plans 12a and b**). Height variation and sufficient building gaps are also adopted to avoid wall effect.

#### *Adequate Planning Control*

- HD has conducted preliminary TIA and AVA for the whole site and EAS for the public housing site to demonstrate that the proposed developments would not cause insurmountable problem on traffic, environmental and air ventilation aspects. A PB will be prepared to guide the public housing development to ensure a proper planning control. HD will be required to conduct relevant technical assessments at detailed design stage. Besides, PBs will also be prepared for the "CDA" and "CDA(2)" sites to guide the future development and DC will be consulted on the PBs. The project proponent will also be required to submit technical assessments at planning application stage.

#### *Proportion of HOS and PRH*

- HD has reviewed the proportion of PRH and HOS and increase the ratio for HOS. In the current scheme, a total of 3,400 public housing flats will be provided, of which 1,200 are PRH and 2,200 are HOS. HD consulted SSPDC on 5.11.2013 and the DC members generally supported the proposed layout of the public housing development.

#### *Air Ventilation, Visual and Environmental Impacts*

- Three breezeways of varying width will be provided and designated as NBAs to allow wind penetration to the inland area and to enhance visual permeability. The preliminary AVA also revealed that the proposed development would not induce significant adverse air ventilation impact. Besides, the future project proponent of the "CDA" and "CDA(2)" zones will need to submit AVA report for approval of the Board.
- As explained in paragraphs 5.25 to 5.28 above, single aspect building design, environmental buffer areas and non-sensitive uses are proposed to separate the residential uses with nearby noise sources. There are also a



considerable distance of about 600m and 700m from the site to Stonecutters Island Sewage Treatment Works and the West Kowloon Refuse Transfer Station respectively. Both DSD and EPD have no adverse comment on the proposed rezoning.

Provision of Open Space and GIC facilities

- As covered in paragraph 6 above and **Attachment IV**, the overall provision of open space and GIC facilities is adequate to meet the local needs taken into account the addition population generated by developments at Fat Tseung Street West site, Lin Cheung Road site and NWKR Site 6.

Provision of Public Transport Facilities

- The site has good accessibility to the nearby MTR Nam Cheong Station. An existing PTI is located in the NWKR Site 6. Upon completion of the proposed housing development, HD would liaise with TD on provision of public transport services to serve the local residents.

Waterfront Promenade and Pedestrian Connections

- The waterfront promenade has been extended to include a disused pier of the CSWWFM in response to public comments. It is also proposed to make use of the NBAs and drainage reserves in the middle part of the site to create a continuous public open space and to enhance the accessibility to the waterfront promenade.

Relocation of Wholesale Markets

- According to FHB, the existing CSWWFM is still in operation. FHB is coordinating with relevant departments in examining the feasibility of relocating the CSW Wholesale Poultry Market and the CSW Wholesale Vegetable Market.

Public Consultation

- The SSPDC was consulted on the rezoning proposal on 18.6.2013, prior to submission to the Board for consideration. HD also organized a community engagement workshop to collect views from local residents and stakeholders on 16.7.2013. All public comments received at the SSPDC meeting and the community engagement workshop, and other written comments received have been considered in formulating the proposed amendment items.

- 11.3 SSPDC will also be consulted again on the proposed amendments during the statutory exhibition period of the draft South West Kowloon OZP No. S/K20/28A (to be renumbered to S/K20/29 upon exhibition) under section 5 of the Ordinance. Besides, as the Lin Cheung Road site is located at the South West Kowloon waterfront, the Harbourfront Commission will be consulted on the proposed amendments during the statutory exhibition period.

## 12. Decision Sought

Members are invited to:

- (a) agree to the proposed amendments to the approved South West Kowloon OZP No. S/K20/28 and that the draft South West Kowloon OZP No. S/K20/28A at **Attachment I** (to be renumbered to S/K20/29 upon exhibition) and its Notes at **Attachment II** are suitable for public exhibition under section 5 of the Ordinance; and
- (b) adopt the revised ES at **Attachment III** for the draft South West Kowloon OZP No. S/K20/28A as an expression of the planning intentions and objectives of the Board for various land use zonings of the OZP and the revised ES will be published together with the OZP.

## 13. Attachments

<b>Attachment I</b>	Draft South West Kowloon OZP No. S/K20/28A
<b>Attachment II</b>	Revised Notes of Draft South West Kowloon OZP No. S/K20/28A
<b>Attachment III</b>	Revised Explanatory Statement of Draft South West Kowloon OZP No. S/K20/28A
<b>Attachment IV</b>	Provision of Major Community Facilities and Open Space in SSP District
<b>Attachment V</b>	Details on Public Consultations and PlanD's Responses
<b>Plan 1</b>	Approved South West Kowloon OZP No. S/K20/28 (reduced to A3 size)
<b>Plan 2</b>	Comparison of the Existing and Proposed Zonings on the South West Kowloon OZP for Amendment Items A to J
<b>Plan 3</b>	Subject Sites and Building Height of Developments in the Vicinity
<b>Plan 4</b>	Subject Sites and Plot Ratio Restrictions in the Vicinity
<b>Plan 5</b>	Site Plan for Amendment Item A
<b>Plan 6</b>	Rezoning Proposal for Lin Cheung Road Site
<b>Plan 7</b>	Site Plan for Amendment Items B to J
<b>Plan 8</b>	Aerial Photo for Amendment Items A to J
<b>Plan 9</b>	Site Photo for Amendment Item A
<b>Plan 10</b>	Site Photo for Amendment Items B to J
<b>Plans 11a &amp; b</b>	Photomontages of Proposed HOS Development at Fat Tseung Street West Site
<b>Plans 12a to d</b>	Photomontages of Indicative Development at Lin Cheung Road Site
<b>Plan 13</b>	Indicative Layouts of Public Housing Development at Fat Tseung Street West Site, NWKR Site 6 and Lin Cheung Road Site
<b>Plan 14</b>	Alternative Sites for HOS Development Suggested by Two SSPDC Members





**圖例**  
**NOTATION**

**ZONES**

COMMERCIAL	C	商業
COMPREHENSIVE DEVELOPMENT AREA	CDA	綜合發展區
RESIDENTIAL (GROUP A)	R(A)	住宅 (甲類)
INDUSTRIAL	I	工業
GOVERNMENT, INSTITUTION OR COMMUNITY	GIC	政府、機構或社區
OPEN SPACE	O	休憩用地
OTHER SPECIFIED USES	OU	其他指定用途

**COMMUNICATIONS**

RAILWAY AND STATION		鐵路及車站
RAILWAY AND STATION (UNDERGROUND)		鐵路及車站 (地下)
MAJOR ROAD AND JUNCTION		主要道路及路口
ELEVATED ROAD		高架道路

**MISCELLANEOUS**

BOUNDARY OF PLANNING SCHEME		規劃範圍界線
WEST KOWLOON CULTURAL DISTRICT DEVELOPMENT PLAN AREA		西九文化區發展規劃範圍
BUILDING HEIGHT CONTROL ZONE BOUNDARY		建築物高度管制區界線
MAXIMUM BUILDING HEIGHT (IN METRES ABOVE PRINCIPAL DATUM)		最高建築物高度 (在主水平基準上若干米)
MAXIMUM BUILDING HEIGHT (IN NUMBER OF STOREYS)		最高建築物高度 (樓層數目)
PETROL FILLING STATION		加油站
NON-BUILDING AREA		非建築用地

**土地用途及面積一覽表**  
**SCHEDULE OF USES AND AREAS**

USES	大約面積及百分比 APPROXIMATE AREA & %		用途
	公頃 HECTARES	%	
COMMERCIAL	3.54	1.08	商業
COMPREHENSIVE DEVELOPMENT AREA	33.43	10.05	綜合發展區
RESIDENTIAL (GROUP A)	82.20	15.69	住宅 (甲類)
INDUSTRIAL	1.85	0.56	工業
GOVERNMENT, INSTITUTION OR COMMUNITY	29.82	8.99	政府、機構或社區
OPEN SPACE	26.54	7.98	休憩用地
OTHER SPECIFIED USES	29.45	8.85	其他指定用途
MAJOR ROAD ETC	114.94	34.55	主要道路等
WEST KOWLOON CULTURAL DISTRICT DEVELOPMENT PLAN AREA	40.91	12.30	西九文化區發展規劃範圍
TOTAL DEVELOPMENT AREA	332.68	100.00	發展區總面積
TYphoon SHELTER	70.19		避風塘
TOTAL PLANNING SCHEME AREA	402.87		規劃範圍總面積

夾附的《註釋》屬這份圖則的一部分，  
現經修訂並按照城市規劃條例第 5 條展示。  
THE ATTACHED NOTES ALSO FORM PART OF THIS PLAN  
AND HAVE BEEN AMENDED FOR EXHIBITION UNDER  
SECTION 5 OF THE TOWN PLANNING ORDINANCE

核准圖編號 S/K 2 0 / 2 8 的修訂  
AMENDMENTS TO APPROVED PLAN No. S/K20/28

AMENDMENTS EXHIBITED UNDER SECTION 5  
OF THE TOWN PLANNING ORDINANCE

AMENDMENT ITEM A		修訂項目 A 項
AMENDMENT ITEM B		修訂項目 B 項
AMENDMENT ITEM C		修訂項目 C 項
AMENDMENT ITEM D		修訂項目 D 項
AMENDMENT ITEM E		修訂項目 E 項
AMENDMENT ITEM F		修訂項目 F 項
AMENDMENT ITEM G		修訂項目 G 項
AMENDMENT ITEM H		修訂項目 H 項
AMENDMENT ITEM J		修訂項目 J 項

(參看附表)  
(SEE ATTACHED SCHEDULE)

香港城市規劃委員會依據城市規劃條例擬備的西南九龍 (九龍規劃區第 2 0 區) 分區計劃大綱圖  
**TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD**  
**KOWLOON PLANNING AREA No. 20 - SOUTH WEST KOWLOON - OUTLINE ZONING PLAN**

SCALE 1:5,000 比例尺  
0 200 400 600 800 METRES 米

規劃署遵照城市規劃委員會指示擬備  
PREPARED BY THE PLANNING DEPARTMENT UNDER  
THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號  
PLAN No. **S/K20/28A**



**KOWLOON PLANNING AREA NO. 20****APPROVEDDRAFT SOUTH WEST KOWLOON OUTLINE ZONING PLAN NO. S/K20/28A**

(Being ~~an~~ ~~Approved~~ *Draft* Plan for the Purposes of the Town Planning Ordinance)

**NOTES**

(N.B. These form part of the Plan)

- (1) These Notes show the uses or developments on land falling within the boundaries of the Plan which are always permitted and which may be permitted by the Town Planning Board, with or without conditions, on application. Where permission from the Town Planning Board for a use or development is required, the application for such permission should be made in a prescribed form. The application shall be addressed to the Secretary of the Town Planning Board, from whom the prescribed application form may be obtained.
- (2) Any use or development which is always permitted or may be permitted in accordance with these Notes must also conform to any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, as may be applicable.
- (3)
  - (a) No action is required to make the existing use of any land or building conform to this Plan until there is a material change of use or the building is redeveloped.
  - (b) Any material change of use or any other development (except minor alteration and/or modification to the development of the land or building in respect of the existing use which is always permitted) or redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the Town Planning Board.
  - (c) For the purposes of subparagraph (a) above, “existing use of any land or building” means –
    - (i) before the publication in the Gazette of the notice of the first statutory plan covering the land or building (hereafter referred as ‘the first plan’),
      - a use in existence before the publication of the first plan which has continued since it came into existence; or
      - a use or a change of use approved under the Buildings Ordinance which relates to an existing building; and
    - (ii) after the publication of the first plan,
      - a use permitted under a plan which was effected during the effective period of that plan and has continued since it was effected; or
      - a use or a change of use approved under the Buildings Ordinance which relates to an existing building and permitted under a plan prevailing at the time when the use or change of use was approved.

- (4) Except as otherwise specified by the Town Planning Board, when a use or material change of use is effected or a development or redevelopment is undertaken, as always permitted in terms of the Plan or in accordance with a permission granted by the Town Planning Board, all permissions granted by the Town Planning Board in respect of the site of the use or material change of use or development or redevelopment shall lapse.
- (5) Road junctions, alignments of roads and railway tracks, and boundaries between zones may be subject to minor adjustments as detailed planning proceeds.
- (6) Temporary uses (expected to be 5 years or less) of any land or building are always permitted as long as they comply with any other relevant legislation, the conditions of the Government lease concerned, and any other Government requirements, and there is no need for these to conform to the zoned use or these Notes. For temporary uses expected to be over 5 years, the uses must conform to the zoned use or these Notes.
- (7) The following uses or developments are always permitted on land falling within the boundaries of the Plan except where the uses or developments are specified in Column 2 of the Notes of individual zones:
  - (a) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, road, people mover, bus/public light bus stop or lay-by, cycle track, Mass Transit Railway station entrance, Mass Transit Railway structure below ground level, taxi rank, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;
  - (b) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and
  - (c) maintenance or repair of watercourse and grave.
- (8) In any area shown as 'Road', all uses or developments except those specified in paragraph (7) above and those specified below require permission from the Town Planning Board:

toll plaza, on-street vehicle park and railway track.
- (9) Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required.
- (10) In these Notes, "existing building" means a building, including a structure, which is physically existing and is in compliance with any relevant legislation and the conditions of the Government lease concerned.

## **KOWLOON PLANNING AREA NO. 20**

### **APPROVED DRAFT SOUTH WEST KOWLOON OUTLINE ZONING PLAN NO. S/K20/28A**

#### **Schedule of Uses**

	<b><u>Page</u></b>
COMMERCIAL	1
COMPREHENSIVE DEVELOPMENT AREA	3
COMPREHENSIVE DEVELOPMENT AREA (1)	78
<b><i>COMPREHENSIVE DEVELOPMENT AREA (2)</i></b>	<b><i>11</i></b>
RESIDENTIAL (GROUP A)	<del>10</del> <b>14</b>
INDUSTRIAL	<del>13</del> <b>18</b>
GOVERNMENT, INSTITUTION OR COMMUNITY	<del>15</del> <b>20</b>
OPEN SPACE	<del>16</del> <b>22</b>
OPEN SPACE (1)	<del>17</del> <b>23</b>
OTHER SPECIFIED USES	<del>18</del> <b>24</b>

COMMERCIAL

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Use (not elsewhere specified) Hotel Information Technology and Telecommunications Industries Institutional Use (not elsewhere specified) Library Off-course Betting Centre Office Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Recyclable Collection Centre Religious Institution School Shop and Services Social Welfare Facility Training Centre Utility Installation for Private Project	Broadcasting, Television and/or Film Studio Government Refuse Collection Point Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Petrol Filling Station Residential Institution

Planning Intention

This zone is intended primarily for commercial developments, which may include shop, services, place of entertainment and eating place, functioning mainly as district and local shopping centre(s).

(Please see next page)

COMMERCIAL (Cont'd)

Remarks

- (1) On land designated “Commercial” (“C”), no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total plot ratio of 8.0, or the plot ratio of the existing building, whichever is the greater.
- (2) On land designated “C(1)”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total gross floor area (GFA) of 84 900m<sup>2</sup>. A public open space of not less than 3 900m<sup>2</sup>, a public transport terminus and a public toilet shall be provided. For the purpose of total GFA calculation, any floor space that is constructed or intended for use solely as public transport terminus and Government, institution or community (GIC) facilities as required by the Government may be disregarded.
- (3) On land designated “C(2)”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total GFA of 41 000m<sup>2</sup>. A public open space of not less than 2 930m<sup>2</sup>, a public transport terminus, social welfare facilities and a public sports complex shall be provided. For the purpose of total GFA calculation, any floor space that is constructed or intended for use solely as public transport terminus and GIC facilities as required by the Government may be disregarded.
- (4) In determining the relevant maximum plot ratio or GFA for the purposes of paragraphs (1) to (3) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker’s office, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (5) Where the permitted plot ratio as defined in Building (Planning) Regulations is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio or GFA for the building on land to which paragraph (1), (2) or (3) applies may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio or GFA specified in paragraphs (1) to (3) above may thereby be exceeded.
- (6) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/GFA restrictions stated in paragraphs (1) to (3) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.



COMPREHENSIVE DEVELOPMENT AREA

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	Ambulance Depot Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Flat Government Refuse Collection Point Government Use (not elsewhere specified) Hotel Information Technology and Telecommunications Industries Institutional Use (not elsewhere specified) Library Market Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Off-course Betting Centre Office Petrol Filling Station Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Railway Station Recyclable Collection Centre Religious Institution Research, Design and Development Centre Residential Institution School Shop and Services Social Welfare Facility Training Centre Utility Installation for Private Project

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Planning Intention

This zone is intended for comprehensive development/redevelopment of the area for residential and/or commercial uses with the provision of open space and other supporting facilities. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.

Remarks

- (1) Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated "Comprehensive Development Area" ("CDA") shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information :-
- (i) the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;
  - (ii) the proposed total site area and gross floor area for various uses, total number of flats and flat size, where applicable;
  - (iii) the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;
  - (iv) the alignment, widths and levels of any roads proposed to be constructed within the area;
  - (v) the landscape and urban design proposals within the area;
  - (vi) programmes of development in detail;
  - (vii) an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;
  - (viii) a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;
  - (ix) a traffic impact assessment report to examine any possible traffic problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;~~and~~
  - (x) ***an air ventilation assessment report to examine any possible air ventilation problems that may be caused by the proposed development and the proposed mitigation measures to tackle them (for the CDA to the south of Hing Wah Street West only);***

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

- (xi) *a visual impact assessment report to examine any possible visual impacts that may be caused by the proposed development and the proposed mitigation measures to tackle them (for the CDA to the south of Hing Wah Street West only); and*
- (xii) such other information as may be required by the Town Planning Board.
- (2) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.
- (3) Except as otherwise provided herein, on land designated “CDA”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum gross floor area (GFA) specified below or the GFA of the existing building, whichever is the greater :

GFA Restriction

<u>Site</u>	<u>Maximum GFA for Residential Use (m<sup>2</sup>)</u>	<u>Maximum GFA for Commercial Use including Hotel (m<sup>2</sup>)</u>
CDA at Airport Railway Kowloon Station	<i>Maximum GFA of 547 026m<sup>2</sup> for Residential Use</i>	<i>Maximum GFA of 543 000m<sup>2</sup> for Commercial Use including Hotel</i>

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

- (4) *Except as otherwise provided herein, on land designated "CDA", no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum GFA specified below and the maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the GFA and height of the existing building, whichever is the greater:*

<u>Site</u>	<u>GFA Restriction</u>
<i>CDA to the south of Hing Wah Street West</i>	<i>Maximum GFA of 91 770m<sup>2</sup> for Residential Use</i>
	<i>(A public open space of not less than 3 600m<sup>2</sup> shall be provided in this CDA)</i>

- (4)(5) Except as otherwise provided herein, on land designated "CDA", no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum plot ratio specified below or the plot ratio of the existing building, whichever is the greater :

<u>Site</u>	<u>Plot Ratio Restriction</u>	
	<u>Domestic</u>	<u>Non-domestic</u>
CDA bounded by Sham Mong Road, Hing Wah Street West, Tonkin Street West and West Kowloon Highway	6.5	1.5
CDA bounded by Sham Mong Road, Tonkin Street West, Yen Chow Street West and West Kowloon Highway	6.5	1.5
CDA bounded by Lai Hong Street, Fat Tseung Street, Sham Mong Road and West Kowloon Corridor	6.5	1.5

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (Cont'd)

Remarks (Cont'd)

- (5)(6) In determining the maximum plot ratio/GFA for the purposes of paragraphs (3)~~and (4)~~ *to (5)* above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded. Any floor space that is constructed or intended for use solely as public transport facilities, railway station development, or GIC or social welfare facilities, as required by the Government, may also be disregarded.
- (6)(7) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/GFA/***building height*** restrictions stated in paragraphs (3)~~and (4)~~ *to (5)* above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (8) ***Under exceptional circumstances, for a development or redevelopment proposal, minor relaxation of the non-building area restriction as shown on the Plan may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.***

COMPREHENSIVE DEVELOPMENT AREA (1)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
	Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point Government Use (not elsewhere specified) Hotel Information Technology and Telecommunications Industries Institutional Use (not elsewhere specified) Library Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Office Petrol Filling Station Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Clinic Public Convenience Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Railway Station Religious Institution Research, Design and Development Centre School Shop and Services Social Welfare Facility Training Centre Utility Installation for Private Project

Planning Intention

This zone is intended for the comprehensive development of the West Kowloon Terminus of the Guangzhou–Shenzhen–Hong Kong Express Rail Link and the topside development, which is primarily for office/commercial use, into a strategic rail and high-grade office hub with the provision of open space and other supporting facilities. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (1) (Cont'd)

Remarks

- (1) Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated “Comprehensive Development Area (1)” (“CDA(1)”) shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information :-
- (i) the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;
  - (ii) the proposed total site area and gross floor area for various uses, where applicable;
  - (iii) the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;
  - (iv) the alignment, widths and levels of any roads proposed to be constructed within the area;
  - (v) the Landscape Master Plan and urban design proposals within the area;
  - (vi) programmes of development in detail;
  - (vii) an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;
  - (viii) visual impact assessment and air ventilation assessment reports to examine any visual and air ventilation problems that may be caused to or by the proposed development and the proposed mitigation measures to tackle them;
  - (ix) a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;
  - (x) a traffic impact assessment report to examine any possible traffic problems that may be caused by the proposed development and the proposed mitigation measures to tackle them; and
  - (xi) such other information as may be required by the Town Planning Board.

(Please see next page)

COMPREHENSIVE DEVELOPMENT AREA (1) (Cont'd)

Remarks (Cont'd)

- (2) The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.
- (3) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment above the railway station in excess of a maximum total plot ratio of 5.0, or the plot ratio of the existing building, whichever is the greater. Ancillary car parking should be provided in the basement.
- (4) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment of the above-ground railway facilities in excess of a maximum total plot ratio of 0.68, or the plot ratio of the existing building, whichever is the greater.
- (5) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum building heights in terms of metres above Principal Datum as stipulated on the Plan, or the height of the existing building, whichever is the greater.
- (6) In determining the relevant maximum plot ratio for the purposes of paragraphs (3) and (4) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded. Any floor space that is constructed or intended for use solely as underground railway facilities, as required by the Government, may also be disregarded.
- (7) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio and building height restrictions stated in paragraphs (3) to (5) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (8) Notwithstanding paragraph (7) above, relaxation of the building height restrictions may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance for proposals with outstanding planning or design merits.



**COMPREHENSIVE DEVELOPMENT AREA (2)**

<b><i>Column 1</i></b> <b><i>Uses always permitted</i></b>	<b><i>Column 2</i></b> <b><i>Uses that may be permitted with or</i></b> <b><i>without conditions on application</i></b> <b><i>to the Town Planning Board</i></b>
	<b><i>Commercial Bathhouse/Massage Establishment</i></b> <b><i>Eating Place</i></b> <b><i>Educational Institution</i></b> <b><i>Exhibition or Convention Hall</i></b> <b><i>Flat</i></b> <b><i>Government Refuse Collection Point</i></b> <b><i>Government Use (not elsewhere specified)</i></b> <b><i>Hotel</i></b> <b><i>Information Technology and Telecommunications</i></b> <b><i>Industries</i></b> <b><i>Institutional Use (not elsewhere specified)</i></b> <b><i>Library</i></b> <b><i>Market</i></b> <b><i>Mass Transit Railway Vent Shaft and/or Other</i></b> <b><i>Structure above Ground Level other than</i></b> <b><i>Entrances</i></b> <b><i>Off-course Betting Centre</i></b> <b><i>Office</i></b> <b><i>Place of Entertainment</i></b> <b><i>Place of Recreation, Sports or Culture</i></b> <b><i>Private Club</i></b> <b><i>Public Clinic</i></b> <b><i>Public Convenience</i></b> <b><i>Public Transport Terminus or Station</i></b> <b><i>Public Utility Installation</i></b> <b><i>Public Vehicle Park (excluding container vehicle)</i></b> <b><i>Recyclable Collection Centre</i></b> <b><i>Religious Institution</i></b> <b><i>Research, Design and Development Centre</i></b> <b><i>Residential Institution</i></b> <b><i>School</i></b> <b><i>Shop and Services</i></b> <b><i>Social Welfare Facility</i></b> <b><i>Training Centre</i></b> <b><i>Utility Installation for Private Project</i></b>

**Planning Intention**

*This zone is intended for comprehensive development/redevelopment of the area for residential and/or commercial uses. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.*

*(Please see next page)*

**COMPREHENSIVE DEVELOPMENT AREA (2) (Cont'd)**

**Remarks**

- (1) *Pursuant to section 4A(2) of the Town Planning Ordinance, and except as otherwise expressly provided that it is not required by the Town Planning Board, an applicant for permission for development on land designated “Comprehensive Development Area (2)” (“CDA(2)”) shall prepare a Master Layout Plan for the approval of the Town Planning Board and include therein the following information :-*
- (i) *the area of the proposed land uses, the nature, position, dimensions, and heights of all buildings to be erected in the area;*
  - (ii) *the proposed total site area and gross floor area for various uses, total number of flats and flat size, where applicable;*
  - (iii) *the details and extent of Government, institution or community (GIC) and recreational facilities, public transport and parking facilities, and open space to be provided within the area;*
  - (iv) *the alignment, widths and levels of any roads proposed to be constructed within the area;*
  - (v) *the landscape and urban design proposals within the area;*
  - (vi) *programmes of development in detail;*
  - (vii) *an environmental assessment report to examine any possible environmental problems that may be caused to or by the proposed development during and after construction and the proposed mitigation measures to tackle them;*
  - (viii) *a drainage and sewerage impact assessment report to examine any possible drainage and sewerage problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;*
  - (ix) *a traffic impact assessment report to examine any possible traffic problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;*
  - (x) *an air ventilation assessment report to examine any possible air ventilation problems that may be caused by the proposed development and the proposed mitigation measures to tackle them;*
  - (xi) *a visual impact assessment report to examine any possible visual impacts that may be caused by the proposed development and the proposed mitigation measures to tackle them; and*
  - (xii) *such other information as may be required by the Town Planning Board.*

*(Please see next page)*

**COMPREHENSIVE DEVELOPMENT AREA (2) (Cont'd)**

**Remarks (Cont'd)**

- (2) *The Master Layout Plan should be supported by an explanatory statement which contains an adequate explanation of the development proposal, including such information as land tenure, relevant lease conditions, existing conditions of the site, the character of the site in relation to the surrounding areas, principles of layout design, major development parameters, design population, types of GIC facilities, and recreational and open space facilities.*
- (3) *On land designated “Comprehensive Development Area (2)”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum GFA of 34,770m<sup>2</sup> and the maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the GFA and height of the existing building, whichever is the greater.*
- (4) *In determining the maximum GFA for the purposes of paragraph (3) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker’s office and caretaker’s quarters, or recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.*
- (5) *Based on the individual merits of a development or redevelopment proposal, minor relaxation of the GFA and building height restrictions stated in paragraph (3) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.*

RESIDENTIAL (GROUP A)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot Flat Government Refuse Collection Point (on land designated "R(A)5" only) Government Use (not elsewhere specified) House Library Market Place of Recreation, Sports or Culture Public Clinic Public Transport Terminus or Station (excluding open-air terminus or station) Public Vehicle Park (excluding container vehicle) (on land designated "R(A)3" only) Residential Institution School (in free-standing purpose-designed building only) Social Welfare Facility Utility Installation for Private Project	Commercial Bathhouse/Massage Establishment Eating Place Educational Institution Exhibition or Convention Hall Government Refuse Collection Point (other than on land designated "R(A)5" ) Hospital Hotel Institutional Use (not elsewhere specified) Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Office Petrol Filling Station Place of Entertainment Private Club Public Convenience Public Transport Terminus or Station (not elsewhere specified) Public Utility Installation Public Vehicle Park (excluding container vehicle) (other than on land designated "R(A)3") Religious Institution School (not elsewhere specified) Shop and Services Training Centre

In addition, the following uses are always permitted (a) on the lowest three floors of a building, taken to include basements; or (b) in the purpose-designed non-residential portion of an existing building, both excluding floors containing wholly or mainly car parking, loading/unloading bay and/or plant room :

Eating Place  
 Educational Institution  
 Institutional Use (not elsewhere specified)  
 Off-course Betting Centre  
 Place of Entertainment  
 Private Club  
 Public Convenience  
 Recyclable Collection Centre  
 School  
 Shop and Services  
 Training Centre

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Planning Intention

This zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

Remarks

- (1) On land designated “Residential (Group A) 1” (“R(A)1”), “R(A)2”, “R(A)3” and “R(A)4”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the maximum plot ratio specified below, or the plot ratio of the existing building, whichever is the greater:

Plot Ratio Restriction

<u>Sub-area</u>	<u>Domestic</u>	<u>Non-domestic</u>
R(A)1	6.5	1.0
R(A)2	5.0	1.0
R(A)3	7.5	1.5
R(A)4	6.5	1.5

- (2) On land designated “R(A)5”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic gross floor area (GFA) of 220 050m<sup>2</sup> and a maximum non-domestic GFA of 47 500m<sup>2</sup>. A public open space of not less than 8 900m<sup>2</sup>, a market, a public transport terminus and Government, institution or community (GIC) facilities, as required by the Government, shall be provided. For the purpose of non-domestic GFA calculation, any floor space that is constructed or intended for use solely as market, public transport terminus and GIC facilities, as required by the Government, may be disregarded.
- (3) On land designated “R(A)6”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total GFA of 169 950m<sup>2</sup>. A public open space of not less than 4 871m<sup>2</sup> shall be provided.
- (4) On land designated “R(A)7”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic GFA of 145 625m<sup>2</sup> and a maximum non-domestic GFA of 5 799m<sup>2</sup>. In addition, a total of not less than 140 public lorry parking spaces and a community hall of 992m<sup>2</sup> GFA shall also be provided.

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Remarks (Cont'd)

- (5) On land designated “R(A)8”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic GFA of 141 840m<sup>2</sup> and a maximum non-domestic GFA of 5 600m<sup>2</sup>. In addition, a total of not less than 140 public lorry parking spaces shall also be provided.
- (6) On land designated “R(A)9”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic GFA of 279 910m<sup>2</sup> and a maximum non-domestic GFA of 8 210m<sup>2</sup>. A public transport terminus, as required by the Government, shall be provided. For the purpose of non-domestic GFA calculation, any floor space that is constructed or intended for use solely as a public transport terminus, as required by the Government, may be disregarded.
- (7) On land designated “R(A)10”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic GFA of 103 152m<sup>2</sup> and a maximum non-domestic GFA of 1 300m<sup>2</sup> for kindergarten.
- (8) *On land designated “R(A)11”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic plot ratio of 6.5, a maximum non-domestic plot ratio of 1.5 and the maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the plot ratio and height of the existing building, whichever is the greater.*
- (9) *On land designated “R(A)12”, no new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum domestic GFA of 205 000m<sup>2</sup>, a maximum non-domestic GFA of 16 000m<sup>2</sup> and the maximum building height in terms of metres above Principal Datum as stipulated on the Plan, or the GFA and height of the existing building, whichever is the greater. A public open space of not less than 3 800m<sup>2</sup> shall be provided in this zone.*
- (10) *For the purpose of paragraphs (1), (8) and (9) above, on land designated “R(A)1” to “R(A)4”, “R(A)11” and “R(A)12”, no addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of the relevant maximum domestic and/or non-domestic plot ratio(s)/GFA(s) of the existing building, whichever is the greater, subject to, as applicable-*
- (i) *the plot ratio(s)/GFA(s) of the existing building shall apply only if any addition, alteration and/or modification to or redevelopment of an existing building is for the same type of building as the existing building, i.e. domestic, non-domestic, or partly domestic and partly non-domestic building; or*

(Please see next page)

RESIDENTIAL (GROUP A) (Cont'd)

Remarks (Cont'd)

- (ii) *the maximum domestic and/or non-domestic plot ratio(s)/GFA(s) stated in paragraphs (1), (8) and (9) above shall apply if any addition, alteration and/or modification to or redevelopment of an existing building is not for the same type of building as the existing building, i.e. domestic, non-domestic, or partly domestic and partly non-domestic building.*
- (11) *In determining the relevant maximum plot ratio or GFA for the purposes of paragraphs (1) to (9) above, area of any part of the site that is occupied or intended to be occupied by free-standing purpose-designed buildings (including both developed on ground and on podium level) solely for accommodating Government, institution or community facilities including school(s) as may be required by Government shall be deducted in calculating the relevant site area.*
- (812) In determining the relevant maximum plot ratio or GFA for the purposes of paragraphs (1) to (79) above, any floor space that is constructed or intended for use solely as car park, loading/unloading bay, plant room and caretaker's office, or caretaker's quarters and recreational facilities for the use and benefit of all the owners or occupiers of the domestic building or domestic part of the building, provided such uses and facilities are ancillary and directly related to the development or redevelopment, may be disregarded.
- (913) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio/GFA/**building height** restrictions stated in paragraphs (1) to (79) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (1014) Where the permitted plot ratio as defined in Building (Planning) Regulations is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio or GFA for the building on land to which paragraphs (1), (2), (3), (4), (5), (6) or (7) to (9) applies may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio or GFA specified in paragraphs (1) to (79) above may thereby be exceeded.
- (15) *Under exceptional circumstances, for a development or redevelopment proposal, minor relaxation of the non-building area restriction as shown on the Plan may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.*

INDUSTRIAL

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
<p>Ambulance Depot</p> <p>Eating Place (Canteen, Cooked Food Centre only)</p> <p>Government Refuse Collection Point</p> <p>Government Use (not elsewhere specified)</p> <p>Industrial Use (not elsewhere specified)</p> <p>Information Technology and Telecommunications Industries</p> <p>Office (Audio-visual Recording Studio, Design and Media Production, Office Related to Industrial Use only)</p> <p>Public Convenience</p> <p>Public Transport Terminus or Station</p> <p>Public Utility Installation</p> <p>Public Vehicle Park (excluding container vehicle)</p> <p>Radar, Telecommunications, Electronic Microwave Repeater, Television and/or Radio Transmitter Installation</p> <p>Recyclable Collection Centre</p> <p>Research, Design and Development Centre</p> <p>Shop and Services (Motor-vehicle Showroom on ground floor, Service Trades only)</p> <p>Utility Installation for Private Project</p> <p>Vehicle Repair Workshop</p> <p>Warehouse (excluding Dangerous Goods Godown)</p>	<p>Broadcasting, Television and/or Film Studio</p> <p>Cargo Handling and Forwarding Facility</p> <p>Asphalt Plant/Concrete Batching Plant</p> <p>Dangerous Goods Godown</p> <p>Eating Place (not elsewhere specified) (in wholesale conversion of an existing building only)</p> <p>Educational Institution (in wholesale conversion of an existing building only)</p> <p>Exhibition or Convention Hall</p> <p>Industrial Use (Bleaching and Dyeing Factory, Electroplating/Printed Circuit Board Manufacture Factory, Metal Casting and Treatment Factory/Workshop only)</p> <p>Institutional Use (not elsewhere specified) (in wholesale conversion of an existing building only)</p> <p>Marine Fuelling Station</p> <p>Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances</p> <p>Off-course Betting Centre</p> <p>Offensive Trades</p> <p>Office (not elsewhere specified)</p> <p>Open Storage</p> <p>Petrol Filling Station</p> <p>Place of Entertainment (in wholesale conversion of an existing building only)</p> <p>Place of Recreation, Sports or Culture</p> <p>Private Club</p> <p>Public Clinic (in wholesale conversion of an existing building only)</p> <p>Religious Institution (in wholesale conversion of an existing building only)</p> <p>Shop and Services (not elsewhere specified) (ground floor only, except in wholesale conversion of an existing building and Ancillary Showroom<sup>#</sup> which may be permitted on any floor)</p> <p>Training Centre (in wholesale conversion of an existing building only)</p> <p>Wholesale Trade</p>

(Please see next page)



### INDUSTRIAL (Cont'd)

In addition, the following uses are always permitted in the purpose-designed non-industrial portion on the lower floors (except basements and floors containing wholly or mainly car parking, loading/unloading bays and/or plant room) of an existing building, provided that the uses are separated from the industrial uses located above by a buffer floor or floors and no industrial uses are located within the non-industrial portion:

In addition, the following use may be permitted with or without conditions on application to the Town Planning Board in the purpose-designed non-industrial portion on the lower floors (except basements and floors containing wholly or mainly car parking, loading/unloading bays and/or plant room) of an existing building, provided that the use is separated from the industrial uses located above by a buffer floor or floors and no industrial uses are located within the non-industrial portion:

Eating Place  
Educational Institution  
Exhibition or Convention Hall  
Institutional Use (not elsewhere specified)  
Off-course Betting Centre  
Office  
Place of Entertainment  
Place of Recreation, Sports or Culture  
Private Club  
Public Clinic  
Religious Institution  
Shop and Services  
Training Centre

Social Welfare Facility (excluding those involving residential care)

# Ancillary Showroom requiring planning permission refers to showroom use of greater than 20% of the total usable floor area of an industrial firm in the same premises or building.

### Planning Intention

This zone is intended primarily for general industrial uses to ensure an adequate supply of industrial floor space to meet demand from production-oriented industries. Information technology and telecommunications industries and office related to industrial use are also always permitted in this zone.

### Remarks

- (1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum plot ratio of 2.5, or the plot ratio of the existing building, whichever is the greater.
- (2) Based on the individual merits of a development or redevelopment proposal, minor relaxation of the plot ratio restriction stated in paragraph (1) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.
- (3) Where the permitted plot ratio as defined in Building (Planning) Regulations is permitted to be exceeded in circumstances as set out in Regulation 22(1) or (2) of the said Regulations, the plot ratio for the building on land to which paragraph (1) applies may be increased by the additional plot ratio by which the permitted plot ratio is permitted to be exceeded under and in accordance with the said Regulation 22(1) or (2), notwithstanding that the relevant maximum plot ratio specified in paragraph (1) above may thereby be exceeded.

GOVERNMENT, INSTITUTION OR COMMUNITY

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Ambulance Depot	Animal Boarding Establishment
Animal Quarantine Centre (in Government building only)	Animal Quarantine Centre (not elsewhere specified)
Broadcasting, Television and/or Film Studio	Correctional Institution
Eating Place (Canteen, Cooked Food Centre only)	Dangerous Goods Godown
Educational Institution	Driving School
Exhibition or Convention Hall	Eating Place (not elsewhere specified)
Field Study/Education/Visitor Centre	Flat
Government Refuse Collection Point	Funeral Facility
Government Use (not elsewhere specified)	Holiday Camp
Hospital	House
Institutional Use (not elsewhere specified)	Marine Fuelling Station
Library	Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances
Market	Off-course Betting Centre
Pier	Office
Place of Recreation, Sports or Culture	Petrol Filling Station
Public Clinic	Place of Entertainment
Public Convenience	Private Club
Public Transport Terminus or Station	Radar, Telecommunications Electronic Microwave Repeater, Television and/or Radio Transmitter Installation
Public Utility Installation	Refuse Disposal Installation (Refuse Transfer Station only)
Public Vehicle Park (excluding container vehicle)	Residential Institution
Recyclable Collection Centre	Sewage Treatment/Screening Plant
Religious Institution	Shop and Services
Research, Design and Development Centre	Utility Installation for Private Project
School	
Social Welfare Facility	
Training Centre	
Wholesale Trade	

Planning Intention

This zone is intended primarily for the provision of Government, institution and community facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments.

*(Please see next page)*

**GOVERNMENT, INSTITUTION OR COMMUNITY (Cont'd)**

**Remarks**

- (1) *No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of maximum building heights in terms of number of storey(s) as stipulated on the Plan, or the height of the existing building, whichever is the greater.*
- (2) *In determining the relevant maximum number of storey(s) for the purposes of paragraph (1) above, any basement floor(s) may be disregarded.*
- (3) *Based on the individual merits of a development or redevelopment proposal, minor relaxation of the building height restrictions stated in paragraph (1) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.*
- (4) *Under exceptional circumstances, for a development or redevelopment proposal, minor relaxation of the non-building area restriction as shown on the Plan may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.*

OPEN SPACE

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Aviary Field Study/Education/Visitor Centre Park and Garden Pavilion Pedestrian Area Picnic Area Playground/Playing Field Promenade Public Convenience Sitting Out Area	Eating Place Government Refuse Collection Point Government Use (not elsewhere specified) Holiday Camp Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Pier Place of Entertainment Place of Recreation, Sports or Culture Private Club Public Transport Terminus or Station Public Utility Installation Public Vehicle Park (excluding container vehicle) Religious Institution Shop and Services Utility Installation for Private Project

Planning Intention

This zone is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

OPEN SPACE (1)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Park and Garden	Eating Place
Pavilion	Government Use
Pedestrian Area	Mass Transit Railway Vent Shaft and/or Other
Picnic Area	Structure above Ground Level other than
Playground/Playing Field	Entrances
Public Convenience	Public Transport Terminus or Station
Refreshment Kiosk	Public Utility Installation
Sitting Out Area	Public Vehicle Park (excluding container vehicle)
	Utility Installation for Private Project

Planning Intention

This zone is intended to provide land for an integrated development comprising public open space, a public transport interchange and its supporting facilities, Mass Transit Railway vent shaft, and public utility installation. Part of the public open space is to be provided in the form of a landscaped deck above the public transport interchange.

Remarks

An application for permission for development shall prepare a layout plan and include the following information:

- (i) the proposed total site area and total gross floor areas for various uses;
- (ii) the nature, position, dimensions, and heights of all buildings to be erected in the area;
- (iii) the details and extent of Government, institution or community (GIC) facilities, if any, public transport and parking facilities, and public open space to be provided within the area; and
- (iv) a visual impact assessment to examine any visual problems that may be caused to or by the proposed development and the proposed mitigation measures to tackle them.

OTHER SPECIFIED USES

<p>Column 1 Uses always permitted</p>	<p>Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board</p>
<p><u>For “Cargo Working Area, Wholesale Market, Industrial Office” Only</u></p>	
<p><del>Cargo Handling and Forwarding Facility— (Cargo Working Area only)</del> <del>Container Storage</del> <del>Eating Place (Canteen only)</del> <del>Government Refuse Collection Point</del> <del>Government Use (Police Reporting Centre only)</del> <del>Public Convenience</del> <del>Public Utility Installation</del> <del>Utility Installation for Private Project</del> <del>Wholesale Trade—</del></p>	<p><del>Government Use (not elsewhere specified)</del></p>
<p><del>In addition, the following uses are always permitted above the lowest three floors of a building, taken to include basements, excluding floors containing wholly or mainly car/lorry parking, loading/unloading bay, plant room, and/or fire refuge space :</del></p>	<p><del>In addition, the following uses may be permitted with or without conditions on application to the Town Planning Board, above the lowest three floors of the building, taken to include basements, excluding floors containing wholly or mainly car/lorry parking, loading/unloading bay, plant room, and/or fire refuge space :</del></p>
<p><del>Cargo Handling and Forwarding Facility— (Freight Forwarding Services only)</del> <del>Industrial Use (other than heavy and obnoxious industries and offensive trades)</del> <del>Information Technology and Telecommunications Industries</del> <del>Shop and Services (Service Trades only)</del> <del>Warehouse (excluding Dangerous Goods Godown)</del></p>	<p><del>Broadcasting, Television and/or Film Studio</del> <del>Eating Place</del> <del>Exhibition or Convention Hall</del> <del>Off-course Betting Centre</del> <del>Public Clinic</del> <del>Public Vehicle Park (excluding container- vehicle)</del> <del>Shop and Services</del> <del>Training Centre</del></p>

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

For "Cargo Working Area, Wholesale Market, Industrial Office" Only (Cont'd)

Planning Intention

~~This zone is intended to provide/reserve land for wholesale market and related industrial and cargo handling uses.~~

Remarks

- ~~(1) — No development above the lowest three floors of the building, taken to include basements, excluding floors containing wholly or mainly car/lorry parking, loading/unloading bay, plant room, and/or fire refuge space, shall result in a total non-domestic gross floor area (GFA) in excess of 140 000m<sup>2</sup>.~~
- ~~(2) — In determining the maximum GFA for the purposes of paragraph (1) above, any floor space that is constructed or intended for use solely as car/lorry park, loading/unloading bay, plant room, fire refuge space, caretaker's office and caretaker's quarters, provided such uses and facilities are ancillary and directly related to the uses above the lowest three floors of the building, may be disregarded.~~

(Please see next page)

OTHER SPECIFIED USES-(Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
<p style="text-align: center;"><u>For “Western Harbour Crossing Toll Plaza” Only</u></p> <p>As Specified on the Plan</p> <p>Cross Harbour Tunnel Vent Shaft Government Use Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Public Utility Installation</p>	

Planning Intention

This zone is primarily to provide land for the use of Western Harbour Crossing Toll Plaza.

For “Pier” Only

Government Use Pier	Eating Place Exhibition or Convention Hall Marine Fuelling Station Shop and Services (excluding Motor-vehicle Showroom)
------------------------	--

Planning Intention

This zone is primarily to provide land for the development of piers.

Remarks

Kiosks not greater than 10m<sup>2</sup> each in area and not more than ten in number for use as shop and services are considered as ancillary to “Pier” use.

(Please see next page)



OTHER SPECIFIED USES (Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
<u>For "Railway Station" Only</u>	
Railway Station	Exhibition or Convention Hall Eating Place Government Use Shop and Services Utility Installation not Ancillary to the Specified Use

Planning Intention

This zone is primarily to provide land for the use of Airport Railway stations.

For "Public Utility Depot Including Electricity Substation" Only

Electricity Substation	Government Use
Public Utility Depot	Utility Installation not Ancillary to the Specified Use

Planning Intention

This zone is primarily to provide land for maintenance depot facilities and an electricity substation.

Remarks

- (1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total gross floor area of 7 230m<sup>2</sup>.
- (2) ***Based on the individual merits of a development or redevelopment proposal, minor relaxation of the gross floor area stated in paragraph (1) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.***

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
-----------------------------------	---

For “Institutional Facility and Hostel Use” Only

Institutional Use Residential Institution (Hostel and Dormitory only)	Exhibition or Convention Hall Government Use Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Shop and Services Social Welfare Facility Utility Installation not Ancillary to the Specified Use
---	--

Planning Intention

This zone is primarily to reserve land for the use of Hong Kong Girl Guides Association Headquarters and related hostel use.

Remarks

- (1) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall result in a total development and/or redevelopment in excess of a maximum total gross floor area of 21 360m<sup>2</sup>, of which not less than 6 500m<sup>2</sup> shall be provided for institutional use and for a dormitory.
- (2) No new development, or addition, alteration and/or modification to or redevelopment of an existing building shall exceed a maximum building height of 107.5 metres above Principal Datum.
- (3) ***Based on the individual merits of a development or redevelopment proposal, minor relaxation of the gross floor area/building height restrictions stated in paragraphs (1) and (2) above may be considered by the Town Planning Board on application under section 16 of the Town Planning Ordinance.***

(Please see next page)

OTHER SPECIFIED USES (Cont'd)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
-----------------------------------	---

For “Petrol Filling Station” only

Petrol Filling Station	Government Use Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Utility Installation not ancillary to the Specified Use
------------------------	--

Planning Intention

This zone is intended primarily for the provision of petrol filling station.

For All Other Specified Uses Not Listed Above

As Specified on the Plan	Government Use Mass Transit Railway Vent Shaft and/or Other Structure above Ground Level other than Entrances Utility Installation not Ancillary to the Specified Use
--------------------------	--

Planning Intention

This zone is primarily to provide/reserve land for specific purposes including Cheung Sha Wan Wholesale **Food** Market-Complex, Yau Ma Tei Public Cargo Working Area, ventilation buildings for the Airport Railway and Western Harbour Crossing, and a cargo working area.

**KOWLOON PLANNING AREA NO. 20**

**~~APPROVED~~DRAFT SOUTH WEST KOWLOON OUTLINE ZONING PLAN NO. S/K20/28A**

**EXPLANATORY STATEMENT**

## **KOWLOON PLANNING AREA NO. 20**

### **APPROVED DRAFT SOUTH WEST KOWLOON OUTLINE ZONING PLAN NO. S/K20/28A**

<u>Contents</u>	<u>Page</u>
1. INTRODUCTION	1
2. AUTHORITY FOR THE PLAN AND PROCEDURES	1
3. OBJECT OF THE PLAN	3
4. NOTES OF THE PLAN	<del>34</del>
5. THE PLANNING SCHEME AREA	4
6. POPULATION	4
7. <i>NON-BUILDING AREA</i>	<del>4</del>
78. LAND USE ZONINGS	
78.1 Commercial	<del>45</del>
78.2 Comprehensive Development Area	<del>56</del>
78.3 Comprehensive Development Area (1)	<del>68</del>
8.4 <i>Comprehensive Development Area (2)</i>	<del>8</del>
7.48.5 Residential (Group A)	<del>79</del>
7.58.6 Industrial	<del>912</del>
7.68.7 Government, Institution or Community	<del>912</del>
7.78.8 Open Space	<del>913</del>
7.88.9 Open Space (1)	<del>1013</del>
7.98.10 Other Specified Uses	<del>1013</del>
89. WEST KOWLOON CULTURAL DISTRICT DEVELOPMENT PLAN AREA	<del>1114</del>
910. COMMUNICATIONS	<del>1115</del>
1011. TYPHOON SHELTER	<del>1117</del>
1112. UTILITY SERVICES	<del>1117</del>
1213. IMPLEMENTATION	<del>1118</del>

## **KOWLOON PLANNING AREA NO. 20**

### **APPROVED DRAFT SOUTH WEST KOWLOON OUTLINE ZONING PLAN NO. S/K20/28A**

(Being an Approved *a Draft Plan* for the Purposes of the Town Planning Ordinance)

#### **EXPLANATORY STATEMENT**

Note : For the purposes of the Town Planning Ordinance, this statement shall not be deemed to constitute a part of the Plan.

#### **1. INTRODUCTION**

This explanatory statement is intended to assist an understanding of the ~~approved~~*draft* South West Kowloon Outline Zoning Plan (OZP) No. S/K20/28A. It reflects the planning intentions and objectives of the Town Planning Board (the Board) for the various land use zonings of the Plan.

#### **2. AUTHORITY FOR THE PLAN AND PROCEDURES**

- 2.1 Under the power delegated by the then Governor, the then Secretary for Planning, Environment and Lands, directed the Board on 17 June 1992, under section 3(1)(a) of the Town Planning Ordinance (the Ordinance), to prepare an OZP for West Kowloon Reclamation in the south-western part of Kowloon Peninsula.
- 2.2 On 4 December 1992, the draft OZP No. S/K20/1 was exhibited for public inspection under section 5 of the Ordinance.
- 2.3 On 10 December 1996, the then Governor in Council, under section 9(1)(a) of the Ordinance, approved the draft South West Kowloon OZP, which was subsequently renumbered as S/K20/3. On 4 November 1997, the Chief Executive in Council (CE in C) referred the approved OZP No. S/K20/3 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. Since then, the OZP had been amended five times and exhibited for public inspection under section 5 or 7 of the Ordinance to reflect changing circumstances.
- 2.4 On 11 July 2000, the CE in C under section 9(1)(a) of the Ordinance, approved the draft South West Kowloon OZP, which was subsequently re-numbered as S/K20/9. Since then, the OZP had been amended twelve times and exhibited for public inspection under section 5 or 7 of the Ordinance.
- 2.5 On 10 March 2009, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft South West Kowloon OZP, which was subsequently re-numbered as S/K20/22. On 5 May 2009, the CE in C, under section 12(1)(b)(ii) of the Ordinance, referred the approved South West Kowloon OZP No. S/K20/22 to the Board for amendment. ~~The reference back of the approved OZP was notified in the Gazette on 15 May 2009.~~ *Since then, the OZP had been amended once and exhibited for public inspection under section 5 of the Ordinance to reflect changing circumstances.*

- ~~2.6~~ On 29 May 2009, the draft South West Kowloon OZP No. S/K20/23, incorporating amendments mainly to rezone a site bounded by Lin Cheung Road, Jordan Road, Road D1 and Austin Road West from “Comprehensive Development Area” to “Comprehensive Development Area (1)”, and a site generally bounded by Lin Cheung Road, Jordan Road and Hoi Wang Road from “Open Space” (“O”), “Government, Institution or Community” (“G/IC”) and ‘Road’ to “O (1)”, was exhibited for public inspection under section 5 of the Ordinance. A total of 10 representations and one comment were received. Upon giving consideration to the representations and comment on 16 October 2009, the Board decided to propose an amendment to the Notes of the draft OZP to partially meet one representation.
- ~~2.7~~ On 23 October 2009, the proposed amendment was published for three weeks for further representations. A total of four further representations not related to the proposed amendment were received. They were considered invalid by the Board under section 6D(3)(b) of the Ordinance on 27 November 2009. On 11 December 2009, in accordance with section 6G of the Ordinance, the Board decided that the OZP shall be amended by the proposed amendment.
- 2.86 On 2 February 2010, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft South West Kowloon OZP, which was subsequently re-numbered as S/K20/24. On 12 March 2010, the approved South West Kowloon OZP No. S/K20/24 was notified in the Gazette under section 9(5) of the Ordinance. On 2 November 2010, the CE in C, under section 12(1)(b)(ii) of the Ordinance, referred the approved OZP No. S/K20/24 to the Board for amendment. The reference back of the OZP was notified in the Gazette on 12 November 2010 under section 12(2) of the Ordinance. *Since then, the OZP has been amended three times and exhibited for public inspection under section 5 or 7 of the Ordinance to reflect changing circumstances.*
- ~~2.9~~ On 21 January 2011, the draft South West Kowloon OZP No. S/K20/25, incorporating amendments to rezone two sites from “G/IC” to “O”, was exhibited for public inspection under section 5 of the Ordinance. A total of five representations and 46 comments on representations were received. On 24 June 2011, the Board considered the representations and comments and decided not to uphold the representations.
- ~~2.10~~ On 30 June 2011, the draft South West Kowloon OZP No. S/K20/26, incorporating the amendment to the Notes for the “Industrial” zone, was exhibited for public inspection under section 7 of the Ordinance. One representation and no comment was received. On 3 February 2012, the Board considered the representation and noted its supportive views.
- ~~2.11~~ On 30 March 2012, the draft South West Kowloon OZP No. S/K20/27 (the Plan), mainly indicating zoning boundary adjustments related to the “Other Specified Uses” (“OU”) annotated “Western Harbour Crossing Toll Plaza” zone to tally with the gazetted Tunnel Area Plan of the Western Harbour Crossing; the rezoning of two strips of land near To Wah Road from “G/IC” and “OU” annotated “Public Utility Depot Including Electricity Substation” to areas shown as ‘Road’, and two strips of land at Austin Road West and Canton Road from “OU” annotated “Arts, Cultural, Entertainment, Commercial and Other Uses” (“OU(ACECOU)”) to areas shown as ‘Road’ to reflect the

~~existing/planned road alignments; the inclusion of the area of the existing seawall along the waterfront into the area shown as ‘West Kowloon Cultural District (WKCD) Development Plan Area’ to follow the Board’s convention that the plan/zoning boundary on the waterfront should follow the high watermark; revision to the Chinese annotation of the “OU” zone for the Western Harbour Crossing Toll Plaza on the Plan as well as indicating an area of the Plan replaced by the draft WKCD Development Plan No. S/K20/WKCD/1, was exhibited for public inspection under section 7 of the Ordinance. During the exhibition period, one representation was received. One comment was received when the representation was published for public comment. Upon consideration of the representation and comment on 28 September 2012, the Board decided not to uphold the representation.~~

2.127 On 8 January 2013, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft South West Kowloon OZP, which was subsequently re-numbered as S/K20/28. On 18 January 2013, the approved South West Kowloon OZP No. S/K20/28 ~~(the Plan)~~ was notified in the Gazette under section 9(5) of the Ordinance.

2.138 *On 7 May 2013, the CE in C referred the approved OZP No. S/K20/28 to the Board for amendment under section 12(1)(b)(ii) of the Ordinance. The reference back of the OZP was notified in the Gazette on 16 May 2013 under section 12(2) of the Ordinance.*

2.149 *On \_\_\_\_\_ 2013, the draft South West Kowloon OZP No. S/K20/29 (the Plan), incorporating amendments mainly to rezone a site bounded by Sham Mong Road, Fat Tseung Street West and Ying Wa Street from “Government, Institution or Community” (“G/IC”) and “Open Space” (“O”) and a strip of land shown as ‘Road’ to “Residential (Group A)11” (“R(A)11”), and to rezone a waterfront site bounded by Lin Cheung Road, Hing Wah Street West and the Cheung Sha Wan Wholesale Food Market from “Other Specified Uses” (“OU”) annotated “Cargo Working Area, Wholesale Market and Industrial-Office”, “OU” annotated “Wholesale Market”, “OU” annotated “Pier” and areas shown as ‘Road’ to “Comprehensive Development Area” (“CDA”), “CDA(2)”, “R(A)12”, “G/IC”, “O” and areas shown as ‘Road’ was exhibited for public inspection under section 5 of the Ordinance.*

### 3. OBJECT OF THE PLAN

- 3.1 The object of the Plan is to indicate the broad land use zonings and major transport networks so that development and redevelopment of land within the Planning Scheme Area can be put under statutory planning control.
- 3.2 The Plan is to illustrate the broad principles of development. It is a small-scale plan and the transport alignments and boundaries between the land use zones may be subject to minor alterations as detailed planning proceeds.
- 3.3 Since the Plan is to show broad land use zoning, there would be cases that small strips of land not intended for building development purposes and carry no development right under the lease, such as the areas restricted *as*



*non-building area or* for garden, slope maintenance and access road purposes, are included in the residential zones. The general principle is that such areas should not be taken into account in plot ratio and site coverage calculations. Development within residential zones should be restricted to building lots carrying development right in order to maintain the character and amenity of this area and not to overload the road network in this area.

#### **4. NOTES OF THE PLAN**

- 4.1 Attached to the Plan is a set of Notes which shows the types of uses or developments which are always permitted within the planning scheme area and in particular zones and which may be permitted by the Board, with or without conditions, on application. The provision for application for planning permission under section 16 of the Ordinance allows greater flexibility in land use planning and better control of development to meet changing needs.
- 4.2 For the guidance of the general public, a set of definitions that explains some of the terms used in the Notes may be obtained from the Technical Services Division of the Planning Department and can be downloaded from the Board's website at <http://www.info.gov.hk/tpb>.

#### **5. THE PLANNING SCHEME AREA**

- 5.1 The Planning Scheme Area (the Area) is located in the south-western part of Kowloon Peninsula. It covers West Kowloon Reclamation and part of the former waterfronts in the Sham Shui Po and Yau Ma Tei districts. The boundaries of the Area are delineated in a heavy broken line on the Plan. It covers an area of about 403 hectares including 333 hectares of land and 70 hectares of typhoon shelter.
- 5.2 The Area covers land on the waterfront of Victoria Harbour. For any development proposal affecting such land, due regard shall be given to the Vision Statement for Victoria Harbour published by the Board and the requirements under the Protection of the Harbour Ordinance (Cap. 531).

#### **6. POPULATION**

According to the ~~2006~~**2011** Population By-census**Census**, the population of the Area was about ~~103 800~~**120 900**. It is estimated that the planned population of the Area will be about ~~203 600~~**184 200**.

#### **7. NON-BUILDING AREA**

- 7.1 *In order to facilitate air ventilation along major corridors, six strips of NBAs are designated at the waterfront site bounded by Lin Cheung Road, Hing Wah Street West and the Cheung Sha Wan Wholesale Food Market to generally align with Hing Wah Street West, Fat Tseung Street West and Tonkin Street West respectively:*

- (a) *a NBA of varying widths (ranging from 9m to 26m) is designated along the western boundary of the “R(A)12” site abutting Hing Wah Street West;*
- (b) *a 17m-wide NBA is designated along the eastern boundary of the “G/IC” site abutting Hing Wah Street West;*
- (c) *a 15m-wide NBA is designated along the western boundary of the CDA to the south of Hing Wah Street West;*
- (d) *a 22m-wide NBA is designated in the middle of the “R(A)12” site;*
- (e) *a 22m-wide NBA is designated in the middle of the CDA to the south of Hing Wah Street West; and*
- (f) *a 30m-wide NBA is designated along the eastern boundary of the “G/IC” site abutting Lin Cheung Road.*

7.2 *The NBAs serve as the entrance of the prevailing south-westerly wind to improve air penetration and visual permeability towards the hinterland. As the designation of the NBAs is primarily for the purpose of above-ground air ventilation, the NBA restriction will not apply to underground developments. To facilitate better connection between different parts of the public housing development and the adjoining areas, minor structure for footbridge connection on the NBAs may be allowed. Provision has also been included in the Notes of the “CDA”, “R(A)12” and “G/IC” zones to allow minor relaxation of the NBA restriction as shown on the Plan under exceptional circumstances.*

## **78. LAND USE ZONINGS**

78.1 “Commercial” (“C”) : Total Area 3.54 ha

78.1.1 This zone is intended primarily for commercial developments, which may include shop, services, place of entertainment and eating place, functioning mainly as district and local shopping centre(s).

78.1.2 The overall level of commercial development in the Area is constrained by the capacity of the transport network. A maximum total plot ratio of 8.0 is thus imposed to restrict traffic growth. The Metroplan has laid down specific targets for the supply of hotels and offices in the Area. To achieve these targets, the optimal development mix within each commercial site would be stipulated in the Government lease.

78.1.3 The site designated “Commercial(1)” (“C(1)”), namely Hong Kong and Shanghai Banking Corporation (HSBC) Centre, is bounded by Sham Mong Road, Pok Man Street and Hoi King Street. The commercial development is subject to a maximum total gross floor area (GFA) of 84 900m<sup>2</sup>. A public open space of not less than 3 900m<sup>2</sup>, a public transport terminus and a public toilet shall be provided. The HSBC

Centre is connected with the Airport Railway Olympic Station via two elevated walkways .

**78.1.4** Olympian City One and Bank of China Centre on Hoi Fan Road are zoned “C(2)”. The commercial development is subject to a maximum total GFA of 41 000m<sup>2</sup>. A public open space of not less than 2 930m<sup>2</sup>, a public transport terminus, social welfare facilities (including a day nursery, a day care centre for the elderly, a social centre for the elderly and a home help centre) and a public sports complex shall be provided. The public sports complex shall include an indoor sports hall of not more than 5 700m<sup>2</sup> GFA and an area of not less than 5 900m<sup>2</sup> for outdoor sports/recreational facilities. Two elevated walkways are provided linking up Olympian City One/Bank of China Centre with the Airport Railway Olympic Station.

**78.1.5** Piecemeal commercial developments outside the “C” zone are not encouraged and should be strictly controlled to avoid overloading the transport capacity. Hotel and office uses are therefore only permitted as of right on sites zoned “C”.

**78.1.6** To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio/GFA restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.

**78.2** “Comprehensive Development Area” (“CDA”) : Total Area ~~25.13~~**27.55** ha

**78.2.1** This zone is intended for comprehensive development/redevelopment of the area for residential and/or commercial uses with the provision of open space and other supporting facilities. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.

**78.2.2** The sites under this zoning are relatively large in area and are close to major transport links including West Kowloon Corridor, West Kowloon Highway, Airport Railway and Lin Cheung Road.

**78.2.3** Pursuant to sections 4(A)1 and 4(A)2 of the Ordinance, any development in the “CDA” zone would require the approval of the Board through planning application under section 16 of the Ordinance. The applicant shall prepare a Master Layout Plan (MLP) together with an environmental assessment and other information as specified in the Notes of the Plan for the approval of the Board. A copy of the approved MLP shall be made available for public inspection in the Land Registry pursuant to section 4A(3) of the Ordinance.

A “CDA” site in the southern part of the Area (13.60 ha)

**78.2.4** The CDA site at the Airport Railway Kowloon Station is intended to serve as the focus of a new secondary office and hotel centre in West

Kowloon. The MLP for the CDA site was first approved by the Board on 15 July 1994. The latest amended MLP was approved on 29 July 2005.

- 78.2.5** The Plan restricts the development intensities of the CDA sites to the maximum GFA as stipulated in the Notes. Exemption to be given by the Building Authority under the Practice Note for Authorized Persons and Registered Structural Engineers No. 111 for hotel developments will be excluded from the calculation of GFA for the purpose of the maximum GFA restriction stipulated in the Notes.

**ThreeFour “CDA” sites in the northern part of the Area (41.5313.46 ha)**

- 78.2.6** ~~Three~~**Four** CDA sites are earmarked to the north of Yen Chow Street West.

- 78.2.7** The two godowns, NKILs 6003 RP and 6052 (to be renamed as NKIL 6357), at Lai Fat Street are combined together and zoned “CDA”. It is subject to specific control on plot ratios as specified in the Notes for this zone, i.e. a maximum domestic plot ratio of 6.5 and a maximum non-domestic plot ratio of 1.5.

- 78.2.8** ~~The remaining two~~ **Two other** CDA sites are bounded by Sham Mong Road and the West Kowloon Highway. They are subject to specific control on plot ratios as specified in the Notes for this zone, i.e. a maximum domestic plot ratio of 6.5 and a maximum non-domestic plot ratio of 1.5. The CDA site at the ~~West Rail Line~~ **MTR** Nam Cheong Station will be developed for private residential development. The revised MLP for the site was approved by the Board on ~~8 May 2009~~ **1 March 2013**. The ~~other~~ CDA site (known as Site 6) is designated for proposed public rental housing development.

- 8.2.9** *Another CDA site is located to the south of Hing Wah Street West. It is intended for private residential development, subject to a total maximum GFA of 91 770m<sup>2</sup> and a maximum building height of 100mPD. A public open space of not less than 3 600m<sup>2</sup> shall be provided in the middle part of the CDA which shall be connected with the public open space in the “R(A)12” site to create a continuous public open space leading to the waterfront promenade. A planning brief will be prepared to guide the future development of the CDA site.*

- 78.2.910** To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio/GFA /building height restrictions may be considered by the Board ~~through the planning permission system~~ **on application under section 16 of the Ordinance**. Each ~~proposal~~ **application** will be considered on its ~~individual planning~~ **own** merits. **Under exceptional circumstances, minor relaxation of the NBA restriction may be considered by the Board on application under section 16 of the Ordinance.**

- 78.3** “Comprehensive Development Area(1)” (“CDA(1)” : Total Area 5.88 ha

- 78.3.1** The “CDA(1)” zone bounded by Lin Cheung Road, Jordan Road, Road D1 and Austin Road West is to facilitate the proposed development of the West Kowloon Terminus of the Guangzhou–Shenzhen–Hong Kong Express Rail Link (XRL). It is intended for a comprehensive development of the railway terminus and the topside development, which is primarily for office/commercial use, into a strategic rail and high-grade office hub. The office hub is planned to be an extension of the Central Business District (CBD) from Tsim Sha Tsui to West Kowloon for the provision of Grade A office accommodation so as to capitalise on the benefits brought by the XRL and the WKCD. The site is subject to specific control on plot ratios as specified in the Notes for this zone, i.e. a maximum total plot ratio of 0.68 for above-ground railway facilities and a maximum total plot ratio of 5.0 above the railway station. Development within this zone is also subject to maximum building heights of 90, 100 and 115 metres above Principal Datum (mPD) as stipulated on the Plan. A public open space of not less than 8 900m<sup>2</sup> is to be provided at the south-western portion of the site to align with the public open space at the WKCD to enhance visual permeability and pedestrian accessibility.
- 78.3.2** To provide flexibility for innovative design adapted to the characteristics of the site, minor relaxation of the plot ratio/building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits.
- 78.3.3** To provide greater design flexibility for iconic and sustainable architectural design of the topside development at the West Kowloon Terminus of XRL, given its relationship with the WKCD, West Kowloon Terminus and the waterfront setting, relaxation of the building height restrictions may be considered by the Board on application under section 16 of the Ordinance for proposals possessing outstanding planning or design merits.

**8.4     “Comprehensive Development Area(2)” (“CDA(2)”) : Total Area 0.49 ha**

- 8.4.1** *The “CDA(2)” zone is located to the west of the Cheung Sha Wan Wholesale Food Market. This zone is intended for comprehensive development/redevelopment of the area for residential and/or commercial uses. The zoning is to facilitate appropriate planning control over the development mix, scale, design and layout of development, taking account of various environmental, traffic, infrastructure and other constraints.*

**8.4.2** *To minimize the noise impact from the existing Cheung Sha Wan Wholesale Food Market, hotel use may be permitted at the site to separate the wholesale market from the proposed private residential development in the waterfront. However, flexibility is allowed for private residential use at the site if the future project proponent could demonstrate that the noise impact could be addressed through proper mitigation measures. Development within this zone is subject to a total maximum GFA of 34,770m<sup>2</sup> and a maximum building height of 100mPD. A planning brief will be prepared to guide the future development of the CDA site.*

**8.4.3** *To provide flexibility for innovative design adopted to the characteristics of the site, minor relaxation of GFA/building height restrictions may be considered by the Board on application under section 16 of the Ordinance. Each application will be considered on its own merit.*

**7.48.5** “Residential (Group A)” (“R(A)”) : Total Area ~~47.99~~**52.2** ha

**7.48.5.1** This zone is intended primarily for high-density residential developments. Commercial uses such as bank, fast food shop and retail shop are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building. Shop and services on any upper floors and office use will require planning permission from the Board.

**7.48.5.2** Two sites on both sides of Hoi Wang Road to the south of Tai Kok Tsui hinterland (the Charming Garden and the Hoi Fu Court) ~~and~~, a site bounded by Sham Mong Road and Tonkin Street West (Fu Cheong Estate and ~~extension~~ **Wing Cheong Estate**) are zoned “R(A)” for public housing development including Private Sector Participation Scheme and public rental housing. The development intensities and requirements for the public housing sites are stipulated in the planning briefs prepared by the Planning Department in conjunction with the Housing Department and other relevant Government departments.

**7.48.5.3** ~~A site~~ **Hampton Place** at Hoi Fan Road, ~~two residential sites~~ **The Long Beach, Imperial Cullinan and One Silversea** to the west of Hoi Fai Road, ~~a site~~ **The Coronation** near the junction of Hoi Wang Road and Yan Cheung Road, and ~~a site~~ **The Hermitage** near the junction of Cherry Street and Hoi Wang Road are zoned “R(A)1”. Two sites to the east of Road D1 between Jordan Road and Austin Road West are zoned “R(A)2”. ~~A site~~ **The Pacifica** bounded by West Kowloon Corridor and Hing Wah Street West as well as a site to its further west are zoned “R(A)3”. ~~A site~~ **Aqua Marine** at the junction of Sham Mong Road and Hing Wah Street West is zoned “R(A)4”.

**7.48.5.4** In view of the environmental and traffic constraints of the West Kowloon Reclamation area, the maximum domestic plot ratios permitted in “R(A)1” and “R(A)2” zones are 6.5 and 5.0 respectively while the maximum non-domestic plot ratios permitted in “R(A)1” and “R(A)2” zones are 1.0. The “R(A)3” zone is subject to a maximum

domestic plot ratio of 7.5 and a maximum non-domestic plot ratio of 1.5. The “R(A)4” zone is subject to a maximum domestic plot ratio of 6.5 and a maximum non-domestic plot ratio of 1.5. The restrictions on non-domestic plot ratio will help maintain a better residential environment without over-infiltration of commercial and other non-residential uses into the area.

**7.48.5.5** Park Avenue and Central Park together with the retail complex of Olympian City Two on Hoi Ting Road are designated as “R(A)5” zone. The mixed residential/retail developments are subject to a maximum domestic GFA of 220 050m<sup>2</sup> and a maximum non-domestic GFA of 47 500m<sup>2</sup>. A public open space of not less than 8 900m<sup>2</sup>, a market, a public transport terminus and GIC facilities as required by the Government shall be provided. An elevated walkway linking up Olympian City Two with the Airport Railway Olympic Station is provided. There is a footbridge at Hoi Wang Road connecting Park Avenue with Hoi Fu Court.

**7.48.5.6** Island Harbourview on Hoi Fan Road is zoned “R(A)6”. The residential development is subject to a maximum total GFA of 169 950m<sup>2</sup>. A public open space of not less than 4 871m<sup>2</sup> shall be provided. Two footbridges at Hoi Fai Road linking up Island Harbourview and *One Silversea and The Long Beach* ~~the two residential sites zoned “R(A)1” to the west on Hoi Fai Road~~ are provided.

**7.48.5.7** The former Cheung Sha Wan Shipyard site, NKILs 6320 and 6328 at Lai Chi Kok Road, is developed into two residential developments, viz., Banyan Garden and Liberte respectively. ~~The~~ Banyan Garden is zoned “R(A)7” and is subject to a maximum domestic GFA of 145 625m<sup>2</sup> and a maximum non-domestic GFA of 5 799m<sup>2</sup>. In addition, a total of not less than 140 public lorry parking spaces and a community hall of 992m<sup>2</sup> in GFA have been provided. ~~The~~ Liberte is zoned “R(A)8” and is subject to a maximum domestic GFA of 141 840m<sup>2</sup> and a maximum non-domestic GFA of 5 600m<sup>2</sup>. In addition, a total of not less than 140 public lorry parking spaces have also been provided.

**7.48.5.8** ~~The~~ Hoi Lai Estate, bounded by Sham Mong Road, Hing Wah Street West and West Kowloon Highway, is zoned “R(A)9”. The site is subject to a maximum domestic and non-domestic GFA of 279 910m<sup>2</sup> and 8 210m<sup>2</sup> respectively. Within Hoi Lai Estate, a public transport terminus is provided.

**7.48.5.9** Harbour Green at the junction of Hoi Fai Road and Sham Mong Road is zoned “R(A)10”. The residential development is subject to a maximum domestic GFA of 103 152m<sup>2</sup> and a non-domestic GFA of 1 300m<sup>2</sup> for kindergarten. Harbour Green is linked up with Olympian City One by an elevated walkway. It is also linked up with HSBC Centre and the existing Tai Kok Tsui area by three footbridges over Sham Mong Road.

**8.5.10** *A site bounded by Sham Mong Road, Fat Tseung Street West and*

*Ying Wa Street is zoned “R(A)11” for a Home Ownership Scheme (HOS) development. The HOS development is subject to a maximum domestic plot ratio of 6.5, a maximum non-domestic plot ratio of 1.5 and a maximum building height of 120mPD. The HOS development will be linked up with Site 6 by an elevated footbridge.*

*8.5.11 The northern portion of the waterfront site bounded by Lin Cheung Road, Hing Wah Street West and the Cheung Sha Wan Wholesale Food Market is zoned “R(A)12” for public housing development. The public housing development is subject to a maximum domestic GFA of 205 000m<sup>2</sup>, a maximum non-domestic GFA of 16 000m<sup>2</sup> and a maximum building height of 120mPD. A public open space of not less than 3 800m<sup>2</sup> shall be provided in the middle part of the “R(A)12” site which shall be connected with the public open space in the CDA site to the south of Hing Wah Street West to create a continuous public open space leading to the waterfront promenade.*

*8.5.12 For public housing developments, in accordance with the established administrative procedure, the future development/redevelopment would be governed by a planning brief. The layout of the public housing developments, including free-standing GIC and ancillary facility building should be comprehensively planned. To demonstrate that the development/redevelopment is acceptable, the Housing Department would be required to undertake relevant assessments, including traffic impact assessment, visual impact assessment, AVA, etc. as appropriate. In view of the larger area of public housing development sites, caution should be exercised to ensure that building blocks do not obstruct the wind flow and air paths should be reserved subject to AVA studies at building design stage. Low-rise free-standing GIC and ancillary facility buildings should be kept as breathing spaces and visual relief to the building masses. No new addition, alteration and/or modification to or redevelopment of these existing individual free-standing GIC and ancillary facility buildings shall result in a total development and/or redevelopment in excess of the height of the existing building.*

*7.4.108.5.13 To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the plot ratio/GFA/building height restrictions may be considered by the Board through the planning permission system. Each proposal will be considered on its individual planning merits. Under exceptional circumstances, minor relaxation of the NBA restriction may be considered by the Board on application under section 16 of the Ordinance.*



**7.58.6 “Industrial” (“I”) : Total Area 1.85 ha**

**7.58.6.1** This zone is intended primarily for general industrial uses to ensure an adequate supply of industrial floor space to meet demand from production-oriented industries. Information technology and telecommunications industries and office related to industrial use are also always permitted in this zone. However, shop and services (ground floor only, except in wholesale conversion of an existing building and ancillary showroom which may be permitted on any floor) such as bank, fast food shop and retail shop, and office uses, other than those permitted in the purpose-designed non-industrial portion on the lower floors (except basements and floors containing wholly or mainly car parking, loading/unloading bays and/or plant room) of an existing building, will require planning permission from the Board.

**7.58.6.2** A site at Yen Chow Street West is zoned “I” and development on this site is restricted to a maximum plot ratio of 2.5. It has been developed for godown and open storage uses.

**7.68.7 “Government, Institution or Community” (“G/IC”) : Total Area ~~29.22~~29.82 ha**

**7.68.7.1** This zone is intended primarily for the provision of GIC facilities serving the needs of the local residents and/or a wider district, region or the territory. It is also intended to provide land for uses directly related to or in support of the work of the Government, organizations providing social services to meet community needs, and other institutional establishments. The provision of GIC facilities is based on the Hong Kong Planning Standards and Guidelines (HKPSG) or in consultation with concerned Government departments where the HKPSG are not applicable. The shortfalls of GIC facilities in the hinterland in West Kowloon have also been taken into account wherever possible and appropriate. The provision of GIC facilities within the Area is generally adequate to serve the planned population.

**7.68.7.2** Major GIC uses to be provided within the “G/IC” zones include Government depots, markets, public car parks, clinics, police stations, social welfare facilities, schools, indoor recreation centres, a magistracy, electricity sub-stations, telephone exchanges, pumping stations, traction substation, and a gas pigging station.

**7.68.7.3** Local GIC facilities would also be provided within the “R(A)” and “CDA” zones.

**8.7.4** *Developments and redevelopments within this zone are subject to building height restrictions in terms of number of storeys (excluding basement floor(s)) as stipulated on the Plan, or the height of the existing building, whichever is the greater.*

**8.7.5** *To provide flexibility for innovative design adapted to the characteristics of particular sites, minor relaxation of the building height restrictions may be considered by the Board on application*

*under section 16 of the Ordinance. Each application will be considered on its own merits. Under exceptional circumstances, minor relaxation of the NBA restriction may be considered by the Board on application under section 16 of the Ordinance.*

**7.78.8 “Open Space” (“O”) : Total Area 21.4722.32 ha**

**7.78.8.1** This zone is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public. *This zone also includes the waterfront promenades at the site bounded by Lin Cheung Road, Hing Wah Street West and the Cheung Sha Wan Wholesale Food Market, and to the west of The Long Beach, Imperial Cullinan and One Silversea.*

**7.78.8.2** Major open spaces are distributed throughout the Area to meet the demand of the planned population. Local open spaces are also provided within “R(A)”, “C” and “CDA” sites.

**7.78.8.3** Open spaces are provided in accordance with the HKPSG. The level of provision on the Plan is adequate to serve the planned population of the Area.

**7.88.9 “Open Space (1)” (“O(1)”) : Total Area 4.22 ha**

This zone is intended to facilitate an integrated development comprising public open space, a public transport interchange and its supporting facilities, Mass Transit Railway vent shaft, and public utility installation in relation to the XRL terminus. Part of the public open space could be provided in the form of a landscaped deck above the public transport interchange. In view of the strategic location of the site and to ensure integrated design, any development on the site other than the public open space would require the approval of the Board through planning application under section 16 of the Ordinance with the support of a visual impact assessment and other information as specified in the Notes of the Plan for the approval of the Board.

**7.98.10 “Other Specified Uses” (“OU”) : Total Area 38.7729.45 ha**

**7.98.10.1** This zoning covers land allocated for specific purposes. It covers ~~two~~ *the* wholesale markets, piers, the Western Harbour Crossing Toll Plaza, cargo working areas, railway stations, ventilation buildings, and a public utility depot including electricity sub-station.

**7.98.10.2** There ~~is are two~~ major “OU” sites in the northern part of the Area, viz., the Cheung Sha Wan Wholesale *Food* Market, ~~that Complexes Phases I and II. Phase I of the Complex located to the immediate north-west of Yen Chow Street West~~ was completed in September 1993 providing wholesale market facilities for imported vegetables, eggs and fish. ~~The Phase II site is intended to accommodate wholesale market and related industrial and cargo handling uses.~~

**7.98.10.3** Other specific uses under the “OU” zoning include the following :

- (a) ~~five~~ **four** piers are located at the Cheung Sha Wan waterfront serving Cheung Sha Wan Wholesale **Food** Market;
- (b) Yau Ma Tei Public Cargo Working Area is located immediately to the east of the typhoon shelter. Another cargo working area at the Cheung Sha Wan waterfront is currently operated by private sector;
- (c) the Airport Railway Olympic Station and the Airport Railway Nam Cheong Station;
- (d) a site near the south-western end of the Area is designated for the Western Harbour Crossing Toll Plaza;
- (e) a site for ventilation building located to the north of Yau Ma Tei Interchange serving the Airport Railway;
- (f) a site for public utility depot including electricity sub-station is located at To Wah Road;
- (g) a site near the junction of Jordan Road and Ferry Street for a new headquarters building for the Hong Kong Girl Guides Association with related dormitory and hostel uses; and
- (h) a site for petrol filling station is located at Sham Mong Road.

**89. WEST KOWLOON CULTURAL DISTRICT DEVELOPMENT PLAN AREA – Total Area 40.91 ha**

- 89.1** The WKCD Authority (the Authority) was established on 23 October 2008 under the WKCD Authority Ordinance enacted by the Legislative Council in July 2008. In accordance with the WKCD Authority Ordinance, the Authority shall prepare a Development Plan (DP) for the WKCD, which serves as the basis for implementation of the WKCD development.
- 89.2** The area located to the south of Austin Road West and the Western Harbour Crossing Toll Plaza was previously zoned “OU” annotated “Arts, Cultural, Entertainment, Commercial and Other Uses” for the development of WKCD into an arts, cultural, entertainment and commercial district with distinguished identity.
- 89.3** On 9 March 2012, pursuant to section 21(7) of the WKCD Authority Ordinance, the draft WKCD DP No. S/K20/WKCD/1 was deemed suitable for publication by the Board and accordingly, the draft DP No. S/K20/WKCD/1 was exhibited under section 5 of the Ordinance on 30 March 2012. In accordance with section 21(9) of the WKCD Authority Ordinance, the DP replaced the South West Kowloon OZP in respect of the WKCD being covered by the DP. *During the exhibition period of the draft DP, 10 representations were received. Three comments were received when the representations were published for public comment. Upon consideration of the*

*representations and comments on 28 September 2012, the Board decided not to uphold the representations. On 8 January 2013, the CE in C, under section 9(1)(a) of the Ordinance, approved the draft DP, which was subsequently re-numbered as S/K20/WKCD/2. On 18 January 2013, the approved WKCD DP No. S/K20/WKCD/2 was notified in the Gazette under section 9(5) of the Ordinance.*

## **910. COMMUNICATIONS**

### **910.1 Roads**

**910.1.1** Only major roads including trunk, primary and distributor roads are indicated on the Plan while local and minor roads are not shown.

**910.1.2** West Kowloon Highway runs from north to south providing a strategic transport link to the Area. It forms part of a major road link extending from the airport at Chek Lap Kok to Hong Kong Island through the Western Harbour Crossing.

**910.1.3** West Kowloon Highway is elevated between Mei Foo Sun Chuen and north of Cherry Street and at-grade and semi-depressed south of Cherry Street. The Yau Ma Tei Interchange of this highway provides connection with West Kowloon Corridor, the proposed Central Kowloon Route and local roads in the Area.

**910.1.4** Tsing Sha Highway is a trunk road linking Lantau and Sha Tin comprising Sha Tin Height Tunnel, Eagle's Nest Tunnel, Lai Chi Kok Viaduct, Stonecutters Bridge and their connecting roadways. The section between Cheung Sha Wan and Sha Tin was commissioned in March 2008, while the section between Cheung Sha Wan and Tsing Yi was commissioned in December 2009.

**910.1.5** Roadside amenity areas along major roads have been generalised and shown as part of the overall road network on the Plan.

### **910.2 Railways**

**910.2.1** The Area is served by the Airport Railway, which provides two services: an Airport Express Line (AEL) between the airport at Chek Lap Kok and Hong Kong Island, and a local domestic Tung Chung Line (TCL) between Tung Chung and Hong Kong Island.

**910.2.2** The rail reserve is predominantly for four tracks running at-grade under West Kowloon Highway to the Airport Railway Olympic Station. From Cherry Street, the tracks diverge from West Kowloon Highway and run underground parallel to Lin Cheung Road to the Airport Railway Kowloon Station.

**910.2.3** The Airport Railway Kowloon Station has separate AEL and TCL stations and includes in-town check-in facilities for the airport at Chek Lap Kok. Both the Airport Railway Olympic Station and Nam

Cheong Station are TCL stations.

**910.2.4** Besides, the Area is served by the West Rail Line (WRL) which is a passenger line connecting Tuen Mun Centre to Hung Hom (and East Rail Line) via Austin Station of Kowloon Southern Link (KSL) and East Tsim Sha Tsui Station. The WRL and KSL were completed in late 2003 and August 2009 respectively. Interchange between the WRL and TCL is provided at Nam Cheong Station.

**910.2.5** The Area will also be served by the proposed XRL which is a cross-boundary passenger line with a proposed West Kowloon Terminus located at the “CDA(1)” site bounded by Lin Cheung Road, Jordan Road, Road D1 and Austin Road West. The XRL will connect Hong Kong, Shenzhen and Guangzhou with the West Kowloon Terminus (**WKT**) being its southernmost station. ~~The West Kowloon Terminus~~ **WKT** will be the gateway for Hong Kong to connect to the national high speed rail network. The Hong Kong section of the XRL is a 26-km dedicated railway line connecting Hong Kong with the Mainland section between Guangzhou and Shenzhen ~~(Futian)~~. *The section between Guangzhou South and Shenzhen North stations was planned to be* commissioned in 2011. Construction of the Hong Kong section has commenced in 2009 and is scheduled for completion in 2015. The ~~terminus~~ **WKT** would carry about 120 000 passengers per day in 2030. It will accommodate co-located custom, immigration and quarantine facilities for the HKSAR and the Mainland.

**910.2.6** Pursuant to section 13A of the Ordinance, the railway scheme for the Hong Kong section of the XRL authorized by the CE in C under the Railways Ordinance (Cap. 519) shall be deemed to be approved under the Ordinance. As the Hong Kong section of the XRL has been authorized by CE in C on 20 October 2009, the alignment of the XRL is shown on the Plan for information only.

### **910.3** Other Public Transport Facilities

The Area will be well served by buses and green minibuses. A number of public transport terminus have been provided in the developments adjoining the Airport Railway Olympic Station and planned in the CDA development of Airport Railway Kowloon Station and also in other “CDA”, “R(A)” and “C” sites.

### **910.4** Pedestrian Facilities

**910.4.1** A system of elevated walkways linking up the Airport Railway Olympic Station with the adjoining commercial developments is provided to segregate pedestrian and vehicular traffic. Two elevated walkways cross over Sham Mong Road to provide access to HSBC Centre to the east, one crosses over Lin Cheung Road to reach Olympian City Two to the south, while two other walkways crosses over West Kowloon Highway to provide access to Bank of China Centre/Olympian City One to the west.

**910.4.2A** footbridge is provided between the residential developments at Park Avenue and Hoi Fu Court, whereas two footbridges have been completed to connect the residential development at Island Harbourview on Hoi Fan Road with ~~the two residential sites zoned “R(A)1”~~ *One Silversea and The Long Beach* to the west of Hoi Fai Road.

**910.4.3** An elevated walkway crossing over West Kowloon Highway is provided to linking up the residential development at Harbour Green with Olympian City One. Another three footbridges crossing over Sham Mong Road are also provided to connect Harbour Green with the existing HSBC Centre and the existing Tai Kok Tsui area.

**910.4.4** ~~The West Kowloon Terminus~~ **WKT** of the XRL will be linked up with surrounding developments such as the Airport Railway Kowloon Station, the KSL Austin Station, the WKCD and the public transport interchange to its north across Jordan Road via at-grade pedestrian crossings, footbridges and subways.

**910.4.5** To link up the hinterland with the West Kowloon Reclamation area, a number of footbridges/subways have been constructed/planned at the junctions of Sham Mong Road/Ivy Street, Sham Mong Road/Hoi Fai Road, Waterloo Road/Ferry Street, Jordan Road/Ferry Street, and Cherry Street/Argyle Street/Ferry Street. These footbridges/subways provide essential linkages between the hinterland area with the open space, major commercial development and community facilities at the Airport Railway Olympic and Kowloon Stations. The northern part of the Area will also be served by a comprehensive grade-separated pedestrian network in the form of footbridges, i.e. across Sham Shing Road, Sham Mong Road and Tonkin Street West.

## **1011. TYPHOON SHELTER**

The former Yau Ma Tei Typhoon Shelter has been reclaimed and reprovisioned further west within the Area. Having an area of about 70 hectares, the reprovisioned Yau Ma Tei Typhoon Shelter is the largest typhoon shelter in Hong Kong. Associated with the typhoon shelter is a public cargo working area and other GIC uses such as a marine licensing office and a water selling kiosk.

## **112. UTILITY SERVICES**

### **112.1 Water**

Water mains will generally be laid below road carriageways. Some water mains will be laid under amenity areas and open spaces. Trunk water mains should not be routed along West Kowloon Highway and Airport Railway. Fresh water for the Area is served by a service reservoir to the west of Pak Tin Estate.

### **112.2 Gas**

A site for a gas pigging station has been reserved near the approach roads of Western Harbour Crossing. Gas pipelines will be laid below road carriageways and along roadside amenity areas and verges of Lin Cheung Road.

#### **11/12.3 Electricity**

Electricity cables will be laid below footpaths or carriageways. In some cases, a 5m reserve through open space areas is required. A total of five electricity sub-station sites have been reserved in the Area.

#### **11/12.4 Telephone**

Telephone cables will be laid below footpaths or carriageways. There will be two telephone exchanges in the Area.

#### **11/12.5 Sewerage and Drainage**

11/12.5.1 Sewage generated by the Area will be drained by gravity to either the Cheung Sha Wan and Sham Shui Po Sewage Screening Plants or the Stonecutters Island Sewage Treatment Works via pumping stations. Sewage in the southern section will be drained to the newly constructed interceptor sewer in Mong Kok through gravity sewer connections.

11/12.5.2 All drainage reserves should be kept free of building works.

### **12/13. IMPLEMENTATION**

12/13.1 The timing and construction of distributor roads, drainage and installation of utilities will be programmed to meet the demand for development in the Area.

12/13.2 Although existing uses non-conforming to the statutory zonings are tolerated, any material change of use and any other development/redevelopment must be always permitted in terms of the Plan or, if permission is required, in accordance with the permission granted by the Board. The Board has published a set of guidelines for the interpretation of existing use in the urban and new town areas. Any person who intends to claim an “existing use right” should refer to the guidelines and will need to provide sufficient evidence to support his claim. The enforcement of the zonings mainly rests with the Buildings Department, the Lands Department and the various licensing authorities.

12/13.3 The Plan provides a broad land use framework within which more detailed non-statutory plans for the Area are prepared by the Planning Department. These detailed plans are used as the basis for public works planning and site reservation within the Government. Disposal of sites is undertaken by the Lands Department. Public works projects are co-ordinated by the Civil Engineering and Development Department in conjunction with the relevant client departments and the works departments, such as the Highways

Department and the Architectural Services Department. In the course of implementation of the Plan, the Sham Shui Po and Yau Tsim Mong District Councils would also be consulted as appropriate.

**12/13.4** Planning applications to the Board will be assessed on individual merits. In general, the Board, in considering the planning applications, will take into account all relevant planning considerations which may include the departmental outline development plans and the guidelines published by the Board. The outline development plans are available for public inspection at the Planning Department. Guidelines published by the Board are available from the Board's website, the Secretariat of the Board and the Technical Services Division of the Planning Department. Application forms and Guidance Notes for planning applications can be downloaded from the Board's website and are available from the Secretariat of the Board and the Technical Services Division and the relevant District Planning Office of the Planning Department. Applications should be supported by such materials as the Board thinks appropriate to enable it to consider the applications.

**TOWN PLANNING BOARD**  
**JANUARY\_\_\_\_\_ 2013**



**Provision of Major Community Facilities in Sham Shui Po District**

Type of Facilities	Hong Kong Planning Standards and Guidelines (HKPSG)	HKPSG Requirement (based on planned population)	Provision		Surplus/ Shortfall (against planning provision)
			Existing Provision	Planning Provision	
District Open Space	10 ha per 100,000 persons	49.58ha	52.13ha	61.92ha	12.34ha
Local Open Space	10 ha per 100,000 persons	49.58ha	50.58ha	59.16ha	9.58ha
Secondary School	1 whole-day school for 40 persons aged 12-17	697 Classrooms	795 Classrooms	825 Classrooms	128 Classrooms
Primary School	1 whole-day school for 25.5 persons aged 6-11	1,056 Classrooms	812 Classrooms	980 Classrooms	-76 Classrooms
Kindergarten/Nursery	26 classrooms for 1,000 children aged 3 to 6	279 Classrooms	288 Classrooms	320 Classrooms	41 Classrooms
District Police Station	1 per 200,000 to 500,000 persons	1	1	1	0
Divisional Police Station	1 per 100,000 to 200,000 persons	3	3	3	0
Hospital	5.5 beds per 1,000 persons	2,865 beds	1,199 beds	1,459 beds	-1,406 beds
Specialist Clinic/Polyclinic	1 specialist clinic/polyclinic whenever a regional or district hospital is built	2	2	2	0
Clinic/Health Centre	1 per 1,000 persons	5	4	5	0
Post Office	1 per 30,000 persons	16	7	8	-8
Magistracy (with 8 courtrooms)	1 per 660,000 persons	1	0	1	0
Integrated Children and Youth Services Centre	1 for 12,000 persons aged 6-24	7	8	8	1
Integrated Family Services Centre	1 for 100,000 to 150,000 persons	3	5	5	2
Library	1 district library for every 200,000 persons	2	4	5	3
Sports Centre	1 per 50,000 to 65,000 persons	7	6	7	0
Sports Ground/Sport Complex	1 per 200,000 to 250,000 persons	1	1	2	1
Swimming Pool Complex - Standard	1 complex per 287,000 persons	1	3	3	2

## Details on Public Consultations and PlanD's Responses

### **1. Fat Tseung Street West Site**

- 1.1. On 5.3.2013, the Sham Shui Po District Council (SSPDC) was consulted on the rezoning proposal of the Fat Tseung Street West site. SSPDC had no objection to the rezoning proposal and urged relevant government departments to provide the detailed design of the proposed HOS development once available. SSPDC also requested relevant government departments to carry out and inform SSPDC of the findings of various technical assessments as soon as practicable.
- 1.2. Since March 2013, a number of local residents, some SSPDC members, concern groups (such as Sham Shui Po Planning Concern Group (SSPPCG) and Green Sense) and the adjacent St. Margaret's Co-educational English Secondary and Primary School (including its teaching staff, parent-teacher association, individual students and their parents) have expressed concerns, mostly adverse comments on the proposed HOS development.
- 1.3. On 9.7.2013, HD organized a community engagement workshop to collect local and stakeholders' views on the proposed HOS development at the Fat Tseung Street West site and the proposed PRH development at NWKR Site 6. The comments/objections received and views collected are summarized as follows :
  - *planning intention* – the intention to provide low-rise development and open space within the GIC cluster should not be abandoned without justifications;
  - *land use compatibility* – their attitude towards public housing development is positive but the proposed HOS development at the Fat Tseung Street West site is inappropriate and incompatible. There is no development with building height (BH) exceeding 35m within the GIC cluster and the site should be utilized for school development;
  - *nuisance to future occupants* – the existing school adjacent to the Fat Tseung Street West site might become a source of nuisance towards future occupants of the proposed HOS development thus might result in complaints towards school daily operation, which is unfair and would disrupt social harmony;
  - *adverse air ventilation and visual impacts* – the proposed HOS development with BH of 120mPD would hinder air ventilation and sunlight penetration to the adjacent school site and the surrounding environment;
  - *adverse traffic impact* – the additional population intake at the Fat Tseung Street West site would adversely affect nearby road traffic and road safety, especially Ying Wa Street is very narrow;
  - *construction nuisance* – construction works of the proposed HOS development would generate nuisance to students, teachers and school users;
  - *safety issue* – potential hazard of falling objects from the proposed HOS development onto the adjacent school site would harm the students;

- *inadequate consultation* – stakeholders were not consulted nor aware about the proposed rezoning until the rezoning proposal was submitted to SSPDC for consultation, adequate consultation should be carried out prior to deriving the proposal; and
- *inefficient use of resource* – demolish and reprovision of the existing 5-a-side soccer pitch is a waste of Government resource.

- 1.4. The Vice-Principal of the St. Margaret's Co-educational English Secondary and Primary School further submitted a proposal for swapping the proposed HOS site at Fat Tseung Street West with the proposed primary school site at Lin Cheung Road site (proposed Amendment Item F) arguing that the proposed primary school at the Lin Cheung Road site is not suitable for school use due to foreseeable adverse air quality and noise impacts.
- 1.5. Two SSPDC members, Mr. Li Ki Fung and Mr. Leung Man Kwong, submitted a discussion paper in respect of the proposed HOS development at the Fat Tseung Street West site at the SSPDC meeting on 3.9.2013. They objected to the proposed HOS development at the Fat Tseung Street West site and suggested the Government to consider using three undeveloped Government sites in Cheung Sha Wan area (two zoned "G/IC" and one zoned "O") for meeting the demand for HOS flats.

## **PlanD's Responses**

### Land Use Compatibility

- Due to the acute shortage of land for public housing, the Government has to timely identify suitable sites for housing development. Planning is a continuous process catering for the ever changing needs and circumstances of the society. The Fat Tseung Street West site located in close proximity to schools and a number of existing and planned high-density residential developments (**Plan 3 and 4**), the proposed HOS development is considered not incompatible with these surrounding uses. HD will provide measures to minimize possible adverse impacts to the surrounding environment during the construction period.

### Reprovision of Affected Planned/Existing Facilities

- LCSD advises that as reprovisioning of the affected facilities (i.e. the planned Government complex and the existing 5-a-side soccer pitch) opposite Sham Mong Road within NWKR Site 6 is feasible, LCSD has no objection to the rezoning proposal of the Fat Tseung West site on the understanding that HD's reprovisioning arrangement and implementation programme of the affected facilities within the NWKR Site 6 (**Plan 3**) will be provided to LCSD's satisfaction.

### Air Ventilation Impact

- The preliminary AVA conducted by HD indicates that the proposed HOS development would not induce significant adverse air ventilation impact to the surrounding

environment as compared with the baseline scheme of a GIC block (for accommodating the planned facilities).

#### Safety Issue

- The residential towers would be located as far as possible from the adjacent school to ensure the safety of students and other school users.

#### Environmental Impact

- It is not anticipated that the proposed rezoning at the Fat Tseung Street West site for residential purpose would cause insurmountable environmental problems. Further studies on environmental and traffic aspects would be carried out by HD in a later stage. Mitigation measures including suitable building design and site layout would be incorporated during detailed design stage to ensure no unacceptable adverse environmental impact (including possible nuisance from the adjacent environment, including school operation, traffic and the godown nearby) would be resulted to the future occupants and the surrounding environment.

#### Public Consultation

- Due to the increasing public concern on land use and planning issues, SSPDC was consulted on the recommendations on the proposed amendments on 5.3.2013, prior to submission to the Board for consideration. HD also organized a community engagement workshop to collect views from the local residents and stakeholders on 9.7.2013. All public comments received during SSPDC meeting, community engagement workshop and other written comments have been considered in formulating the proposed amendment items.

#### Site Swapping Proposal

- The site swapping proposal suggested by the Vice-Principal of St. Margaret's Co-educational English Secondary and Primary School was considered not acceptable by the concerned bureau/departments because the proposed primary school at the Lin Cheung Road site is required to meet the additional demand generated by the proposed housing development. The proposed school, with full air-conditioning and suitable disposition and design, can help separating the operation noise from the existing CSWWFM to the future residents. Moreover, replacing a low-rise primary school building with a high-rise HOS block at the waterfront (i.e. the Lin Cheung Road site) would result in undesirable "wall effect" to the inland residents.

#### Alternative Replacement Sites

- The three proposed replacement sites in Cheung Shan Wan area are zoned "G/IC" and "O" on the relevant OZP and are considered not suitable for residential development. Although they are currently occupied by temporary uses, these sites should be retained as "G/IC" and "O" zones to cater for the increase in demand for GIC facilities due to population growth in the future. Moreover, the sites are not suitable for residential development since they are close to heavily traffickered roads and/or industrial buildings.

## 2. Lin Cheung Road Site

- 2.1. On 18.6.2013, the SSPDC was consulted on the rezoning proposal of the Lin Cheung Road site and a motion was passed at the meeting. While the DC supported more housing developments in the area, the Government was required to consider the balanced development of the community including provision of necessary supporting facilities, proportion of HOS and PRH, accessibility and development of the waterfront promenade with a view to optimizing land resources and enhancing economy and vibrancy in the district, and to consult the local residents.
- 2.2. Subsequently, the District Officer (SSP) advised that the DC members also raised concerns on the odour impact from the Stonecutters Island Sewage Treatment Works, the noise impact from nearby roads, shipyards and wholesale market, the connectivity of the site with the developed/planned development areas in the vicinity and the importance of increasing the ratio of HOS. Besides, the proximity of the site to NWKR Site 6 also intensified the concerns on environmental and visual impacts to the nearby residents.
- 2.3. On 16.7.2013, HD organized a community engagement workshop to collect local and stakeholders' views on the rezoning proposal of the Lin Cheung Road site. The participants included the local residents and representatives of various public housing estates, 'Four Little Dragons' and concern groups including SSPPCG and Green Sense. The views collected/concern expressed are summarized as follows :

### Supporting Views

- support housing developments in the area to meet the acute housing need and the provision of open space and GIC facilities at the Lin Cheung Road site. The provision of more diversified land uses would help improve the employment opportunities;

### Opposing Views/Concern Expressed

- *too many public housing* – there are too many public housing in SSP and the ratio of PRH and HOS flats at the Lin Cheung Road site should be reviewed;
- *environmental nuisances* – the site is not suitable for residential development due to the noise impact from the nearby shipyards, wholesale market and cargo handling areas and the odour impact from the Stonecutter Islands Sewage Treatment Works and the West Kowloon Refuse Transfer Station;
- *adverse air ventilation impact* – the proposed residential development would cause adverse air ventilation impact. An open/low-rise profile should be maintained for the site as a major breezeway of prevailing wind to the inland area;
- *inadequate open space/GIC facilities* – the increase in population from the proposed developments at NWKR Site 6 and Lin Cheung Road site would lead to inadequate provision of open space and GIC facilities;

- *more diversified uses* – cycle park, large-scale performance venue and town hall should be provided within the site with a view to attracting more visitors from SSP and other district. A world-class architecture as the landmark of SSP District should be provided. A cycle track from ‘Four Little Dragons’ to and along the waterfront should also be provided;
- *inadequate transport facilities/pedestrian connections* – more public transport facilities should be provided between the site and the centre of SSP. The pedestrian connectivity of the site with the nearby developments should also be improved; and
- *waterfront promenade* – the proposed waterfront promenade should be extended and the pedestrian connectivity to the promenade should be improved.

2.4. Apart from the above, other written comments were received on the rezoning proposal of the Lin Cheung Road site and their views are summarized as follows :

- the Owners’ Committee of Aqua Marine expressed concern on the environmental and visual impacts from the proposed development at the site and the insufficient provision of schools, open space and other community facilities in the district. The rezoning of the northern portion of the site to “R(A)” was unreasonable and making the residential development lack of planning control;
- the SSPDC member, Mr. Li Ki Fung, expressed concern on the adverse air ventilation impact caused by the development at the site and NWKR Site 6. Moreover, the existing transport facilities could not meet the increase in demand;
- a resident of Liberte commented that the BH profile of the Lin Cheung Road site, NWKR Site 6 and the nearby residential developments was not compatible. He requested a more comprehensive planning for the district and the provision of more diversified uses like low density commercial uses and open space to improve the living environment of the residents; and
- the SSPPCG queried the reasons for not rezoning the existing CSWWFM to the east of the site for residential use and the details on relocation of the existing wholesale vegetable market and wholesale poultry market in Cheung Sha Wan.

2.5. On 16.7.2013, a written comment was received from the Legislative Council (LegCo) member, Hon. Claudia Mo who requested the extension of the public consultation to no less than 6 months and to discuss the proposed rezoning at the Panel on Development of LegCo prior to submission to the Board. PlanD and HD attended a meeting hosted by Hon. Mo and Mr. Roy Tam of Green Sense on 31.7.2013, Hon. Mo objected the proposed private residential and hotel development at the waterfront and suggested the site should be developed for public/subsidized housing. Mr. Tam raised concern on the adverse air ventilation impact caused by the proposed development and the serious noise nuisance from the nearby wholesale market, shipyards and refuse transfer station to the future residents. On 16.8.2013, Hon. Mo wrote to CE objecting the rezoning proposal on the same grounds and requested for an extensive public consultation.

- 2.6. On 16.7.2013 and 30.7.2013, written comments were also received from the LegCo members, Hon. Helena Wong and Hon. James To, stating Democratic Party's concern on the future development of the Lin Cheung Road site. PlanD and HD attended a meeting hosted by them on 30.7.2013. They requested the Government to extend the consultation period, not to develop massive buildings which create adverse air ventilation impact, report the relocation process of the Yau Ma Tei wholesale fruit market and clarify whether the nearby sewage treatment works and refuse transfer station would cause negative impact to the residents.
- 2.7. On 2.8.2013, PlanD met with members of Liberal Party and they also expressed concerns on the air ventilation and visual impacts of the proposed development at the site, the noise nuisances from nearby roads, shipyards and wholesale markets, and the odour impact from West Kowloon Refuse Transfer Station.
- 2.8. On 2.8.2013, the SSPDC member, Mr. Li Ki Fung, submitted a paper in respect of the Lin Cheung Road site for discussion at the DC meeting on 3.9.2013. He strongly objected to the proposed development at the waterfront as it would cause adverse air ventilation impact and affect the air quality. He requested a reduction in the development intensity of the proposed housing development.
- 2.9. On 12.9.2013, Hon. Priscilla Leung with SSPDC member, Mr. Li Ki Fung, and Mr. Chan Keng Chau met with PlanD. They asked for reduction of one building block in the western part of the proposed "R(A)" and "CDA" sites to allow better wind penetration.

## **PlanD's Responses**

### **Land Use Compatibility and BH Profile**

- The proposed housing development at the site is to meet the acute housing need and it is not incompatible with the surrounding land uses which are mainly residential and GIC uses. The proposed rezoning has also taken into account the need for a more balanced development of the community. A more diversified land uses including hotel, GIC uses and open space are proposed for the site with a view to enhancing the vibrancy of the district.
- A stepped BH profile is adopted with BH descending towards the waterfront. The proposed BH restrictions of 100mPD and 120mPD for the site are visually compatible with the nearby residential developments (**Plans 12a and b**). Moreover, height variation is adopted with low-rise GIC uses proposed at the eastern and western corners of the site and sufficient building gaps are proposed to avoid creating wall effect.

### **Adequate Planning Control**

- HD has conducted preliminary TIA and AVA for the whole site and EAS for the public housing site to demonstrate that the proposed development would not cause insurmountable problem in traffic, environmental and air ventilation aspects. Moreover, a PB will be prepared to guide the public housing development to ensure a proper planning control. HD will also be required to conduct relevant technical

assessments as appropriate to demonstrate the proposed development is acceptable. Besides, PBs will also be prepared for the “CDA” and “CDA(2)” sites to guide the future development and DC will be consulted on the PBs. The project proponent will also be required to submit relevant technical assessments at the planning application stage.

#### Proportion of HOS and PRH

- HD has reviewed the proportion of PRH and HOS and increase the ratio for HOS. In the current scheme, a total of 3,400 public housing flats will be provided at the northern portion of the site, of which 1,200 are PRH and 2,200 are HOS. HD consulted SSPDC on the proposed layout of the public housing development and the proportion of PRH and HOS on 5.11.2013.
- The proposed amendments have addressed the concern for more private housing. A more balanced housing mix with diversified land uses would help to meet the different needs of society and to create a more balanced community.

#### Air Ventilation/Visual Impact

- Three breezeways of various widths will be provided within the site and to be designated as NBAs to allow wind penetration to the inland areas and to serve as visual corridors to enhance permeability. Low-rise primary school and social welfare block are located next to the breezeways to minimize the adverse air ventilation impact. The AVA reveals that the overall air ventilation performance of the indicative scheme of the proposed development at Lin Cheung Road site is quite similar as compared with the baseline scheme of a low-rise wholesale market structure as permitted under the existing land use zoning. Besides, the future project proponent of the two proposed “CDA” zones will need to submit an AVA report for approval of the Board.

#### Environmental Impact

- Single aspect building design and environmental buffer areas are proposed to mitigate the noise and air quality impact from the nearby roads, shipyards and wholesale market. Other non-sensitive uses such as school with full air-conditioning and social welfare block with suitable disposition are proposed to help increasing the separation between residential use and noise sources. Besides, the Stonecutters Island Sewage Treatment Works and the West Kowloon Refuse Transfer Station are located in a considerable distance of about 600m and 700m from the site respectively. As advised by DSD, the Stonecutters Island Sewage Treatment Works, under normal operation, will not generate adverse odour impact to the proposed residential uses. EPD has also adopted a number of measures to reduce the odour emission from the refuse transfer station. Both DSD and EPD have no adverse comment on the proposed rezoning.

#### Provision of Open Space and GIC facilities

- The overall provision of open space and GIC facilities is adequate to meet the local needs, taking into account the additional demand generated by the population brought about by the developments at Fat Tseung Street West site, Lin Cheung Road site and NWKR Site 6. Moreover, GIC facilities including a sport centre (the arena of the



sports centre should be flexibly used for community activities with a seating capacity of about 1000), a district library and a 5-a-side football pitch reprovisioned from the Fat Tseung Street West site will be provided in NWKR Site 6 which could serve both local and district demands.

#### *Provision of Public Transport Facilities*

- The site has a good accessibility to the nearby MTR Nam Cheong Station. There is an existing PTI in the east of the NWKR Site 6. Upon completion of the proposed housing development, HD would liaise with TD on the detailed arrangement such as provision of public transport services to the site to serve the local residents.

#### *Waterfront Promenade and Pedestrian Connections*

- The waterfront promenade has been extended to include a disused pier of the CSWWFM to enhance public enjoyment. There is a pedestrian footbridge linking up the site with NWKR Site 6 in the west and a pedestrian walkway connecting to the MTR Nam Cheong Station in the east. Moreover, it is proposed to make use of the NBA and the drainage reserve in the middle part of the site to develop a continuous public open space further enhancing the pedestrian connection to the waterfront promenade.

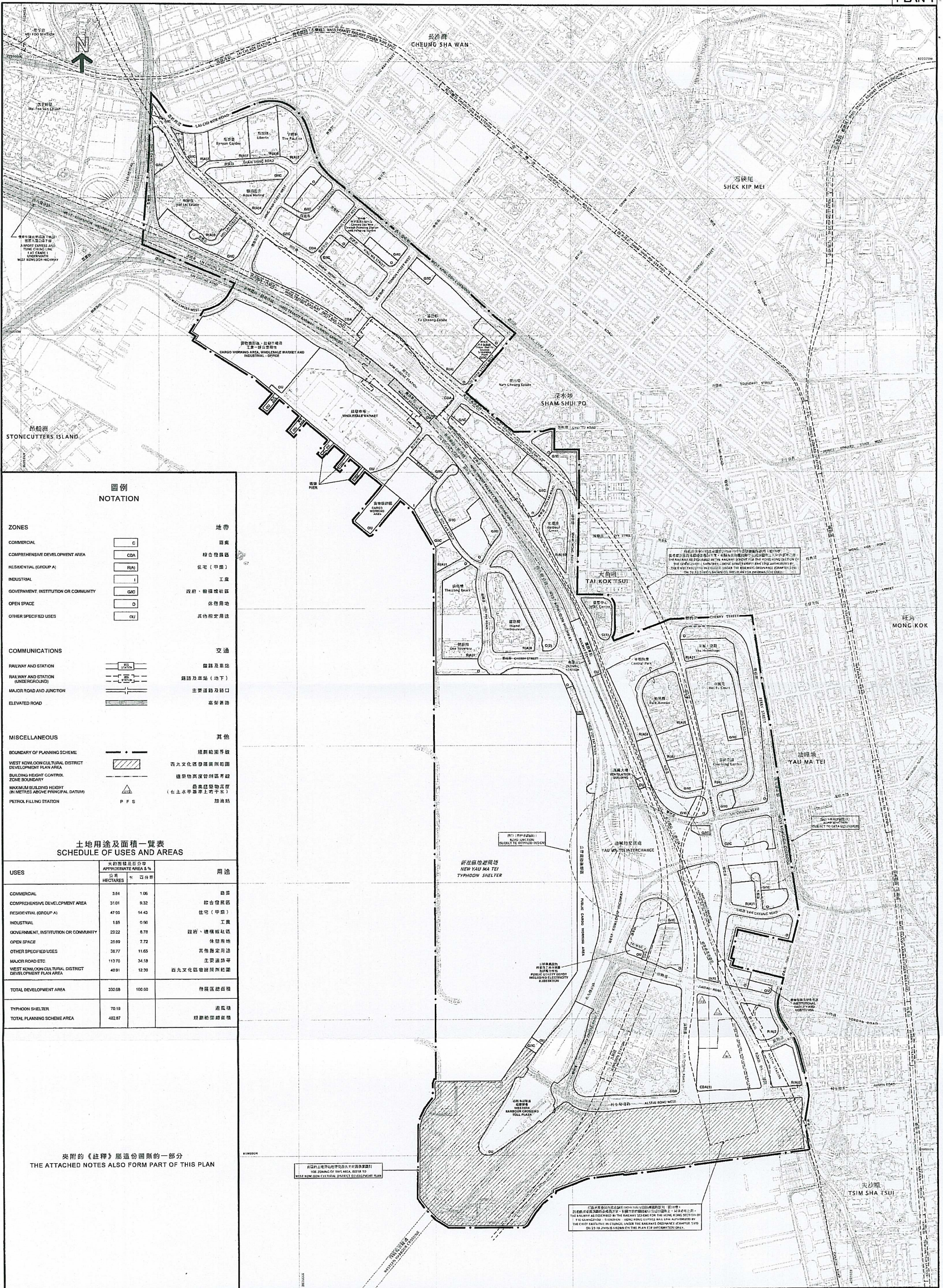
#### *Relocation of Wholesale Markets*

- According to the Food and Hygiene Bureau (FHB), the existing CSWWFM is still in operation. FHB is coordinating relevant departments in examining the feasibility of relocating the CSW Wholesale Poultry Market and the CSW Wholesale Vegetable Market.

#### *Public Consultation*

- The SSPDC was consulted on the rezoning proposal of the Lin Cheung Road site on 18.6.2013, prior to submission to the Board for consideration. HD also organized a community engagement workshop to collect views from the local residents and stakeholders on 16.7.2013. All public comments received during SSPDC meeting, engagement workshop and other written comments have been considered in formulating the proposed amendment items.





行政長官會同行政會議於2013年1月8日 核准  
APPROVED BY THE CHIEF EXECUTIVE IN COUNCIL UNDER  
SECTION 9(1)(a) OF THE TOWN PLANNING ORDINANCE ON  
8 JANUARY 2013

Ms Kinnie WONG 黃麗怡女士  
CLERK TO THE EXECUTIVE COUNCIL 行政會議秘書

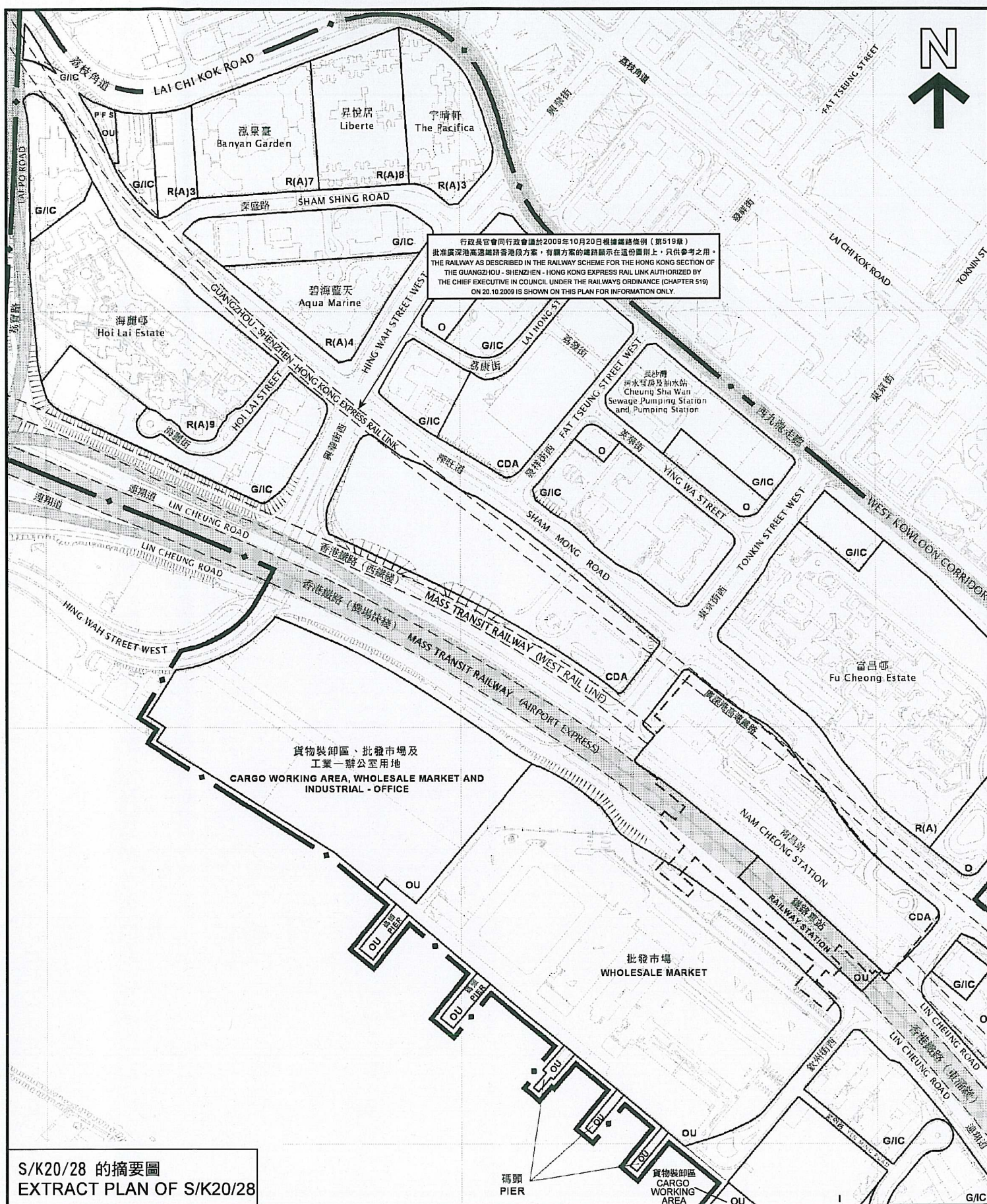
香港城市規劃委員會依據城市規劃條例擬備的西南九龍 (九龍規劃區第20區) 分區計劃大綱圖  
TOWN PLANNING ORDINANCE, HONG KONG TOWN PLANNING BOARD  
KOWLOON PLANNING AREA No. 20 - SOUTH WEST KOWLOON - OUTLINE ZONING PLAN

SCALE 1:5000 比例尺  
+ METRES 0 200 400 600 METRES

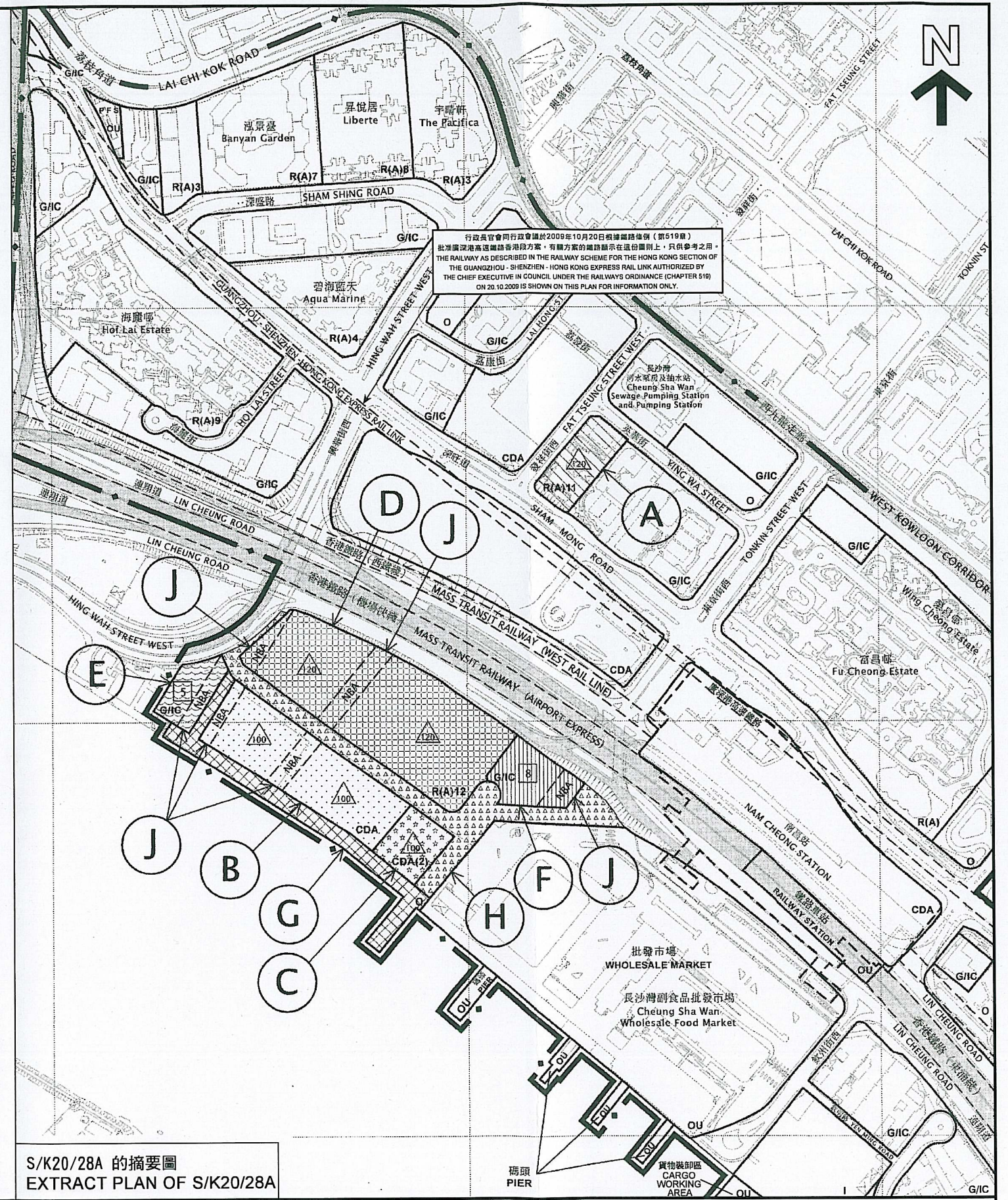
規劃署遵照城市規劃委員會指示編製  
PREPARED BY THE PLANNING DEPARTMENT UNDER  
THE DIRECTION OF THE TOWN PLANNING BOARD

圖則編號 S/K20/28  
PLAN No.





S/K20/28 的摘要圖  
EXTRACT PLAN OF S/K20/28



S/K20/28A 的摘要圖  
EXTRACT PLAN OF S/K20/28A

本摘要圖於2013年11月19日擬備，  
所根據的資料為西南九龍分區計劃大綱核准圖編號 S/K20/28  
和西南九龍分區計劃大綱草圖編號 S/K20/28A  
EXTRACT PLAN PREPARED ON 19.11.2013  
BASED ON OUTLINE ZONING PLANS No.  
S/K20/28 AND S/K28/28A

修訂項目A至J在西南九龍分區計劃大綱圖上的現有與擬議用途地帶的比較  
COMPARISON OF EXISTING AND PROPOSED ZONINGS  
ON THE SOUTH WEST KOWLOON OUTLINE ZONING PLAN FOR AMENDMENT ITEMS A TO J

SCALE 1:6 000 比例尺  
METRES 100 0 100 200 300 400 METRES

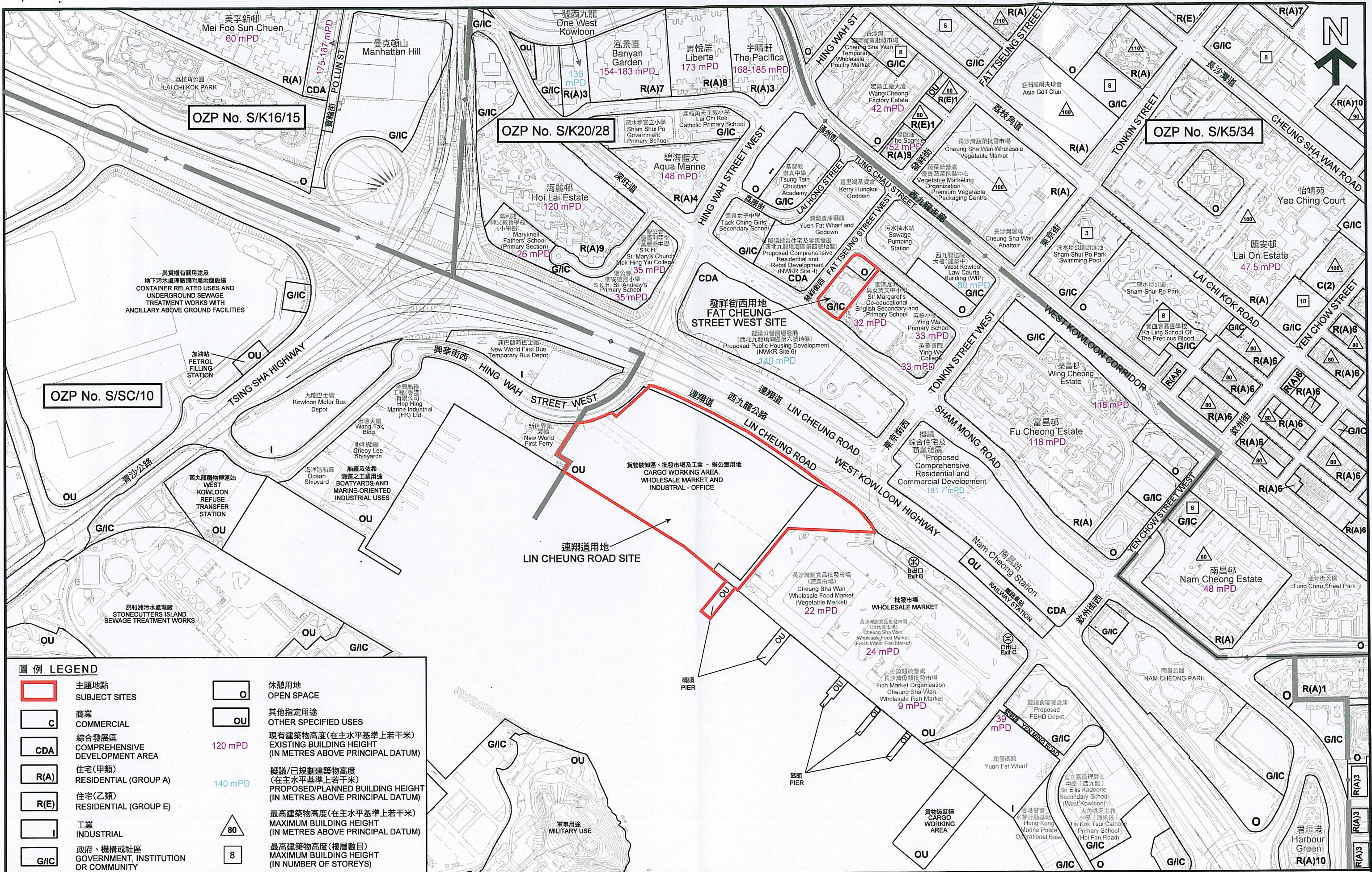
規劃署  
PLANNING DEPARTMENT



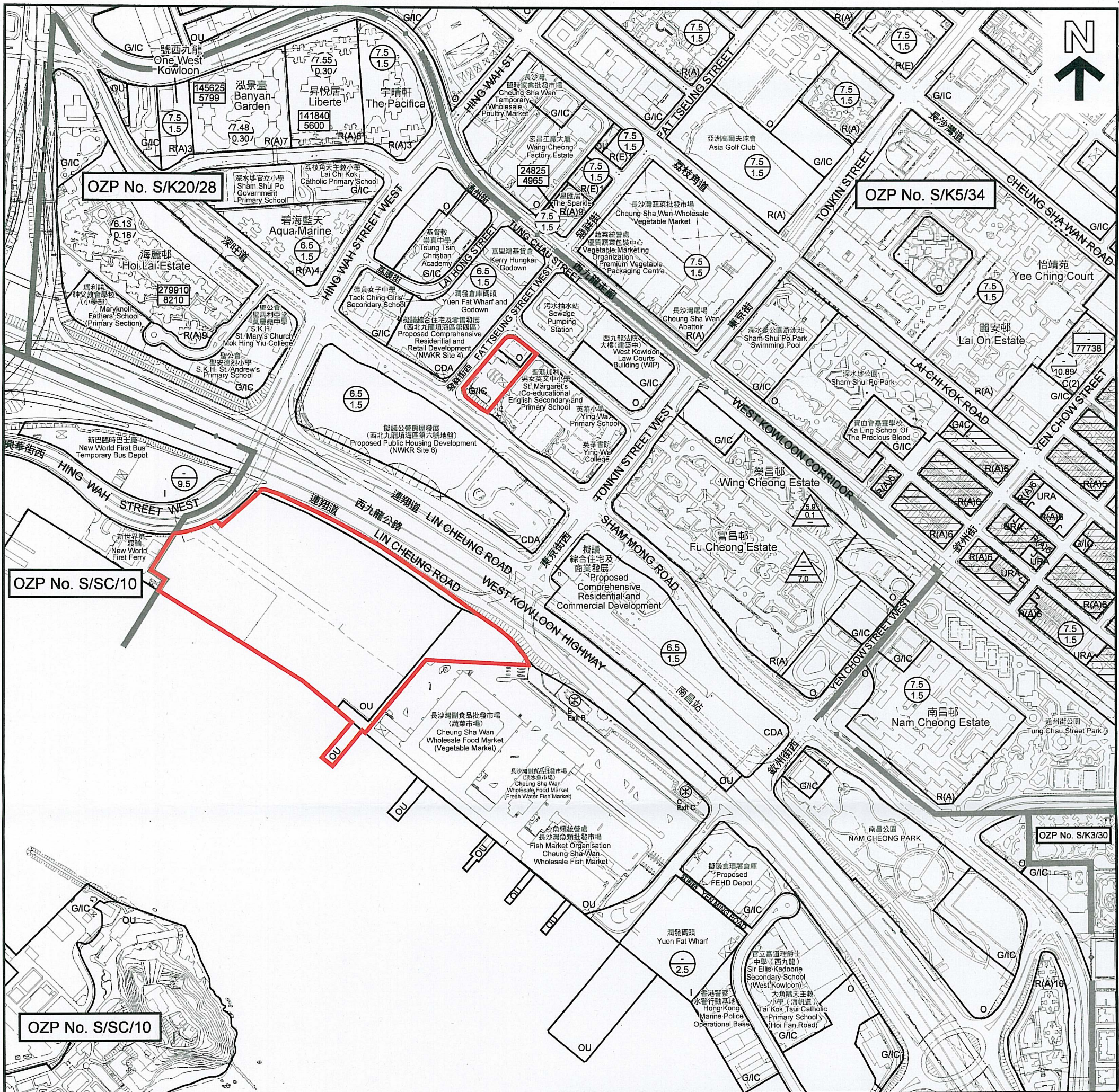
參考編號  
REFERENCE No.  
M/K20/13/9

圖 PLAN  
2







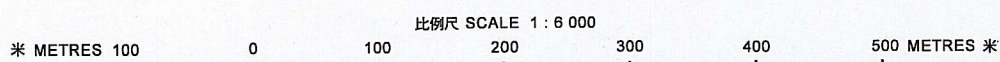


圖例 LEGEND

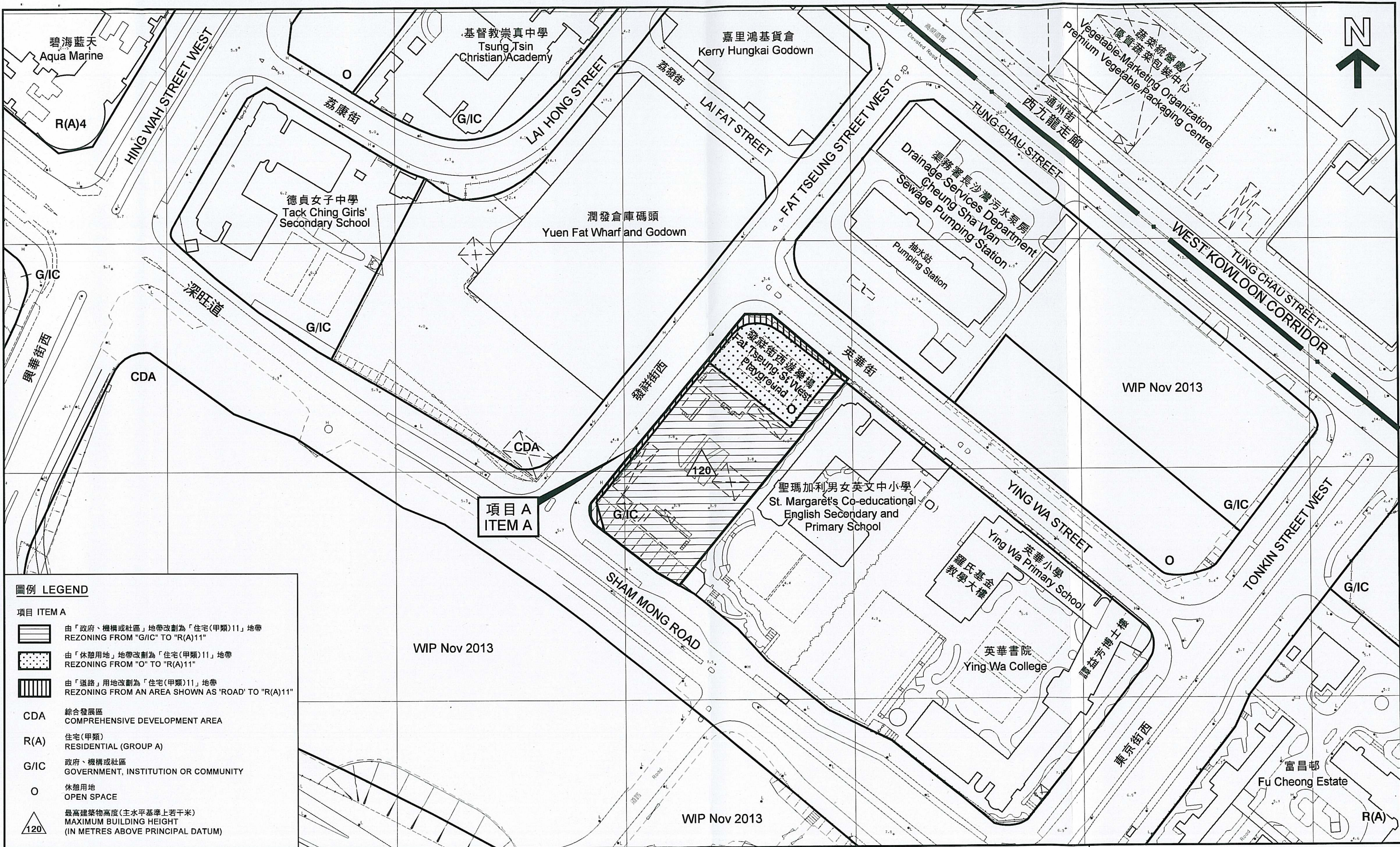
	主體地點 SUBJECT SITES		住宅(甲類)6於分區計劃大綱圖訂明之最大住用地積比率为7.5倍及最大非住用地積比率为1.5倍 R(A)6 ZONE WITH MAXIMUM DOMESTIC PLOT RATIO 7.5 AND MAXIMUM NON-DOMESTIC PLOT RATIO 1.5
	商業 COMMERCIAL		規劃大綱圖訂明之最大住用地積比率 MAXIMUM DOMESTIC PLOT RATIO UNDER PLANNING BRIEF 規劃大綱圖訂明之最大非住用地積比率 MAXIMUM NON-DOMESTIC PLOT RATIO UNDER PLANNING BRIEF 規劃大綱圖訂明之最大總地積比率 TOTAL MAXIMUM PLOT RATIO UNDER PLANNING BRIEF
	綜合發展區 COMPREHENSIVE DEVELOPMENT AREA		相等之最大住用地積比率 EQUIVALENT MAXIMUM DOMESTIC PLOT RATIO 相等之最大非住用地積比率 EQUIVALENT MAXIMUM NON-DOMESTIC PLOT RATIO
	住宅(甲類) RESIDENTIAL (GROUP A)		分區計劃大綱圖訂明之最大住用地積比率 MAXIMUM DOMESTIC PLOT RATIO UNDER OZP 分區計劃大綱圖訂明之最大非住用地積比率 MAXIMUM NON-DOMESTIC PLOT RATIO UNDER OZP
	住宅(乙類) RESIDENTIAL (GROUP E)		分區計劃大綱圖訂明之最大住用建築樓面面積(平方米) MAXIMUM DOMESTIC GROSS FLOOR AREA UNDER OZP(sq.m) 分區計劃大綱圖訂明之最大非住用建築樓面面積(平方米) MAXIMUM NON-DOMESTIC GROSS FLOOR AREA UNDER OZP(sq.m)
	工業 INDUSTRIAL		
	政府、機構或社區 GOVERNMENT, INSTITUTION OR COMMUNITY		
	休憩用地 OPEN SPACE		
	其他指定用途 OTHER SPECIFIED USES		
	此區的土地用途由地帶見市重建局 FOR ZONING OF THIS AREA REFER TO URBAN RENEWAL AUTHORITY		

本摘要圖於2013年11月21日編繪，所根據的資料為測量圖編號 11-NW-7D、8C/D、9C、12B/D、13A/B/C/D、14A/C、17B、18A/B/D及19A/C  
EXTRACT PLAN PREPARED ON 21.11.2013 BASED ON SURVEY SHEETS No. 11-NW-7D, 8C/D, 9C, 12B/D, 13A/B/C/D, 14A/C, 17B, 18A/B/D AND 19A/C

主題地點及附近地積比率限制  
SUBJECT SITES AND PLOT RATIO RESTRICTIONS IN THE VICINITY







圖例 LEGEND

項目 ITEM A

-  由「政府、機構或社區」地帶改劃為「住宅(甲類)11」地帶  
REZONING FROM "G/IC" TO "R(A)11"
-  由「休憩用地」地帶改劃為「住宅(甲類)11」地帶  
REZONING FROM "O" TO "R(A)11"
-  由「道路」用地改劃為「住宅(甲類)11」地帶  
REZONING FROM AN AREA SHOWN AS 'ROAD' TO "R(A)11"
-  CDA 綜合發展區  
COMPREHENSIVE DEVELOPMENT AREA
-  R(A) 住宅(甲類)  
RESIDENTIAL (GROUP A)
-  G/IC 政府、機構或社區  
GOVERNMENT, INSTITUTION OR COMMUNITY
-  O 休憩用地  
OPEN SPACE
-  120 最高建築物高度(主水平基準上若干米)  
MAXIMUM BUILDING HEIGHT  
(IN METRES ABOVE PRINCIPAL DATUM)

平面圖 - 項目 A  
SITE PLAN - ITEM A

西南九龍分區計劃大綱核准圖編號 S/K20/28 的擬議修訂項目  
PROPOSED AMENDMENTS TO  
APPROVED SOUTH WEST KOWLOON OZP No. S/K20/28

SCALE 1 : 1 500 比例尺  
米 20 0 20 40 60 80 100 120 米  
METRES

本摘要圖於2013年11月19日擬備，  
所根據的資料為測量圖編號11-NW-13A/B  
EXTRACT PLAN PREPARED ON 19.11.2013  
BASED ON SURVEY SHEETS No.  
11-NW-13A/B

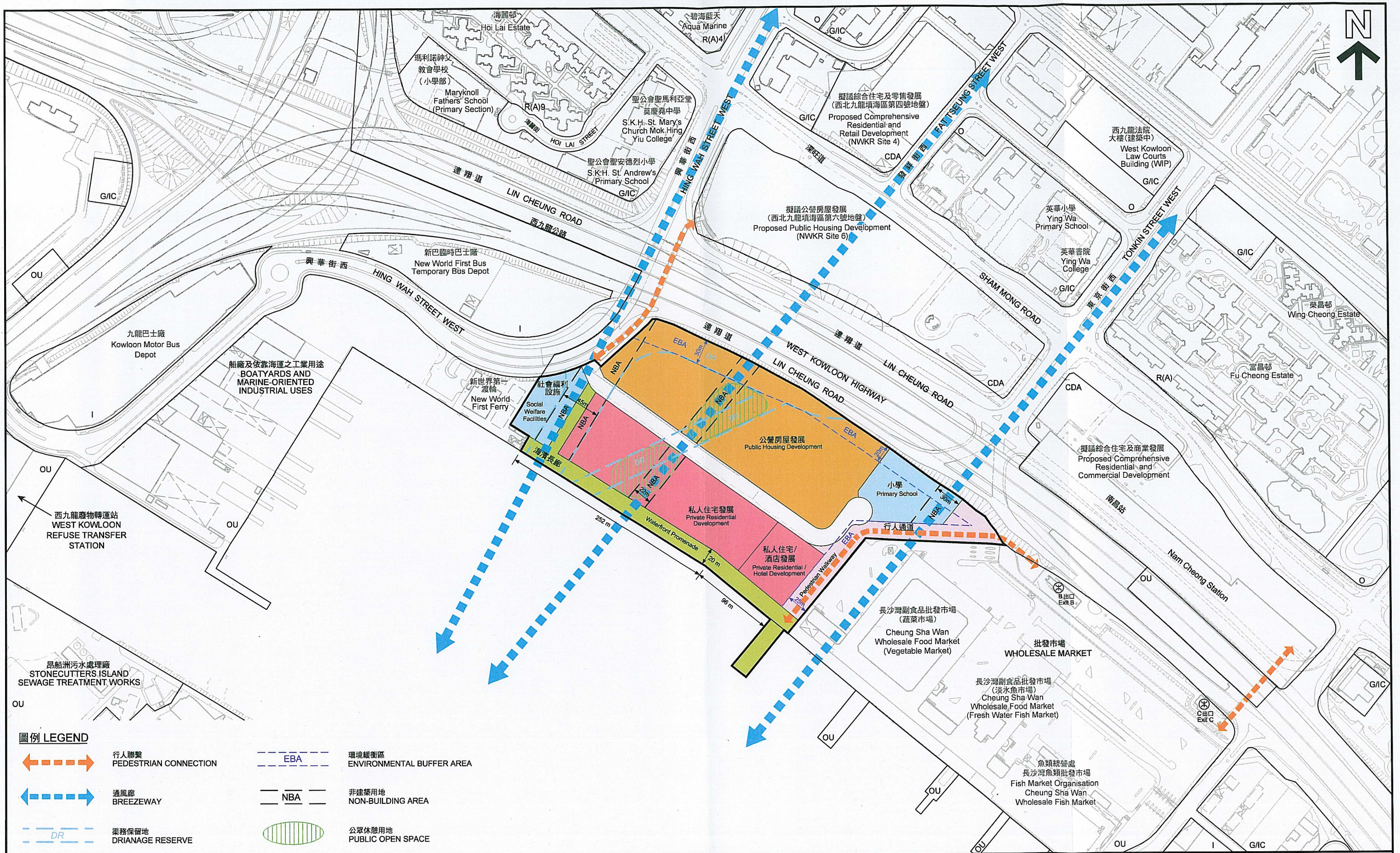
規劃署  
PLANNING DEPARTMENT



參考編號  
REFERENCE No.  
M/K20/13/9

圖 PLAN  
5





- 圖例 LEGEND**
- 行人聯繫 PEDESTRIAN CONNECTION
  - 通風廊 BREEZEWAY
  - 渠務保留地 DRAINAGE RESERVE
  - 環境緩衝區 ENVIRONMENTAL BUFFER AREA
  - 非建築用地 NON-BUILDING AREA
  - 公眾休憩用地 PUBLIC OPEN SPACE

改劃建議  
REZONING PROPOSAL  
連翔道用地  
LIN CHEUNG ROAD SITE

SCALE 1:4 000 比例尺  
米 METRES 50 0 50 100 150 200 250 METRES 米

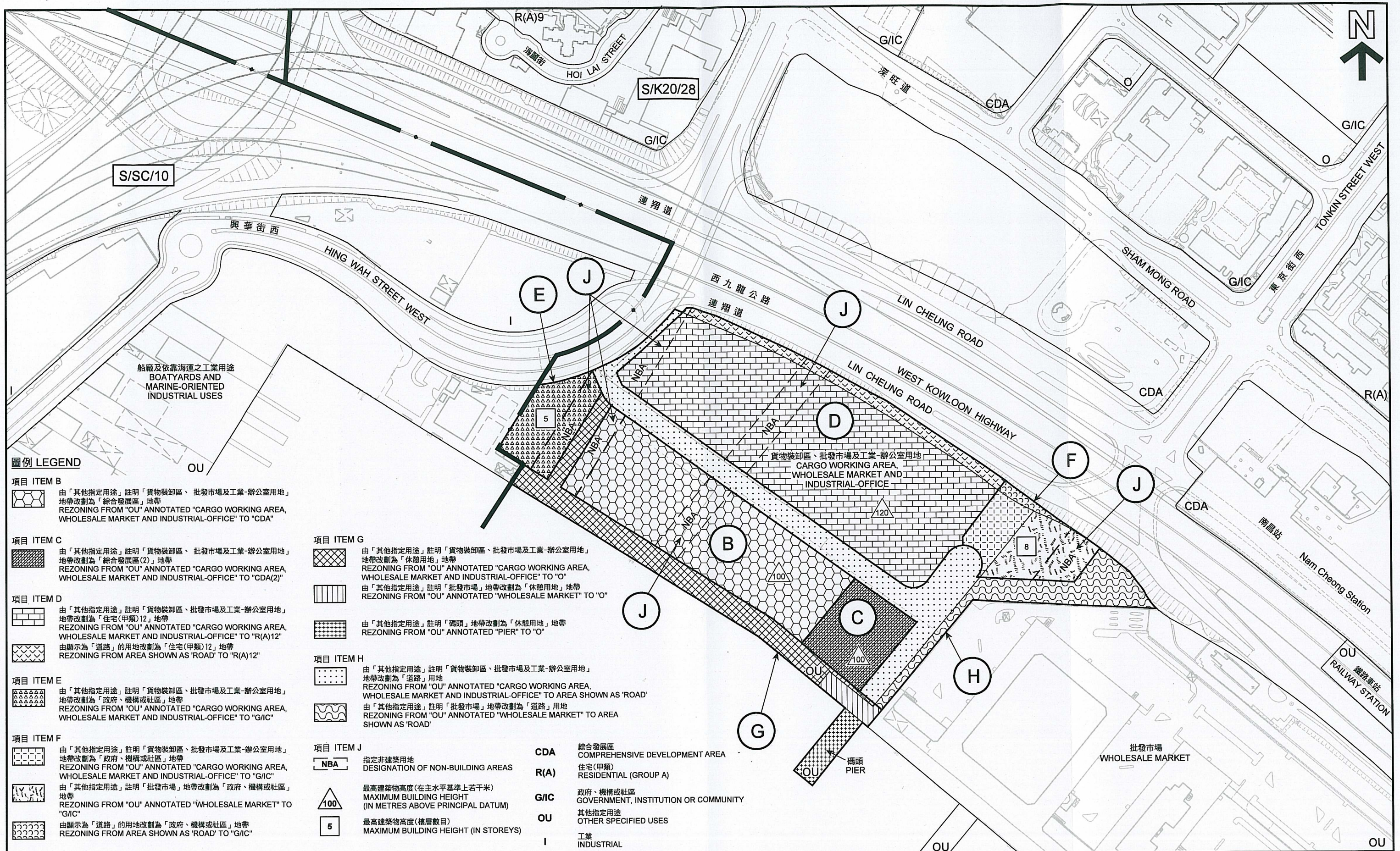
本摘要圖於2013年11月19日擬備，所根據的資料為  
測量圖編號11-NW-12B、12D、13A、13B、13C和13D  
EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SURVEY SHEETS No. 11-NW-12B, 12D, 13A, 13B, 13C AND 13D

規劃署  
PLANNING DEPARTMENT

參考編號  
REFERENCE No.  
M/SD/13/84

圖 PLAN  
6





平面圖 - 修訂項目 B 至 J  
SITE PLAN - AMENDMENT ITEMS B to J

西南九龍分區計劃大綱核准圖編號S/K20/28的擬議修訂項目  
PROPOSED AMENDMENTS TO APPROVED SOUTH WEST KOWLOON OZP No. S/K20/28

本摘要圖於2013年11月19日擬備，所根據的資料為  
測量圖編號11-NW-12B、12D、13A、13B、13C和13D

EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SURVEY SHEETS No. 11-NW-12B, 12D, 13A, 13B, 13C AND 13D

SCALE 1 : 3 000 比例尺  
米 METRES 50 0 50 100 150 200 METRES 米

規劃署  
PLANNING DEPARTMENT

參考編號  
REFERENCE No.  
M/SD/13/84

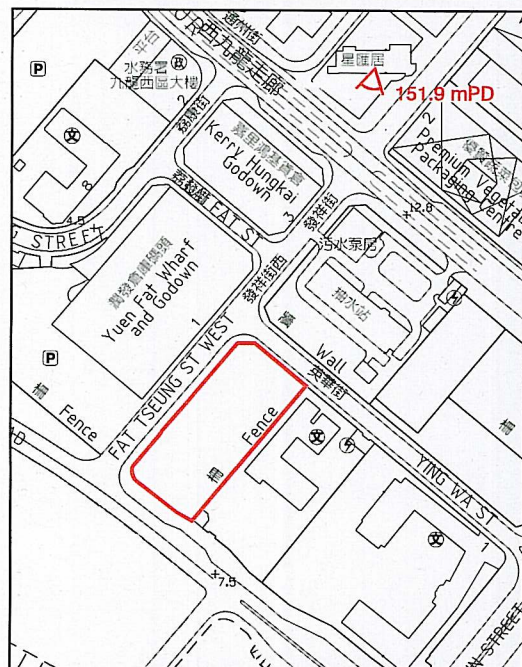
圖 PLAN  
7







實地照片的觀景點的位置圖  
LOCATION PLAN OF  
VIEWING POINT OF SITE PHOTO



SCALE 1 : 5 000 比例尺



界線只作識別用  
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2013年11月19日擬備，  
所根據的資料為攝於2013年3月20日  
的實地照片  
EXTRACT PLAN PREPARED ON 19.11.2013  
BASED ON SITE PHOTO  
TAKEN ON 20.3.2013

實地照片 - 修訂項目A  
SITE PHOTO - AMENDMENT ITEM A

發祥街西用地  
FAT TSEUNG STREET WEST SITE

規劃署  
PLANNING  
DEPARTMENT

參考編號  
REFERENCE No.

M/K20/13/9

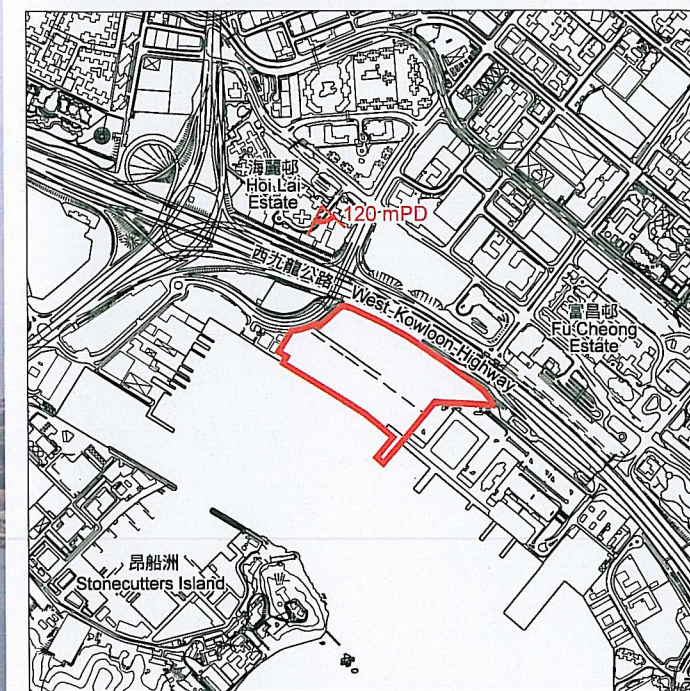


圖 PLAN





實地照片的觀景點的位置圖  
LOCATION PLAN OF VIEWING POINT OF SITE PHOTO



Scale 1:20 000 比例

界線只作識別用  
BOUNDARY FOR IDENTIFICATION PURPOSE ONLY

本摘要圖於2013年11月19日擬備，所根據的資料為  
攝於2012年6月14日的實地照片

EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SITE PHOTO TAKEN ON 14.6.2012

實地照片 - 修訂項目 B 至 J  
SITE PHOTO - AMENDMENT ITEMS B to J

連翔道用地  
LIN CHEUNG ROAD SITE

規劃署  
PLANNING DEPARTMENT

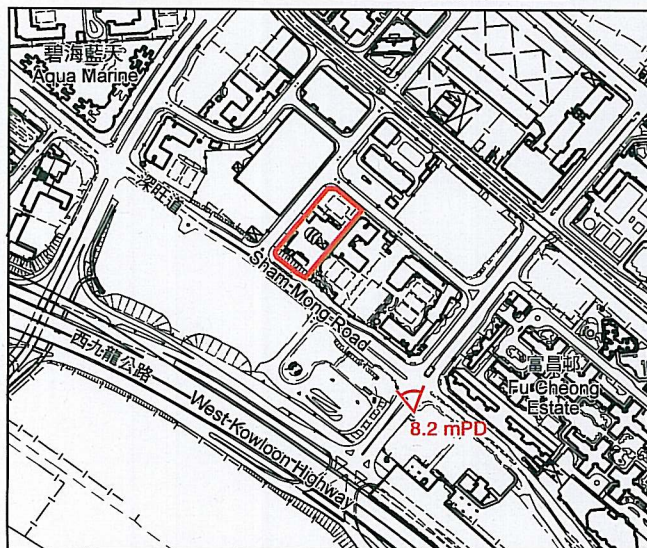


參考編號  
REFERENCE No.  
M/SD/13/84

圖 PLAN  
10



合成照片的觀景點的位置圖  
LOCATION PLAN OF  
VIEWING POINT OF PHOTOMONTAGE



SCALE 1 : 10 000 比例尺



東京街西  
TONKIN STREET WEST

深旺道  
SHAM MONG ROAD

合成照片上只是粗略地描畫大廈輪廓  
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS  
SHOWN ON PHOTOMONTAGES ARE INDICATIVE ONLY

本圖於2013年11月19日擬備，  
所根據的資料為攝於2013年9月7日的實地照片  
PLAN PREPARED ON 19.11.2013  
BASED ON SITE PHOTO TAKEN ON 7.9.2013

修訂項目A擬議居屋發展的合成照片  
PHOTOMONTAGE FOR PROPOSED HOME OWNERSHIP SCHEME DEVELOPMENT  
AMENDMENT ITEM A

從東京街西眺望的景觀  
VIEW FROM TONKIN STREET WEST

規劃署  
PLANNING  
DEPARTMENT

參考編號  
REFERENCE No.

M/K20/13/9

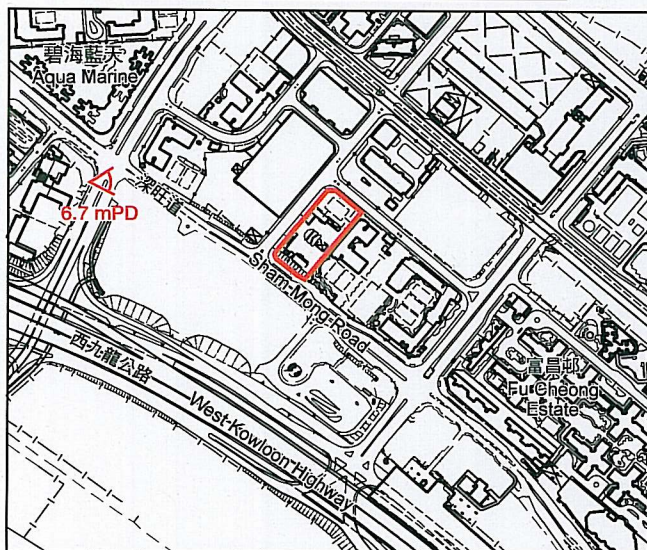


圖 PLAN

11a



合成照片的觀景點的位置圖  
LOCATION PLAN OF  
VIEWING POINT OF PHOTOMONTAGE



SCALE 1 : 10 000 比例尺



合成照片上只是粗略地描畫大廈輪廓  
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS  
SHOWN ON PHOTOMONTAGES ARE INDICATIVE ONLY

本圖於2013年11月19日擬備，  
所根據的資料為攝於2013年9月7日的實地照片  
PLAN PREPARED ON 19.11.2013  
BASED ON SITE PHOTO TAKEN ON 7.9.2013

修訂項目A擬議居屋發展的合成照片  
PHOTOMONTAGE FOR PROPOSED HOME OWNERSHIP SCHEME DEVELOPMENT  
AMENDMENT ITEM A

從興華街西眺望的景觀  
VIEW FROM HING WAH STREET WEST

規劃署  
PLANNING  
DEPARTMENT

參考編號  
REFERENCE No.

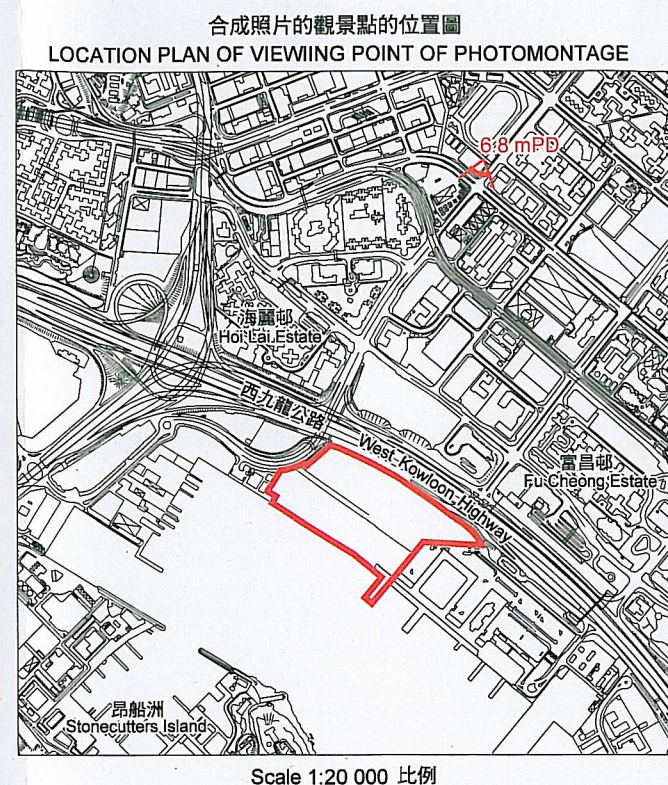
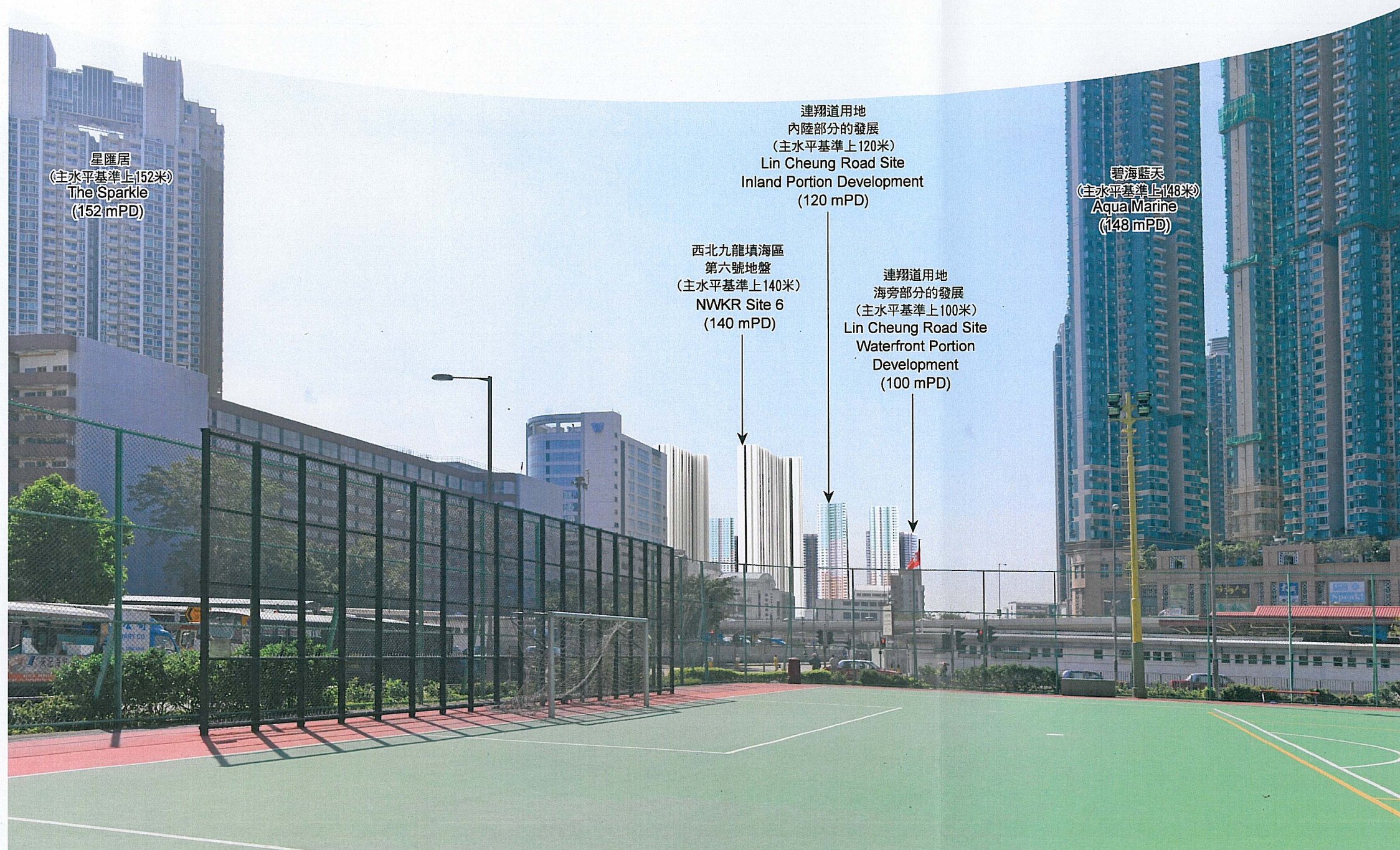
M/K20/13/9



圖 PLAN

11b





合成照片上只是粗略地描畫大廈輪廓  
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS  
SHOWN ON PHOTOMONTAGES ARE INDICATIVE ONLY

本摘要圖於2013年11月19日擬備，所根據的資料為  
攝於2013年3月22日的實地照片  
EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SITE PHOTO TAKEN ON 22.3.2013

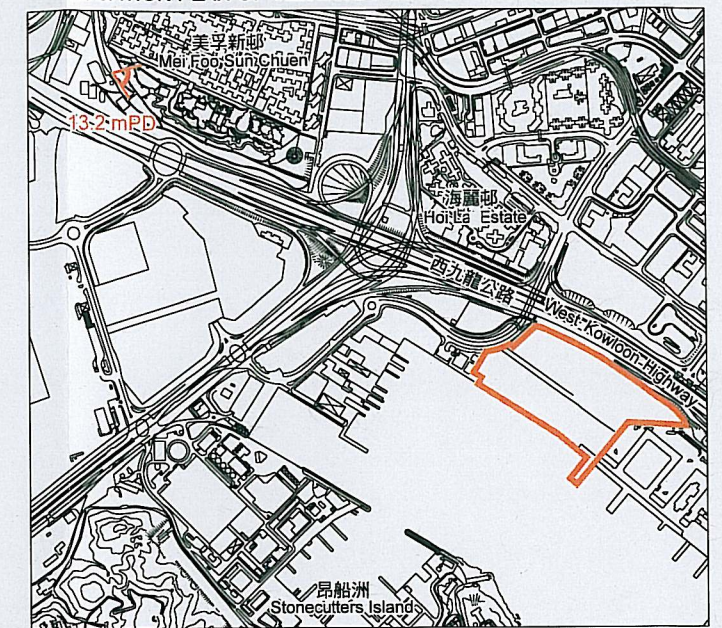
修訂項目 B 至 J 連翔道用地概念發展項目的合成照片  
PHOTOMONTAGE OF INDICATIVE DEVELOPMENT AT LIN CHEUNG ROAD SITE  
AMENDMENT ITEMS B TO J

從深水埗運動場眺望的景觀  
VIEW FROM SHAM SHUI PO SPORTS GROUND

規劃署 PLANNING DEPARTMENT	
參考編號 REFERENCE No. M/SD/13/84	圖 PLAN 12a



合成照片的觀景點的位置圖  
LOCATION PLAN OF VIEWING POINT OF PHOTOMONTAGE



Scale 1:20 000 比例

美孚新邨  
(主水平基準上60米)  
Mei Foo Sun Chuen  
(60 mPD)

曼克頓山  
(主水平基準上175-187米)  
Manhattan Hill  
(175-187 mPD)

西北九龍填海區  
第六號地盤  
(主水平基準上140米)  
NWKR Site 6  
(140 mPD)

南昌站發展  
(主水平基準上170-182米)  
Nam Cheong Station  
Development  
(170 - 182 mPD)

連翔道用地  
內陸部分的發展  
(主水平基準上120米)  
Lin Cheung Road Site  
Inland Portion Development  
(120 mPD)



合成照片上只是粗略地描畫大廈輪廓  
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS SHOWN ON PHOTOMONTAGES ARE INDICATIVE ONLY

修訂項目 B 至 J 連翔道用地概念發展項目的合成照片  
PHOTOMONTAGE OF INDICATIVE DEVELOPMENT AT LIN CHEUNG ROAD SITE  
AMENDMENT ITEMS B TO J

從荔枝角公園眺望的景觀  
VIEW FROM LAI CHI KOK PARK

本摘要圖於2013年11月20日擬備，所根據的資料為  
攝於2013年11月15日的實地照片  
EXTRACT PLAN PREPARED ON 20.11.2013 BASED ON  
SITE PHOTO TAKEN ON 15.11.2013

規劃署  
PLANNING DEPARTMENT

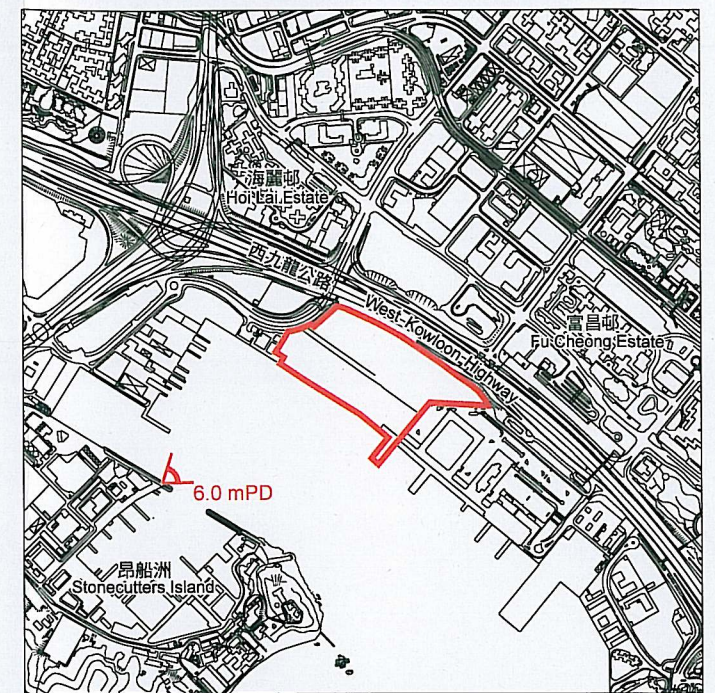


參考編號  
REFERENCE No.  
M/SD/13/84

圖 PLAN  
12b



合成照片的觀景點的位置圖  
LOCATION PLAN OF VIEWING POINT OF PHOTOMONTAGE



Scale 1:20 000 比例



合成照片上只是粗略地描畫大廈輪廓  
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS  
SHOWN ON PHOTOMONTAGES ARE INDICATIVE ONLY

修訂項目 B 至 J 連翔道用地概念發展項目的合成照片  
PHOTOMONTAGE OF INDICATIVE DEVELOPMENT AT LIN CHEUNG ROAD SITE  
AMENDMENT ITEMS B TO J

從昂船洲消防處潛水基地眺望的景觀  
VIEW FROM STONECUTTERS ISLAND (NGONG SHUEN CHAU) FIRE SERVICES DEPARTMENT DIVING BASE

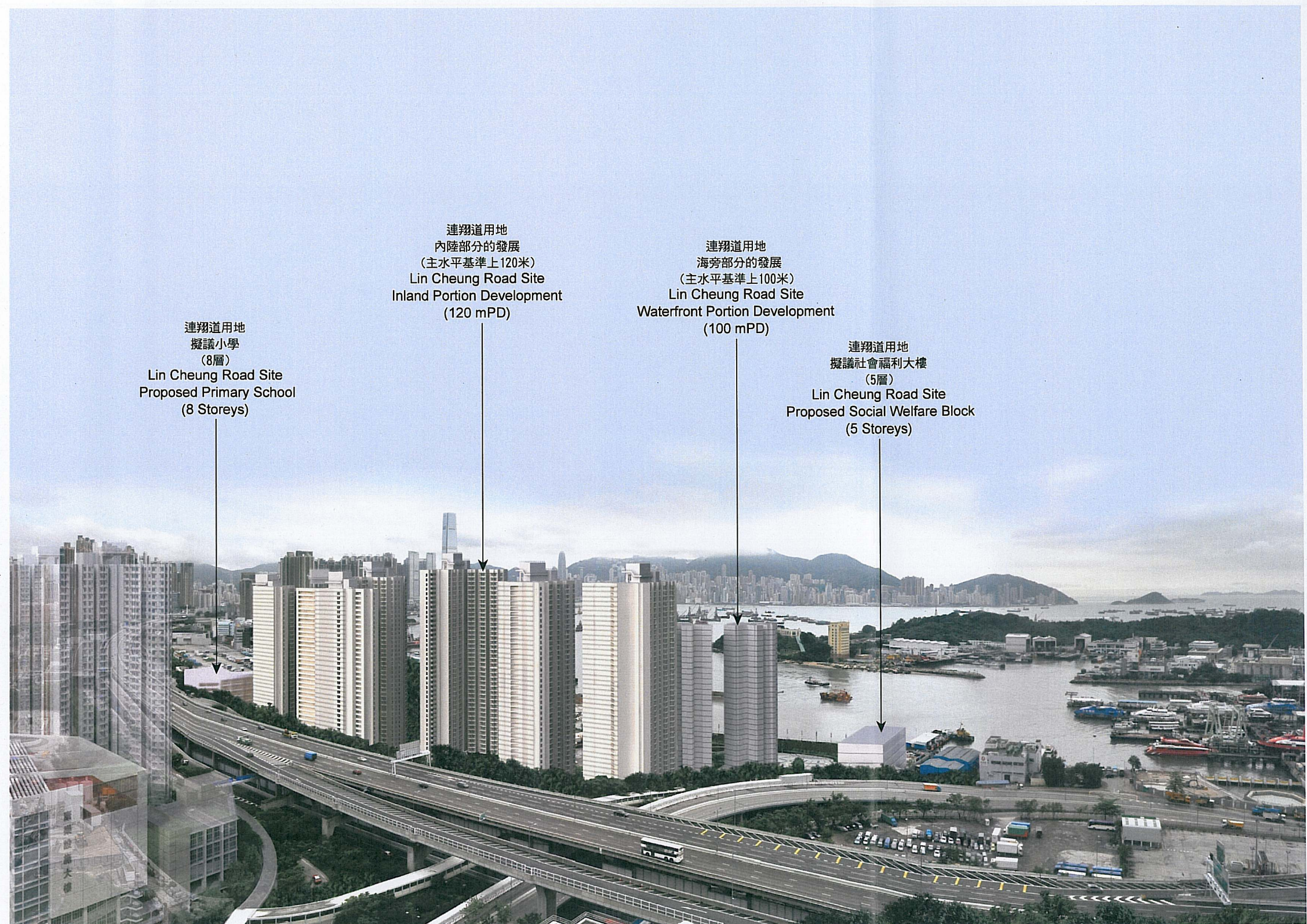
規劃署  
PLANNING DEPARTMENT

參考編號  
REFERENCE No.  
M/SD/13/84

圖 PLAN  
12c

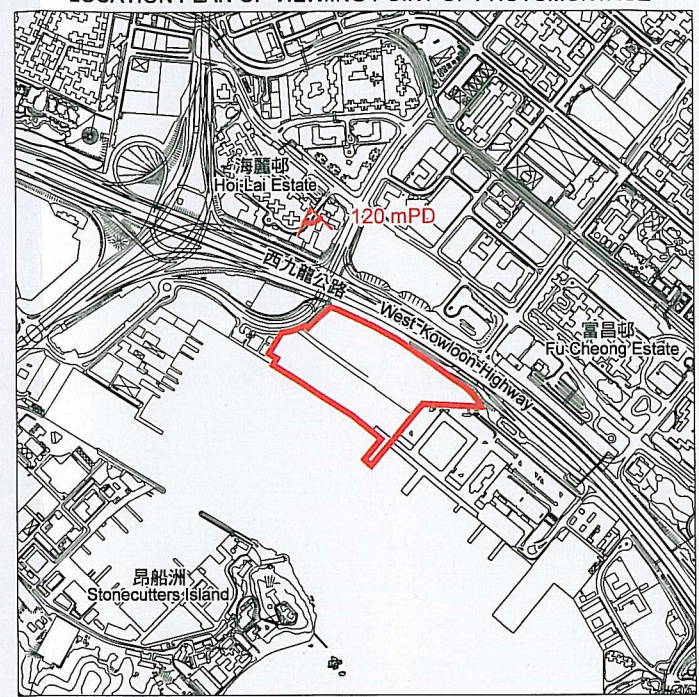
本摘要圖於2013年11月19日擬備，所根據的資料為  
攝於2013年3月22日的實地照片  
EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SITE PHOTO TAKEN ON 22.3.2013





合成照片上只是粗略地描畫大廈輪廓  
THE OUTLINE CONFIGURATIONS OF BUILDINGS AS  
SHOWN ON PHOTOMONTAGES ARE INDICATIVE ONLY

合成照片的觀景點的位置圖  
LOCATION PLAN OF VIEWING POINT OF PHOTOMONTAGE



Scale 1:20 000 比例

修訂項目 B 至 J 連翔道用地概念發展項目的合成照片  
PHOTOMONTAGE OF INDICATIVE DEVELOPMENT AT LIN CHEUNG ROAD SITE  
AMENDMENT ITEMS B TO J

從海麗邨眺望的景觀  
VIEW FROM HOI LAI ESTATE

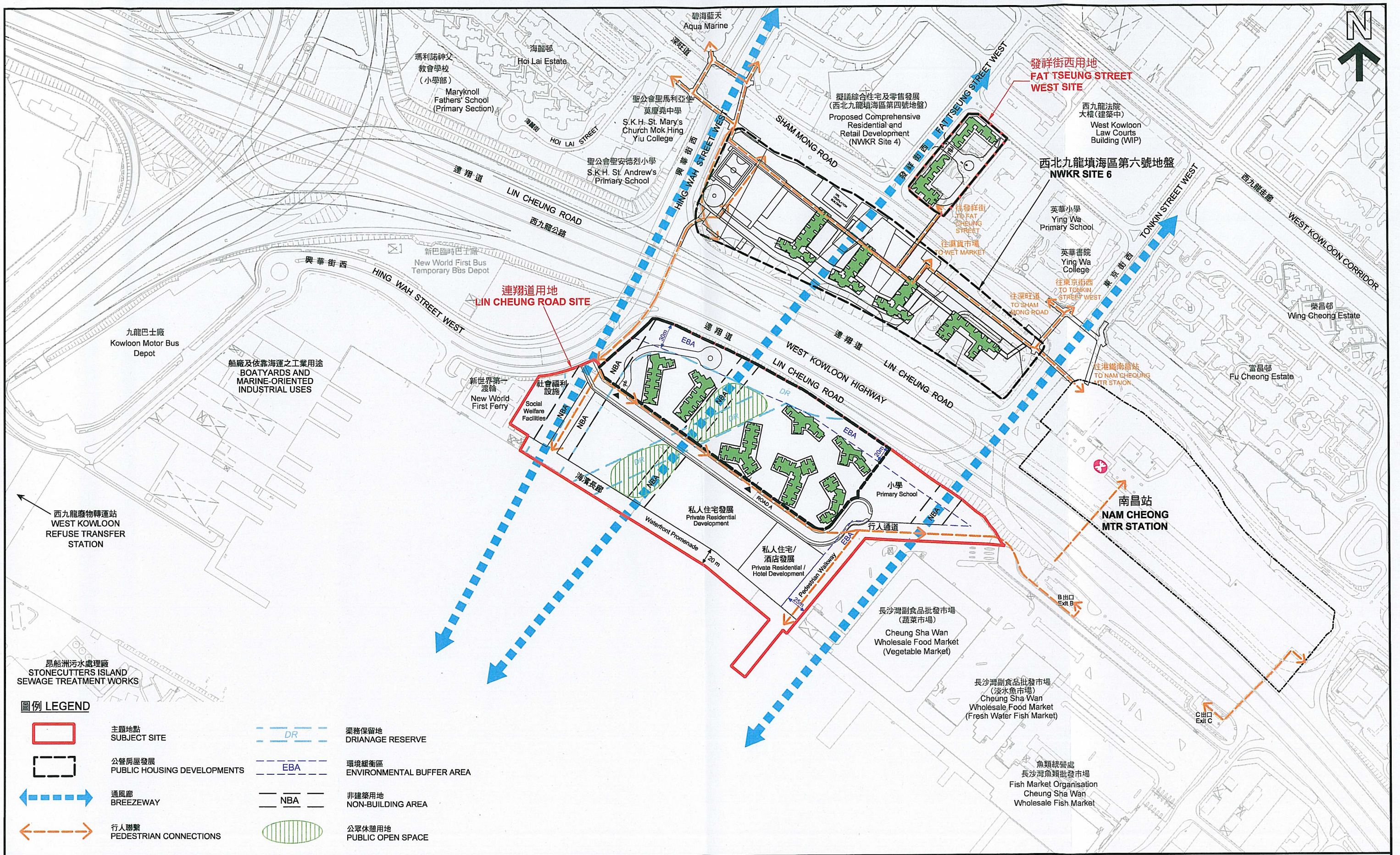
規劃署  
PLANNING DEPARTMENT

參考編號  
REFERENCE No.  
M/SD/13/84

圖 PLAN  
12d

本摘要圖於2013年11月19日擬備，所根據的資料為  
攝於2013年5月25日的實地照片  
EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SITE PHOTO TAKEN ON 25.5.2013





本摘要圖於2013年11月19日擬備，所根據的資料為  
測量圖編號11-NW-12B、12D、13A、13B、13C和13D

EXTRACT PLAN PREPARED ON 19.11.2013 BASED ON  
SURVEY SHEETS No. 11-NW-12B, 12D, 13A, 13B, 13C AND 13D

位於發祥街西，西北九龍填海區第六號地盤及  
連翔道用地公營房屋發展的指示布局設計  
INDICATIVE LAYOUTS OF PUBLIC HOUSING DEVELOPMENTS AT FAT TSEUNG STREET WEST SITE,  
NWKR SITE 6 AND LIN CHEUNG ROAD SITE

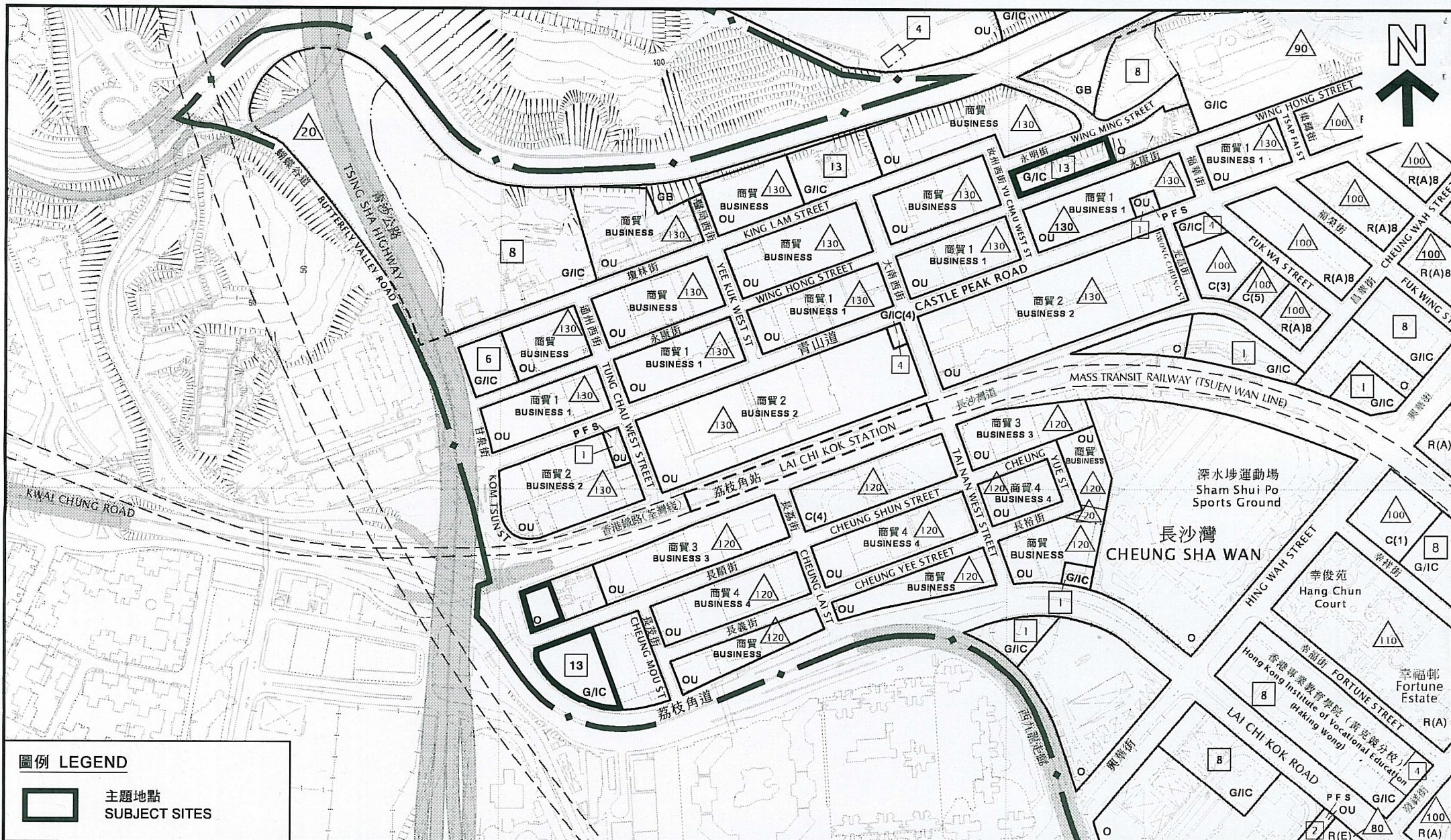
SCALE 1:4 000 比例尺  
米 METRES 50 0 50 100 150 200 250 METRES 米

規劃署  
PLANNING DEPARTMENT


參考編號  
REFERENCE No.  
M/SD/13/84

圖 PLAN  
13





# 圖例 LEGEND

 主題地點  
SUBJECT SITES

本圖於2013年11月19日擬備，  
所根據的資料為於2013年4月19日  
展示的分區計劃大綱圖編號S/K5/34  
PLAN PREPARED ON 19.11.2013  
BASED ON OUTLINE ZONING PLAN No.  
S/K5/34 EXHIBITED ON 19.4.2013

## 由兩位深水埗區議員建議作居屋發展的替代地盤 ALTERNATIVE SITES FOR HOS DEVELOPMENT SUGGESTED BY TWO SSPDC MEMBERS

SCALE 1 : 5 000 比例尺  
METRES 100 0 100 200 METRES

規劃署  
PLANNING  
DEPARTMENT

參考編號  
REFERENCE No.

M/K20/13/9

圖 PLAN

14



Hong Kong Housing Authority  
**Cheung Sha Wan Wholesale Food  
Market Phase 2 and Fat Tseung  
Street West Developments**  
Air Ventilation Assessment - Initial  
Study

--

Issue | 21 November 2013

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.

The information and examples included herein are for demonstration purposes only and are not intended to be exhaustive or all-inclusive.

ARUP assumes no liability or responsibility whatsoever for any direct or indirect damages or inaccuracies of any type or nature that could be deemed to have resulted from the use of this report.

Job number --

Level 5 Festival Walk  
80 Tat Chee Avenue  
Kowloon Tong  
Kowloon  
Hong Kong  
[www.arup.com](http://www.arup.com)

**ARUP**

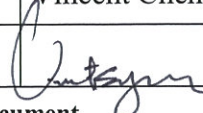
# Document Verification

# ARUP

<b>Job title</b>		Cheung Sha Wan Wholesale Food Market Phase 2 and Fat Tseung Street West Developments		<b>Job number</b>		--	
<b>Document title</b>		Air Ventilation Assessment - Initial Study		<b>File reference</b>			
<b>Document ref</b>		--					
<b>Revision</b>	<b>Date</b>	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Aug13.docx				
Draft 1	28 Aug 2013	<b>Description</b>	Draft 1				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
Draft 2	30 Aug 2013	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Aug13.docx				
		<b>Description</b>	Draft 2				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
Draft 3	16 Sep 2013	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Sep13.docx				
		<b>Description</b>	Draft 3				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
Draft 4	3 Oct 2013	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Oct13.docx				
		<b>Description</b>	Draft 4				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
<div style="text-align: right;"> <b>Issue Document Verification with Document</b> <input checked="" type="checkbox"/> </div>							

# Document Verification

Page 2 of 2

<b>Job title</b>		Cheung Sha Wan Wholesale Food Market Phase 2 and Fat Tseung Street West Developments		<b>Job number</b>		--	
<b>Document title</b>		Air Ventilation Assessment - Initial Study		<b>File reference</b>			
<b>Document ref</b>		--					
<b>Revision</b>	<b>Date</b>	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Nov13.docx				
Draft 5	4 Nov 2013	<b>Description</b>	Draft 5				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
Draft 6	6 Nov 2013	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Nov13v5.docx				
		<b>Description</b>	Draft 6				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
Draft 6	17 Nov 2013	<b>Filename</b>	Draft_AVA_Report_CheungShaWan_Nov13v8.docx				
		<b>Description</b>	Draft 7				
			Prepared by	Checked by	Approved by		
		Name	Various	Emma Leung	Sui-Hang Yan		
		Signature					
Issue	21 Nov 2013	<b>Filename</b>	AVA_Report_CheungShaWan_Nov13v11.docx				
		<b>Description</b>	ISSUE				
			Prepared by	Checked by	Approved by		
		Name	Various	Sui-Hang Yan	Vincent Cheng		
		Signature					

Issue Document Verification with Document



## Contents

---

	Page
<b>1 Introduction</b>	<b>1</b>
1.1 Background of Study	1
1.2 Objective of the Study	1
1.3 Scope of Study- Initial Study	1
<b>2 Background Information</b>	<b>2</b>
2.1 Site and Surrounding Area Characteristics	2
2.2 Study Scenarios	3
<b>3 Methodology of AVA Study</b>	<b>14</b>
3.2 Study Area	18
3.3 Test Point for Local and Site Ventilation Assessment	20
3.4 Assessment Tools	23
<b>4 Results and Discussion</b>	<b>25</b>
4.1 Annual Overall Pattern of Ventilation Performance	25
4.2 Summer Overall Pattern of Ventilation Performance	27
4.3 SVR and LVR	29
4.4 Directional Analysis	30
4.5 Focus Area	36
4.6 Special Focus Area	41
<b>5 Wind Enhancement Features</b>	<b>44</b>
5.1 Wind Corridors and Local Air Path	44
5.2 Large Building Gap Design	46
5.3 Ground Floor Empty Bays and Urban Window	47
<b>6 Recommendations – Additional Wind Enhancement Features</b>	<b>48</b>
<b>7 Expert Review on the Further Enhanced Scheme (NWKR Site 6)</b>	<b>49</b>
<b>8 Conclusion</b>	<b>51</b>

## Appendices

### Appendix A

Expert Review on the Further Enhanced Scheme (NWKR Site 6)

### Appendix B

## Velocity Ratio Table of the Test Points

### **Appendix C**

Directional VR Contour Plots

### **Appendix D**

Directional VR Vector Plots

### **Appendix E**

Proposed Amendments to the Approved South West Kowloon Outline Zoning  
Plan No. S/SK20/28



# 1 Introduction

---

## 1.1 Background of Study

Ove Arup & Partners Hong Kong Ltd. (Arup) was commissioned by the Hong Kong Housing Authority (HKHA) to carry out an Air Ventilation Assessment (AVA) – Initial Study for the proposed developments at the Cheung Sha Wan Wholesale Food Market Phase 2 (CSWWFM Ph. 2) Site and the Fat Tseung Street West (FTSW) Site. Both proposed developments are situated in Cheung Sha Wan.

The CSWWFM Ph. 2 Site largely falls within an area zoned “Other Specified Uses” annotated “Cargo Working Area, Wholesale Market and Industrial-Office”, partly zoned “OU” annotated “Wholesale Market”, with a minor portion zoned “OU” annotated “Pier” and an area shown as ‘Road’ while the FTSW Site falls within an area largely zoned “Government, Institution or Community” (“G/IC”) and partly zoned “Open Space” (“O”) and shown as ‘Road’ on the Approved South West Kowloon Outline Zoning Plan (OZP) No. S/SK20/28. Rezoning is required for the proposed developments and AVA is conducted to assess the air ventilation impact of the proposed developments in the area for consideration of the rezoning proposal. The extracted OZP indicating the proposed amendments regarding the CSWWFM Ph. 2 Site and the FTSW Site are attached in Appendix E.

## 1.2 Objective of the Study

The objective of the study is to investigate the air ventilation performance of the proposed developments using the methodology for Air Ventilation Assessment (AVA) as stipulated in the “Technical Circular No. 1/06 – Air Ventilation Assessments” (Technical Circular) and Annex A to the Technical Circular “Technical Guide for Air Ventilation Assessment for Developments in Hong Kong”(Technical Guide) jointly issued by Housing, Planning and Lands Bureau and Environmental, Transport and Works Bureau on 19<sup>th</sup> July 2006.

## 1.3 Scope of Study- Initial Study

The main scope of the study is to carry out an AVA Initial Study to assess the ventilation performance of the proposed development and surrounding environment.

The deliverables of this study can be summarised as follows:

- Evaluation of the wind performance to gather the typical wind characteristics
- Identification of the general ventilation performance over the assessment area
- Assessment of air ventilation performance at focus areas
- Recommendation of further wind enhancement features

## 2 Background Information

### 2.1 Site and Surrounding Area Characteristics

Two proposed developments are considered in this Study, i.e. the CSWWFM Ph. 2 Site and the FTSW Site. The proposed developments are located at Cheung Sha Wan which is on a relatively low elevation and gradually increases towards the north where Lion Rock Mountain locates. The CSWWFM Ph. 2 Site is near to the waterfront and bounded by the West Kowloon Highway to the north, Hing Wah Street West to the west and the existing CSWWFM Ph.1 to the east with a site area of about 9.65 hectares. For the FTSW Site, it is situated at the junction of Sham Mong Road and Fat Tseung Street West, with a site area of about 0.62 hectares.

There are some high-rise residential clusters located at the surroundings, such as, Fu Cheong Estate, Wing Cheong Estate and Hoi Lai Estate, etc. A committed development, namely Nam Cheong Station Development which is located on the eastern side of these sites, has been taken into account in the assessment model. Future residential development built to the development potential area permissible, under the current OZP, namely Northwest Kowloon Reclamation Area (NWKR) Site 6, which is sandwiched between the proposed developments, is also included in the model.



Figure 1 Aerial photo of the proposed development and surrounding area (Image Source: Google Earth)

## 2.2 Study Scenarios

Two schemes are compared in this AVA study, namely the Baseline Scheme and Indicative Scheme.

### 2.2.1 Baseline Scheme

The Baseline Scheme consists of an 8-storey GIC building and a 5-a-side soccer pitch at FTSW Site (see Note 1) and low-rise market structures at CSWWFM Ph. 2 Site by making reference to the existing wholesale market structure of CSWWFM Ph. 1 (see Note 2), which are permitted under the current zoning of the sites.

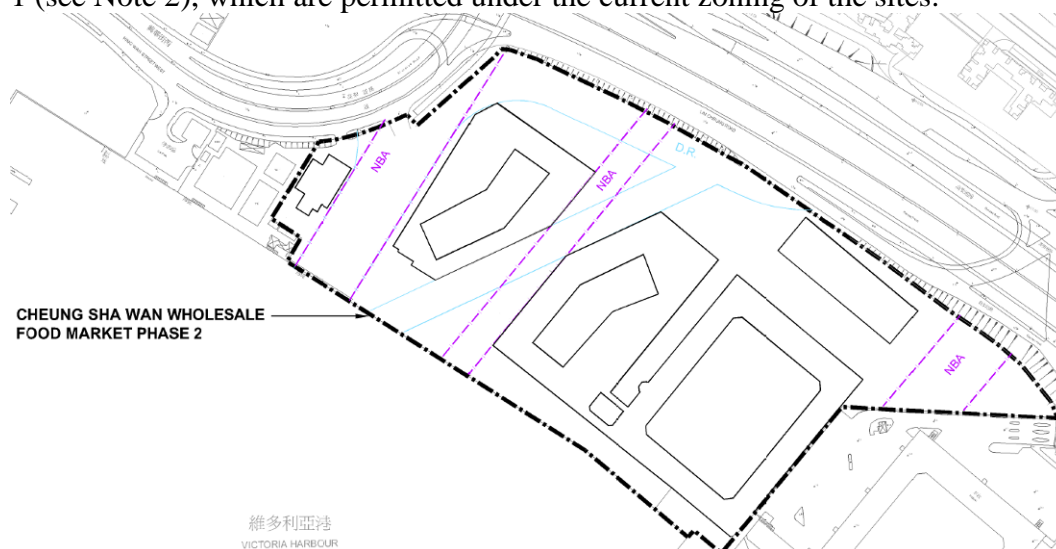


Figure 2 Master layout plan of Baseline Scheme for CSWWFM Ph. 2 Site

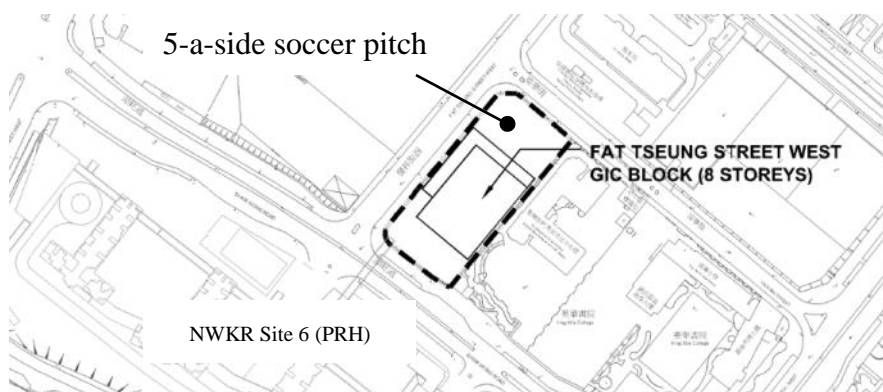


Figure 3 Master layout plan of Baseline Scheme for FTSW Site

Note 1: FTSW Site consists of 2 sites: one currently zoned “open space” and one zoned “GIC”. They are proposed to be rezoned to Residential (A).

Note 2: The existing zoning of CSWWFM Ph. 2 Site is largely zoned “Other Specified Uses” annotated ‘Cargo working Area, Wholesales and Industrial – Office’. It is mainly proposed to be rezoned to “Residential (Group A)”, “Comprehensive Development Area” (“CDA”) and “Government, Institute or Community” (“G/IC”).

Table 1 Building Height at Baseline Scheme

Site	Building Height
CSWWFM Ph. 2 Site	+21.8mPD
FTSW Site GIC Block	+53.89mPD

The three-dimensional model showing the building mass at CSWWFM Ph. 2 Site permitted under the current zoning is shown at Figure 4 to Figure 7 at different angles of view.

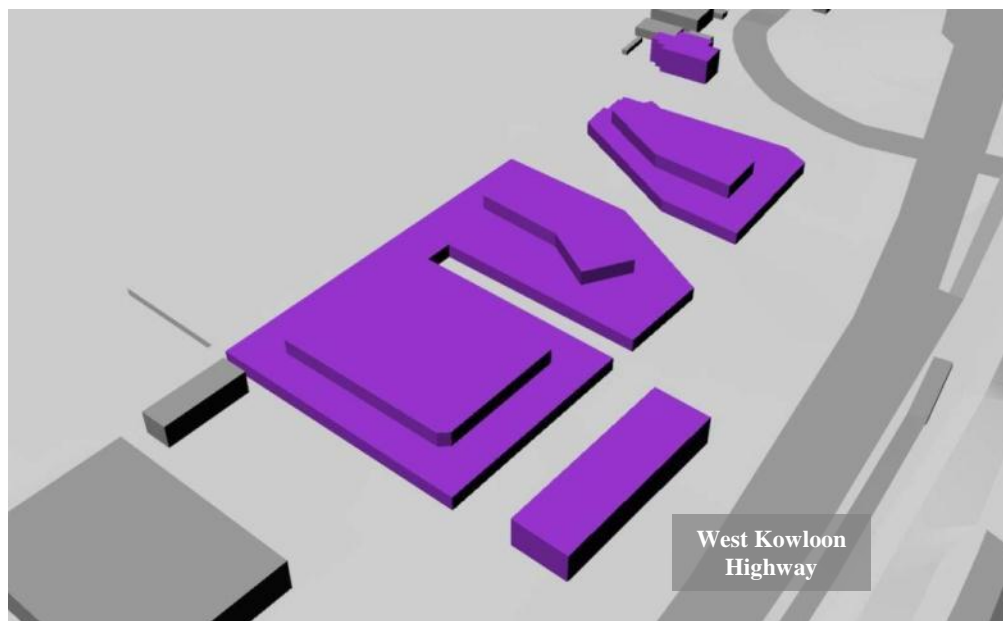


Figure 4 Easterly view of the Baseline Scheme for CSWWFM Ph. 2 Site

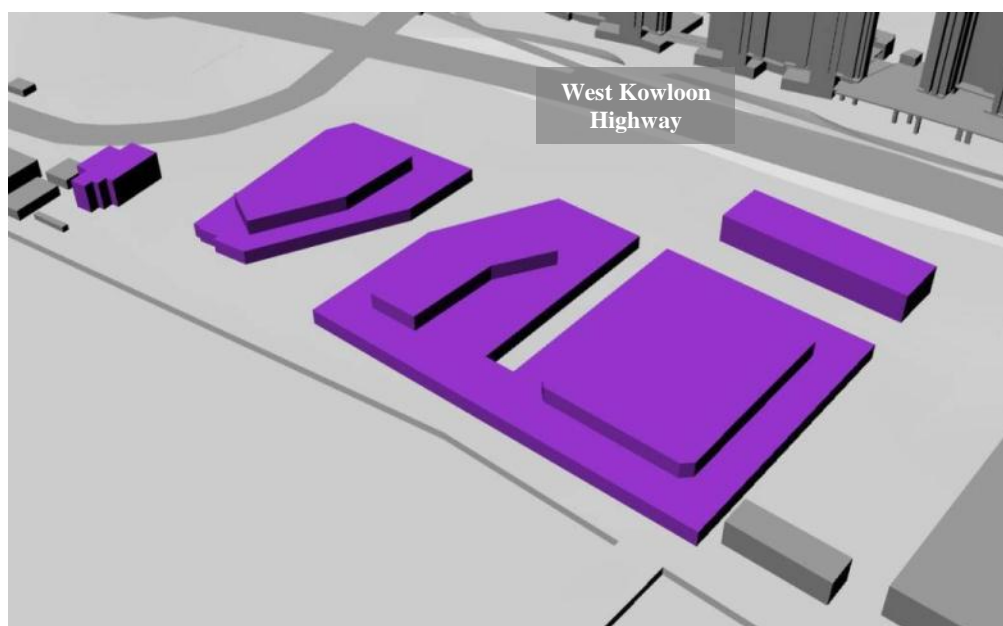


Figure 5 Southerly view of the Baseline Scheme for CSWWFM Ph. 2 Site



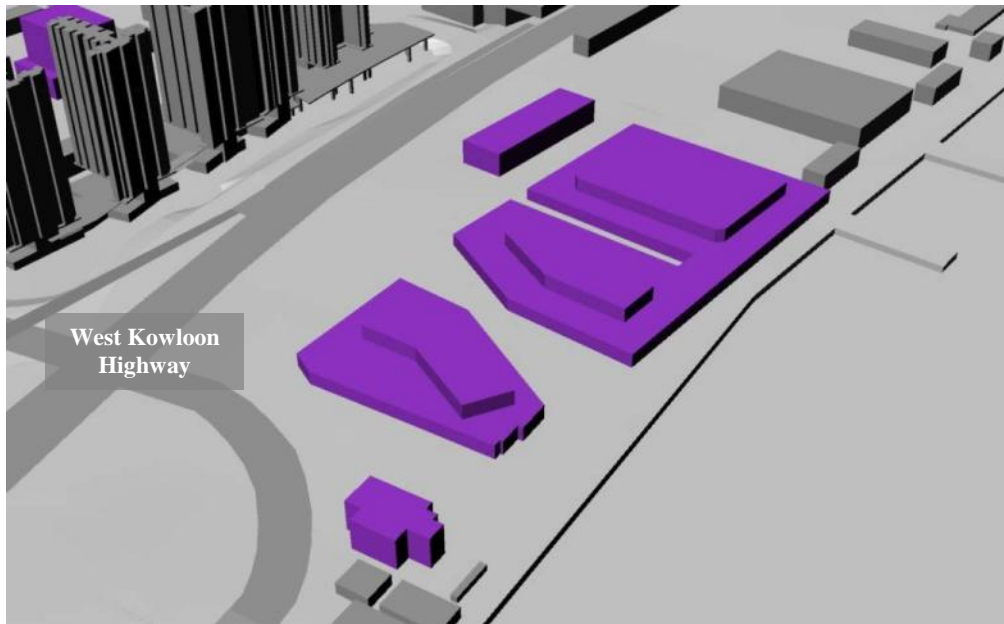


Figure 6 Westerly view of the Baseline Scheme for CSWWFM Ph. 2 Site

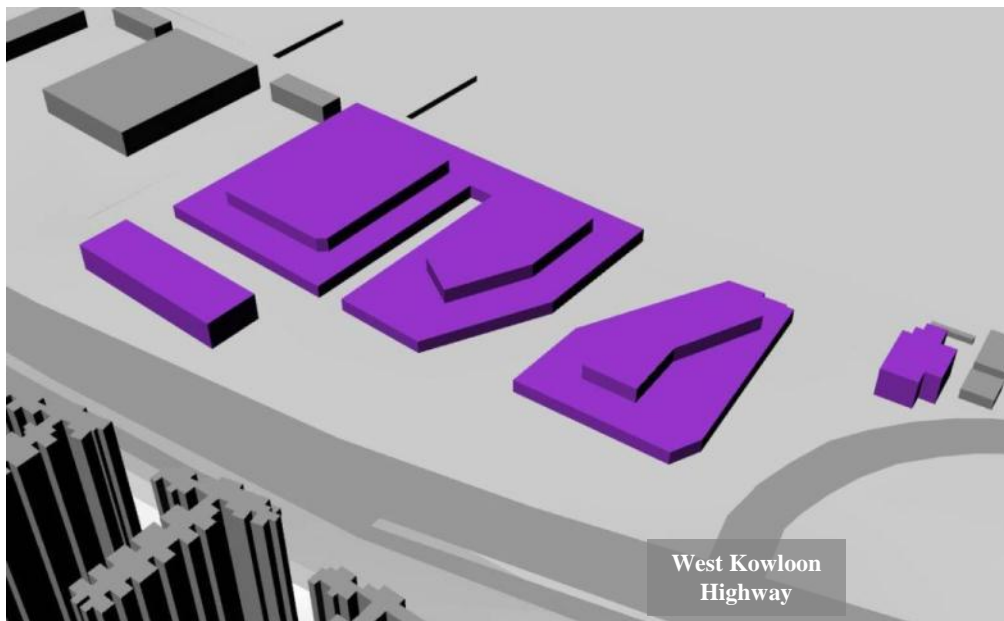


Figure 7 Northern view of the Baseline Scheme for CSWWFM Ph. 2 Site

The three-dimensional model showing the building mass at FTSW Site permitted under the current zoning is shown at Figure 8 to Figure 11 at different angles of view.

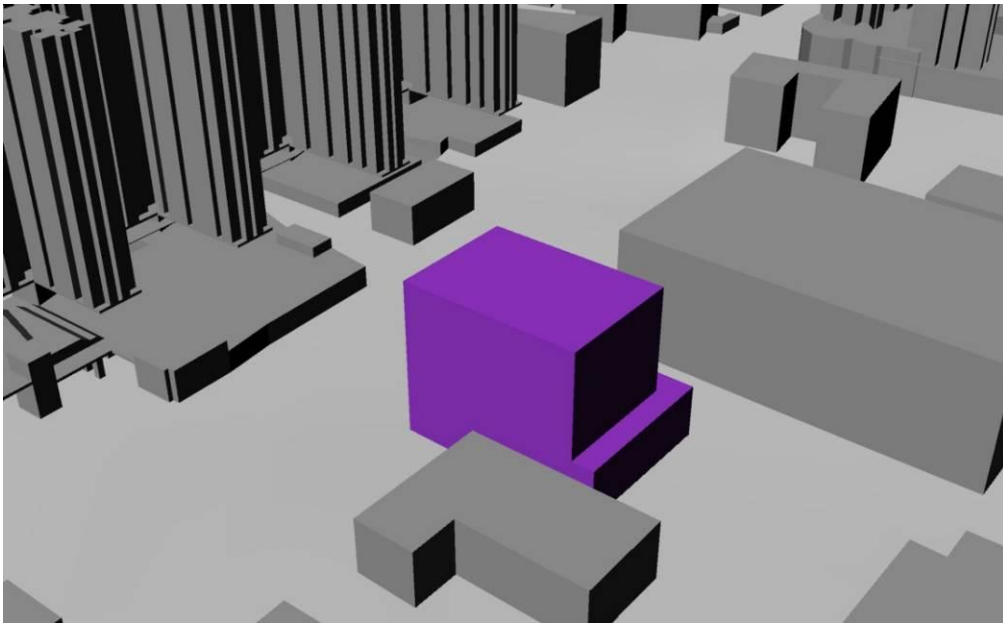


Figure 8 Easterly view of the Baseline Scheme for FTSW Site

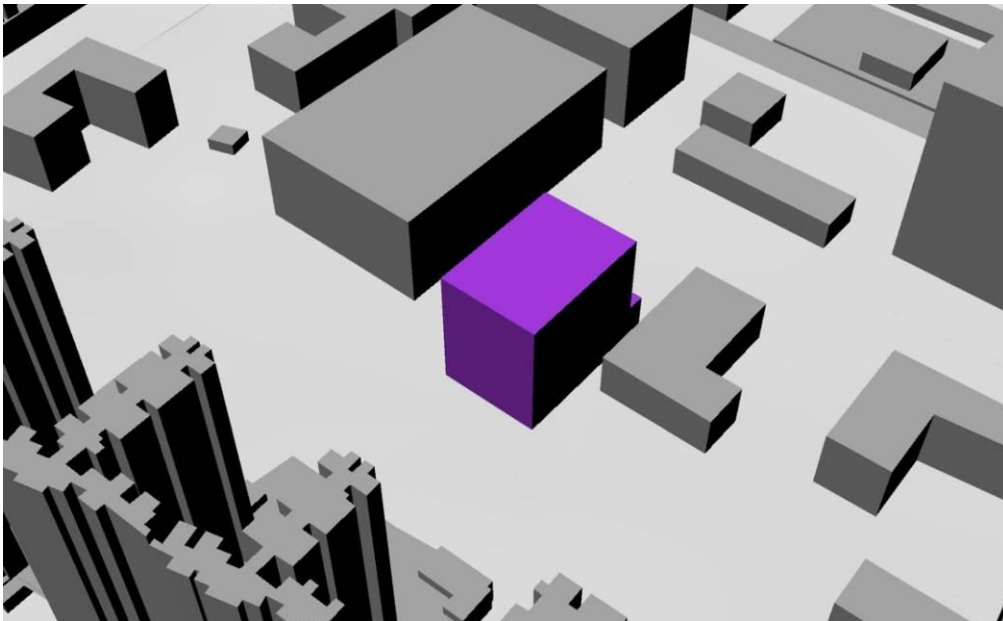


Figure 9 Southerly view of the Baseline Scheme for FTSW Site

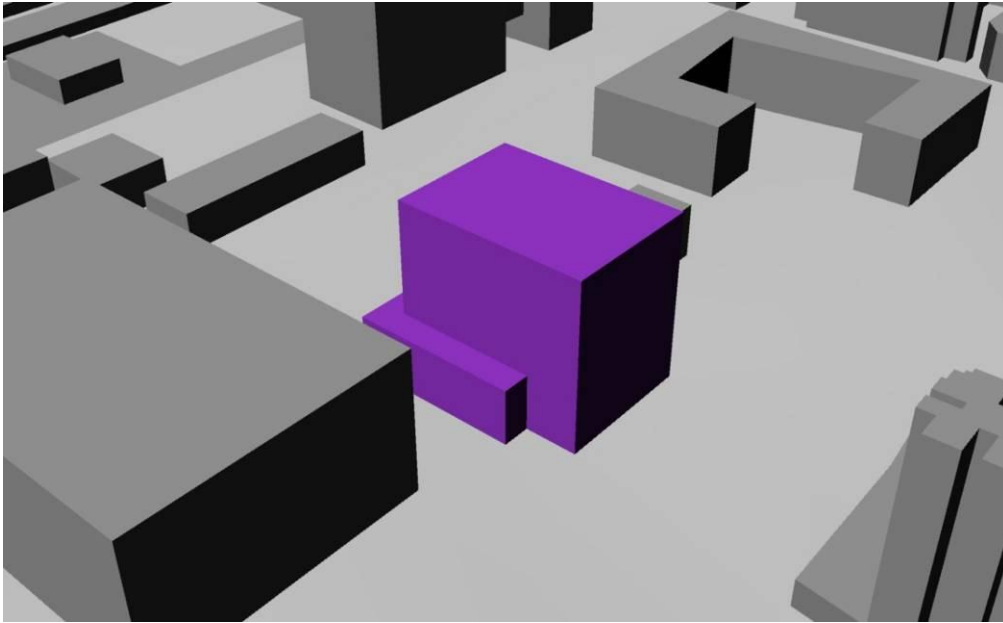


Figure 10 Westerly view of the Baseline Scheme for FTSW Site

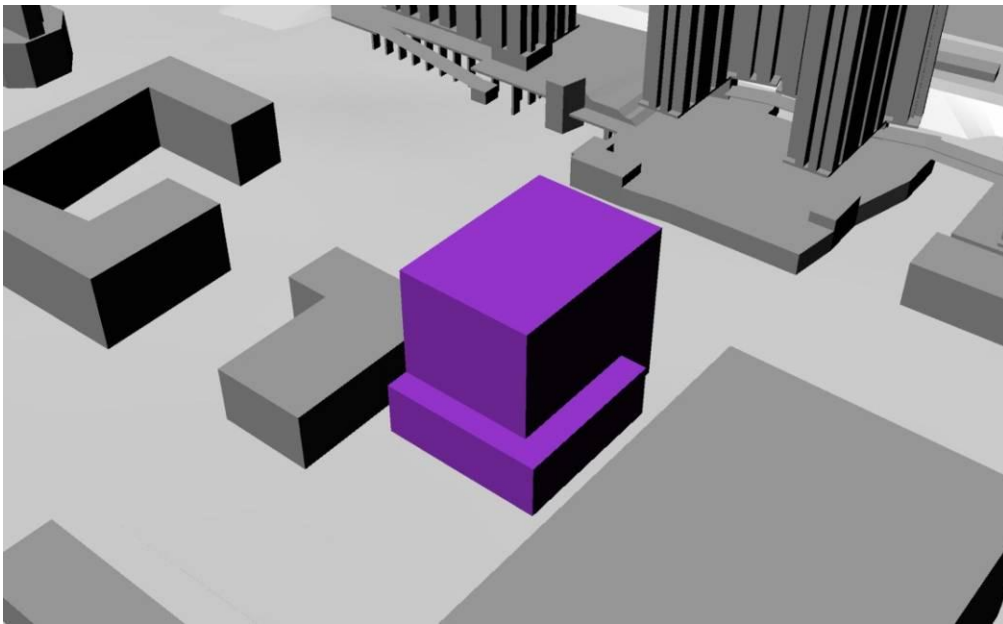


Figure 11 Northern view of the Baseline Scheme for FTSW Site

## 2.2.2 Indicative Scheme

With reference to the proposed development parameters, it is assumed that the Indicative Scheme for CSWWFM Ph. 2 Development consists of 14 domestic buildings and a hotel with height variations descending from the inland to the waterfront. The hotel development adopted in Site 4a in the Indicative Scheme has large building frontal area across the site and can be considered as the worst scenario. A standard primary school of eight-storey and a five-storey social welfare block are in the east and west of the site respectively. For FTSW Site, the Indicative Scheme includes two domestic buildings.

At CSWWFM Ph. 2 Site, large wind corridors of 45m, 22m and 30m in width (designated as non-building areas) aligned to the existing road is namely Hing Wah Street West, Fat Tseung Street West and Tonkin Street West respectively. A local air path of 20m has been incorporated into the Indicative Scheme of CSWWFM Ph. 2 Site (Figure 12). At FTSW Site a building gap of 15m (above  $\approx 10\text{mPD}$ ) has been designed to enhance the wind environment (Figure 13).

FTSW Site is also designed to be relatively permeable at low level, with urban window at podium (Figure 19) and empty bays at ground floor (Figure 18) to enhance air ventilation performance. The urban window faces Ying Wa Street is approximately 7.6m (H) by 15m (W) at +9.80mPD. Three empty bays are designed into the proposed buildings, where one faces Sham Mong Road is of approximately 13.8m (H) by 18m (W), one faces Fat Tseung Street West is of approximately 15.8m(H) by 12m(W), and the other one faces Ying Wa Street is of approximately 16.4m(H) by 9m(W). The maximum permitted buildings' heights for the CSWWFM Ph2 and FTSW Site are summarized in Table 2. A stepped height profile is adopted at the CSWWFM Ph.2 Site.

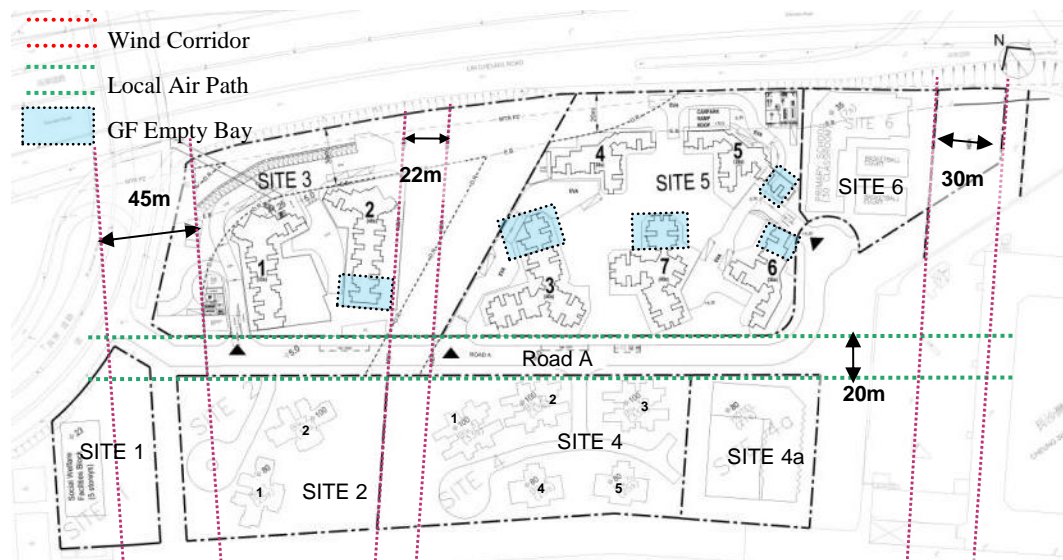


Figure 12 Master Layout plan of Indicative Scheme for CSWWFM Ph. 2 Site

Note 3: Proposed building height for Site 1 is +20mPD; Site 2 is +100mPD; Site 4 Block 1 to 3 +100mPD; Site 4 Block 4 to 5 is +80mPD; Site 4a +62mPD and Site 6 +29mPD.



Table 2 Maximum Permitted Building Height at Indicative Scheme

Site	Block No.	Maximum Permitted Building Height
<b>CSWWFM Ph.2 Site</b>		
Site 1	Social Welfare Block	5 Storeys
Site 2	1	+100.0mPD
	2	+100.0mPD
Site 3	1	+120.0mPD
	2	+120.0mPD
Site 4	1	+100.0mPD
	2	+100.0mPD
	3	+100.0mPD
	4	+100.0mPD
	5	+100.0mPD
Site 4a	Hotel	+100.0mPD
Site 5	3	+120.0mPD
	4	+120.0mPD
	5	+120.0mPD
	6	+120.0mPD
	7	+120.0mPD
Site 6	Primary School	8 Storeys
<b>FTSW Site</b>		
FTSW	1	+120.0mPD
	2	+120.0mPD

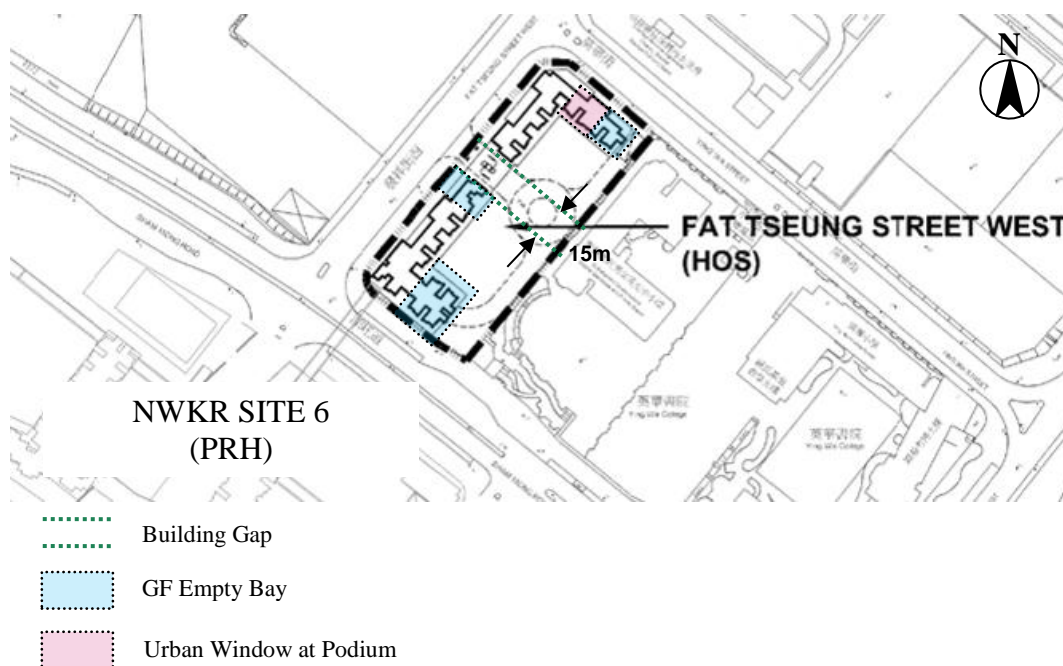


Figure 13 Master layout plan of Indicative Scheme for FTSW Site

The three-dimensional model of the proposed development at CSWWFM Ph. 2 Site is shown at Figure 14 to Figure 17 at angles of different view.

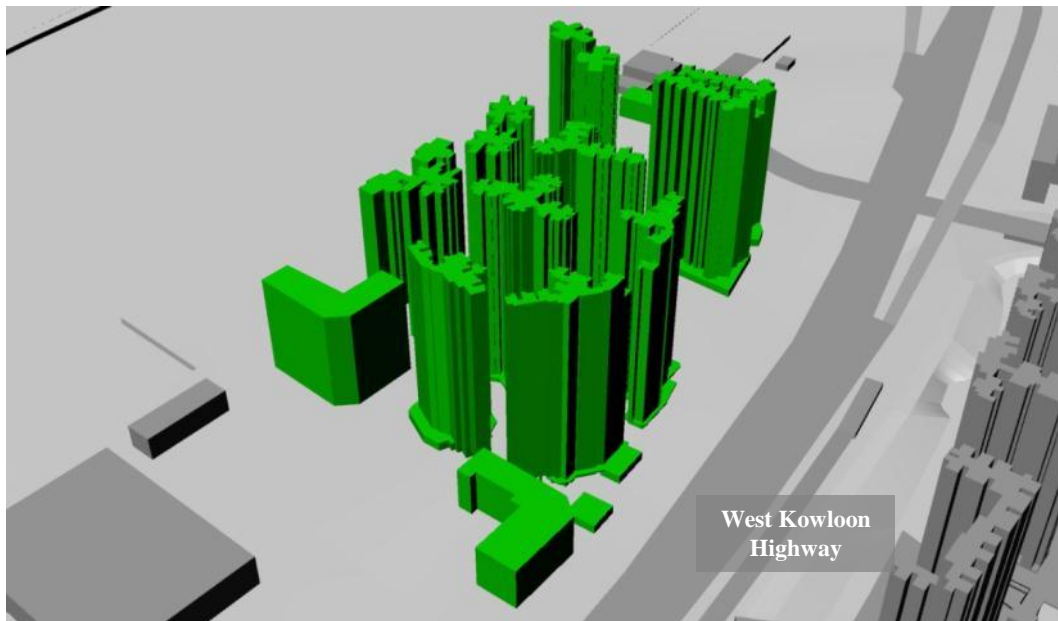


Figure 14 Easterly view of the Indicative Scheme for CSWWFM Ph. 2 Site

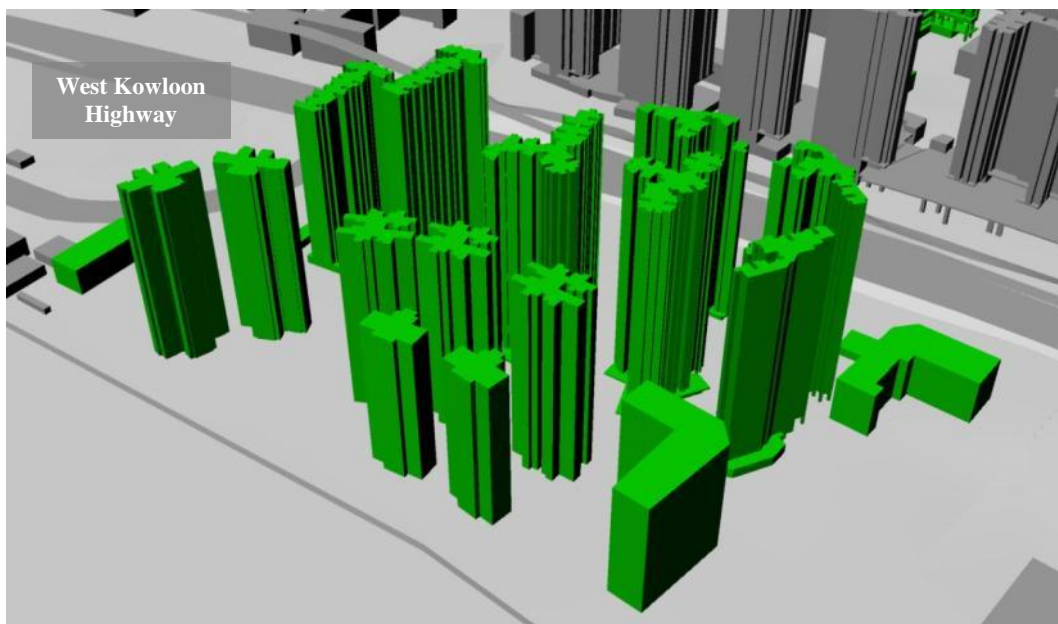


Figure 15 Southerly view of the Indicative Scheme for CSWWFM Ph. 2 Site

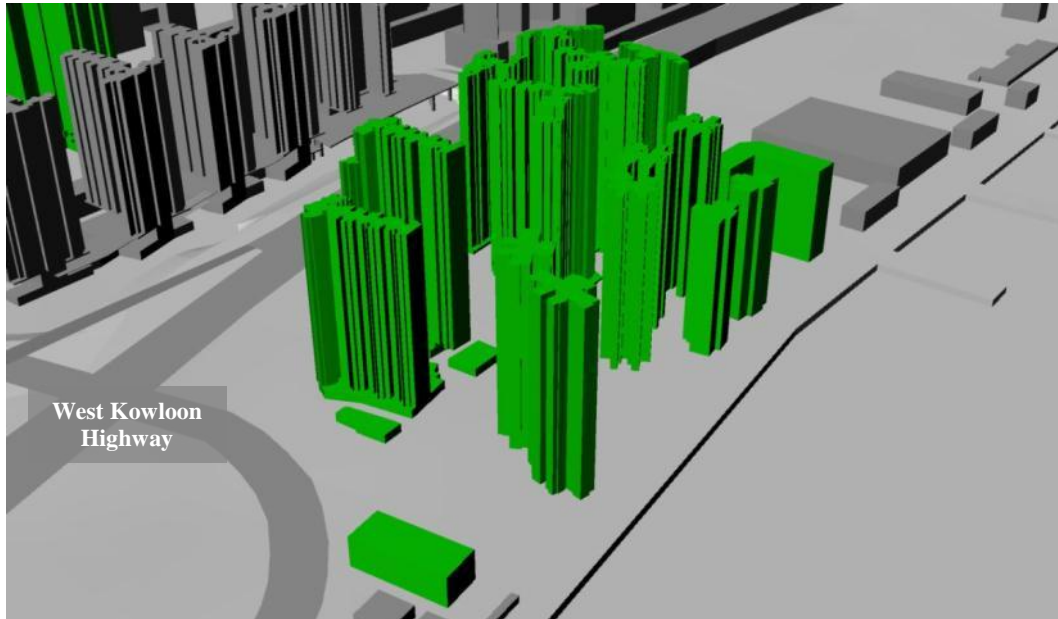


Figure 16 Westerly view of the Indicative Scheme for CSWWFM Ph. 2 Site

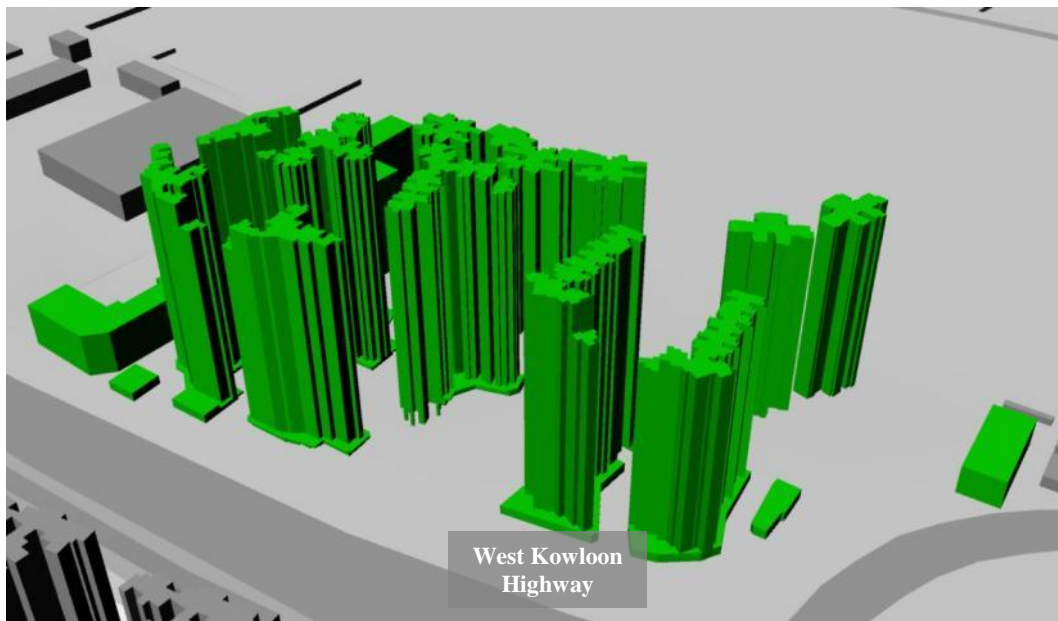


Figure 17 Northern view of the Indicative Scheme for CSWWFM Ph. 2 Site

The three-dimensional model of the proposed development at FTSW Site is shown at Figure 18 to Figure 21 at angles of different views.

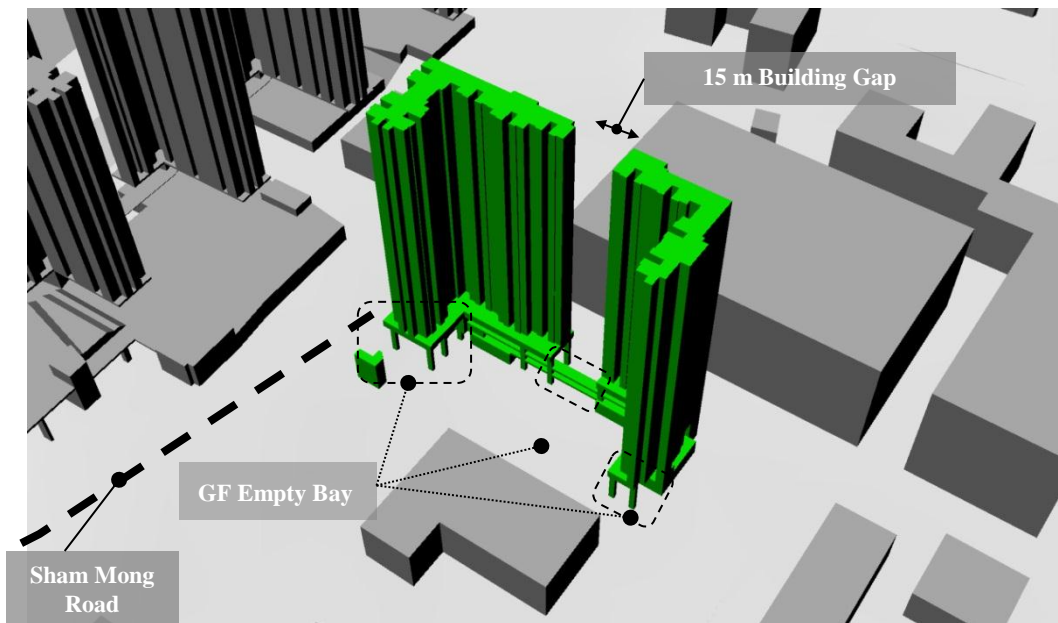


Figure 18 Easterly view of the Indicative Scheme for FTSW Site

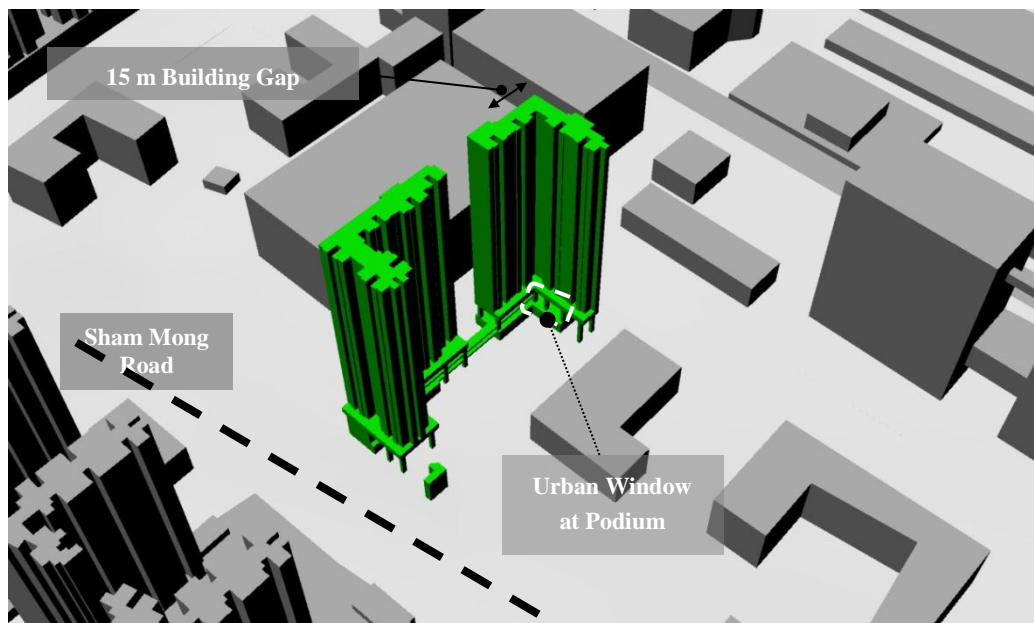


Figure 19 Southerly view of the Indicative Scheme for FTSW Site

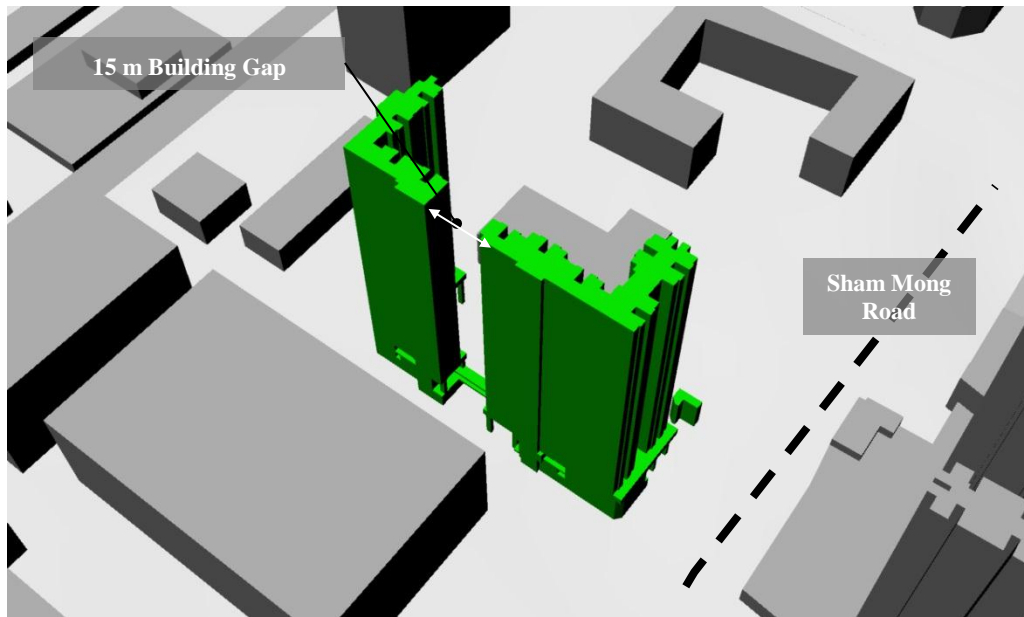


Figure 20 Westerly view of the Indicative Scheme for FTSW Site

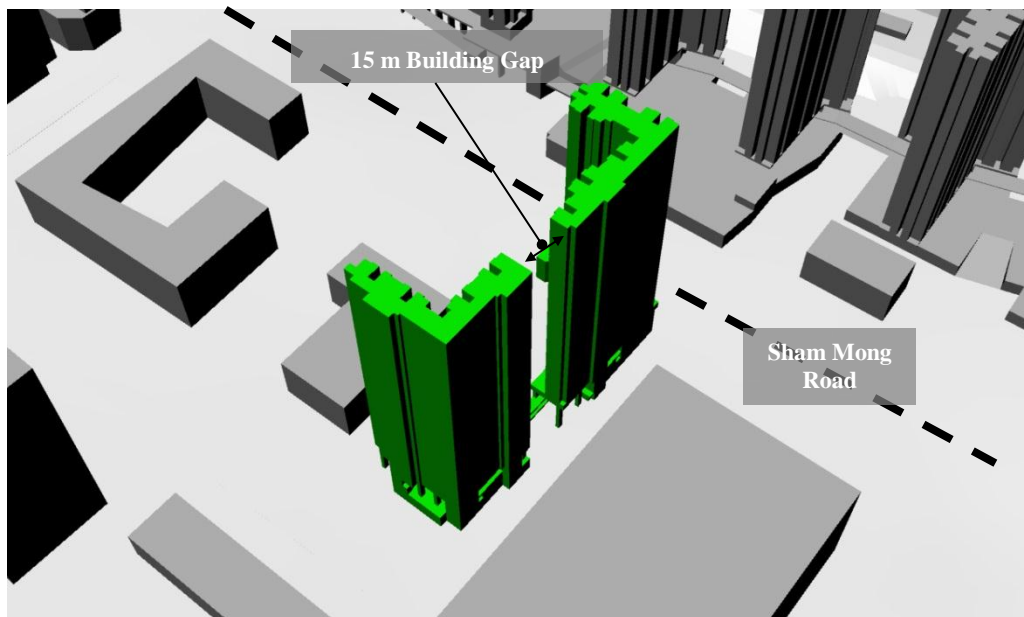


Figure 21 Northern view of the Indicative Scheme for FTSW Site



### 3 Methodology of AVA Study

This study adopted the AVA methodology for initial study as stipulated in Annex A of the Technical Circular on “Technical Guide for Air Ventilation Assessment for Developments in Hong Kong” (Technical Guide).

#### 3.1 Wind Availability

Based on the methodology of AVA, the site wind availability data was obtained from the Urban Climatic Map (UCMap) Study for Cheung Sha Wan<sup>1</sup>. The annual and summer wind rose demonstrating the frequency of occurrence of different wind directions are shown in Figure 22.

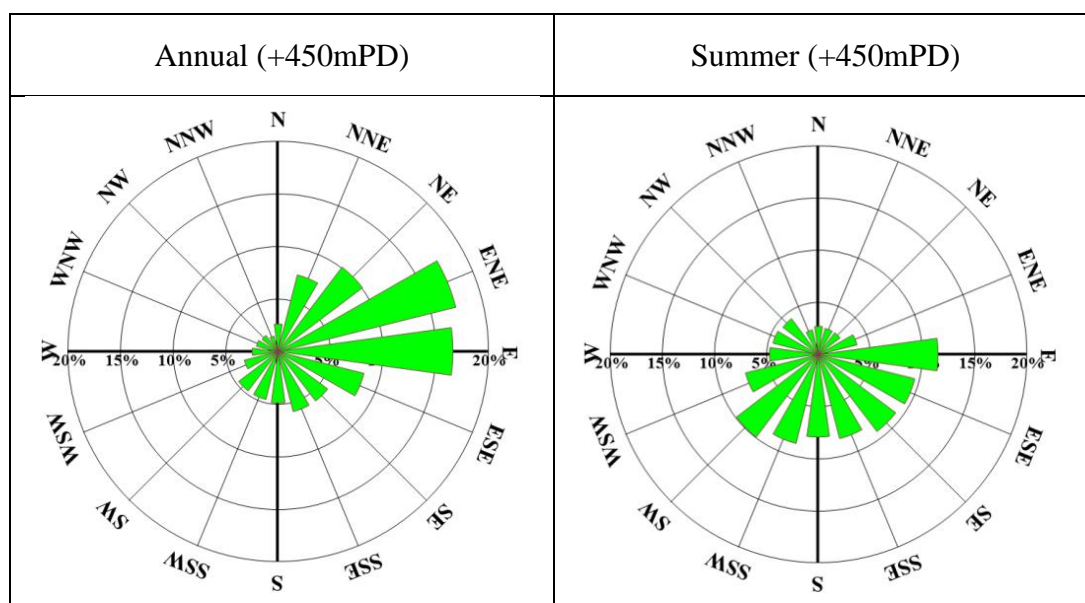


Figure 22 Wind rose for the Development under Annual and Summer Wind Condition

<sup>1</sup> Urban Climatic Map and Standards for Wind Environment – Feasibility Study, Department of Architecture, CUHK, 1/22/2009

### 3.1.1 Annual Prevailing Wind

Eight prevailing wind directions (highlighted in Red colour in Table 3) are considered in the AVA Initial Study which covers 76.6% of the total annual wind frequency. They are north-north-easterly (7.5%), north-easterly (10.1%), east-north-easterly (17.4%), easterly (16.6%), east-south-easterly (8.4%), south-easterly (5.9%), south-south-easterly (5.9%) and southerly (4.9%) winds.

Table 3 Annual wind frequency of the wind directions considered in this study

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	
Frequency	2.6%	7.5%	10.1%	17.4%	16.6%	8.4%	5.9%	5.9%	
Wind Direction	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
Frequency	4.9%	4.7%	4.7%	3.3%	2.5%	2.1%	1.9%	1.5%	76.6%

*\* The wind frequency showing in red colour represents the selected winds for the CFD simulation.*

### 3.1.2 Summer Prevailing Wind

Nine prevailing wind directions (highlighted in Red colour in Table 4) are considered in the AVA Initial Study which covers 77.1% of the total summer wind frequency (from 1 June to 30 August). They are easterly (11.5%), east-south-easterly (9.5%), south-easterly (9.3%), south-south-easterly (8.3%), southerly (7.9%), south-south-westerly (8.8%), south-westerly (9.9%), west-south-westerly (7.2%) and westerly (4.7%) winds.

Table 4 Summer wind frequency of the wind directions considered in this study

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	
Frequency	2.7%	2.6%	2.6%	3.8%	11.5%	9.5%	9.3%	8.3%	
Wind Direction	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
Frequency	7.9%	8.8%	9.9%	7.2%	4.7%	4.5%	4.3%	2.4%	77.1%

*\* The wind frequency showing in red colour represents the selected winds for the CFD simulation.*

### 3.1.3 Wind Profile

The vertical discretization of the velocity profile is approximated by using an exponential law, which is a function of ground roughness and height:

$$U_z = U_G \left( \frac{z}{z_G} \right)^n$$

where

$U_G$  = reference velocity at height  $z_G$

$z_G$  = reference height

$z$  = height above ground

$U_z$  = velocity at height  $z$

$n$  = power law exponent

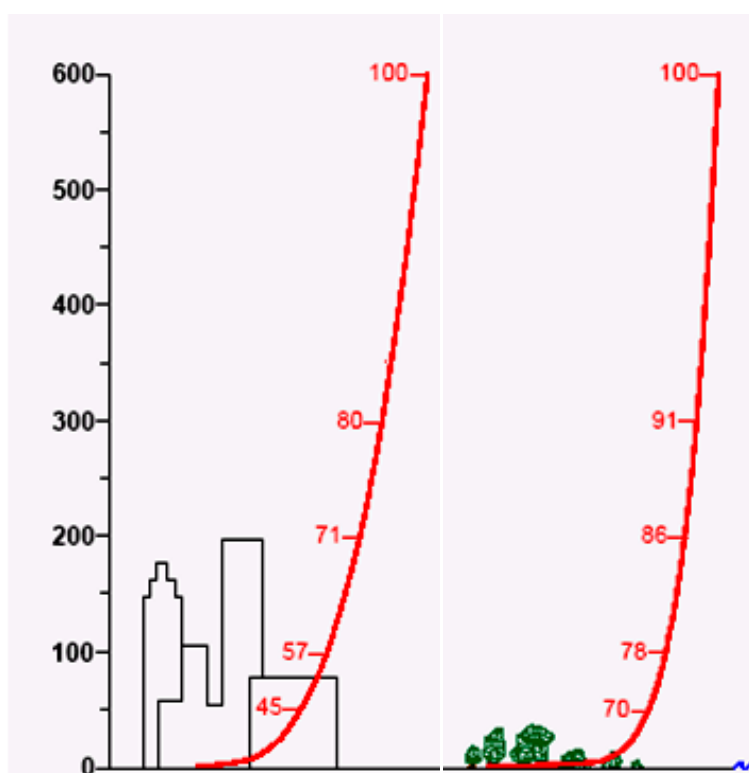


Figure 23 Wind Profile applied in the AVA Initial Study

The power  $n$  is related to the ground roughness. A larger value of the power  $n$  represents the higher roughness of the ground i.e. the dense city. Alternatively, smaller  $n$  represents the lower ground roughness i.e. the sea surface.

Terrain crossed by approaching wind	n-value
Sea and open space	~0.15
Suburban or mid-rise	~0.35
City centre or high-rise	~0.50

As the developments are located in the urban city and surrounded by medium rise building in NNE, NE, ENE, E, ESE, SE and SSE directions, the  $n$ -value was



assumed to be 0.35 for wind from these directions. Furthermore, developments are facing the waterfront in S directions, hence the n-value is assumed to be 0.15 for the wind from these directions.

Table 5 n-value for the prevailing wind directions

Wind Direction	NNE	NE	ENE	E	ESE	SE	SSE	S
n-value	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.15

## 3.2 Study Area

### 3.2.1 Project Assessment Area and Surrounding Areas

With reference to the Technical Guide, the areas of evaluation and assessment should include all area measured from the site boundary as well as a belt up to 1H, where H is the height of the tallest building of the proposed development, around the site boundary.

The tallest building of the proposed development is 120mPD and thus the Assessment Area is proposed to be around 120m. Notwithstanding, in order to capture a more representative wind profile of the surrounding area of the Project Site, the Surrounding Area are proposed to be 1100m respectively, which extend beyond 2H from the Project Site. The committed/planned development at the Nam Cheong Station Development and building density allowed under the current zoning at NWKR Site 6 are thus included. The neighbouring elevated structures, such as West Kowloon Highway are also modelled in the Study.



Figure 24 Site boundary, Assessment Area and Surrounding Area for the study (Image Source: Google Earth)

### 3.2.2 Assessment Parameter

The Wind Velocity Ratio (VR) as proposed by the Technical Circular is employed to assess the ventilation performances of the proposed development and surrounding environment. Higher VR implies better ventilation. The calculation of VR is given by the following formula:

$$VR = \frac{V_p}{V_\infty} \quad (2)$$

$V_\infty$  = the wind velocity at the top of the wind boundary layer (typically assumed to be around 596m above the centre of the site of concern, or at a height where wind is unaffected by the urban roughness below).

$V_p$  = the wind velocity at the pedestrian level (2m above ground) after taking into account the effects of buildings.

The Average VR is defined as the weighted average VR with respect to the percentage of occurrence of all considered wind directions. This gives a general idea of the ventilation performance at the considered location on an annual basis.

### 3.3 Test Point for Local and Site Ventilation Assessment

Monitoring test points are evenly placed along the site boundary and within the assessment area of the proposed development to determine the ventilation performance. There are two types of test points in the study:

#### 3.3.1 Perimeter Test Points

Perimeter test points are the points positioned at the site boundary of the proposed developments. In accordance with the Technical Circular for AVA, perimeter points are positioned at interval of 10 – 15m alongside the site boundary. In total there are 39 perimeter test points within the assessment area.

#### 3.3.2 Overall Test Points

Overall test points are those points evenly positioned in the open space on the streets and places where pedestrian frequently access within the assessment area. In total there are 53 overall test points within the assessment area.

Figure 25 shows the location of all perimeter and overall test points within the assessment area. The orange rectangle refers to the area as shown in Figure 26 close-up view and the white rectangle refers to the area as shown in Figure 27 close-up view.

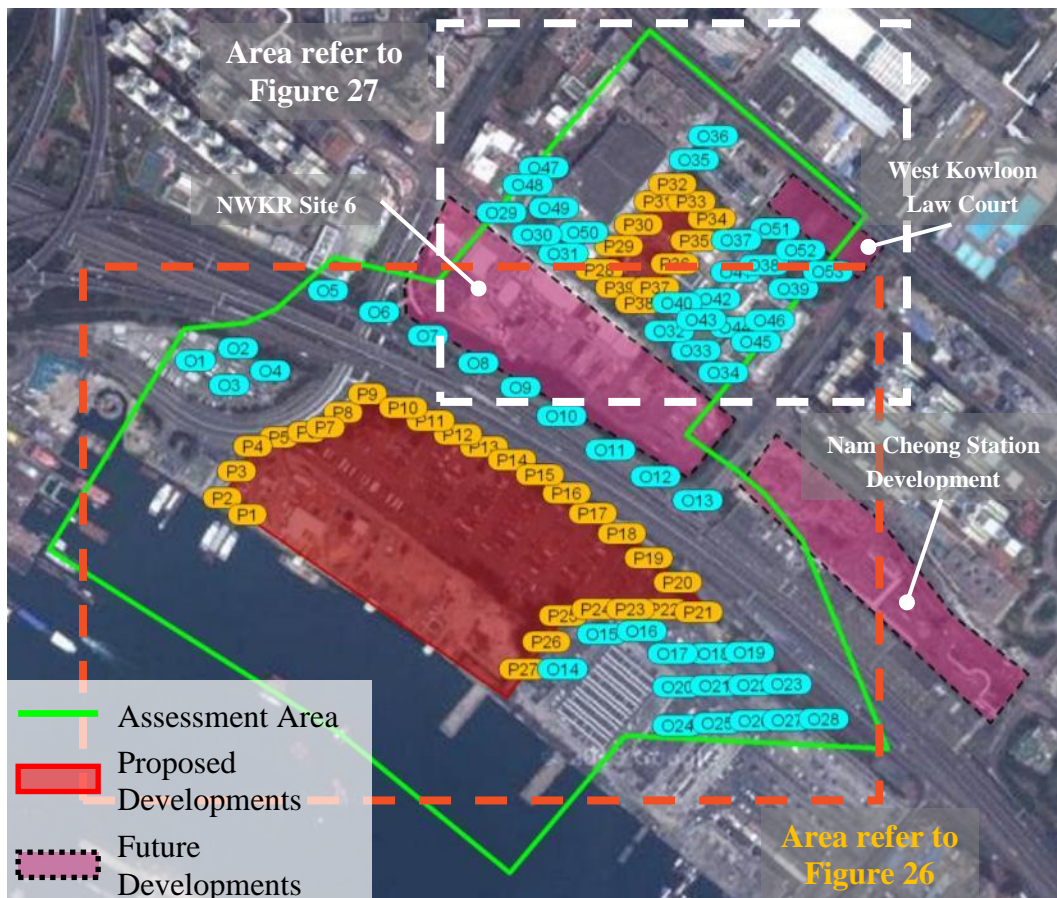


Figure 25 Location of overall and perimeter points – Overall Plan (Image Source: Google Map)



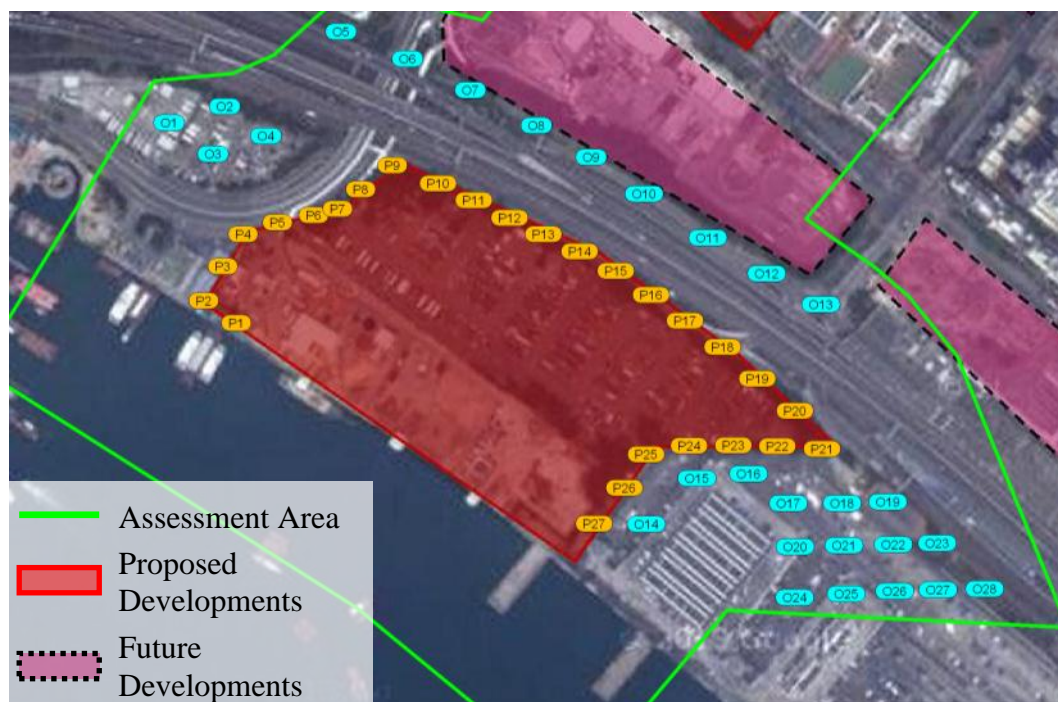


Figure 26 Location of overall and perimeter points – Plan A (Image Source: Google Map)



Figure 27 Location of overall and perimeter points – Plan B (Image Source: Google Map)

### 3.3.3 Special Test Points

Special test points are evenly positioned at the waterfront promenade, Hing Wah Street West, and Tonkin Street West to study the impact on wind performance due to the proposed developments. In total there are 25 special test points located at the locations mentioned.

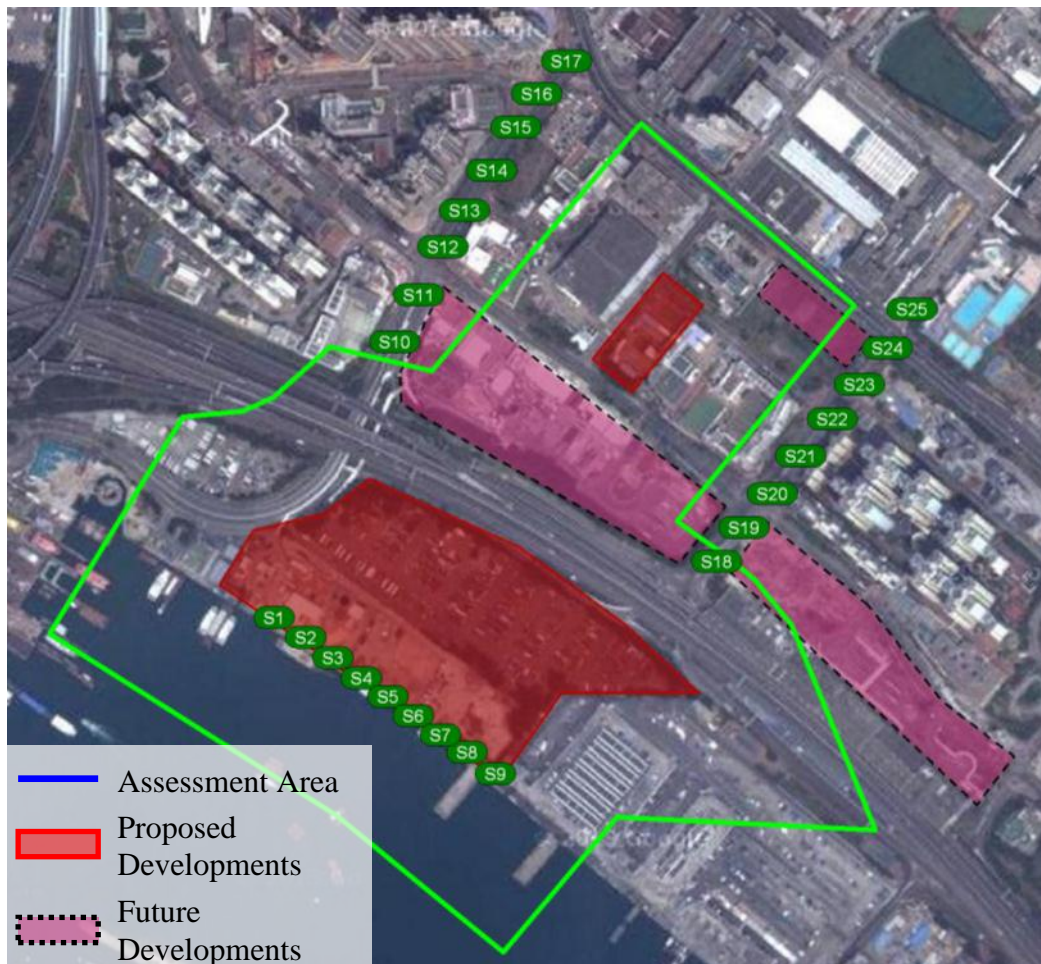


Figure 28 Location of special test points (Image Source: Google Map)



## 3.4 Assessment Tools

Computational Fluid Dynamics (CFD) technique is utilized for this AVA initial Study. The CFD software Star-CCM+ was used in this study. With the use of three-dimensional CFD method, the local airflow distribution can be visualised in detail. The air velocity distribution within the flow domain, being affected by the site-specific design and the surrounding buildings, has been simulated under the prevailing wind conditions round the year.

### 3.4.1 CFD Model

The size of the CFD model for this Study is approximately 5700m(L) x 5000m(W) x 1500m(H). The whole CFD domain covers the entire development and the surrounding buildings. The model also takes information of the surrounding buildings and site topography via Geographical Information System (GIS) platform. Body-fitted unstructured grid technique is used to fit the geometry to reflect the complexity of the development geometry. A prism layer of 3m above ground (totally 6 layers and each layer is 0.5m) is incorporated in the meshing so as to better capture the approaching wind. The expansion ratio is 1.5 while the maximum blockage ratio is 3.5%.

Finer grid system (with the smallest grid size of 0.5m) is applied to the most concerned area based on preliminary judgement, while coarse grid system (grid size of more than 20m at location far away from the site) is applied to the area of surrounding buildings for better computational performance while maintaining satisfactory result.

### 3.4.2 Turbulence model

As highlighted in recent academic and industrial research literatures by CFD practitioners, the widely used standard  $k - \epsilon$  turbulence model technique may not adequately model the effects of large scale turbulence around buildings and ignores the wind gusts leading to the relatively poor prediction in the recirculation regions around building. Therefore in this CFD simulation, realizable  $k - \epsilon$  turbulence modelling method is applied. This technique provides more accurate representation of the levels of turbulence that can be expected in an urban environment.

### 3.4.3 Calculation Method

The Segregated Flow model solves the flow equations in a segregated manner. The linkage between the momentum and continuity equations adopted the predictor-corrector approach. A collocated variable arrangement and a Rhie-and-Chow-type pressure-velocity coupling combined with a SIMPLE-type algorithm. A higher order differencing scheme is applied to discretize the governing equations. The convergence criterion is set to 0.0005 on mass conservation. The calculation will repeat until the solution satisfies this convergence criterion.

The prevailing wind direction as mentioned in Section 3.1 is set to inlet boundary of the model with wind profile as detailed in Section 3.1.3. The downwind boundary is set to pressure with value of atmospheric pressure. The top and side boundaries are set to symmetry. In addition, to eliminate the boundary effects, the

model domain is built beyond the Surrounding Area as required in the Technical Circular.

### 3.4.4 AVA study parameters

CFD simulations have been conducted to study the wind environment. As specified in the Technical Circular, indicator of ventilation performance should be the Wind Velocity Ratio (VR), defined as the ratio of the wind velocity at the pedestrian level (2m above ground) to the wind velocity at the top of the wind boundary layer. Site spatial average velocity ratio (SVR) and a Local spatial average velocity ratio (LVR) should be determined. The details of the assessment result for the scheme would be presented in the next section.

Table 6 Terminology of the AVA Initial Study

Terminology	Description
<b>Velocity Ratio (VR)</b>	The velocity ratio (VR) represents the ratio of the air velocity at the measurement position to the value at the reference points.
<b>Site spatial average velocity ratio (SVR)</b>	The SVR ( <b>orange</b> points) represent the average VR of all perimeter test points at the site boundary which identified in the report.
<b>Local spatial average velocity ratio (LVR)</b>	The LVR ( <b>blue</b> and <b>orange</b> points) represent the average VR of all points, i.e. perimeter and overall test points at the site boundary which identified in the report.



## 4 Results and Discussion

### 4.1 Annual Overall Pattern of Ventilation Performance

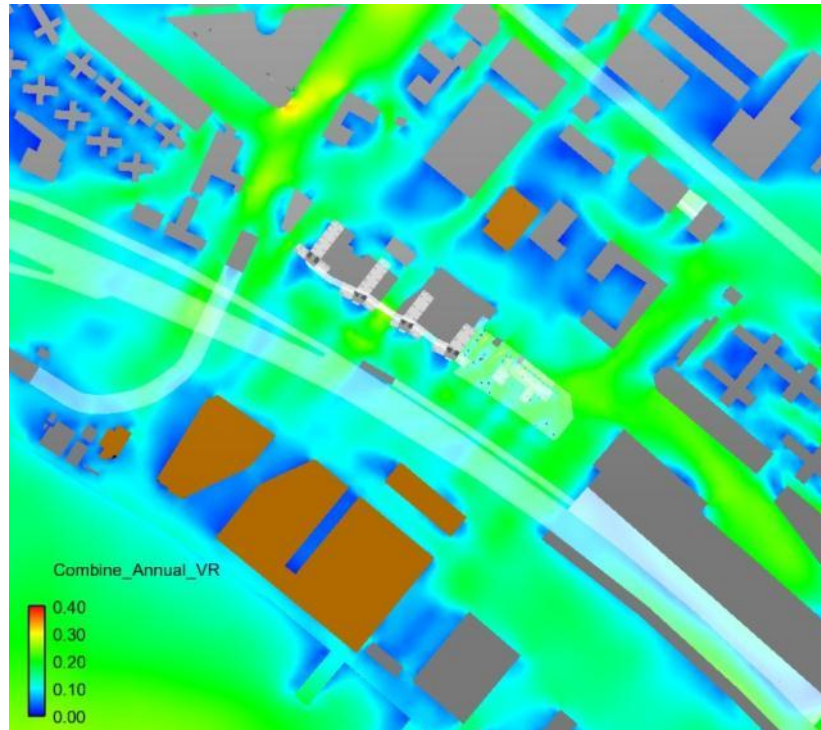


Figure 29 Contour Plot of Annual Average VR at 2m Pedestrian Level for Baseline Scheme

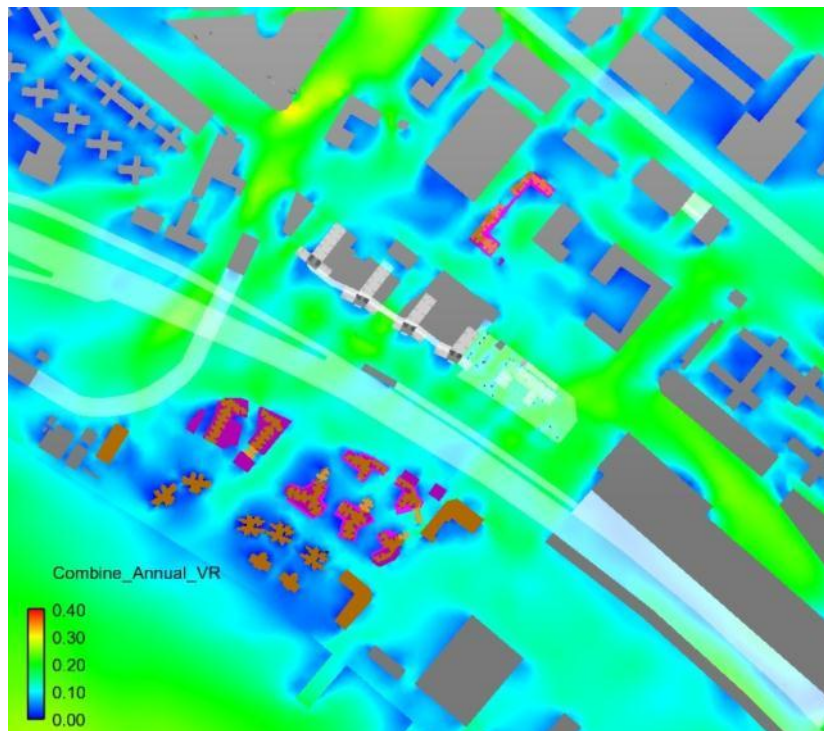


Figure 30 Contour Plot of Annual Average VR at 2m Pedestrian Level for Indicative Scheme

For the annual condition, eight wind directions were selected, accumulating to 76.6% occurrence frequency. The integrated effect of these winds indicates the overall wind ventilation performance. Annual wind is dominated by E (16.6%) and ENE (17.4%) directions. The above contour plots show that:

- The overall ventilation performances of the Baseline Scheme and Indicative Scheme are quite similar;
- The prevailing wind mainly approaches from the ENE and E directions, the existing dense building developments, such as Fu Cheong Estate will shield some of the approaching winds; and
- Both FTSW Site and CSWWFM Ph. 2 Site are located at the downwind side of the Cheung Sha Wan Area, thus there are no significant adverse impact to most of the surroundings in terms of ventilation performance.



## 4.2 Summer Overall Pattern of Ventilation Performance

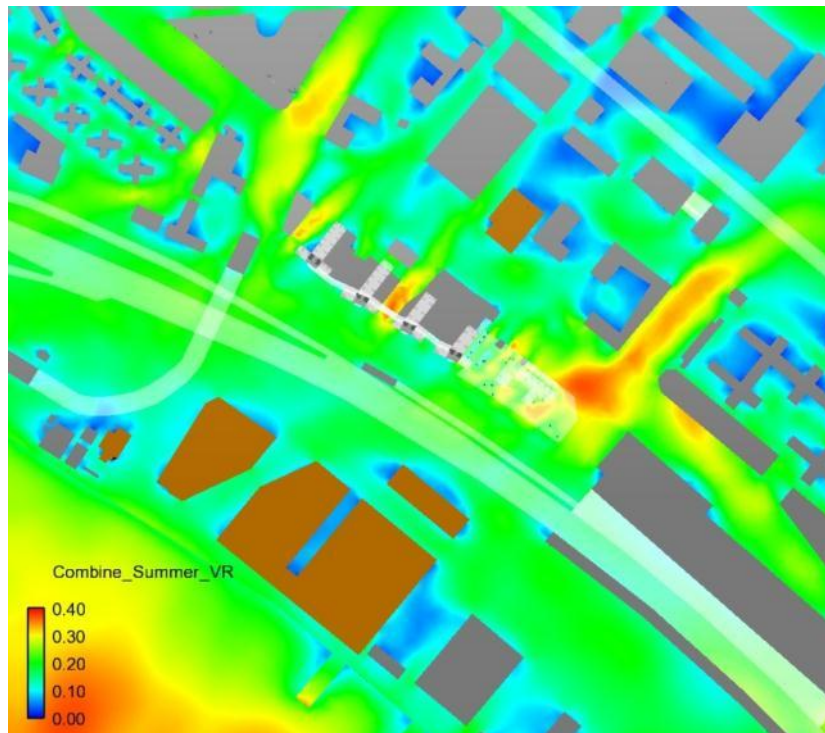


Figure 31 Contour Plot of Summer Average VR at 2m Pedestrian Level for Baseline Scheme

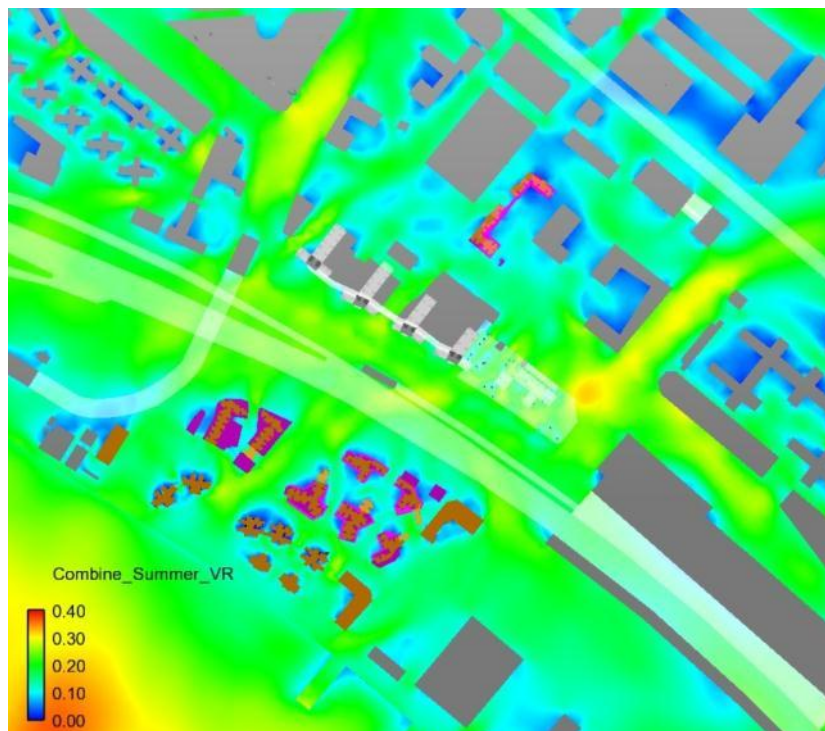


Figure 32 Contour Plot of Summer Average VR at 2m Pedestrian Level for Indicative Scheme

For the summer condition, nine wind cases were chosen, accumulating to 77.1% occurrence frequency. The integration of the effect of these winds indicates the overall wind ventilation performance. During the summer, including June to August, the summer prevailing wind is dominated by E (11.5%) and SW (9.9%) winds. The above contour plots show that:

- CSWWFM Ph. 2 Site is located next to the waterfront, upwind of Cheung Sha Wan. The building blocks of Baseline Scheme allow the incoming wind to skim over the top of the building and penetrate to the downwind side of the development with less obstruction;
- The Indicative Scheme of CSWWFM Ph. 2 Site is taller and denser than the Baseline Scheme; however, the three wind corridors in the Indicative Scheme allow wind penetration downwind to the development which reduces the adverse impacts of the development (refer to Figure 45);
- CSWWFM Ph. 2 Site and NWKR Site 6 are located upwind of FTSW Site. The wind environment at FTSW Site area is dominated by the upwind developments, hence it is expected that the ventilation performance of FTSW Site has minimal impact on the surrounding areas;



### 4.3 SVR and LVR

The average Velocity Ratios of all test points are determined and extracted. The results of all test points are presented in the Appendix B. According to the Technical Circular, the Velocity Ratio at each test point is assessed and the SVR and the LVR under the prevailing winds are determined and reported to assess the impact of the proposed development Schemes to the wind environment. The SVR and LVR value of the test points are summarized as follows:

Table 7 Annual SVR and LVR of the Assessment Area for the Development Schemes

Annual	Baseline Scheme	Indicative Scheme
SVR	0.11	0.12
LVR	0.11	0.11

Table 8 Summer SVR and LVR of the Assessment Area for the Development Schemes

Summer	Baseline Scheme	Indicative Scheme
SVR	0.15	0.15
LVR	0.15	0.15

#### 4.3.1 Site Air Ventilation Assessment

Under annual wind condition, the SVR for both Baseline Scheme and Indicative Scheme is similar, where the SVR for Baseline Scheme is 0.11 and the SVR for Indicative Scheme is 0.12. Under summer wind condition the SVR for Baseline Scheme and Indicative Scheme is the same, where the SVR is 0.15 for both schemes. The results indicate slightly better wind performance at the immediate surroundings of the developments under Indicative Scheme for annual condition and similar wind performance at the immediate surroundings of the developments under both schemes for summer condition.

#### 4.3.2 Local Air Ventilation Assessment

The LVR of the annual and summer wind condition is the same for both Baseline and Indicative Scheme. The LVR under annual wind condition for both schemes is 0.11 and the LVR under summer wind condition for both schemes is 0.15. The results indicate similar wind performance to the surrounding area under both Baseline and Indicative Scheme.

## 4.4 Directional Analysis

The directional analysis has been carried out for each quarter of wind directions, three wind directions are chosen for further directional analysis including Easterly, South-Easterly and South-Westerly wind directions.

### 4.4.1 Easterly Wind Direction

The easterly wind condition contributes to 16.6% of the annual prevailing wind condition and 11.5% of the summer prevailing wind condition.

#### CSWWFM Ph. 2 Site

Under easterly prevailing wind condition, the wind enters CSWWFM Ph. 2 Site from CSWWFM Ph. 1 and Tonkin Street West (red arrow in Figure 33).

Under the Baseline Scheme, the building bulk is large in footprint but the buildings are low in height. The resultant effect is a relatively satisfactory ventilation performance, mainly due to the low building height.

As CSWWFM Ph. 2 Site is located at the downwind side of the surrounding developments, there are no significant adverse impacts to the surroundings under the Indicative Scheme in terms of ventilation performance, except at the Waterfront Promenade. The building towers in Site 4 and 4a (red dotted line in Figure 34) in the Indicative Scheme induce wind shadows to the Waterfront Promenade areas and divert a portion of winds toward the sea. In this connection, a relatively better ventilation performance is found at the Waterfront Promenade under the Baseline Scheme.

#### FTSW Site

The site is surrounded by medium-rise buildings, such as St. Margaret's Co-educational English Secondary & Primary School and Ying Wa School. The incoming winds mainly enter the site from Ying Wa Street.

Under the Baseline Scheme, the building height is relatively similar to the medium rise buildings in the surrounding and the building frontage along Fat Tseung Street West is relatively short. As a result the ventilation impacts to the surrounding are minimal.

In the Indicative Scheme, the building facade helps to direct the downwash wind to the pedestrian level, which enhances the ventilation performance at the school sites (orange arrow in Figure 34). The empty bay design at the ground level also allows wind to penetrate to the leeward side of the building and enhances the wind environment at Sham Mong Road (white arrow in Figure 34).

Furthermore, the 15m building gap between the two tower blocks in the Indicative Scheme, also enhances the wind penetration to Fat Tseung Street West, and hence reduces the wake zone at the leeward side of the Development (white arrow in Figure 34).



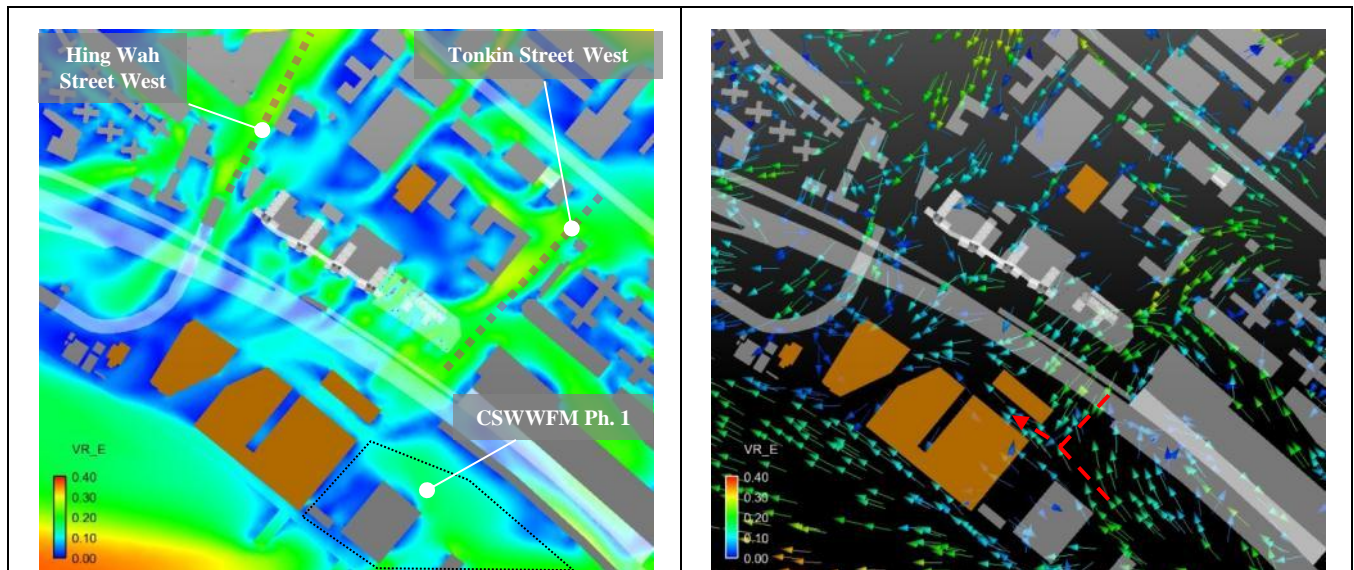


Figure 33 VR Contour and Vector Plot under E Wind of Baseline Scheme

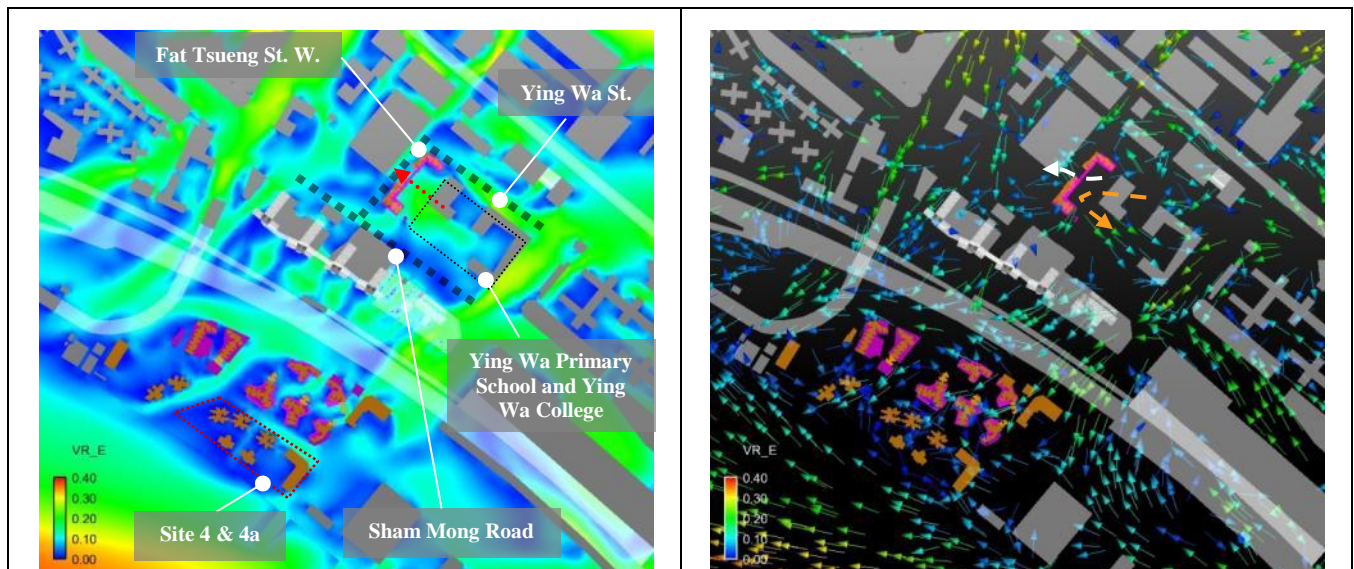


Figure 34 VR Contour and Vector Plot under E Wind of Indicative Scheme

#### 4.4.2 South-Easterly Wind Direction

The south-easterly wind condition contributes to 5.9% of the annual prevailing wind condition and 9.3% of the summer prevailing wind condition.

##### CSWWFM Ph. 2 Site

The incoming wind enters CSWWFM Ph. 2 Site from CSWWFM Ph. 1 along the West Kowloon Highway.

In the Baseline Scheme, the market structures are relatively low so the prevailing wind enters the site and is able to skim over the buildings without introducing significant wind blockage at mid to high levels, allowing wind penetration to the downwind area.

Lin Cheung Road experiences better wind performance under the Indicative Scheme in comparison with the Baseline Scheme. As the prevailing wind enters the project site along the highway, the building blocks in the Indicative Scheme is able to deflect and downwash a portion of wind onto Lin Cheung Road (red arrow in Figure 36). Under the Indicative Scheme, the local air path is in alignment with the SE prevailing wind. This design feature enhances the permeability of the Development and allows SE wind to penetrate through the site to the downwind region (blue arrow in Figure 36).

##### FTSW Site

Similar to the east wind condition, due to the lower building height and shorter building frontage along Fat Tseung Street West under the Baseline Scheme, the ventilation impacts to the surrounding are minimal.

Under the Indicative Scheme, the findings are similar to the prevailing east wind condition. Wind along Sham Mong Road passes to the southwest of FTSW Site, but the site does not receive significant wind as it is surrounded by other buildings. The 15m building gap between the building blocks allows the prevailing wind to penetrate to the leeward side and mitigates the wake zone at the downwind side. Also, the building facade helps to direct downwash wind to the pedestrian level, which enhances the ventilation performance at the School Sites.

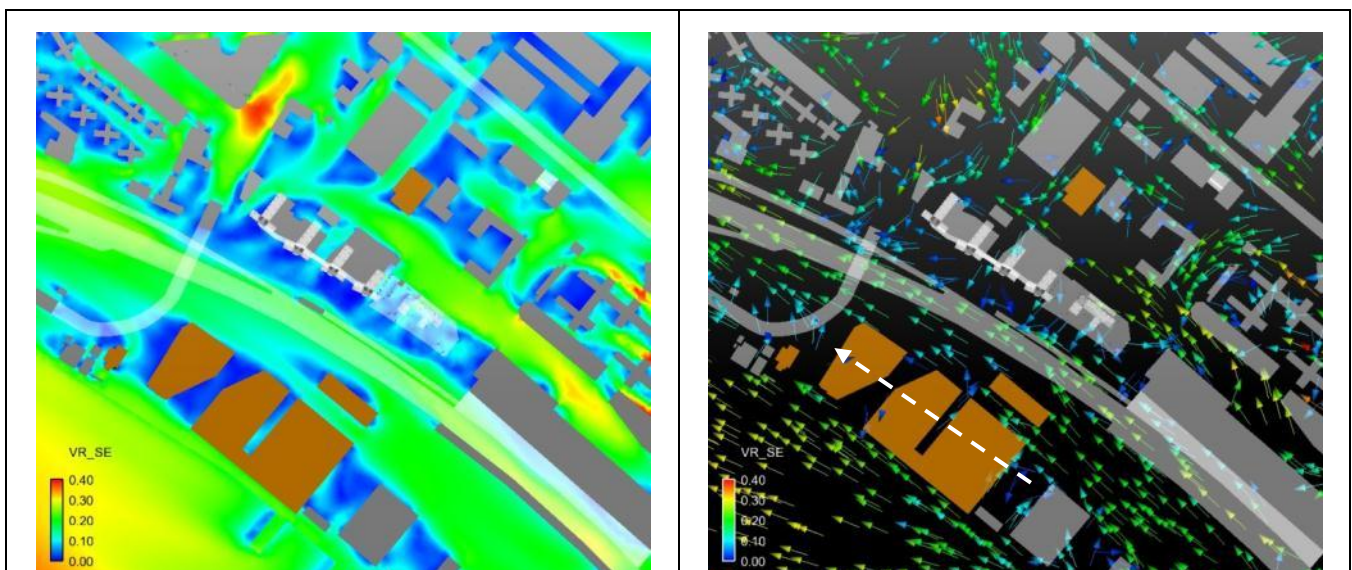


Figure 35 VR Contour and Vector Plot under SE Wind of Baseline Scheme



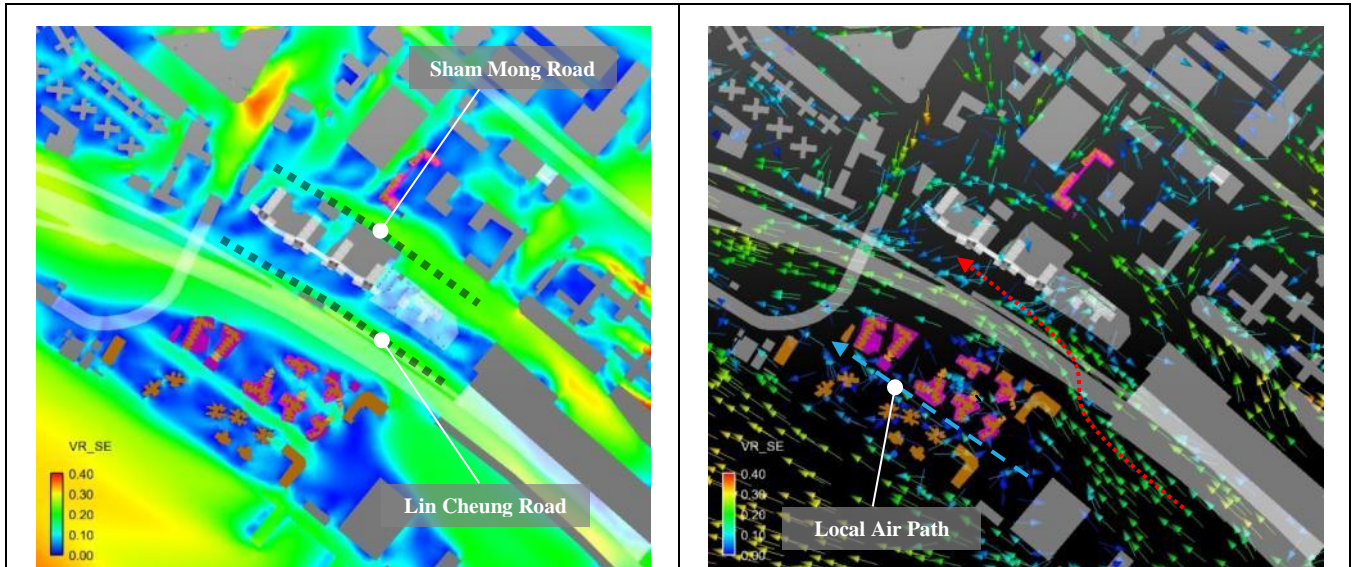


Figure 36 VR Contour and Vector Plot under SE Wind of Indicative Scheme

#### 4.4.3 South-Westerly Wind Direction

The south-westerly wind condition contributes to 9.9% of the summer prevailing wind condition.

##### CSWWFM Ph. 2 Site

The incoming wind approaches CSWWFM Ph. 2 Site from the southwest along the waterfront.

Under the Baseline Scheme, the lower building heights of the Baseline Scheme allow the prevailing wind to skim through the development and penetrate into NWKR Site 6 effectively, as shown in Figure 39; hence a higher VR is observed downwind of CSWWFM Ph. 2 Site (refers to Figure 39 and Figure 40).

Under the Indicative Scheme, the proposed high rise CSWWFM Ph. 2 will impose some impact on the wind performance at the downwind area. The three wind corridors that are incorporated into the design of the Indicative Scheme will facilitate the channelling of the incoming wind into the downwind area.

One of the wind corridors located at the northwest of the site with a width of 45m is connected to Hing Wah Street West wind corridor. The 30m wide southeast wind corridor is connected to Tonkin Street West wind corridor. The third wind corridor of 22m width is connected to the wind corridor across NWKR Site 6. The results show a relatively high average VR value along the three wind corridors (black arrow in Figure 38).

The drainage reserve, which bisects the CSWWFM Ph. 2 Site into two main areas on the east-west axis, further increases the building separation at the developments and enhances the site permeability. Good wind penetration to Lin Cheung Road is achievable.

### FTSW Site

The incoming winds are able to penetrate through the proposed wind corridors of CSWWFM Ph. 2 and the building gap of NWKR Site 6 and reach the Fat Tseung Street West. However, the ventilation performance in FTSW varies due to the directional change of incoming wind in the presence of surrounding and upwind buildings.

Under Baseline Scheme, a larger unobstructed air mass is able to penetrate through Site 6 and reach FTSW; therefore, Fat Tseung Street West observes a better VR value. On the other hand, the larger building bulk at the CSWWFM Ph. 2 Site has shielded a portion of the incoming winds, while NWKR Site 6 further reduce the penetrate effect to the downwind regions and the wind performance at Fat Tseung Street West.

Figure 37 and Figure 38 shows the VR contour and vector plot under SW wind for both Baseline Scheme and Indicative Scheme.

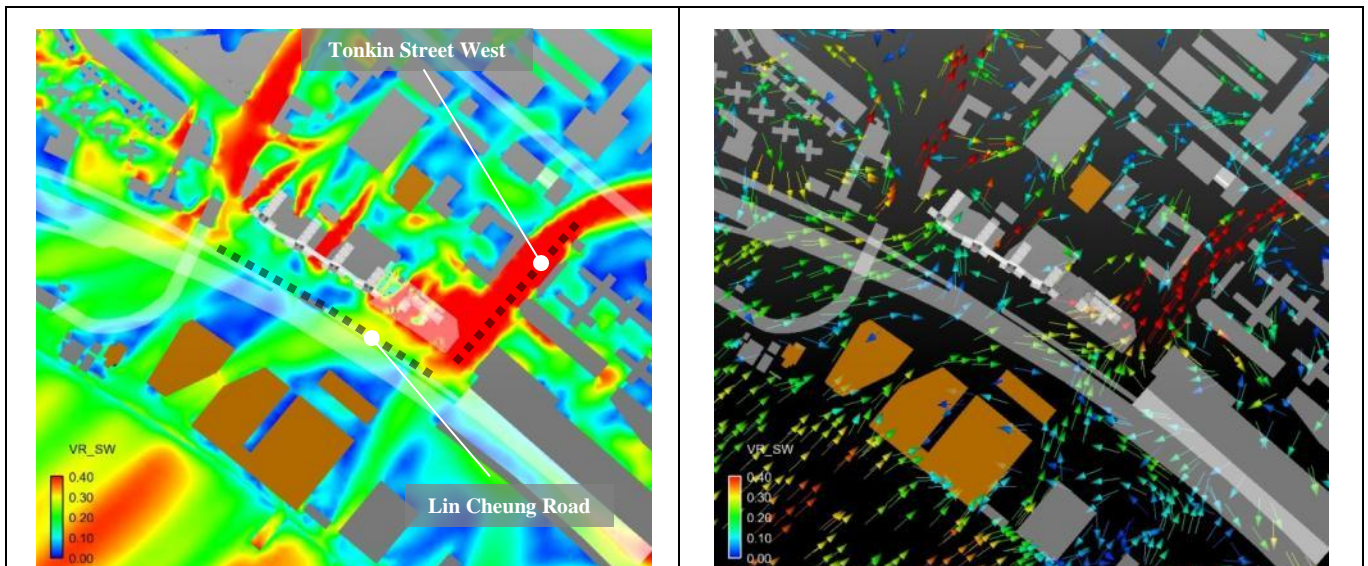


Figure 37 VR Contour and Vector Plot under SW Wind of Baseline Scheme

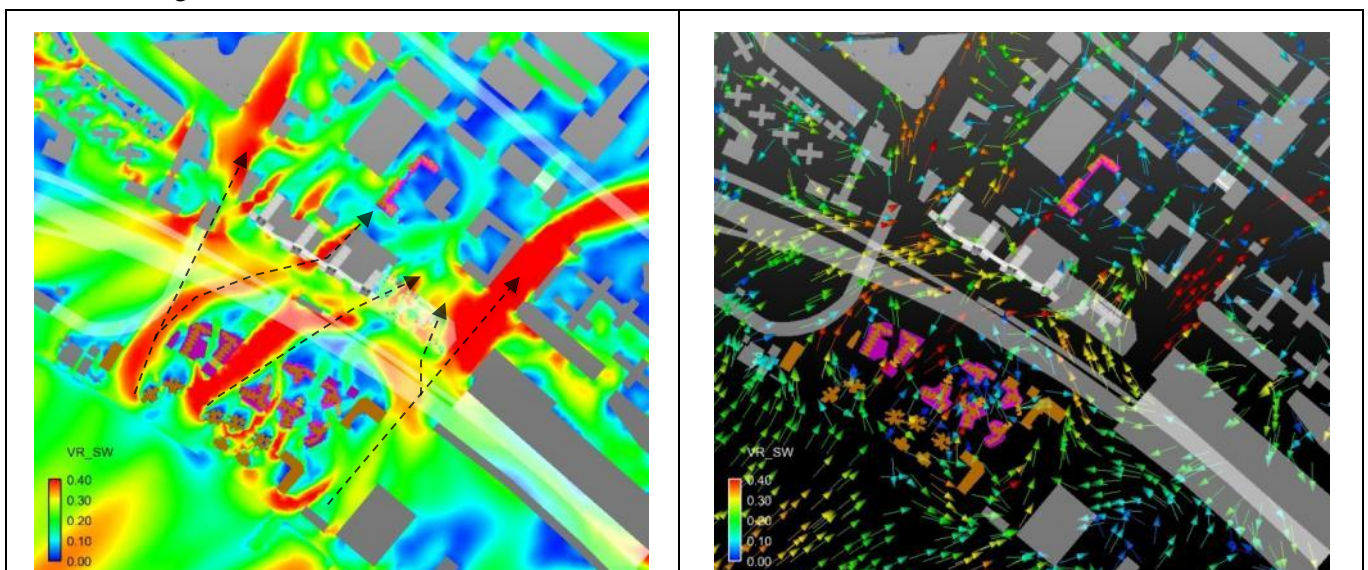


Figure 38 VR Contour and Vector Plot under SW Wind of Indicative Scheme



Figure 39 and Figure 40 shows the streamline diagrams at low level around CSWWFM Ph. 2 Site for both Baseline Scheme and Indicative Scheme.

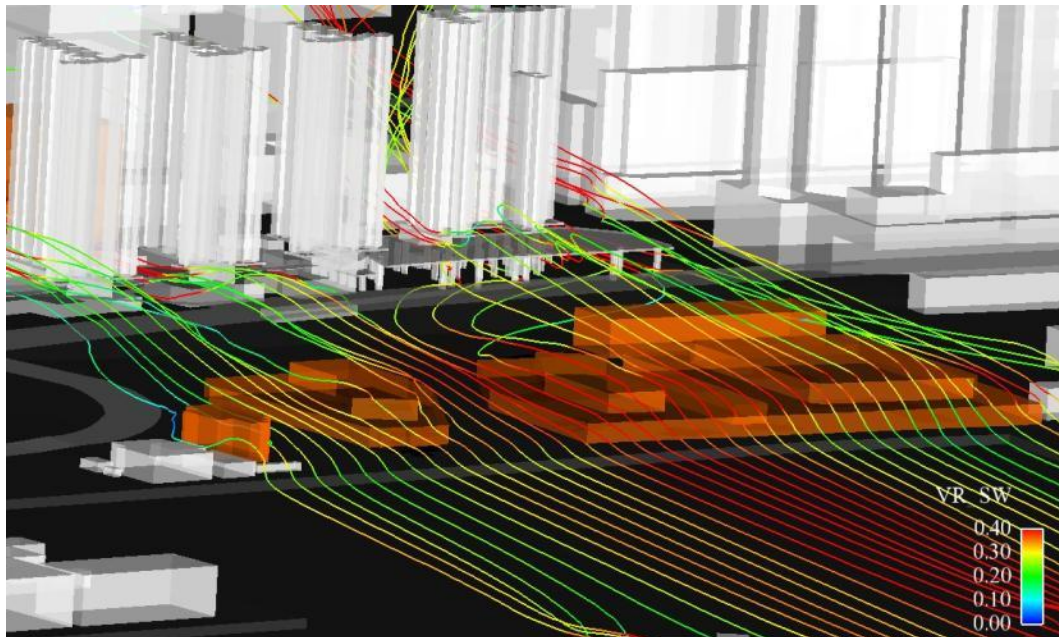


Figure 39 Low Level Wind Environment around CSWWFM Ph. 2 Site – Baseline Scheme

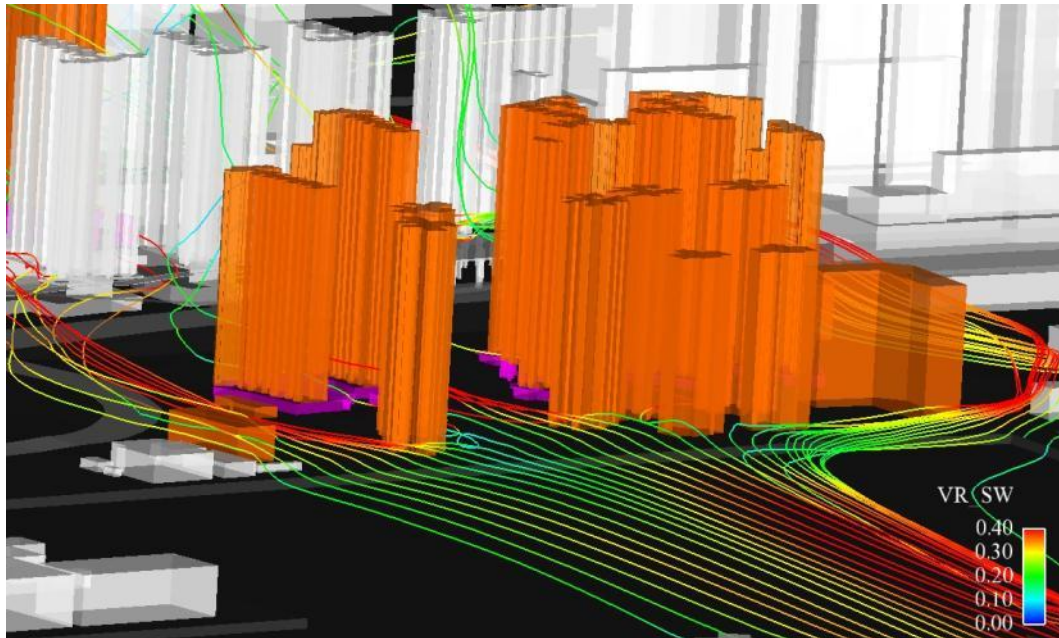


Figure 40 Low Level Wind Environment around CSWWFM Ph. 2 Site – Indicative Scheme

## 4.5 Focus Area

The Focus Areas for frequent pedestrian access and activity zones are defined for the detailed analysis as follows:

1. Fat Tseung Street West
2. Sham Mong Road
3. Ying Wa Street
4. Lin Cheung Road
5. St. Margaret's Co-educational English Secondary and Primary School, Ying Wa College and Ying Wa Primary School
6. CSWWFM Ph. 1
7. Yuen Fat Godown Carpark
8. West Kowloon Law Court Building

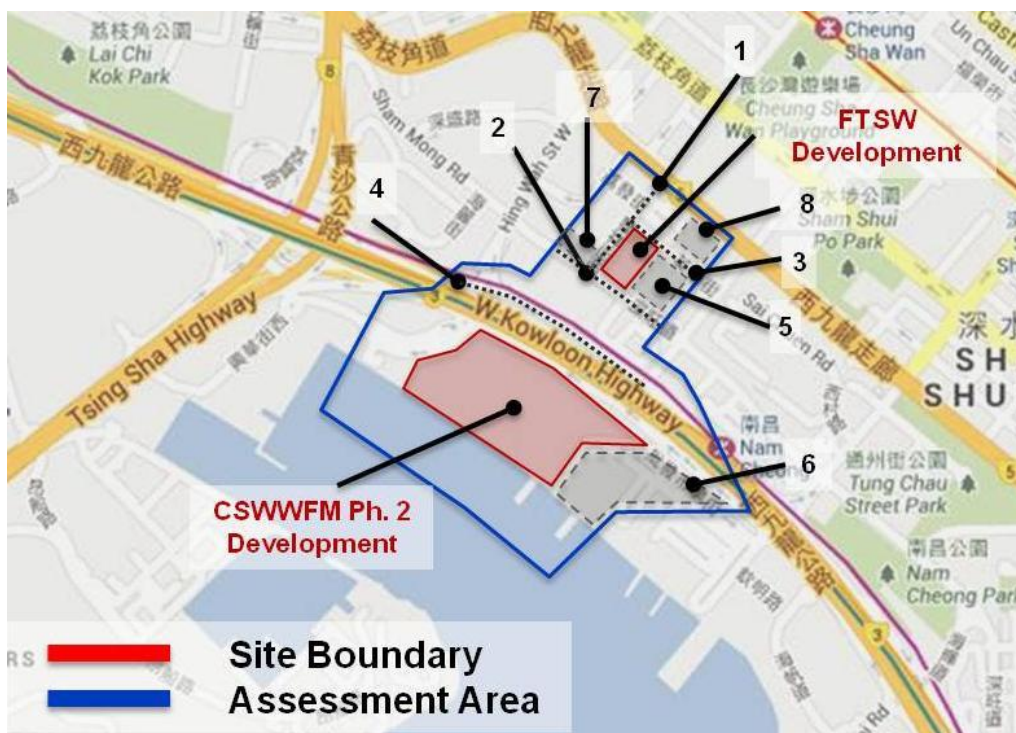


Figure 41 Focus Areas for the Study (Image Source: Google Earth)



### 4.5.1 Annual Wind Condition

Table 9 Average VR Results for Focus Areas of the Development Scheme under annual wind condition

Focus Areas		Test Points	Baseline Scheme	Indicative Scheme
1	Fat Tseung Street West	O35-O36, P28-P32	0.12	0.11
2	Sham Mong Road	O29-O34, P28, P38, P39	0.10	0.10
3	Ying Wa Street	O37-O39, P32-P34	0.10	0.11
4	Lin Cheung Road	O5-O13	0.14	0.14
5	St. Margaret's Co-educational English Secondary and Primary School, Ying Wa College and Ying Wa Primary School	O40-O46	0.07	0.07
6	CSWWFM Ph. 1	O14-O28	0.13	0.12
7	Yuen Fat Godown Carpark	O47-O50	0.10	0.11
8	West Kowloon Law Court Building	O51-O53	0.06	0.07

Under annual wind condition, most of the Focus Areas show a similar average VR value, such as Sham Mong Road (O29-O34, P28, P38, P39), Lin Cheung Road (O5-O13), St. Margaret's Co-educational English Secondary and Primary School, Ying Wa College and Ying Wa Primary School (O40-O46). The results indicate that the proposed development does not induce significant adverse ventilation impacts on these areas as compared with the Baseline Scheme.

For Ying Wa Street (O37-O39, P32-P34) and West Kowloon Law Court Building (O51-O53), a slightly higher average VR (i.e. 0.01) values is observed under the Indicative Scheme. This is due to the high-rise residential block at FTSW Site's Indicative Scheme helps to direct downwash wind to the pedestrian area and hence enhances the ventilation performance at Ying Wa Street.

The Yuen Fat Godown Carpark (O47-O50) is situated at the downwind side of FTSW Site under annual wind condition. The 15m building gap incorporated in the FTSW Site's Indicative Scheme allows the east wind to penetrate to the leeward side of the building and enhanced the ventilation performance at the Carpark of Yuen Fat Godown

Baseline Scheme achieved a slightly higher average VR (i.e. 0.01) at CSWWFM Ph. 1 (O14-O28). This might be due to the fact that the larger building bulk under the Indicative Schemes would inevitably induce certain air ventilation impacts on some localized areas. Nevertheless, differences in the average VR values observed are insignificant.

The average VR at Fat Tseung Street West has reduced by 0.01 in the Indicative Scheme as compared to the Baseline Scheme. This is mainly due to the fact that:

- Compared to the Indicative Scheme, the GIC Block under the Baseline Scheme has a smaller building bulk and larger setback along Ying Wa

Street. Thus it creates a wider wind entrance (Figure 42a **red** arrow) and allows wind penetrate to Fat Tseung West Street more effectively (Figure 42a **black** arrow) and lead to a slightly higher average VR (i.e. 0.01).

- The building block in Indicative Scheme has a higher frontal area along Fat Tseung Street West and lead to less permeability, thus the scheme is less favourable for wind penetration. However, the building gap incorporated in FTSW Site's Indicative Scheme helps the incoming wind penetrate through the Development (Figure 42b **black** arrow) and to enhance the wind performance in the downwind area.

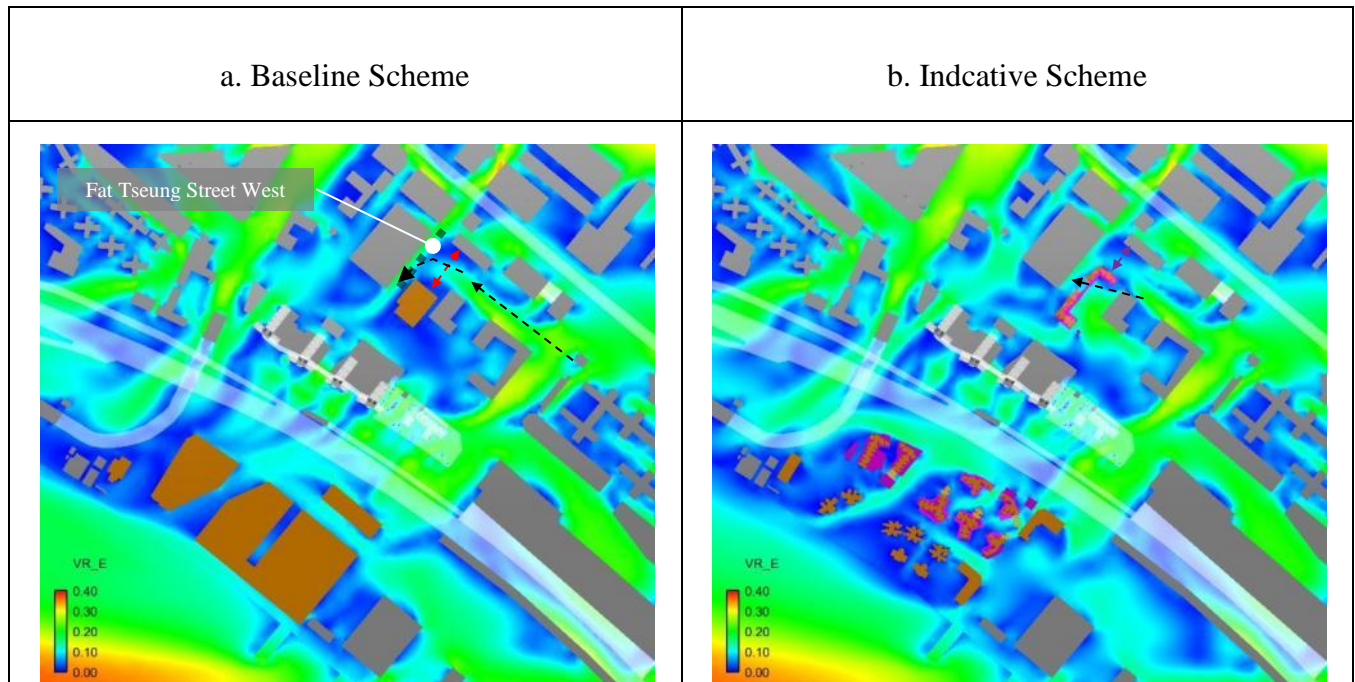


Figure 42 VR Contour under E Wind of Indicative Scheme



## 4.5.2 Summer Wind Condition

Table 10 Average VR Results for Focus Areas of the Development Scheme under summer wind condition

Focus Areas		Test Points	Baseline Scheme	Indicative Scheme
1	Fat Tseung Street West	O35-O36, P28-P32	0.15	0.11
2	Sham Mong Road	O29-O34, P28, P38, P39	0.16	0.15
3	Ying Wa Street	O37-O39, P32-P34	0.13	0.12
4	Lin Cheung Road	O5-O13	0.20	0.22
5	St. Margaret's Co-educational English Secondary and Primary School, Ying Wa College and Ying Wa Primary School	O40-O46	0.11	0.11
6	CSWWFM Ph. 1	O14-O28	0.15	0.15
7	Yuen Fat Godown Carpark	O47-O50	0.14	0.13
8	West Kowloon Law Court Building	O51-O53	0.13	0.12

Under summer wind condition, most of the Focus Areas except Fat Tseung Street West show a slight difference in average VR value between the Indicative Scheme and the Baseline Scheme. The results indicate that the proposed development does not induce significant adverse ventilation impacts on these areas as compared with the Baseline Scheme.

Lin Cheung Road's (O5-O13) wind performance benefits from the Indicative Scheme's wind corridors. The tall building blocks in the Indicative Scheme divert the prevailing wind into the wind corridors, which accelerates the wind. The wind corridors flow into Lin Cheung Road, and thus giving a better wind performance under Indicative Scheme than the Baseline Scheme (refer to Figure 36).

St. Margaret's Co-educational English Secondary and Primary School, Ying Wa College and Ying Wa Primary School (O40-O46) observe similar average VR for both of the schemes. These areas benefit from the downwash effect of FTSW Site's Indicative Scheme.

As CSWWFM Ph. 1 (O14-O28) is upstream of the proposed developments, the wind environment at this location experiences similar VR for both schemes.

The lower building blocks of CSWWFM Ph. 1 and Ph. 2 under the Baseline Scheme allow the incoming wind to skim over the top of the buildings. The wind is largely uninterrupted as it travels inland. Thus, higher average VR is observed under the Baseline Scheme at Sham Mong Road (O29-O34, P28, P38, P39), Ying Wa Street (O37-O39, P32-P34), Yuen Fat Godown Carpark (O47-O50), and West Kowloon Law Court (O51-O53).

The average VR at Fat Tseung Street West (O35-O36, P28-P32) has reduced by 0.04 in the Indicative Scheme as compared to the Baseline Scheme. The major

reasons for Fat Tseung Street West achieved a higher average VR under the Baseline Scheme are:

- Under the Baseline Scheme, the relatively low-rise building at the CSWWFM Ph. 2 Site allow the incoming wind skim over the top of the buildings (Figure 43a **blue** arrow and Figure 39 streamline plot) and effectively penetrates through NWKR Site 6 along the building gap (Figure 43a **black** arrow). Thus relatively high average VR is obtained at the Fat Tseung Street West.
- Under the Indicative Scheme, the incoming wind is still able to penetrate through the wind corridors in both the CSWWFM Ph. 2 Site and NWKR Site 6, and helps to reduce the adverse performance at Fat Tseung Street West (**Purple** Arrow at Figure 43b). Nevertheless, the larger building bulk at the CSWWFM Ph. 2 Site has shielded a portion of the incoming winds, while NWKR Site 6 further reduce the penetrate effect to the downwind regions and the wind performance at Fat Tseung Street West.

It is noteworthy that the design of the NWKR Site 6 is further revised to enhance the wind performance, the expert review of the design changes and detail simulation analysis can be referred to Section 7 and Appendix A respectively.

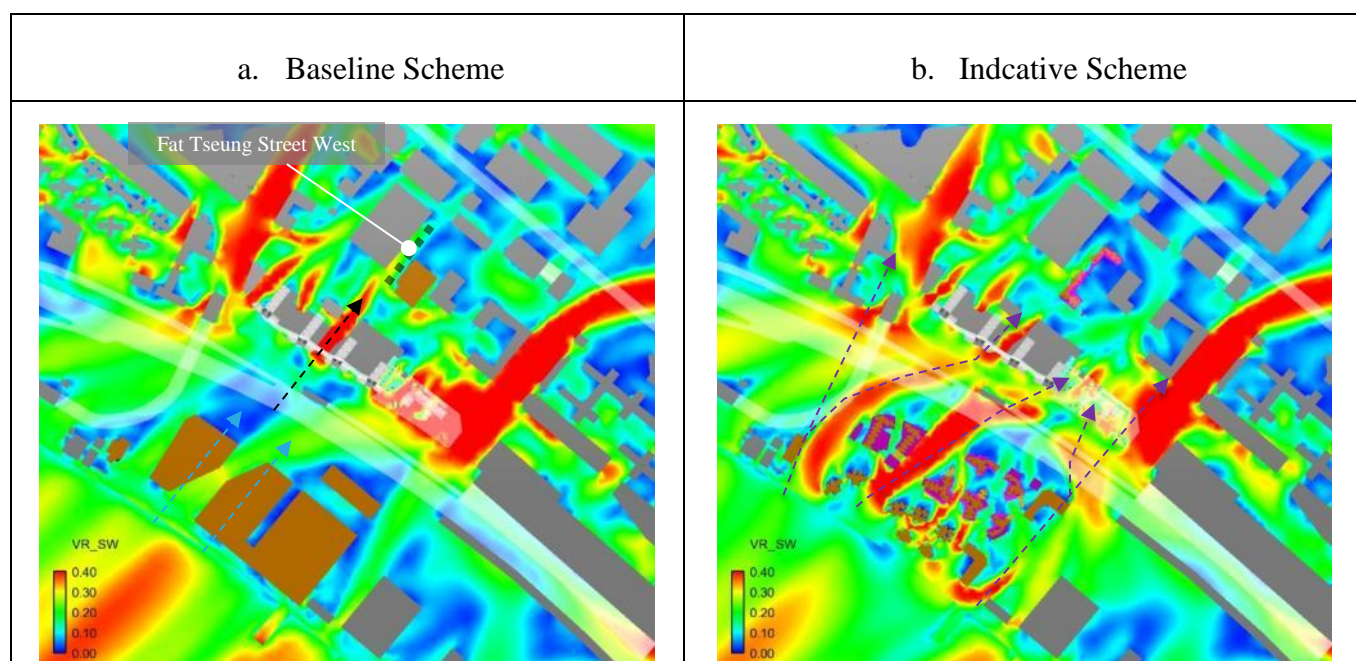


Figure 43 VR Contour under SW Wind of Indicative Scheme



## 4.6 Special Focus Area

The waterfront promenade at the southwest of CSWWFM Ph. 2, Hing Wah Street West, and Tonkin Street West are defined as special focus areas and are studied in detail below.

1. Waterfront Promenade
2. Hing Wah Street West
3. Tonkin Street West

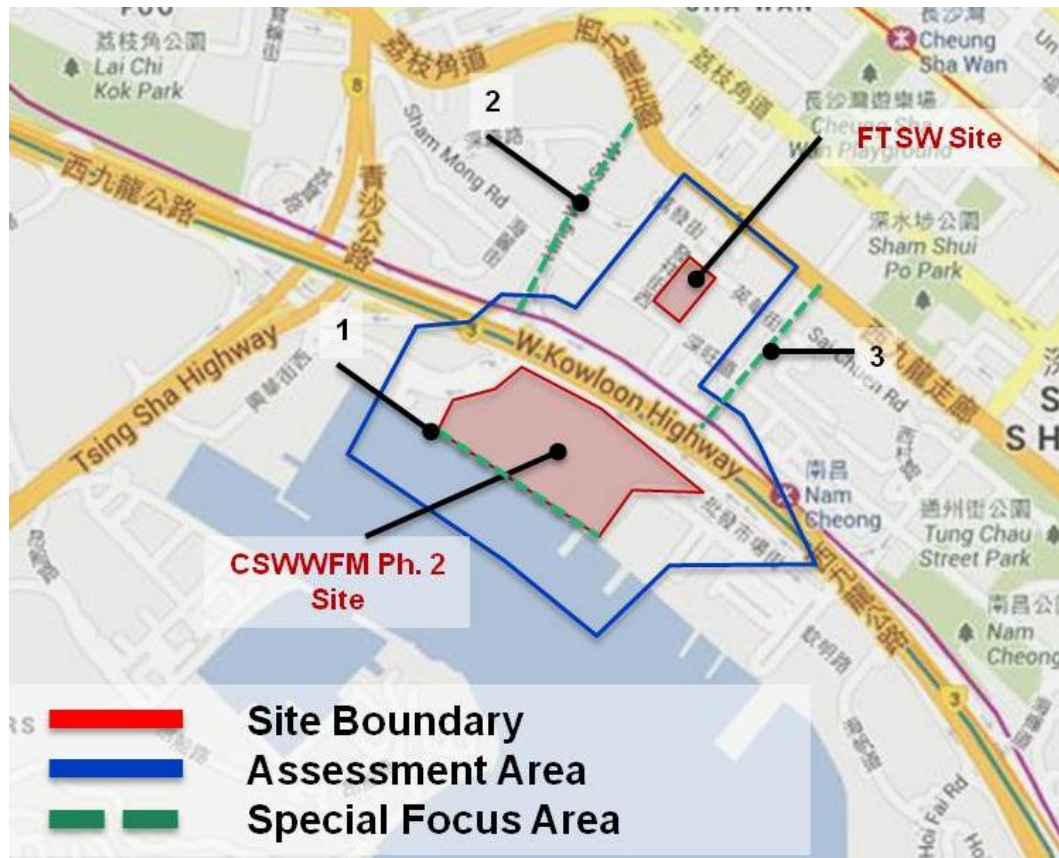


Figure 44 Special Focus Areas for the Study (Image Source: Google Earth)

### 4.6.1 Annual Wind Condition

Table 11 Average VR Results for Special Focus Areas of the Development Scheme under annual wind condition

Special Focus Areas		Test Points	Baseline Scheme	Indicative Scheme
1	Waterfront Promenade	S1-S9	0.09	0.07
2	Hing Wah Street West	S10-S17	0.25	0.25
3	Tonkin Street West	S18-S25	0.17	0.17

The Waterfront Promenade (S1-S9) is downwind of CSWWFM Ph. 2 Site under annual wind condition. The wind performance at Waterfront Promenade is slightly better in the Baseline Scheme. The building towers in Site 4 and 4a in the Indicative Scheme induce wind shadows to the Waterfront Promenade areas and divert a portion of winds toward the sea. In this connection, a relatively better ventilation performance is found at the Waterfront Promenade under the Baseline Scheme.

The results show that the average VR for both Baseline Scheme and Indicative Scheme is the same. Hing Wa Street West (S10-S17) is downwind of CSWWFM Ph. 2 Site and FTSW Site, albeit with some distance. The adopted wind enhancement features, such as building separations and wind corridors minimize the ventilation impact of the proposed developments on the Hing Wa Street.

Tonkin Street West (S18-S25) is upwind of both CSWWFM Ph. 2 Site and FTSW Site under annual wind condition. It can be expected that the developments will have minimal impact to Tonkin Street West. The results show the same VR under both Baseline Scheme and Indicative Scheme.



## 4.6.2 Summer Wind Condition

Table 12 Average VR Results for Special Focus Areas of the Development Scheme under summer wind condition

Special Focus Areas		Test Points	Baseline Scheme	Indicative Scheme
1	Waterfront Promenade	S1-S9	0.16	0.15
2	Hing Wah Street West	S10-S17	0.26	0.23
3	Tonkin Street West	S18-S25	0.28	0.24

Under the Baseline Scheme, the average VR at Waterfront Promenade (S1-S9) is slightly higher (i.e. 0.01) than the Indicative Scheme. As the easterly wind (11.5%) is also one of the major components of the summer condition, the building towers in Site 4 and 4a in the Indicative Scheme would induce wind shadows to the Waterfront Promenade areas. Thus, a relatively better ventilation performance is found at the Waterfront Promenade under the Baseline Scheme.

Hing Wah Street West (S10-S17) and Tonkin Street West (S18-S25) is at the downwind region of CSWWFM Ph. 2 Site under summer wind condition. The Baseline Scheme allows wind to skim over the top of the building and penetrate to the downwind area with less obstruction resulting in a better wind performance than the Indicative Scheme. Even so, the average VR values under the Indicative Scheme for both Hing Wah Street West and Tonkin Street West is higher than the LVR of the site (LVR = 0.15), which implies that both Hing Wah Street West and Tonkin Street West fulfil their function as wind corridors under the Indicative Scheme.

## 5 Wind Enhancement Features

Some wind enhancement features adopted in the Indicative Scheme of CSWWFM Ph. 2 Site and FTSW Site are discussed in this section, namely,

- Three major wind corridors and local air path in CSWWFM Ph. 2 Site
- 15m wide building gap in FTSW Site
- Ground floor empty bays and urban window in FTSW Site

### 5.1 Wind Corridors and Local Air Path

The 45m wide wind corridor at the northwest, the 22m wide wind corridor through the centre, and the 30m wide wind corridor at the southeast serve as the three wind corridors of CSWWFM Ph. 2 Site. These wind corridors are in alignment with the NE-SW direction. The northwest wind corridor is connected to the existing wind corridor of Hing Wah Street West and the southeast wind corridor is connected to the existing wind corridor of Tonkin Street West. As shown in Section 4.6.2, the VR values along Hing Wah Street West and Tonkin Street West are relatively higher than the value of the LVR under summer condition, thus the results imply that both the 45m and 30m wide wind corridors fulfil their function as wind corridors under the Indicative Scheme.

The width of the central wind corridor is enlarged at either end due to the existing drainage reserve which further enhances the wind penetration through the development and into the downwind region. Similarly, the average VR value along Lin Cheung Road is relatively higher than the assessment area's LVR value under summer condition, thus implying that the 22m wide wind corridor effectively fulfils its function as a wind corridor under the Indicative Scheme.

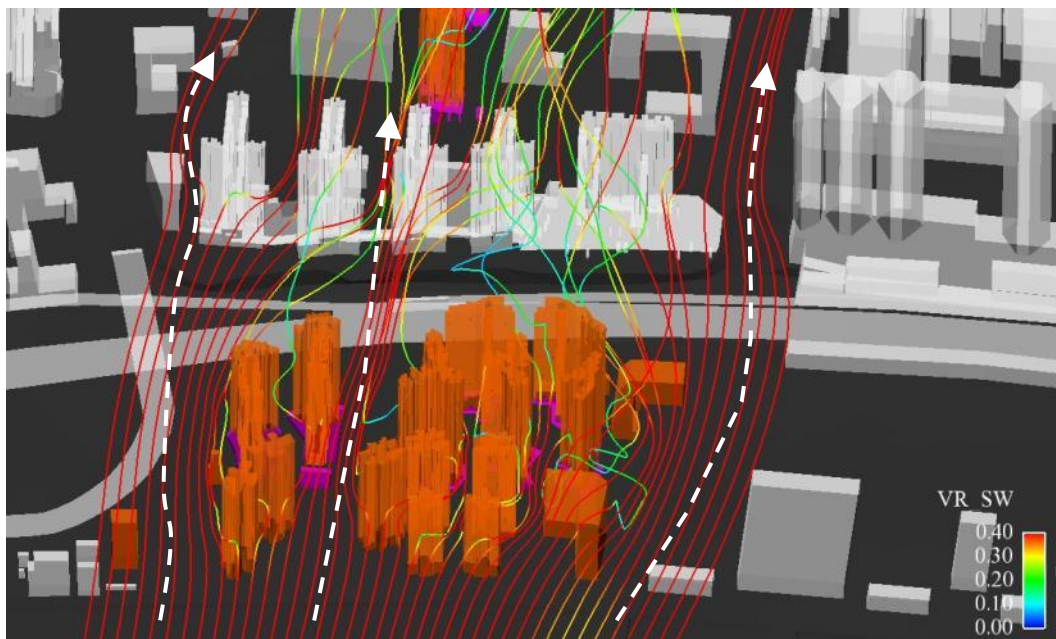


Figure 45 Wind corridors at CSWWFM Ph. 2 Site under southwest wind



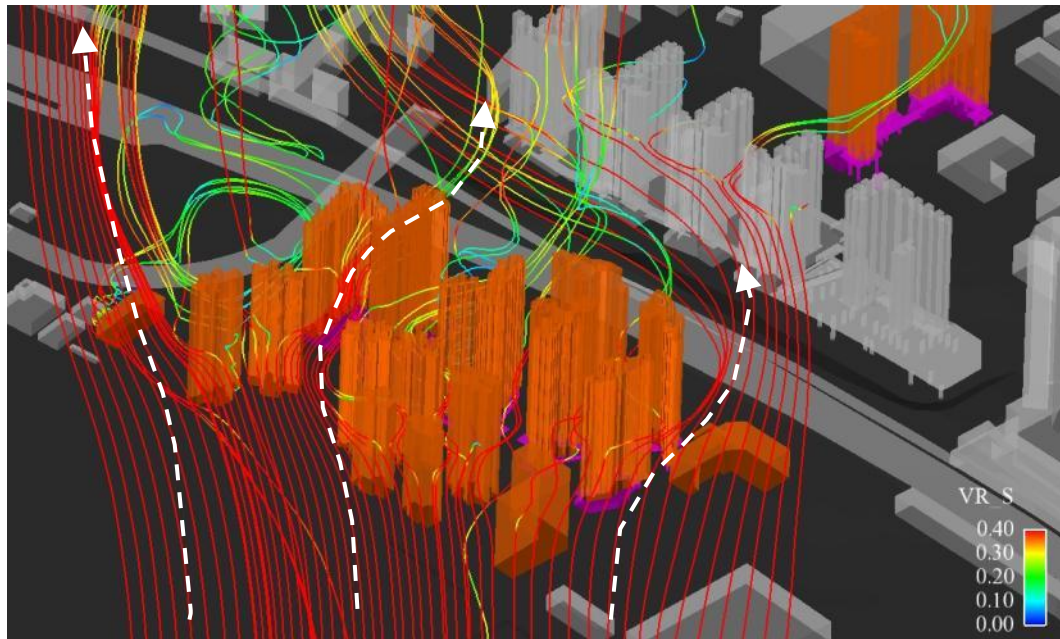


Figure 46 Wind corridors at CSWWFM Ph. 2 Site under south wind

Under southeast wind, the local air path, namely Road A in CSWWFM Ph. 2 Site, allows wind penetration to the downwind area. This feature further enhances the wind performance within the site.

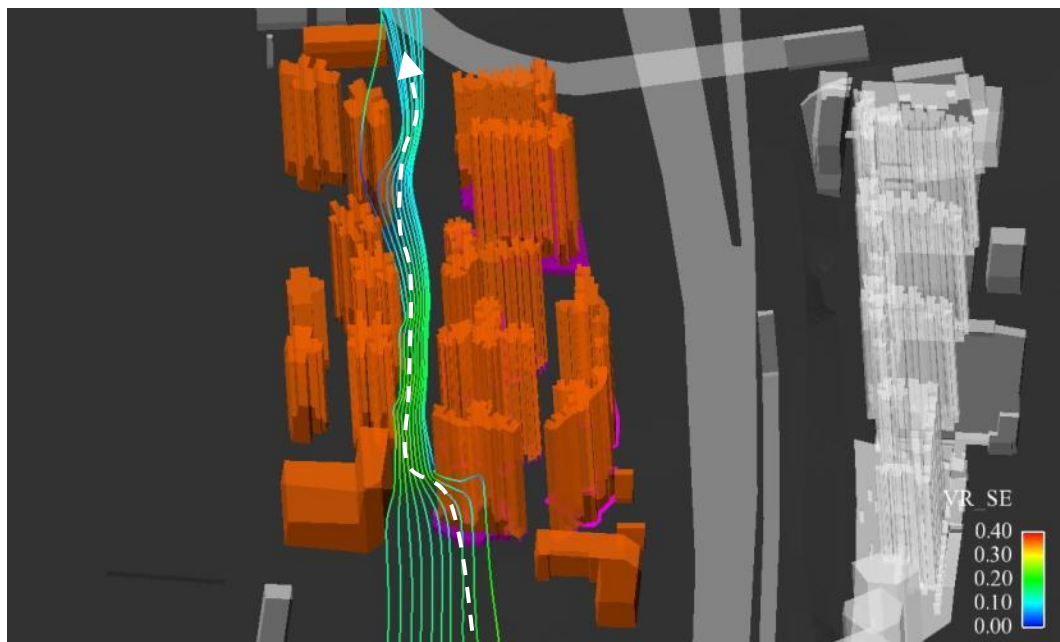


Figure 47 Local air path at CSWWFM Ph. 2 Site under southeast wind

## 5.2 Large Building Gap Design

A 15m wide building gap is incorporated between the two tower blocks in FTSW Site to allow east quarterly wind to penetrate to Fat Tseung Street West. This feature helps to minimize the impacts of the proposed development on the ventilation performance of the surroundings.

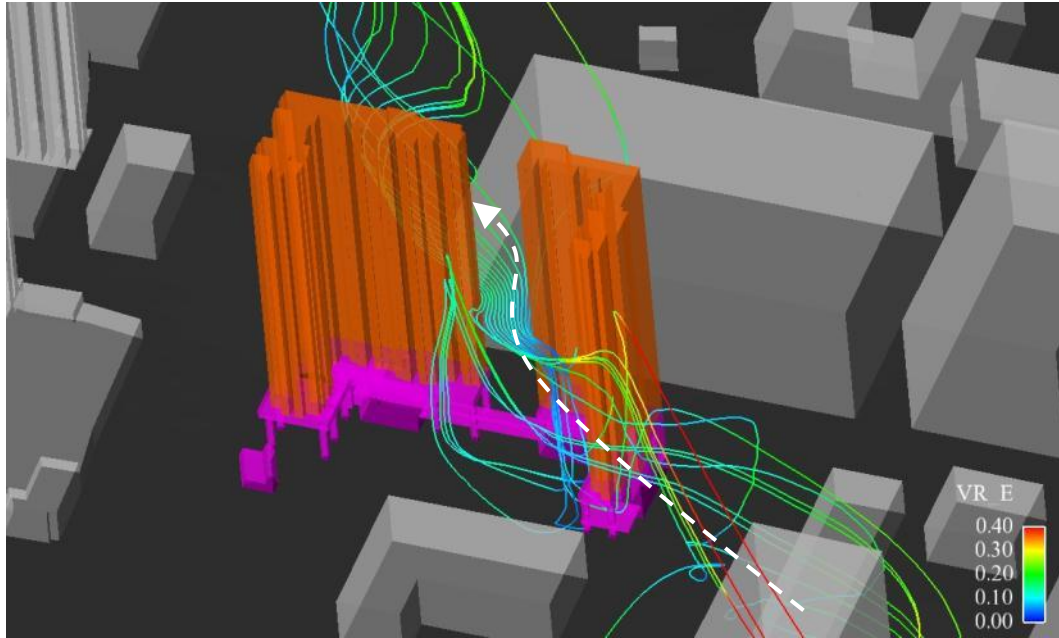


Figure 48 Performance of building gap design at FTSW Site under east wind



### 5.3 Ground Floor Empty Bays and Urban Window

Apart from the 15m building gap between the two blocks and set back of 10m from the common boundary with adjacent school site, the empty bays at ground level and an urban window at podium are incorporated at FTSW Site. The ground floor empty bays facing Sham Mong Road, Fat Tseung Street West, and Ying Wa Street are approximately 13.8m(H) by 18m(W), 16.8m(H) by 12m(W), and 16.4m(H) by 9m(W) respectively, while the urban window facing Ying Wa Street is approximately 7.6m (H) by 15m (W) at +9.80mPD. These design features allow wind penetration to Fat Tseung Street West and Sham Mong Road. They help to reduce the ventilation impacts of the proposed development.

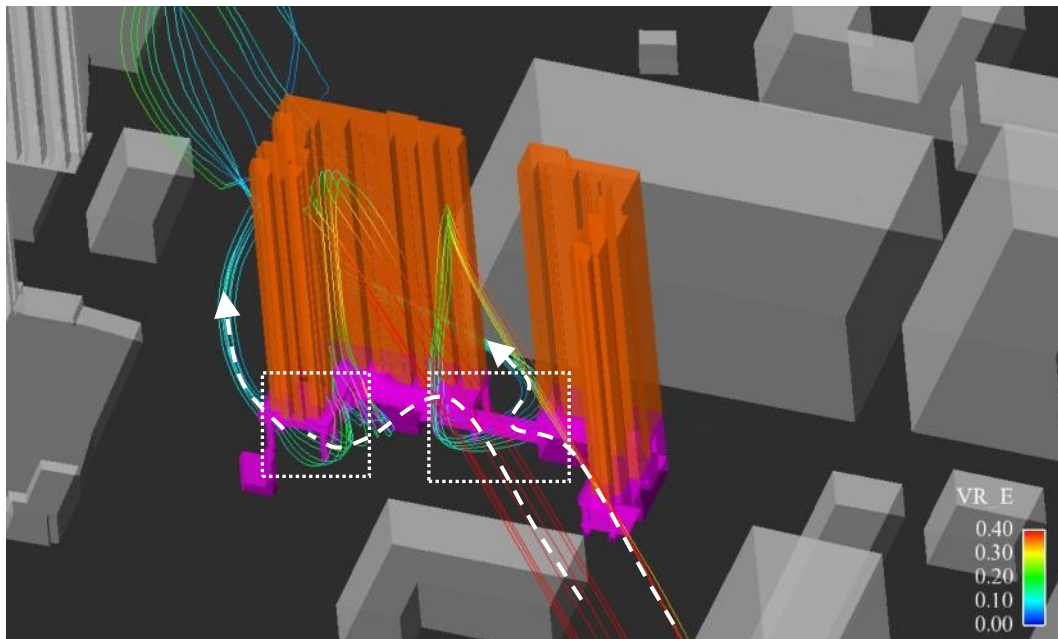


Figure 49 Performance of empty bay design at FTSW Site under east wind

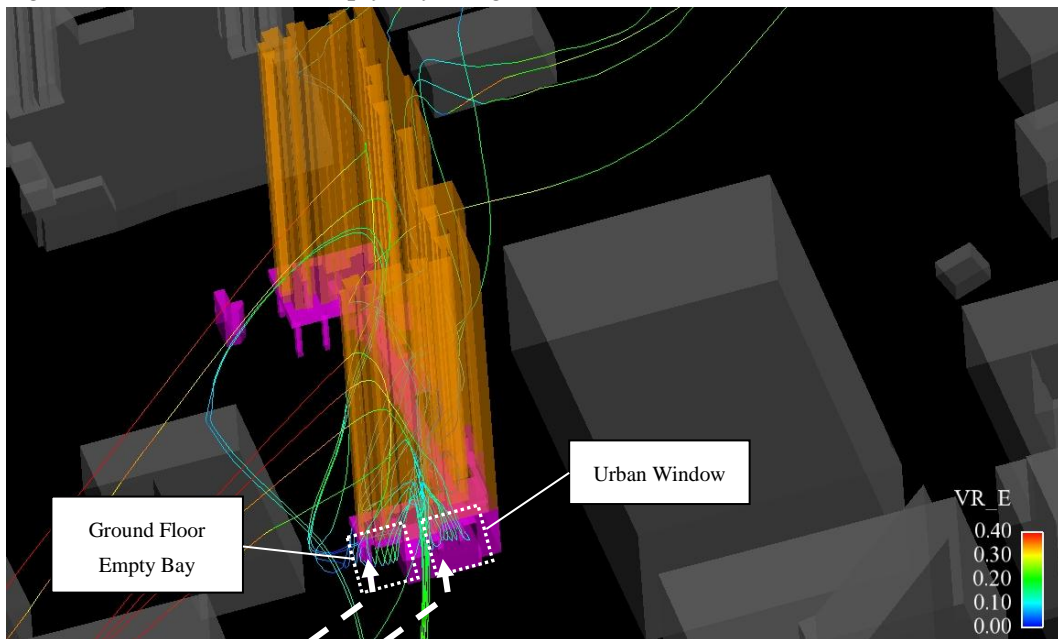


Figure 50 Performance of ground floor empty bay and urban window design at FTSW Site under east wind (Perspective View)

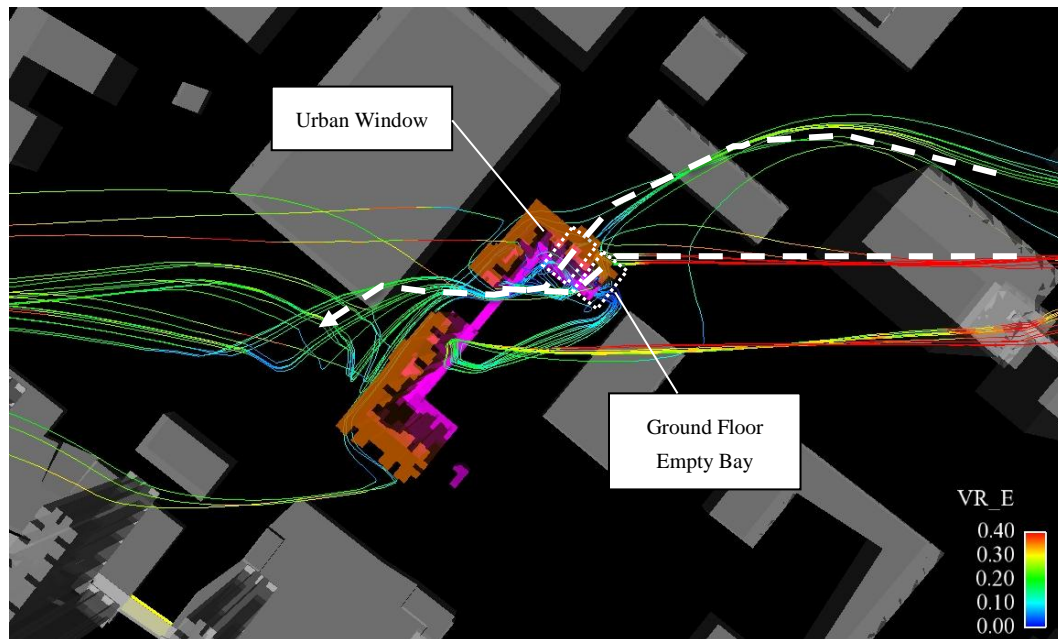


Figure 51 Performance of ground floor empty bay and urban window design at FTSW Site under east wind (Top View)

## 6 Recommendations – Additional Wind Enhancement Features

CSWWFM Ph. 2 Site is located at the waterfront area and situated at the upwind direction of some major developments under the summer prevailing wind condition, including NWKR Site 6 and FTSW Site. To further enhance the wind performance at surrounding areas, additional wind enhancement features for the CSWWFM Ph. 2 Site, including enlargement of empty bays at ground level, additional building setback, and urban windows at low levels of high-rise buildings can be considered during detailed design stage of the developments.

As aforementioned in Section 4.4.1, the building towers in Site 4 and 4a would induce wind shadows to the Waterfront Promenade areas, and thus affecting the ventilation performance of that region. Therefore, it is recommended to consider some wind enhancement features during design of Site 4 and 4a developments in the future to enhance the ventilation performance in the Waterfront Promenade areas.



## 7 Expert Review on the Further Enhanced Scheme (NWKR Site 6)

NWKR Site 6 is situated along Sham Mong Road, sandwiched between the CSWWFM Ph. 2 Site and FTSW Site. This section discusses on the anticipated impact on air ventilation performance under the scenario of changing one of the residential towers to a GIC building in NWKR Site 6 (Further Enhanced Scheme). The original scheme, which was used in the Initial Study, consists of five residential blocks and a social welfare block of 7 storeys at the western end of the site, as shown in Figure 52, which incorporates the permissible building density under the current zoning. There are several wind enhancement features adopted to enhance the ventilation performance on the surroundings, which include:

- Building separation
- Preservation of a 22m wide non-buildable area across the site
- Permeable podium design

In the Further Enhanced Scheme (Figure 53), the wind enhancement features adopted in the original scheme are maintained. In order to further enhance the ventilation performance, the high-rise residential building at the western end of the site is replaced with a medium-rise GIC building (about 42m high) and social welfare block (about 38m high) is relocated to the southern end of the site. The incoming wind would then be able to skim over the GIC building and social welfare block and there will be no significant wind blockage at medium to high levels. It is expected that the design changes of the Further Enhanced Scheme will pose better wind flow to Fat Tseung Street West and Yuen Fat Godown Carpark. The design changes will also further enhance the wind performance at surrounding areas and downwind developments under summer wind condition including Banyan Garden, Liberte, The Pacifica, and Aqua Marine.



Figure 52 Original NWKR Site 6 Layout Plan



Figure 53 Further Enhanced Scheme of the NWKR Site 6



## 8 Conclusion

Two proposed developments in Cheung Sha Wan are considered in this Study, namely CSWWFM Ph. 2 Site, which is near to the waterfront and bounded by the West Kowloon Highway, Hing Wah Street West and the existing CSWWFM Ph.1, and the FTSW Site, which is situated at the junction of Sham Mong Road and Fat Tseung Street West. To assess the ventilation performance of the areas within the proposed developments and their immediate surroundings, an Air Ventilation Assessment (AVA) – Initial Study was conducted for the two proposed developments.

A series of CFD simulations using realizable  $k - \varepsilon$  turbulence model are performed based on the AVA methodology for the Initial Study as stipulated in the Technical Circular and Technical Guide. Eight wind directions are considered in annual wind condition, which cover 76.6% of wind availability in a year. Nine wind directions are considered under summer wind condition, which cover 77.1% of wind availability in summer. The ventilation performance for the proposed developments at the site boundaries and within the assessment area was assessed.

According to the Technical Circular, the Velocity Ratio at each test point is assessed in terms of SVR and LVR, respectively. A total of 39 perimeter test points, 53 overall test points, and 25 special test points are selected to assess the ventilation performance of the proposed developments.

The major findings of this study could be summarized as follows:

- In annual wind condition, the SVR is 0.11 for Baseline Scheme and 0.12 for Indicative Scheme. The LVR is 0.11 for both Baseline and Indicative Scheme;
- In summer wind condition, the SVR is 0.15 for both Baseline and Indicative Schemes. The LVR is 0.15 for both Baseline and Indicative Scheme;
- In general, the overall ventilation performance is similar under both Baseline and Indicative Scheme;
- Under annual wind condition, the average VR value at Ying Wa Street (O37-O39, P32-P34), Yuen Fat Godown Carpark (O47-O50), and West Kowloon Law Court Building (O51-O53) is slightly higher (i.e. 0.01) under Indicative Scheme;
- Under summer wind condition, the average VR value at Lin Cheung Road (O5-O13) is slightly higher (i.e. 0.02) under Indicative Scheme;
- Under annual wind condition, the Indicative Scheme slightly affects the wind performance at the downwind special focus area, e.g. the proposed Waterfront Promenade (S1-S9).
- Under summer wind condition, the Indicative Scheme slightly affects the wind performance at the downwind special focus areas of Hing Wah Street West (S10-S17) and Tonkin Street West (S18-S25).
- Under summer wind condition, the Indicative Scheme of CSWWFM Ph. 2 also shows a slightly reduce in the average VR at the Waterfront Promenade (S1-S9). However, the differences in the average VR values observed are insignificant and thus would not induce significantly adverse air ventilation impacts as compared with the Baseline Scheme.

The improvements in the Indicative Scheme can be attributed to the incorporation of the wind enhancement features, including the wind corridors and local air path at CSWWFM Ph. 2 Site, building gap, empty bays, and urban window at FTSW Site.

The major findings of the wind enhancement features could be summarized below:

- The three wind corridors of CSWWFM Ph. 2 Site enhances the permeability of the site and enhances wind penetration to the downwind side of the development;
- Local air path, namely Road A of CSWWFM Ph. 2 Site, allows wind penetration to the downwind region under southeast wind. The wind performance within the site is also improved;
- The 15m building gap at FTSW Site reduces the wake effect of the proposed development;
- Empty bay and urban window at FTSW Site allows wind penetration to the downwind side of the building block, enhancing the local wind environment.

The anticipated impact for the Further Enhanced Scheme at NWKR Site 6 as compared with the Original Scheme in terms of the ventilation performance:

- The Further Enhanced Scheme is expected to pose better wind flow to Fat Tseung Street West and further enhance the wind performance at surrounding areas



## Appendix A

Expert Review on the Further  
Enhanced Scheme (NWKR Site  
6)

## A1 Ventilation Performance under the Further Enhanced Scheme (NWKR Site 6)

NWKR Site 6 is situated along Sham Mong Road, sandwiched between the CSWWFM Ph. 2 Site and FTSW Site. This section discusses on the impact on air ventilation performance under the scenario of changing one of the high-rise residential towers to a GIC building and relocating the social welfare block in NWKR Site 6 (Further Enhanced Scheme), as shown in Section 7 - Figure 53. The Original Scheme, which was used in the Initial Study, consists of five residential blocks and a social welfare block of 7 storeys at the western end of the site, as shown in Section 7, which indicates the permissible building density under the current zoning.

### Ventilation Performance – Annual Condition

#### a. Original Scheme



#### b. Further Enhanced Scheme

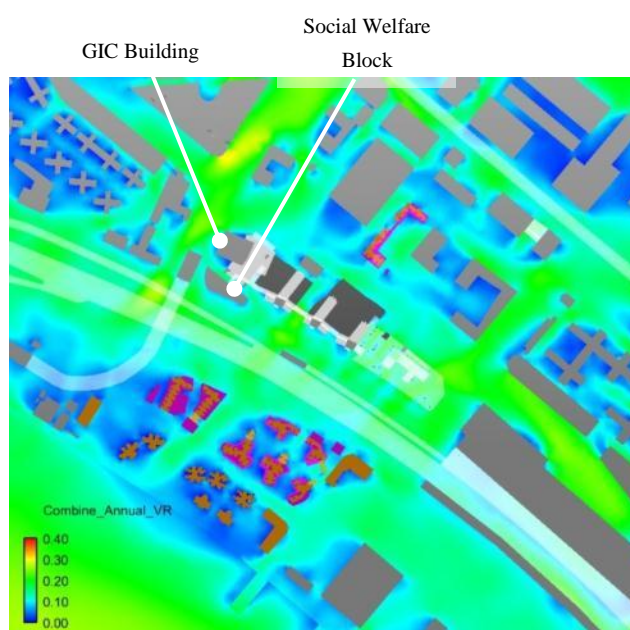


Figure A 1 Contour Plot of the average VR at 2m Pedestrian Level for Original Scheme and Further Enhanced Scheme – Annual Condition

Table A 1 Annual SVR and LVR of the Assessment Area for the Studies Schemes

Annual	Original Scheme of NWKR Site 6	Further Enhanced Scheme of NWKR Site 6
SVR	0.12	0.12
LVR	0.11	0.12

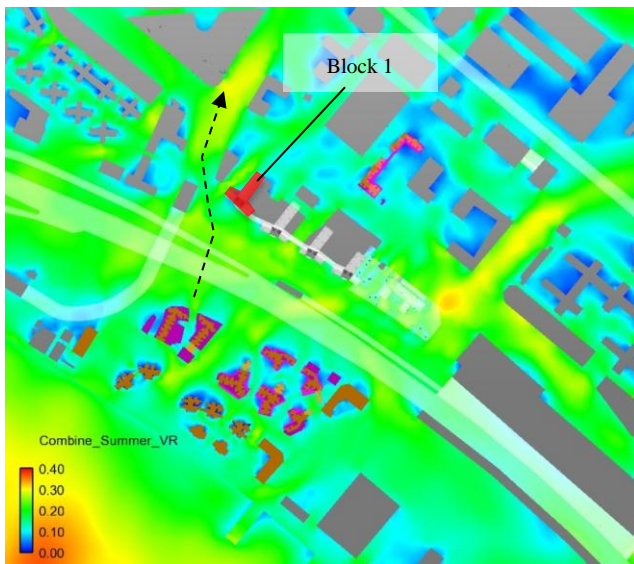
The annual condition under the Further Enhanced Scheme is compared with the Original Scheme. The following observations were made:



- The SVR for both Original Scheme and Further Enhanced Scheme are both 0.12, which indicates the ventilation performance at the immediately surrounding areas of CSWWFM Ph. 2 Site and FTSW Site is quite similar;
- The LVR for the Further Enhanced Scheme is slightly better (i.e. 0.01 ) than the Original Scheme;
- The Further Enhanced Scheme shows a slightly better ventilation performance at the local surrounding region as compared to the Original Scheme.

### **Ventilation Performance – Summer Condition**

**a. Original Scheme**



**b. Further Enhanced Scheme**

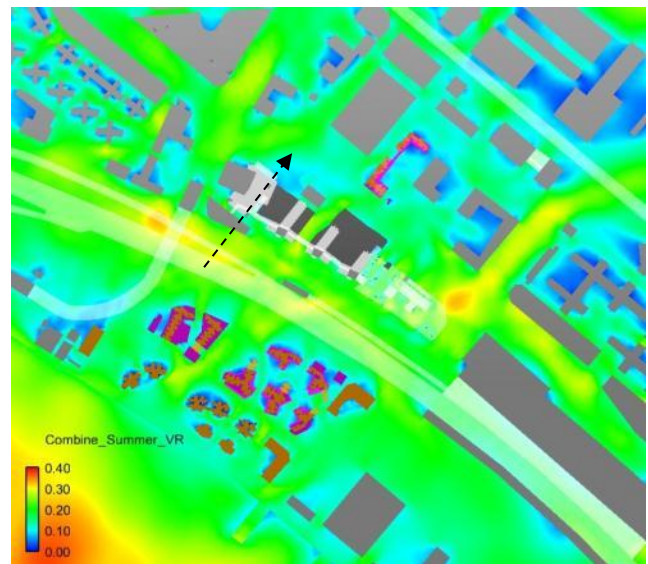


Figure A 2 Contour Plot of the VR at 2m Pedestrian Level for Original Scheme and Further Enhanced Scheme – Summer Condition

Table A 2 Summer SVR and LVR of the Assessment Area for the Studies Schemes

Summer	Original Scheme of NWKR Site 6	Further Enhanced Scheme of NWKR Site 6
SVR	0.15	0.16
LVR	0.15	0.16

The summer condition under the Further Enhanced Scheme was compared with the Original Scheme. The following observations were made:

- The SVR and LVR for the Further Enhanced Scheme is slightly better (i.e. 0.01 ) than the Original Scheme;
- In general, the ventilation performance of the Further Enhanced Scheme is slightly better as compared with the Original Scheme.

**Focus Areas**

Table A 3 VR Results for Focused Areas

Focus Areas		Test Points	Annual		Summer	
			Original Scheme of NWKR Site 6	Further Enhanced Scheme of NWKR Site 6	Original Scheme of NWKR Site 6	Further Enhanced Scheme of NWKR Site 6
1	Fat Tseung Street West	O35-O36, P28-P32	0.11	0.11	0.11	0.14
2	Sham Mong Road	O29-O34, P28, P38, P39	0.10	0.12	0.15	0.17
3	Ying Wa Street	O37-O39, P32-P34	0.11	0.11	0.12	0.14
4	Lin Cheung Road	O5-O13	0.14	0.16	0.22	0.23
5	St. Margaret's Co-educational English Secondary and Primary School, Ying Wa College and Ying Wa Primary School	O40-O46	0.07	0.07	0.11	0.11
6	CSWWFM Ph. 1	O14-O28	0.12	0.14	0.15	0.16
7	Yuen Fat Godown Carpark	O47-O50	0.11	0.12	0.13	0.16
8	West Kowloon Law Court Building	O51-O53	0.07	0.07	0.12	0.12
9	Waterfront Promenade	S1-S9	0.07	0.07	0.15	0.16
10	Hing Wah Street West	S10-S17	0.25	0.24	0.23	0.21
11	Tonkin Street West	S18-S25	0.17	0.16	0.24	0.24

**Conclusion**

The Further Enhanced Scheme of NWKR Site 6 was studied and compared to the Original Scheme. The major design amendments including replacement of a residential block by a GIC building and relocation of the social welfare block. The design changes at the Further Enhanced Scheme reduces the building height at northwest region, and allows the incoming wind to skim over the GIC building and social welfare block freely with less wind blockage, thus enhancing the wind environment at the immediate surroundings. Fat Tseung Street West (O35-O36, P28-P32) and Yuen Fat Godown Carpark (O47-O50) shows higher average VR at the Further Enhanced Scheme as compared to the Original Scheme under the summer prevailing wind condition.



Also, slightly worsen average VR is obtained at the Hing Wah Street for the Further Enhanced Scheme. It is mainly due to the lower building height of the GIC block and the social welfare block under the Further Enhanced Scheme where the incoming winds are able to skim over to the leeward regions more effectively (Black Arrow in Figure A 2b.), while less wind are diverted to the Hing Wah Street West (S10-S17). On the other hand, the high-rise building tower (Block 1 of the NWRK Site 6) at the southern end (Figure A 2a Highlighted in Red), helps to diverts the incoming winds to the Hing Wah Street West (Black Arrow in Figure A 2a). Therefore, higher VR is obtained at the Hing Wah Street West under the Original Scheme as compared to the Further Enhanced Scheme.

## Appendix B

### Velocity Ratio Table of the Test Points



## B1 Baseline Scheme VR Tables

### B1.1 Annual Condition

Table A 13 VR value for the Perimeter Points of Baseline Scheme under Annual Condition

	NNE	NE	ENE	E	ESE	SE	SSE	S	Overall
	<b>7.5%</b>	<b>10.1%</b>	<b>17.4%</b>	<b>16.6%</b>	<b>8.4%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>4.9%</b>	<b>76.6%</b>
P1	0.16	0.05	0.04	0.05	0.11	0.21	0.19	0.16	<b>0.10</b>
P2	0.04	0.02	0.02	0.02	0.08	0.20	0.17	0.18	<b>0.06</b>
P3	0.10	0.05	0.12	0.03	0.01	0.11	0.13	0.21	<b>0.08</b>
P4	0.05	0.09	0.13	0.02	0.15	0.03	0.04	0.09	<b>0.08</b>
P5	0.08	0.12	0.18	0.05	0.16	0.13	0.18	0.30	<b>0.13</b>
P6	0.12	0.04	0.13	0.04	0.14	0.08	0.08	0.17	<b>0.09</b>
P7	0.09	0.09	0.10	0.02	0.09	0.03	0.05	0.07	<b>0.07</b>
P8	0.08	0.08	0.12	0.04	0.07	0.16	0.19	0.19	<b>0.10</b>
P9	0.19	0.05	0.12	0.07	0.15	0.16	0.25	0.17	<b>0.13</b>
P10	0.13	0.19	0.11	0.08	0.11	0.15	0.25	0.23	<b>0.14</b>
P11	0.34	0.11	0.11	0.10	0.09	0.14	0.23	0.24	<b>0.15</b>
P12	0.22	0.15	0.11	0.09	0.07	0.14	0.23	0.27	<b>0.14</b>
P13	0.19	0.03	0.01	0.12	0.10	0.13	0.23	0.27	<b>0.11</b>
P14	0.07	0.12	0.11	0.10	0.11	0.13	0.22	0.27	<b>0.12</b>
P15	0.11	0.05	0.10	0.10	0.13	0.14	0.20	0.27	<b>0.12</b>
P16	0.13	0.09	0.03	0.08	0.16	0.14	0.16	0.29	<b>0.11</b>
P17	0.12	0.10	0.06	0.06	0.16	0.14	0.15	0.34	<b>0.11</b>
P18	0.09	0.07	0.12	0.12	0.24	0.21	0.14	0.42	<b>0.15</b>
P19	0.24	0.18	0.15	0.12	0.25	0.19	0.13	0.45	<b>0.19</b>
P20	0.05	0.03	0.14	0.08	0.28	0.20	0.15	0.45	<b>0.14</b>
P21	0.08	0.08	0.11	0.11	0.29	0.20	0.17	0.40	<b>0.15</b>
P22	0.03	0.05	0.09	0.15	0.31	0.20	0.20	0.22	<b>0.14</b>
P23	0.22	0.11	0.06	0.14	0.31	0.20	0.21	0.18	<b>0.16</b>
P24	0.20	0.12	0.09	0.11	0.31	0.14	0.21	0.19	<b>0.15</b>
P25	0.09	0.11	0.01	0.04	0.15	0.05	0.14	0.12	<b>0.07</b>
P26	0.09	0.09	0.03	0.04	0.14	0.11	0.16	0.09	<b>0.08</b>
P27	0.11	0.05	0.03	0.04	0.13	0.05	0.10	0.14	<b>0.07</b>
P28	0.14	0.13	0.16	0.10	0.12	0.17	0.09	0.31	<b>0.14</b>
P29	0.11	0.19	0.19	0.14	0.16	0.16	0.11	0.24	<b>0.16</b>
P30	0.10	0.18	0.18	0.12	0.16	0.18	0.14	0.28	<b>0.16</b>
P31	0.09	0.10	0.12	0.08	0.14	0.15	0.15	0.12	<b>0.11</b>
P32	0.09	0.06	0.07	0.04	0.11	0.13	0.13	0.05	<b>0.08</b>
P33	0.06	0.06	0.06	0.09	0.05	0.03	0.02	0.12	<b>0.06</b>
P34	0.04	0.10	0.07	0.15	0.06	0.05	0.03	0.05	<b>0.08</b>
P35	0.04	0.05	0.02	0.04	0.05	0.02	0.09	0.21	<b>0.05</b>
P36	0.11	0.15	0.05	0.03	0.03	0.05	0.19	0.22	<b>0.09</b>

<b>P37</b>	0.04	0.09	0.04	0.01	0.05	0.11	0.14	0.27	<b>0.07</b>
<b>P38</b>	0.05	0.02	0.05	0.04	0.26	0.23	0.15	0.19	<b>0.10</b>
<b>P39</b>	0.12	0.05	0.06	0.04	0.23	0.21	0.09	0.12	<b>0.10</b>

Table A 14 VR value for the Overall Points of Baseline Scheme under Annual Condition

	<b>NNE</b>	<b>NE</b>	<b>ENE</b>	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>Overall</b>
	<b>7.5%</b>	<b>10.1%</b>	<b>17.4%</b>	<b>16.6%</b>	<b>8.4%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>4.9%</b>	<b>76.6%</b>
<b>O1</b>	0.10	0.04	0.09	0.10	0.23	0.17	0.13	0.18	<b>0.12</b>
<b>O2</b>	0.12	0.05	0.05	0.08	0.20	0.20	0.22	0.22	<b>0.11</b>
<b>O3</b>	0.10	0.01	0.06	0.11	0.21	0.15	0.13	0.01	<b>0.09</b>
<b>O4</b>	0.09	0.04	0.01	0.13	0.17	0.19	0.23	0.21	<b>0.11</b>
<b>O5</b>	0.05	0.05	0.05	0.04	0.07	0.11	0.27	0.15	<b>0.08</b>
<b>O6</b>	0.03	0.07	0.07	0.06	0.03	0.08	0.34	0.28	<b>0.09</b>
<b>O7</b>	0.17	0.11	0.05	0.05	0.11	0.08	0.33	0.40	<b>0.12</b>
<b>O8</b>	0.28	0.08	0.06	0.12	0.13	0.07	0.31	0.34	<b>0.14</b>
<b>O9</b>	0.32	0.21	0.18	0.11	0.07	0.08	0.27	0.32	<b>0.18</b>
<b>O10</b>	0.08	0.20	0.16	0.04	0.03	0.03	0.24	0.29	<b>0.12</b>
<b>O11</b>	0.21	0.13	0.16	0.16	0.17	0.08	0.19	0.30	<b>0.17</b>
<b>O12</b>	0.11	0.11	0.25	0.23	0.24	0.14	0.09	0.14	<b>0.18</b>
<b>O13</b>	0.30	0.26	0.20	0.22	0.08	0.14	0.06	0.26	<b>0.20</b>
<b>O14</b>	0.14	0.02	0.01	0.02	0.13	0.01	0.02	0.07	<b>0.04</b>
<b>O15</b>	0.22	0.15	0.10	0.07	0.27	0.05	0.17	0.13	<b>0.13</b>
<b>O16</b>	0.08	0.03	0.12	0.14	0.32	0.19	0.20	0.16	<b>0.15</b>
<b>O17</b>	0.04	0.07	0.13	0.16	0.33	0.20	0.18	0.17	<b>0.15</b>
<b>O18</b>	0.07	0.09	0.12	0.13	0.32	0.19	0.18	0.31	<b>0.16</b>
<b>O19</b>	0.06	0.06	0.07	0.10	0.31	0.18	0.13	0.36	<b>0.13</b>
<b>O20</b>	0.08	0.10	0.09	0.15	0.31	0.18	0.15	0.15	<b>0.14</b>
<b>O21</b>	0.05	0.09	0.08	0.15	0.33	0.18	0.18	0.16	<b>0.14</b>
<b>O22</b>	0.05	0.07	0.09	0.13	0.32	0.18	0.16	0.37	<b>0.15</b>
<b>O23</b>	0.06	0.03	0.12	0.09	0.28	0.17	0.08	0.30	<b>0.12</b>
<b>O24</b>	0.03	0.06	0.12	0.14	0.30	0.02	0.13	0.11	<b>0.12</b>
<b>O25</b>	0.04	0.10	0.09	0.17	0.31	0.20	0.15	0.04	<b>0.14</b>
<b>O26</b>	0.04	0.08	0.09	0.14	0.28	0.18	0.14	0.34	<b>0.14</b>
<b>O27</b>	0.04	0.04	0.08	0.09	0.22	0.18	0.11	0.40	<b>0.12</b>
<b>O28</b>	0.06	0.06	0.11	0.05	0.16	0.18	0.06	0.23	<b>0.10</b>
<b>O29</b>	0.42	0.18	0.11	0.09	0.07	0.09	0.02	0.17	<b>0.14</b>
<b>O30</b>	0.05	0.08	0.07	0.05	0.03	0.03	0.05	0.07	<b>0.06</b>
<b>O31</b>	0.14	0.11	0.04	0.04	0.09	0.15	0.12	0.14	<b>0.09</b>
<b>O32</b>	0.06	0.01	0.03	0.03	0.27	0.22	0.14	0.02	<b>0.08</b>
<b>O33</b>	0.05	0.03	0.03	0.05	0.27	0.22	0.02	0.18	<b>0.09</b>
<b>O34</b>	0.07	0.10	0.08	0.08	0.29	0.23	0.06	0.37	<b>0.13</b>
<b>O35</b>	0.10	0.01	0.04	0.06	0.06	0.13	0.10	0.04	<b>0.06</b>
<b>O36</b>	0.11	0.05	0.13	0.23	0.13	0.14	0.18	0.02	<b>0.14</b>
<b>O37</b>	0.10	0.04	0.07	0.19	0.16	0.12	0.07	0.20	<b>0.12</b>
<b>O38</b>	0.03	0.01	0.10	0.22	0.15	0.16	0.04	0.28	<b>0.12</b>



<b>O39</b>	0.07	0.10	0.20	0.22	0.15	0.16	0.14	0.15	<b>0.16</b>
<b>O40</b>	0.03	0.04	0.01	0.01	0.11	0.14	0.14	0.24	<b>0.06</b>
<b>O41</b>	0.03	0.07	0.05	0.09	0.06	0.01	0.05	0.15	<b>0.06</b>
<b>O42</b>	0.07	0.05	0.06	0.08	0.07	0.04	0.12	0.12	<b>0.07</b>
<b>O43</b>	0.06	0.01	0.03	0.07	0.06	0.09	0.10	0.36	<b>0.07</b>
<b>O44</b>	0.02	0.05	0.09	0.02	0.08	0.08	0.01	0.12	<b>0.06</b>
<b>O45</b>	0.05	0.06	0.11	0.10	0.07	0.09	0.01	0.13	<b>0.09</b>
<b>O46</b>	0.03	0.05	0.05	0.09	0.04	0.05	0.03	0.21	<b>0.06</b>
<b>O47</b>	0.17	0.08	0.06	0.05	0.04	0.05	0.04	0.13	<b>0.07</b>
<b>O48</b>	0.49	0.24	0.13	0.10	0.08	0.13	0.05	0.14	<b>0.16</b>
<b>O49</b>	0.04	0.08	0.09	0.07	0.08	0.10	0.06	0.03	<b>0.07</b>
<b>O50</b>	0.15	0.05	0.07	0.07	0.06	0.02	0.01	0.21	<b>0.07</b>
<b>O51</b>	0.02	0.02	0.08	0.10	0.05	0.04	0.07	0.24	<b>0.08</b>
<b>O52</b>	0.03	0.05	0.02	0.03	0.03	0.07	0.08	0.28	<b>0.05</b>
<b>O53</b>	0.03	0.05	0.05	0.06	0.06	0.08	0.04	0.23	<b>0.06</b>

Table A 15 VR value for the Special Points of Baseline Scheme under Annual Condition

	<b>NNE</b>	<b>NE</b>	<b>ENE</b>	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>Overall</b>
	<b>7.5%</b>	<b>10.1%</b>	<b>17.4%</b>	<b>16.6%</b>	<b>8.4%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>4.9%</b>	<b>76.6%</b>
<b>S1</b>	0.10	0.06	0.04	0.03	0.09	0.23	0.21	0.32	<b>0.10</b>
<b>S2</b>	0.02	0.02	0.07	0.05	0.11	0.20	0.14	0.30	<b>0.09</b>
<b>S3</b>	0.04	0.05	0.03	0.12	0.06	0.23	0.13	0.39	<b>0.10</b>
<b>S4</b>	0.01	0.01	0.02	0.12	0.09	0.23	0.12	0.35	<b>0.09</b>
<b>S5</b>	0.01	0.01	0.06	0.11	0.12	0.22	0.10	0.30	<b>0.10</b>
<b>S6</b>	0.03	0.02	0.07	0.10	0.10	0.22	0.08	0.22	<b>0.09</b>
<b>S7</b>	0.03	0.02	0.07	0.09	0.08	0.21	0.09	0.18	<b>0.08</b>
<b>S8</b>	0.04	0.05	0.07	0.10	0.11	0.23	0.10	0.23	<b>0.10</b>
<b>S9</b>	0.06	0.05	0.06	0.06	0.06	0.20	0.08	0.23	<b>0.08</b>
<b>S10</b>	0.10	0.16	0.24	0.25	0.20	0.20	0.04	0.17	<b>0.19</b>
<b>S11</b>	0.49	0.31	0.16	0.22	0.20	0.25	0.07	0.28	<b>0.24</b>
<b>S12</b>	0.06	0.03	0.24	0.24	0.22	0.38	0.14	0.36	<b>0.20</b>
<b>S13</b>	0.57	0.39	0.23	0.24	0.17	0.34	0.10	0.43	<b>0.29</b>
<b>S14</b>	0.56	0.32	0.16	0.24	0.09	0.28	0.05	0.42	<b>0.25</b>
<b>S15</b>	0.57	0.33	0.25	0.27	0.13	0.16	0.06	0.41	<b>0.27</b>
<b>S16</b>	0.56	0.43	0.32	0.29	0.21	0.11	0.10	0.38	<b>0.31</b>
<b>S17</b>	0.58	0.46	0.34	0.18	0.07	0.12	0.12	0.44	<b>0.29</b>
<b>S18</b>	0.27	0.26	0.16	0.22	0.07	0.09	0.08	0.47	<b>0.19</b>
<b>S19</b>	0.19	0.17	0.26	0.19	0.36	0.27	0.07	0.36	<b>0.23</b>
<b>S20</b>	0.16	0.08	0.04	0.07	0.29	0.25	0.12	0.32	<b>0.13</b>
<b>S21</b>	0.22	0.13	0.19	0.25	0.12	0.19	0.09	0.31	<b>0.19</b>
<b>S22</b>	0.25	0.23	0.18	0.22	0.10	0.21	0.04	0.43	<b>0.20</b>
<b>S23</b>	0.19	0.14	0.21	0.20	0.16	0.19	0.18	0.05	<b>0.18</b>
<b>S24</b>	0.18	0.10	0.15	0.12	0.13	0.04	0.10	0.09	<b>0.12</b>
<b>S25</b>	0.13	0.05	0.10	0.10	0.10	0.17	0.19	0.19	<b>0.11</b>

## B1.2 Summer Condition

Table A 16 VR value for the Perimeter Points of Baseline Scheme under Summer Condition

	E	ESE	SE	SSE	S	SSW	SW	WSW	W	Overall
	11.5%	9.5%	9.3%	8.3%	7.9%	8.8%	9.9%	7.2%	4.7%	77.1%
P1	0.05	0.11	0.21	0.19	0.16	0.10	0.12	0.12	0.16	0.13
P2	0.02	0.08	0.20	0.17	0.18	0.17	0.06	0.12	0.14	0.12
P3	0.03	0.01	0.11	0.13	0.21	0.13	0.11	0.09	0.07	0.10
P4	0.02	0.15	0.03	0.04	0.09	0.13	0.11	0.16	0.20	0.09
P5	0.05	0.16	0.13	0.18	0.30	0.05	0.05	0.16	0.24	0.13
P6	0.04	0.14	0.08	0.08	0.17	0.29	0.05	0.21	0.23	0.13
P7	0.02	0.09	0.03	0.05	0.07	0.35	0.11	0.21	0.22	0.12
P8	0.04	0.07	0.16	0.19	0.19	0.23	0.11	0.27	0.28	0.16
P9	0.07	0.15	0.16	0.25	0.17	0.19	0.14	0.31	0.26	0.18
P10	0.08	0.11	0.15	0.25	0.23	0.14	0.08	0.27	0.27	0.16
P11	0.10	0.09	0.14	0.23	0.24	0.08	0.05	0.22	0.24	0.14
P12	0.09	0.07	0.14	0.23	0.27	0.05	0.03	0.14	0.22	0.13
P13	0.12	0.10	0.13	0.23	0.27	0.10	0.20	0.28	0.18	0.17
P14	0.10	0.11	0.13	0.22	0.27	0.07	0.25	0.37	0.21	0.18
P15	0.10	0.13	0.14	0.20	0.27	0.09	0.22	0.36	0.24	0.18
P16	0.08	0.16	0.14	0.16	0.29	0.10	0.11	0.12	0.11	0.14
P17	0.06	0.16	0.14	0.15	0.34	0.11	0.06	0.08	0.08	0.13
P18	0.12	0.24	0.21	0.14	0.42	0.30	0.07	0.03	0.04	0.18
P19	0.12	0.25	0.19	0.13	0.45	0.32	0.21	0.11	0.05	0.21
P20	0.08	0.28	0.20	0.15	0.45	0.33	0.12	0.10	0.08	0.20
P21	0.11	0.29	0.20	0.17	0.40	0.28	0.13	0.12	0.12	0.20
P22	0.15	0.31	0.20	0.20	0.22	0.24	0.04	0.07	0.07	0.17
P23	0.14	0.31	0.20	0.21	0.18	0.24	0.12	0.04	0.11	0.18
P24	0.11	0.31	0.14	0.21	0.19	0.21	0.13	0.06	0.04	0.16
P25	0.04	0.15	0.05	0.14	0.12	0.10	0.04	0.08	0.01	0.08
P26	0.04	0.14	0.11	0.16	0.09	0.06	0.11	0.08	0.05	0.09
P27	0.04	0.13	0.05	0.10	0.14	0.13	0.15	0.13	0.15	0.11
P28	0.10	0.12	0.17	0.09	0.31	0.41	0.40	0.14	0.21	0.22
P29	0.13	0.15	0.15	0.11	0.23	0.32	0.25	0.39	0.31	0.21
P30	0.12	0.15	0.17	0.13	0.26	0.32	0.29	0.05	0.08	0.18
P31	0.08	0.13	0.14	0.14	0.11	0.10	0.17	0.14	0.14	0.13
P32	0.04	0.11	0.13	0.13	0.05	0.07	0.11	0.13	0.03	0.09
P33	0.09	0.05	0.03	0.02	0.12	0.14	0.07	0.08	0.05	0.07
P34	0.15	0.06	0.05	0.03	0.05	0.30	0.08	0.08	0.10	0.10
P35	0.04	0.05	0.02	0.09	0.21	0.02	0.09	0.01	0.01	0.06
P36	0.03	0.03	0.05	0.19	0.22	0.08	0.28	0.06	0.06	0.11
P37	0.01	0.05	0.11	0.14	0.27	0.30	0.36	0.22	0.17	0.17
P38	0.04	0.26	0.23	0.15	0.19	0.22	0.20	0.21	0.18	0.18
P39	0.04	0.23	0.21	0.09	0.12	0.11	0.10	0.20	0.18	0.14



Table A 17 VR value for the Overall Points of Baseline Scheme under Summer Condition

	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>SSW</b>	<b>SW</b>	<b>WSW</b>	<b>W</b>	<b>Overall</b>
	<b>11.5%</b>	<b>9.5%</b>	<b>9.3%</b>	<b>8.3%</b>	<b>7.9%</b>	<b>8.8%</b>	<b>9.9%</b>	<b>7.2%</b>	<b>4.7%</b>	<b>77.1%</b>
<b>O1</b>	0.10	0.23	0.17	0.13	0.18	0.13	0.24	0.42	0.21	<b>0.19</b>
<b>O2</b>	0.08	0.20	0.20	0.22	0.22	0.17	0.22	0.43	0.28	<b>0.21</b>
<b>O3</b>	0.11	0.21	0.15	0.13	0.01	0.15	0.17	0.32	0.18	<b>0.15</b>
<b>O4</b>	0.13	0.17	0.19	0.23	0.21	0.05	0.18	0.39	0.26	<b>0.19</b>
<b>O5</b>	0.04	0.07	0.11	0.27	0.15	0.19	0.27	0.34	0.27	<b>0.18</b>
<b>O6</b>	0.06	0.03	0.08	0.34	0.28	0.20	0.28	0.25	0.25	<b>0.18</b>
<b>O7</b>	0.05	0.11	0.08	0.33	0.40	0.36	0.21	0.33	0.28	<b>0.22</b>
<b>O8</b>	0.12	0.13	0.07	0.31	0.34	0.24	0.13	0.37	0.28	<b>0.21</b>
<b>O9</b>	0.11	0.07	0.08	0.27	0.32	0.25	0.12	0.37	0.32	<b>0.19</b>
<b>O10</b>	0.04	0.03	0.03	0.24	0.29	0.17	0.17	0.24	0.24	<b>0.15</b>
<b>O11</b>	0.16	0.17	0.08	0.19	0.30	0.22	0.29	0.43	0.26	<b>0.22</b>
<b>O12</b>	0.23	0.24	0.14	0.09	0.14	0.19	0.26	0.35	0.28	<b>0.21</b>
<b>O13</b>	0.22	0.08	0.14	0.06	0.26	0.22	0.32	0.23	0.18	<b>0.19</b>
<b>O14</b>	0.02	0.13	0.01	0.02	0.07	0.04	0.09	0.07	0.10	<b>0.06</b>
<b>O15</b>	0.07	0.27	0.05	0.17	0.13	0.17	0.19	0.13	0.13	<b>0.14</b>
<b>O16</b>	0.14	0.32	0.19	0.20	0.16	0.20	0.02	0.08	0.12	<b>0.16</b>
<b>O17</b>	0.16	0.33	0.20	0.18	0.17	0.18	0.10	0.11	0.09	<b>0.17</b>
<b>O18</b>	0.13	0.32	0.19	0.18	0.31	0.22	0.09	0.10	0.09	<b>0.18</b>
<b>O19</b>	0.10	0.31	0.18	0.13	0.36	0.21	0.16	0.11	0.14	<b>0.19</b>
<b>O20</b>	0.15	0.31	0.18	0.15	0.15	0.12	0.06	0.17	0.11	<b>0.16</b>
<b>O21</b>	0.15	0.33	0.18	0.18	0.16	0.18	0.04	0.20	0.13	<b>0.17</b>
<b>O22</b>	0.13	0.32	0.18	0.16	0.37	0.12	0.09	0.25	0.14	<b>0.19</b>
<b>O23</b>	0.09	0.28	0.17	0.08	0.30	0.16	0.15	0.28	0.16	<b>0.18</b>
<b>O24</b>	0.14	0.30	0.02	0.13	0.11	0.12	0.05	0.02	0.06	<b>0.11</b>
<b>O25</b>	0.17	0.31	0.20	0.15	0.04	0.13	0.04	0.13	0.13	<b>0.15</b>
<b>O26</b>	0.14	0.28	0.18	0.14	0.34	0.04	0.11	0.16	0.15	<b>0.17</b>
<b>O27</b>	0.09	0.22	0.18	0.11	0.40	0.08	0.12	0.24	0.17	<b>0.17</b>
<b>O28</b>	0.05	0.16	0.18	0.06	0.23	0.06	0.05	0.31	0.18	<b>0.13</b>
<b>O29</b>	0.09	0.07	0.09	0.02	0.17	0.40	0.27	0.43	0.37	<b>0.20</b>
<b>O30</b>	0.05	0.03	0.03	0.05	0.07	0.19	0.22	0.26	0.34	<b>0.12</b>
<b>O31</b>	0.04	0.09	0.15	0.12	0.14	0.14	0.19	0.21	0.26	<b>0.14</b>
<b>O32</b>	0.03	0.27	0.22	0.14	0.02	0.07	0.14	0.14	0.18	<b>0.13</b>
<b>O33</b>	0.05	0.27	0.22	0.02	0.18	0.04	0.16	0.16	0.07	<b>0.13</b>
<b>O34</b>	0.08	0.29	0.23	0.06	0.37	0.29	0.28	0.23	0.07	<b>0.21</b>
<b>O35</b>	0.06	0.06	0.12	0.10	0.04	0.08	0.12	0.15	0.07	<b>0.09</b>
<b>O36</b>	0.22	0.12	0.13	0.17	0.02	0.11	0.09	0.03	0.02	<b>0.11</b>
<b>O37</b>	0.19	0.16	0.12	0.07	0.20	0.38	0.13	0.05	0.09	<b>0.16</b>
<b>O38</b>	0.22	0.15	0.16	0.04	0.28	0.37	0.19	0.09	0.11	<b>0.19</b>
<b>O39</b>	0.22	0.15	0.16	0.14	0.15	0.28	0.13	0.08	0.07	<b>0.16</b>
<b>O40</b>	0.01	0.11	0.14	0.14	0.24	0.33	0.28	0.28	0.25	<b>0.19</b>
<b>O41</b>	0.09	0.06	0.01	0.05	0.15	0.09	0.09	0.06	0.11	<b>0.08</b>
<b>O42</b>	0.08	0.07	0.04	0.12	0.12	0.25	0.17	0.19	0.15	<b>0.13</b>

<b>O43</b>	0.07	0.06	0.09	0.10	0.36	0.24	0.18	0.10	0.19	<b>0.15</b>
<b>O44</b>	0.02	0.08	0.08	0.01	0.12	0.09	0.13	0.10	0.11	<b>0.08</b>
<b>O45</b>	0.10	0.07	0.09	0.01	0.13	0.17	0.18	0.16	0.11	<b>0.11</b>
<b>O46</b>	0.09	0.04	0.05	0.03	0.21	0.08	0.06	0.03	0.02	<b>0.07</b>
<b>O47</b>	0.05	0.03	0.05	0.04	0.13	0.28	0.11	0.27	0.29	<b>0.12</b>
<b>O48</b>	0.10	0.08	0.13	0.05	0.13	0.36	0.25	0.39	0.34	<b>0.19</b>
<b>O49</b>	0.07	0.08	0.10	0.06	0.03	0.24	0.20	0.08	0.31	<b>0.12</b>
<b>O50</b>	0.07	0.06	0.02	0.01	0.21	0.22	0.18	0.35	0.32	<b>0.14</b>
<b>O51</b>	0.10	0.05	0.04	0.07	0.24	0.44	0.18	0.06	0.09	<b>0.14</b>
<b>O52</b>	0.03	0.03	0.07	0.08	0.28	0.31	0.23	0.11	0.09	<b>0.13</b>
<b>O53</b>	0.06	0.06	0.08	0.04	0.23	0.35	0.16	0.06	0.09	<b>0.13</b>

Table A 18 VR value for the Special Points of Baseline Scheme under Summer Condition

	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>SSW</b>	<b>SW</b>	<b>WSW</b>	<b>W</b>	<b>Overall</b>
	<b>11.5%</b>	<b>9.5%</b>	<b>9.3%</b>	<b>8.3%</b>	<b>7.9%</b>	<b>8.8%</b>	<b>9.9%</b>	<b>7.2%</b>	<b>4.7%</b>	<b>77.1%</b>
<b>S1</b>	0.03	0.09	0.23	0.21	0.32	0.18	0.16	0.26	0.18	<b>0.18</b>
<b>S2</b>	0.05	0.11	0.20	0.14	0.30	0.06	0.14	0.34	0.26	<b>0.16</b>
<b>S3</b>	0.12	0.06	0.23	0.13	0.39	0.15	0.15	0.29	0.23	<b>0.18</b>
<b>S4</b>	0.12	0.09	0.23	0.12	0.35	0.18	0.11	0.25	0.22	<b>0.18</b>
<b>S5</b>	0.11	0.12	0.22	0.10	0.30	0.28	0.10	0.28	0.20	<b>0.18</b>
<b>S6</b>	0.10	0.10	0.22	0.08	0.22	0.28	0.10	0.21	0.18	<b>0.16</b>
<b>S7</b>	0.09	0.08	0.21	0.09	0.18	0.17	0.05	0.12	0.19	<b>0.12</b>
<b>S8</b>	0.10	0.11	0.23	0.10	0.23	0.05	0.10	0.14	0.21	<b>0.13</b>
<b>S9</b>	0.06	0.06	0.20	0.08	0.23	0.21	0.12	0.12	0.22	<b>0.14</b>
<b>S10</b>	0.25	0.20	0.20	0.04	0.17	0.18	0.14	0.17	0.19	<b>0.17</b>
<b>S11</b>	0.22	0.20	0.25	0.07	0.28	0.37	0.43	0.49	0.32	<b>0.29</b>
<b>S12</b>	0.24	0.22	0.38	0.14	0.36	0.28	0.41	0.51	0.26	<b>0.31</b>
<b>S13</b>	0.24	0.17	0.34	0.10	0.43	0.40	0.44	0.51	0.22	<b>0.32</b>
<b>S14</b>	0.24	0.09	0.28	0.05	0.42	0.40	0.43	0.46	0.15	<b>0.28</b>
<b>S15</b>	0.27	0.13	0.16	0.06	0.41	0.33	0.38	0.19	0.10	<b>0.24</b>
<b>S16</b>	0.29	0.21	0.11	0.10	0.38	0.31	0.36	0.29	0.16	<b>0.25</b>
<b>S17</b>	0.18	0.07	0.12	0.12	0.44	0.29	0.35	0.29	0.17	<b>0.22</b>
<b>S18</b>	0.21	0.07	0.09	0.08	0.46	0.42	0.45	0.41	0.34	<b>0.27</b>
<b>S19</b>	0.18	0.35	0.26	0.07	0.35	0.39	0.50	0.51	0.40	<b>0.33</b>
<b>S20</b>	0.07	0.29	0.24	0.12	0.31	0.45	0.51	0.46	0.37	<b>0.30</b>
<b>S21</b>	0.25	0.12	0.18	0.09	0.30	0.52	0.56	0.54	0.41	<b>0.32</b>
<b>S22</b>	0.22	0.09	0.20	0.04	0.42	0.53	0.54	0.51	0.37	<b>0.32</b>
<b>S23</b>	0.20	0.16	0.18	0.18	0.05	0.54	0.52	0.52	0.39	<b>0.30</b>
<b>S24</b>	0.11	0.13	0.04	0.09	0.09	0.43	0.28	0.38	0.37	<b>0.20</b>
<b>S25</b>	0.09	0.10	0.16	0.18	0.19	0.40	0.09	0.01	0.16	<b>0.15</b>



## B2 Indicative Scheme VR tables

### B2.1 Annual Condition

Table A 19 VR value for the Perimeter Points of Indicative Scheme under Annual Condition

	NNE	NE	ENE	E	ESE	SE	SSE	S	Overall
	7.5%	10.1%	17.4%	16.6%	8.4%	5.9%	5.9%	4.9%	76.6%
P1	0.04	0.03	0.02	0.05	0.05	0.10	0.20	0.46	0.08
P2	0.02	0.09	0.07	0.02	0.06	0.08	0.11	0.42	0.08
P3	0.01	0.14	0.18	0.03	0.05	0.05	0.06	0.22	0.09
P4	0.16	0.12	0.17	0.07	0.05	0.03	0.01	0.03	0.10
P5	0.12	0.09	0.19	0.11	0.08	0.08	0.08	0.41	0.14
P6	0.27	0.11	0.06	0.11	0.01	0.02	0.02	0.11	0.09
P7	0.31	0.16	0.14	0.06	0.02	0.01	0.09	0.15	0.12
P8	0.24	0.16	0.14	0.14	0.19	0.16	0.17	0.12	0.16
P9	0.04	0.16	0.11	0.08	0.21	0.18	0.31	0.10	0.13
P10	0.27	0.18	0.10	0.10	0.21	0.16	0.30	0.42	0.18
P11	0.38	0.07	0.10	0.12	0.20	0.15	0.28	0.09	0.15
P12	0.03	0.02	0.05	0.14	0.18	0.13	0.27	0.24	0.11
P13	0.01	0.02	0.11	0.14	0.18	0.14	0.27	0.03	0.11
P14	0.03	0.16	0.10	0.12	0.17	0.14	0.28	0.05	0.13
P15	0.15	0.03	0.09	0.08	0.15	0.14	0.26	0.27	0.12
P16	0.07	0.09	0.07	0.09	0.10	0.13	0.23	0.22	0.11
P17	0.07	0.10	0.04	0.11	0.03	0.11	0.18	0.32	0.10
P18	0.08	0.09	0.12	0.08	0.01	0.07	0.17	0.19	0.10
P19	0.09	0.09	0.13	0.15	0.22	0.18	0.11	0.36	0.15
P20	0.15	0.15	0.06	0.10	0.24	0.18	0.11	0.38	0.14
P21	0.07	0.03	0.09	0.09	0.26	0.18	0.13	0.32	0.12
P22	0.11	0.14	0.06	0.04	0.27	0.18	0.14	0.04	0.11
P23	0.14	0.08	0.08	0.05	0.26	0.15	0.14	0.17	0.12
P24	0.12	0.19	0.06	0.10	0.26	0.03	0.13	0.26	0.13
P25	0.16	0.16	0.05	0.08	0.21	0.02	0.11	0.33	0.12
P26	0.17	0.18	0.07	0.07	0.13	0.06	0.11	0.31	0.12
P27	0.15	0.16	0.08	0.09	0.16	0.03	0.10	0.22	0.11
P28	0.17	0.18	0.05	0.06	0.07	0.10	0.14	0.17	0.10
P29	0.16	0.20	0.10	0.09	0.18	0.19	0.12	0.08	0.13
P30	0.14	0.24	0.11	0.07	0.13	0.19	0.12	0.12	0.13
P31	0.13	0.24	0.17	0.14	0.13	0.21	0.13	0.01	0.15
P32	0.11	0.05	0.03	0.02	0.04	0.13	0.12	0.11	0.06
P33	0.10	0.13	0.05	0.10	0.04	0.03	0.05	0.19	0.08
P34	0.08	0.16	0.07	0.09	0.08	0.06	0.08	0.24	0.10
P35	0.17	0.28	0.12	0.14	0.05	0.03	0.08	0.05	0.13
P36	0.18	0.26	0.13	0.13	0.04	0.04	0.06	0.06	0.13
P37	0.11	0.01	0.12	0.19	0.10	0.09	0.09	0.25	0.12

<b>P38</b>	0.03	0.10	0.02	0.09	0.23	0.22	0.11	0.13	<b>0.10</b>
<b>P39</b>	0.08	0.12	0.11	0.14	0.15	0.18	0.13	0.13	<b>0.13</b>

Table A 20 VR value for the Overall Points of Indicative Scheme under Annual Condition

	<b>NNE</b>	<b>NE</b>	<b>ENE</b>	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>Overall</b>
	<b>7.5%</b>	<b>10.1%</b>	<b>17.4%</b>	<b>16.6%</b>	<b>8.4%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>4.9%</b>	<b>76.6%</b>
<b>O1</b>	0.02	0.02	0.08	0.09	0.19	0.19	0.07	0.35	<b>0.11</b>
<b>O2</b>	0.04	0.05	0.02	0.05	0.18	0.24	0.31	0.23	<b>0.10</b>
<b>O3</b>	0.27	0.09	0.09	0.10	0.20	0.18	0.01	0.33	<b>0.14</b>
<b>O4</b>	0.32	0.16	0.01	0.13	0.20	0.20	0.28	0.12	<b>0.15</b>
<b>O5</b>	0.03	0.06	0.06	0.03	0.06	0.10	0.23	0.11	<b>0.07</b>
<b>O6</b>	0.05	0.06	0.03	0.03	0.04	0.10	0.31	0.27	<b>0.08</b>
<b>O7</b>	0.16	0.17	0.05	0.03	0.05	0.10	0.33	0.43	<b>0.12</b>
<b>O8</b>	0.23	0.08	0.07	0.08	0.10	0.05	0.31	0.47	<b>0.14</b>
<b>O9</b>	0.37	0.08	0.17	0.16	0.09	0.10	0.28	0.46	<b>0.19</b>
<b>O10</b>	0.22	0.14	0.12	0.03	0.06	0.14	0.27	0.39	<b>0.14</b>
<b>O11</b>	0.15	0.01	0.14	0.12	0.13	0.20	0.20	0.36	<b>0.14</b>
<b>O12</b>	0.06	0.09	0.27	0.23	0.22	0.21	0.08	0.39	<b>0.20</b>
<b>O13</b>	0.24	0.24	0.18	0.21	0.11	0.17	0.03	0.31	<b>0.19</b>
<b>O14</b>	0.16	0.22	0.04	0.03	0.12	0.01	0.09	0.14	<b>0.09</b>
<b>O15</b>	0.15	0.16	0.05	0.07	0.25	0.02	0.15	0.13	<b>0.11</b>
<b>O16</b>	0.14	0.13	0.10	0.09	0.30	0.15	0.14	0.12	<b>0.14</b>
<b>O17</b>	0.02	0.04	0.12	0.13	0.32	0.19	0.13	0.02	<b>0.12</b>
<b>O18</b>	0.07	0.08	0.10	0.10	0.31	0.18	0.13	0.11	<b>0.13</b>
<b>O19</b>	0.07	0.10	0.06	0.05	0.30	0.18	0.09	0.35	<b>0.12</b>
<b>O20</b>	0.11	0.10	0.11	0.11	0.31	0.16	0.11	0.12	<b>0.13</b>
<b>O21</b>	0.09	0.11	0.09	0.11	0.33	0.18	0.13	0.04	<b>0.13</b>
<b>O22</b>	0.07	0.06	0.08	0.09	0.32	0.18	0.12	0.30	<b>0.13</b>
<b>O23</b>	0.07	0.05	0.15	0.04	0.28	0.18	0.07	0.32	<b>0.13</b>
<b>O24</b>	0.02	0.06	0.14	0.09	0.32	0.02	0.10	0.06	<b>0.11</b>
<b>O25</b>	0.03	0.09	0.11	0.11	0.33	0.20	0.12	0.03	<b>0.13</b>
<b>O26</b>	0.06	0.07	0.11	0.09	0.30	0.18	0.12	0.19	<b>0.13</b>
<b>O27</b>	0.06	0.01	0.12	0.04	0.23	0.18	0.10	0.37	<b>0.11</b>
<b>O28</b>	0.05	0.06	0.11	0.06	0.17	0.19	0.06	0.27	<b>0.11</b>
<b>O29</b>	0.44	0.20	0.11	0.10	0.10	0.11	0.05	0.07	<b>0.14</b>
<b>O30</b>	0.05	0.03	0.14	0.09	0.07	0.09	0.04	0.05	<b>0.08</b>
<b>O31</b>	0.06	0.05	0.05	0.05	0.08	0.04	0.13	0.05	<b>0.06</b>
<b>O32</b>	0.09	0.07	0.02	0.06	0.29	0.22	0.10	0.13	<b>0.10</b>
<b>O33</b>	0.07	0.04	0.01	0.07	0.28	0.22	0.10	0.21	<b>0.10</b>
<b>O34</b>	0.06	0.10	0.07	0.08	0.30	0.23	0.10	0.40	<b>0.14</b>
<b>O35</b>	0.12	0.02	0.02	0.01	0.04	0.13	0.09	0.04	<b>0.04</b>
<b>O36</b>	0.11	0.09	0.10	0.19	0.09	0.14	0.10	0.04	<b>0.12</b>
<b>O37</b>	0.12	0.16	0.08	0.20	0.14	0.11	0.08	0.27	<b>0.14</b>
<b>O38</b>	0.06	0.04	0.10	0.19	0.17	0.17	0.03	0.32	<b>0.13</b>



<b>O39</b>	0.12	0.10	0.19	0.21	0.14	0.12	0.08	0.20	<b>0.16</b>
<b>O40</b>	0.07	0.10	0.07	0.14	0.06	0.13	0.08	0.08	<b>0.09</b>
<b>O41</b>	0.09	0.09	0.02	0.05	0.05	0.02	0.07	0.08	<b>0.05</b>
<b>O42</b>	0.10	0.10	0.04	0.08	0.05	0.03	0.06	0.24	<b>0.08</b>
<b>O43</b>	0.08	0.06	0.04	0.09	0.03	0.11	0.03	0.32	<b>0.08</b>
<b>O44</b>	0.03	0.04	0.06	0.11	0.09	0.06	0.05	0.20	<b>0.08</b>
<b>O45</b>	0.05	0.06	0.08	0.09	0.03	0.09	0.04	0.12	<b>0.07</b>
<b>O46</b>	0.03	0.05	0.06	0.07	0.01	0.05	0.02	0.21	<b>0.06</b>
<b>O47</b>	0.18	0.08	0.07	0.07	0.06	0.07	0.05	0.03	<b>0.08</b>
<b>O48</b>	0.49	0.24	0.14	0.14	0.11	0.15	0.06	0.01	<b>0.17</b>
<b>O49</b>	0.15	0.12	0.14	0.14	0.13	0.13	0.05	0.04	<b>0.12</b>
<b>O50</b>	0.08	0.09	0.04	0.10	0.07	0.10	0.08	0.02	<b>0.07</b>
<b>O51</b>	0.03	0.03	0.11	0.09	0.03	0.07	0.06	0.28	<b>0.08</b>
<b>O52</b>	0.04	0.08	0.04	0.04	0.03	0.06	0.06	0.25	<b>0.06</b>
<b>O53</b>	0.03	0.05	0.05	0.06	0.06	0.09	0.02	0.28	<b>0.06</b>

Table A 21 VR value for the Special Points of Indicative Scheme under Annual Condition

	<b>NNE</b>	<b>NE</b>	<b>ENE</b>	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>Overall</b>
	<b>7.5%</b>	<b>10.1%</b>	<b>17.4%</b>	<b>16.6%</b>	<b>8.4%</b>	<b>5.9%</b>	<b>5.9%</b>	<b>4.9%</b>	<b>76.6%</b>
<b>S1</b>	0.06	0.02	0.04	0.01	0.02	0.08	0.15	0.46	<b>0.07</b>
<b>S2</b>	0.06	0.04	0.03	0.09	0.05	0.05	0.09	0.19	<b>0.07</b>
<b>S3</b>	0.15	0.14	0.06	0.03	0.12	0.06	0.11	0.30	<b>0.10</b>
<b>S4</b>	0.04	0.03	0.05	0.03	0.02	0.04	0.11	0.38	<b>0.06</b>
<b>S5</b>	0.07	0.06	0.06	0.01	0.01	0.04	0.06	0.22	<b>0.05</b>
<b>S6</b>	0.07	0.07	0.03	0.02	0.06	0.02	0.03	0.08	<b>0.04</b>
<b>S7</b>	0.05	0.05	0.02	0.03	0.07	0.06	0.08	0.12	<b>0.05</b>
<b>S8</b>	0.02	0.01	0.06	0.13	0.19	0.20	0.12	0.06	<b>0.09</b>
<b>S9</b>	0.04	0.05	0.07	0.08	0.04	0.19	0.01	0.21	<b>0.08</b>
<b>S10</b>	0.09	0.17	0.21	0.25	0.22	0.21	0.07	0.44	<b>0.21</b>
<b>S11</b>	0.51	0.31	0.15	0.23	0.23	0.24	0.10	0.17	<b>0.24</b>
<b>S12</b>	0.07	0.03	0.24	0.25	0.25	0.36	0.13	0.17	<b>0.20</b>
<b>S13</b>	0.55	0.40	0.23	0.26	0.19	0.34	0.08	0.23	<b>0.28</b>
<b>S14</b>	0.57	0.33	0.16	0.25	0.07	0.22	0.05	0.14	<b>0.23</b>
<b>S15</b>	0.57	0.34	0.25	0.28	0.14	0.15	0.07	0.26	<b>0.27</b>
<b>S16</b>	0.57	0.44	0.31	0.30	0.22	0.12	0.11	0.18	<b>0.30</b>
<b>S17</b>	0.59	0.46	0.33	0.20	0.10	0.11	0.02	0.13	<b>0.27</b>
<b>S18</b>	0.27	0.27	0.15	0.21	0.11	0.10	0.04	0.46	<b>0.19</b>
<b>S19</b>	0.21	0.19	0.26	0.18	0.35	0.24	0.08	0.33	<b>0.23</b>
<b>S20</b>	0.13	0.10	0.05	0.12	0.27	0.23	0.12	0.31	<b>0.14</b>
<b>S21</b>	0.19	0.12	0.18	0.25	0.07	0.19	0.06	0.31	<b>0.18</b>
<b>S22</b>	0.18	0.23	0.18	0.23	0.10	0.23	0.06	0.43	<b>0.20</b>
<b>S23</b>	0.15	0.14	0.20	0.19	0.15	0.19	0.17	0.27	<b>0.18</b>
<b>S24</b>	0.14	0.10	0.14	0.11	0.13	0.10	0.12	0.28	<b>0.13</b>
<b>S25</b>	0.08	0.04	0.10	0.09	0.09	0.17	0.19	0.15	<b>0.10</b>

## B2.2 Summer Condition

Table A 22 VR value for the Perimeter Points of Indicative Scheme under Summer Condition

	E	ESE	SE	SSE	S	SSW	SW	WSW	W	Overall
	11.5%	9.5%	9.3%	8.3%	7.9%	8.8%	9.9%	7.2%	4.7%	77.1%
P1	0.05	0.05	0.10	0.20	0.46	0.25	0.21	0.14	0.05	0.17
P2	0.02	0.06	0.08	0.11	0.42	0.29	0.17	0.02	0.06	0.14
P3	0.03	0.05	0.05	0.06	0.22	0.09	0.08	0.03	0.06	0.07
P4	0.07	0.05	0.03	0.01	0.03	0.25	0.12	0.07	0.02	0.08
P5	0.11	0.08	0.08	0.08	0.41	0.23	0.12	0.04	0.06	0.14
P6	0.11	0.01	0.02	0.02	0.11	0.46	0.36	0.14	0.12	0.15
P7	0.06	0.02	0.01	0.09	0.15	0.23	0.37	0.22	0.15	0.14
P8	0.14	0.19	0.16	0.17	0.12	0.10	0.39	0.31	0.35	0.20
P9	0.08	0.21	0.18	0.31	0.10	0.10	0.38	0.36	0.32	0.22
P10	0.10	0.21	0.16	0.30	0.42	0.19	0.17	0.33	0.32	0.23
P11	0.12	0.20	0.15	0.28	0.09	0.05	0.08	0.07	0.29	0.14
P12	0.14	0.18	0.13	0.27	0.24	0.39	0.45	0.21	0.09	0.24
P13	0.14	0.18	0.14	0.27	0.03	0.18	0.48	0.28	0.27	0.22
P14	0.12	0.17	0.14	0.28	0.05	0.18	0.07	0.15	0.26	0.15
P15	0.08	0.15	0.14	0.26	0.27	0.18	0.13	0.26	0.02	0.17
P16	0.09	0.10	0.13	0.23	0.22	0.19	0.20	0.03	0.05	0.14
P17	0.11	0.03	0.11	0.18	0.32	0.33	0.04	0.03	0.03	0.13
P18	0.08	0.01	0.07	0.17	0.19	0.25	0.06	0.03	0.03	0.10
P19	0.15	0.22	0.18	0.11	0.36	0.38	0.33	0.30	0.10	0.24
P20	0.10	0.24	0.18	0.11	0.38	0.35	0.30	0.35	0.09	0.23
P21	0.09	0.26	0.18	0.13	0.32	0.27	0.18	0.25	0.13	0.20
P22	0.04	0.27	0.18	0.14	0.04	0.22	0.24	0.23	0.03	0.16
P23	0.05	0.26	0.15	0.14	0.17	0.22	0.17	0.22	0.16	0.17
P24	0.10	0.26	0.03	0.13	0.26	0.26	0.24	0.17	0.05	0.17
P25	0.08	0.21	0.02	0.11	0.33	0.33	0.26	0.07	0.03	0.16
P26	0.07	0.13	0.06	0.11	0.31	0.31	0.31	0.10	0.11	0.17
P27	0.09	0.16	0.03	0.10	0.22	0.24	0.51	0.45	0.30	0.22
P28	0.06	0.07	0.10	0.14	0.17	0.06	0.07	0.15	0.19	0.10
P29	0.09	0.18	0.19	0.12	0.08	0.14	0.32	0.29	0.32	0.18
P30	0.07	0.13	0.19	0.12	0.12	0.02	0.10	0.11	0.12	0.11
P31	0.14	0.13	0.21	0.13	0.01	0.06	0.11	0.08	0.04	0.11
P32	0.02	0.04	0.13	0.12	0.11	0.13	0.07	0.05	0.05	0.08
P33	0.10	0.04	0.03	0.05	0.19	0.15	0.10	0.12	0.11	0.10
P34	0.09	0.08	0.06	0.08	0.24	0.24	0.03	0.05	0.04	0.10
P35	0.14	0.05	0.03	0.08	0.05	0.10	0.03	0.05	0.05	0.07
P36	0.13	0.04	0.04	0.06	0.06	0.06	0.03	0.03	0.07	0.06
P37	0.19	0.10	0.09	0.09	0.25	0.15	0.04	0.04	0.10	0.12
P38	0.09	0.23	0.22	0.11	0.13	0.08	0.12	0.16	0.26	0.15

<b>P39</b>	0.14	0.15	0.18	0.13	0.13	0.07	0.17	0.22	0.26	<b>0.15</b>
------------	------	------	------	------	------	------	------	------	------	-------------

Table A 23 VR value for the Overall Points of Indicative Scheme under Summer Condition

	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>SSW</b>	<b>SW</b>	<b>WSW</b>	<b>W</b>	<b>Overall</b>
	<b>11.5%</b>	<b>9.5%</b>	<b>9.3%</b>	<b>8.3%</b>	<b>7.9%</b>	<b>8.8%</b>	<b>9.9%</b>	<b>7.2%</b>	<b>4.7%</b>	<b>77.1%</b>
<b>O1</b>	0.09	0.19	0.19	0.07	0.35	0.14	0.22	0.29	0.14	<b>0.18</b>
<b>O2</b>	0.05	0.18	0.24	0.31	0.23	0.17	0.19	0.32	0.22	<b>0.20</b>
<b>O3</b>	0.10	0.20	0.18	0.01	0.33	0.20	0.23	0.27	0.14	<b>0.18</b>
<b>O4</b>	0.13	0.20	0.20	0.28	0.12	0.18	0.27	0.32	0.12	<b>0.20</b>
<b>O5</b>	0.03	0.06	0.10	0.23	0.11	0.21	0.36	0.34	0.30	<b>0.18</b>
<b>O6</b>	0.03	0.04	0.10	0.31	0.27	0.35	0.33	0.31	0.20	<b>0.21</b>
<b>O7</b>	0.03	0.05	0.10	0.33	0.43	0.39	0.32	0.33	0.27	<b>0.24</b>
<b>O8</b>	0.08	0.10	0.05	0.31	0.47	0.23	0.32	0.44	0.33	<b>0.24</b>
<b>O9</b>	0.16	0.09	0.10	0.28	0.46	0.36	0.26	0.09	0.33	<b>0.23</b>
<b>O10</b>	0.03	0.06	0.14	0.27	0.39	0.39	0.34	0.49	0.21	<b>0.24</b>
<b>O11</b>	0.12	0.13	0.20	0.20	0.36	0.32	0.26	0.08	0.36	<b>0.22</b>
<b>O12</b>	0.23	0.22	0.21	0.08	0.39	0.19	0.31	0.06	0.26	<b>0.22</b>
<b>O13</b>	0.21	0.11	0.17	0.03	0.31	0.27	0.29	0.18	0.07	<b>0.19</b>
<b>O14</b>	0.03	0.12	0.01	0.09	0.14	0.10	0.22	0.18	0.07	<b>0.11</b>
<b>O15</b>	0.07	0.25	0.02	0.15	0.13	0.11	0.28	0.32	0.17	<b>0.16</b>
<b>O16</b>	0.09	0.30	0.15	0.14	0.12	0.21	0.21	0.11	0.01	<b>0.16</b>
<b>O17</b>	0.13	0.32	0.19	0.13	0.02	0.16	0.16	0.25	0.09	<b>0.17</b>
<b>O18</b>	0.10	0.31	0.18	0.13	0.11	0.22	0.15	0.12	0.11	<b>0.16</b>
<b>O19</b>	0.05	0.30	0.18	0.09	0.35	0.20	0.14	0.14	0.13	<b>0.17</b>
<b>O20</b>	0.11	0.31	0.16	0.11	0.12	0.15	0.11	0.16	0.10	<b>0.15</b>
<b>O21</b>	0.11	0.33	0.18	0.13	0.04	0.17	0.10	0.11	0.14	<b>0.15</b>
<b>O22</b>	0.09	0.32	0.18	0.12	0.30	0.11	0.08	0.16	0.14	<b>0.17</b>
<b>O23</b>	0.04	0.28	0.18	0.07	0.32	0.17	0.15	0.21	0.11	<b>0.17</b>
<b>O24</b>	0.09	0.32	0.02	0.10	0.06	0.16	0.05	0.01	0.15	<b>0.10</b>
<b>O25</b>	0.11	0.33	0.20	0.12	0.03	0.12	0.03	0.07	0.20	<b>0.13</b>
<b>O26</b>	0.09	0.30	0.18	0.12	0.19	0.07	0.06	0.08	0.18	<b>0.14</b>
<b>O27</b>	0.04	0.23	0.18	0.10	0.37	0.07	0.13	0.11	0.12	<b>0.15</b>
<b>O28</b>	0.06	0.17	0.19	0.06	0.27	0.07	0.08	0.20	0.12	<b>0.13</b>
<b>O29</b>	0.10	0.10	0.11	0.05	0.07	0.28	0.28	0.38	0.35	<b>0.18</b>
<b>O30</b>	0.09	0.07	0.09	0.04	0.05	0.07	0.24	0.14	0.30	<b>0.11</b>
<b>O31</b>	0.05	0.08	0.04	0.13	0.05	0.08	0.05	0.18	0.25	<b>0.09</b>
<b>O32</b>	0.06	0.29	0.22	0.10	0.13	0.21	0.12	0.14	0.20	<b>0.16</b>
<b>O33</b>	0.07	0.28	0.22	0.10	0.21	0.33	0.06	0.20	0.11	<b>0.17</b>
<b>O34</b>	0.08	0.30	0.23	0.10	0.40	0.38	0.27	0.30	0.06	<b>0.24</b>
<b>O35</b>	0.01	0.04	0.13	0.09	0.04	0.12	0.14	0.17	0.11	<b>0.09</b>
<b>O36</b>	0.19	0.09	0.14	0.10	0.04	0.09	0.03	0.02	0.05	<b>0.09</b>
<b>O37</b>	0.20	0.14	0.11	0.08	0.27	0.27	0.10	0.23	0.08	<b>0.17</b>
<b>O38</b>	0.19	0.17	0.17	0.03	0.32	0.30	0.04	0.09	0.03	<b>0.16</b>
<b>O39</b>	0.21	0.14	0.12	0.08	0.20	0.19	0.08	0.11	0.04	<b>0.14</b>
<b>O40</b>	0.14	0.06	0.13	0.08	0.08	0.16	0.17	0.08	0.11	<b>0.11</b>



<b>O41</b>	0.05	0.05	0.02	0.07	0.08	0.14	0.12	0.23	0.12	<b>0.09</b>
<b>O42</b>	0.08	0.05	0.03	0.06	0.24	0.18	0.20	0.29	0.12	<b>0.13</b>
<b>O43</b>	0.09	0.03	0.11	0.03	0.32	0.28	0.14	0.29	0.18	<b>0.15</b>
<b>O44</b>	0.11	0.09	0.06	0.05	0.20	0.16	0.07	0.13	0.13	<b>0.11</b>
<b>O45</b>	0.09	0.03	0.09	0.04	0.12	0.13	0.13	0.13	0.10	<b>0.09</b>
<b>O46</b>	0.07	0.01	0.05	0.02	0.21	0.06	0.07	0.13	0.00	<b>0.07</b>
<b>O47</b>	0.07	0.06	0.07	0.05	0.03	0.06	0.17	0.27	0.31	<b>0.11</b>
<b>O48</b>	0.14	0.11	0.15	0.06	0.01	0.12	0.23	0.38	0.35	<b>0.16</b>
<b>O49</b>	0.14	0.13	0.13	0.05	0.04	0.19	0.10	0.01	0.28	<b>0.12</b>
<b>O50</b>	0.10	0.07	0.10	0.08	0.02	0.03	0.18	0.26	0.33	<b>0.12</b>
<b>O51</b>	0.09	0.03	0.07	0.06	0.28	0.32	0.04	0.13	0.08	<b>0.12</b>
<b>O52</b>	0.04	0.03	0.06	0.06	0.25	0.32	0.08	0.12	0.07	<b>0.11</b>
<b>O53</b>	0.06	0.06	0.09	0.02	0.28	0.38	0.16	0.14	0.06	<b>0.14</b>

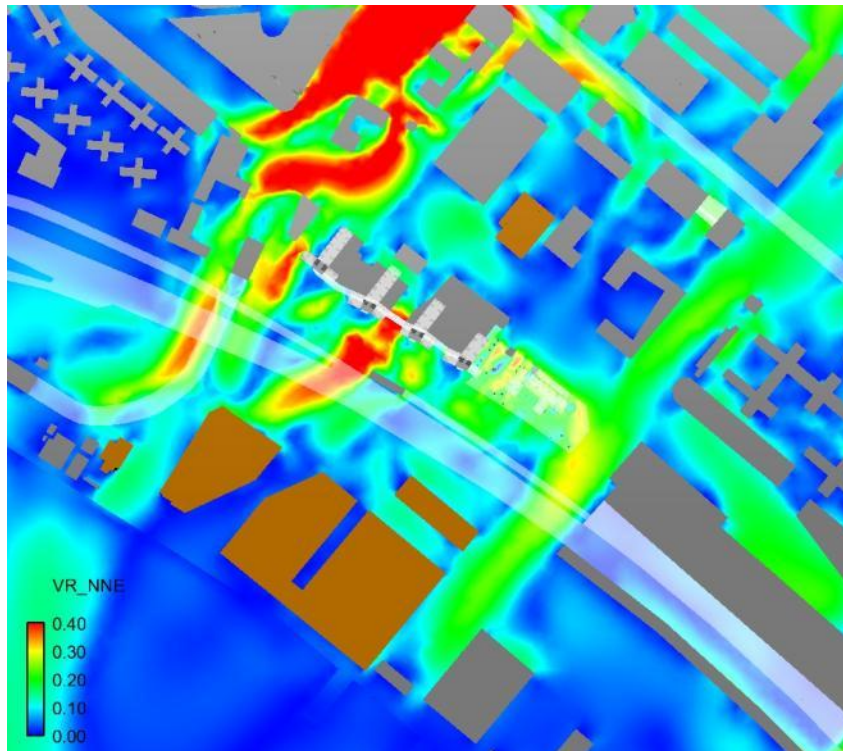
Table A 24 VR value for the Special Points of Indicative Scheme under Summer Condition

	<b>E</b>	<b>ESE</b>	<b>SE</b>	<b>SSE</b>	<b>S</b>	<b>SSW</b>	<b>SW</b>	<b>WSW</b>	<b>W</b>	<b>Overall</b>
	<b>11.5%</b>	<b>9.5%</b>	<b>9.3%</b>	<b>8.3%</b>	<b>7.9%</b>	<b>8.8%</b>	<b>9.9%</b>	<b>7.2%</b>	<b>4.7%</b>	<b>77.1%</b>
<b>S1</b>	0.01	0.02	0.08	0.15	0.46	0.41	0.37	0.14	0.19	<b>0.20</b>
<b>S2</b>	0.09	0.05	0.05	0.09	0.19	0.13	0.06	0.39	0.30	<b>0.13</b>
<b>S3</b>	0.03	0.12	0.06	0.11	0.30	0.17	0.20	0.30	0.25	<b>0.16</b>
<b>S4</b>	0.03	0.02	0.04	0.11	0.38	0.24	0.14	0.19	0.17	<b>0.14</b>
<b>S5</b>	0.01	0.01	0.04	0.06	0.22	0.22	0.16	0.29	0.29	<b>0.13</b>
<b>S6</b>	0.02	0.06	0.02	0.03	0.08	0.19	0.27	0.32	0.28	<b>0.13</b>
<b>S7</b>	0.03	0.07	0.06	0.08	0.12	0.25	0.31	0.32	0.29	<b>0.16</b>
<b>S8</b>	0.13	0.19	0.20	0.12	0.06	0.07	0.38	0.35	0.33	<b>0.20</b>
<b>S9</b>	0.08	0.04	0.19	0.01	0.21	0.24	0.14	0.21	0.33	<b>0.15</b>
<b>S10</b>	0.25	0.22	0.21	0.07	0.44	0.03	0.11	0.16	0.21	<b>0.19</b>
<b>S11</b>	0.23	0.23	0.24	0.10	0.17	0.26	0.37	0.46	0.38	<b>0.26</b>
<b>S12</b>	0.25	0.25	0.36	0.13	0.17	0.22	0.39	0.50	0.34	<b>0.29</b>
<b>S13</b>	0.26	0.19	0.34	0.08	0.23	0.33	0.42	0.51	0.28	<b>0.29</b>
<b>S14</b>	0.25	0.07	0.22	0.05	0.14	0.37	0.39	0.44	0.19	<b>0.24</b>
<b>S15</b>	0.28	0.14	0.15	0.07	0.26	0.33	0.26	0.14	0.12	<b>0.20</b>
<b>S16</b>	0.30	0.22	0.12	0.11	0.18	0.34	0.14	0.27	0.20	<b>0.21</b>
<b>S17</b>	0.20	0.10	0.11	0.02	0.13	0.31	0.20	0.28	0.19	<b>0.17</b>
<b>S18</b>	0.22	0.12	0.11	0.05	0.48	0.40	0.43	0.32	0.21	<b>0.26</b>
<b>S19</b>	0.18	0.37	0.25	0.08	0.34	0.36	0.51	0.30	0.22	<b>0.30</b>
<b>S20</b>	0.13	0.29	0.24	0.12	0.33	0.44	0.52	0.21	0.28	<b>0.28</b>
<b>S21</b>	0.26	0.07	0.20	0.06	0.33	0.53	0.57	0.33	0.28	<b>0.30</b>
<b>S22</b>	0.24	0.10	0.24	0.06	0.45	0.54	0.57	0.33	0.23	<b>0.31</b>
<b>S23</b>	0.20	0.16	0.20	0.17	0.28	0.41	0.55	0.28	0.16	<b>0.28</b>
<b>S24</b>	0.12	0.14	0.10	0.13	0.30	0.22	0.29	0.10	0.06	<b>0.17</b>
<b>S25</b>	0.09	0.10	0.18	0.20	0.15	0.10	0.05	0.06	0.02	<b>0.11</b>

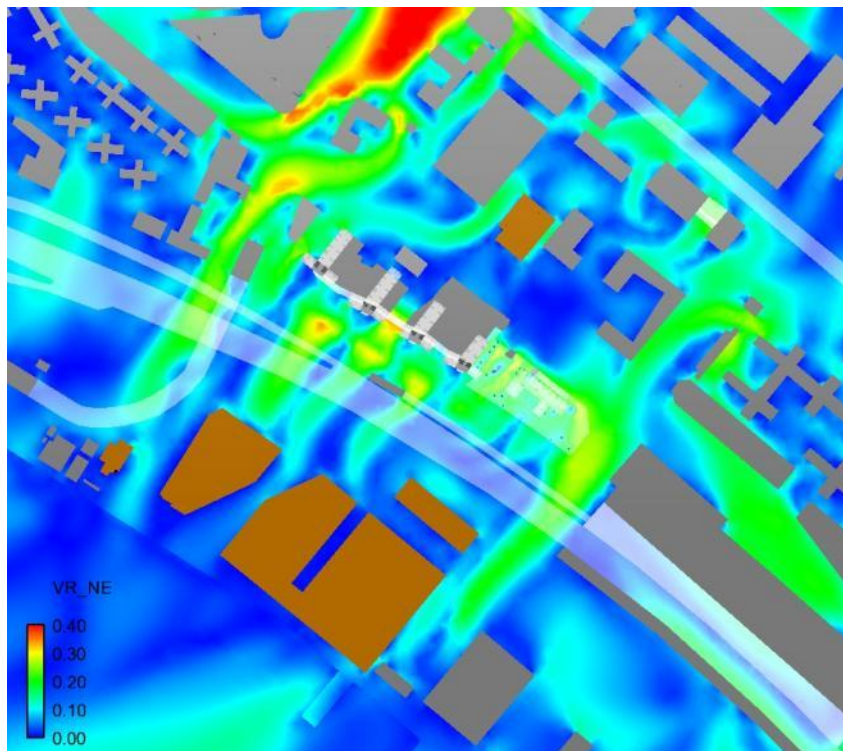
## Appendix C

### Directional VR Contour Plots

## C1 Baseline Scheme Directional VR Contour Plots

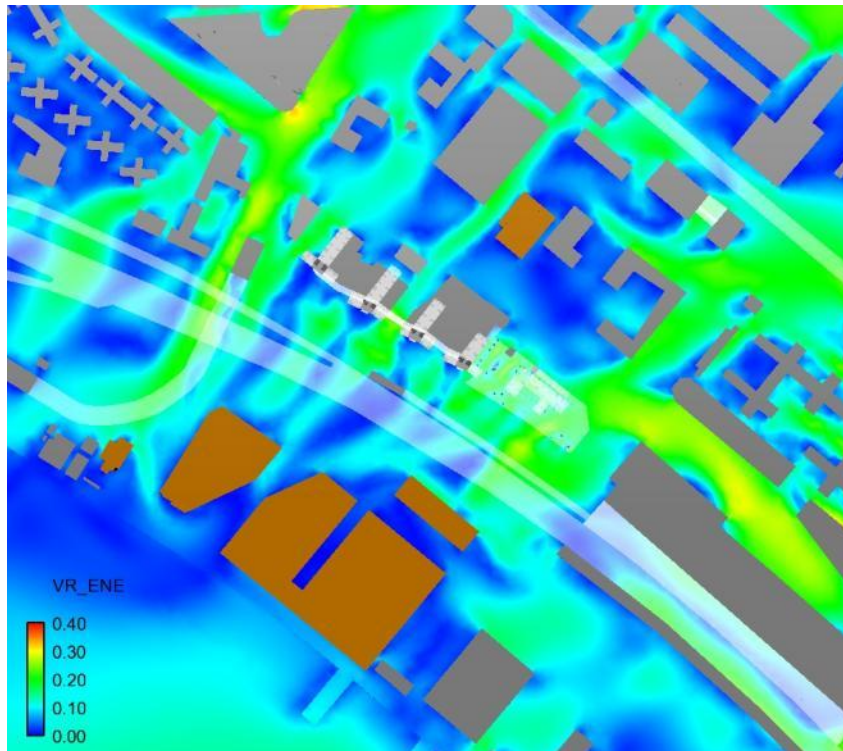


NNE Direction (Baseline Scheme)

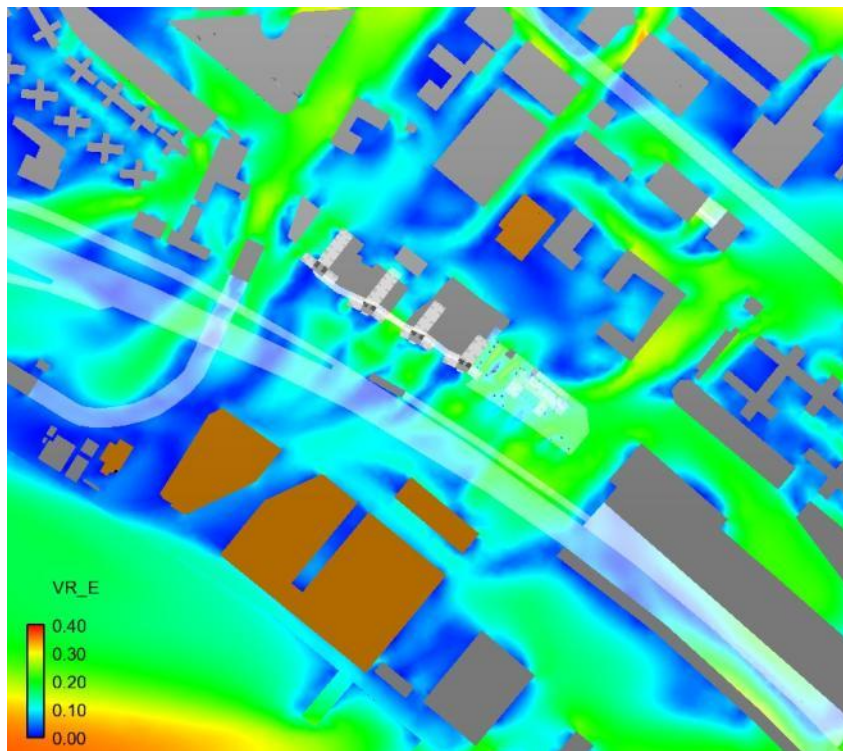


NE Direction (Baseline Scheme)

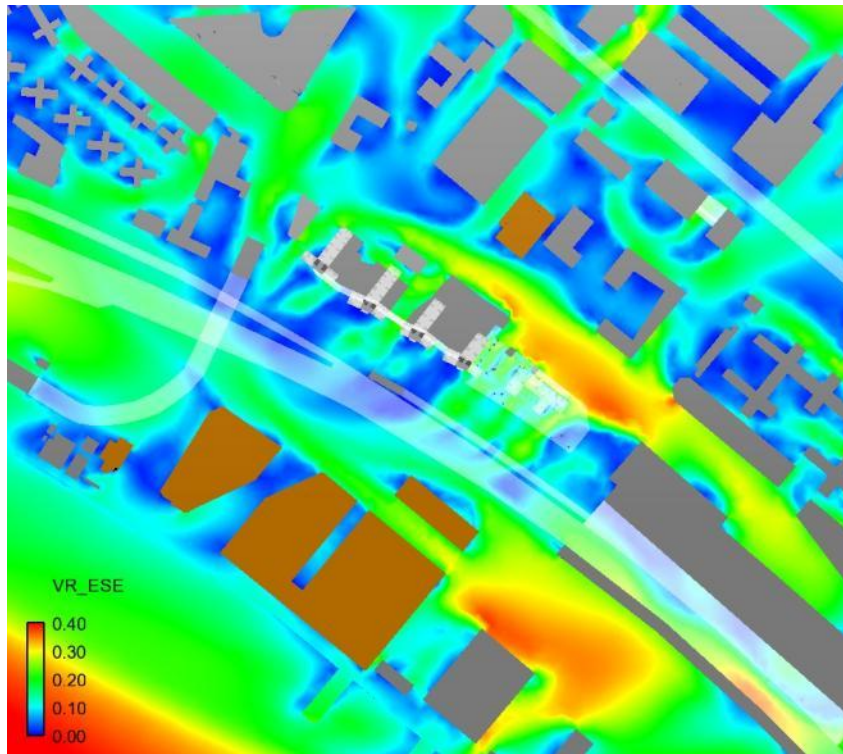




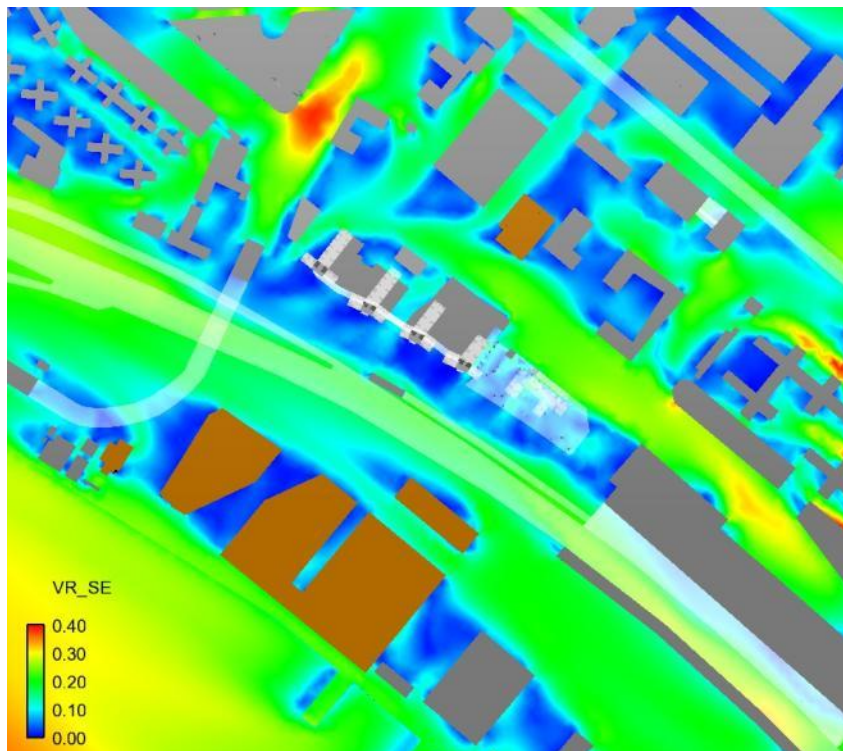
ENE Direction (Baseline Scheme)



E Direction (Baseline Scheme)

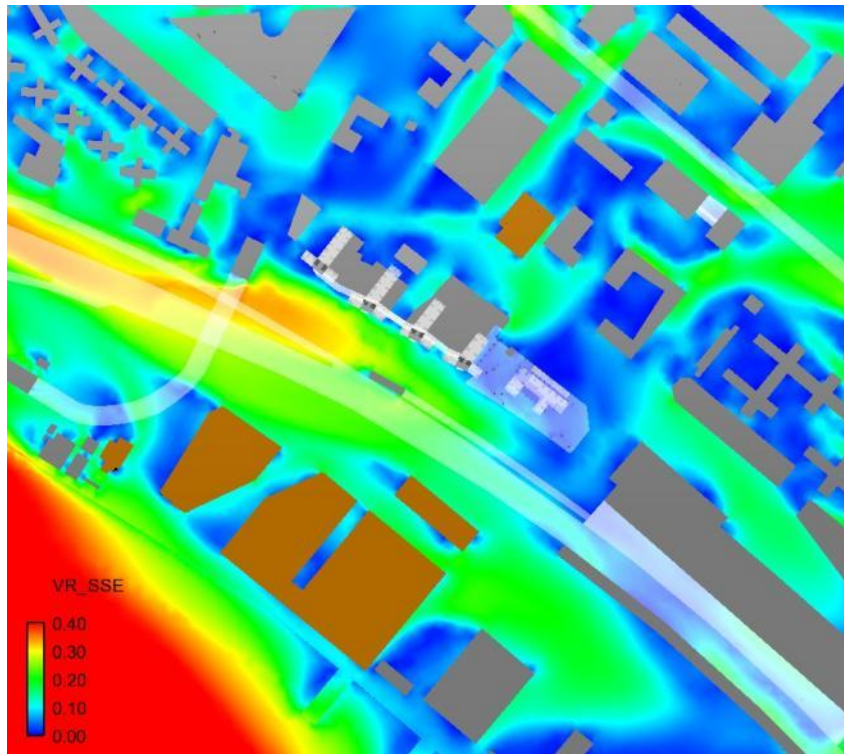


ESE Direction (Baseline Scheme)

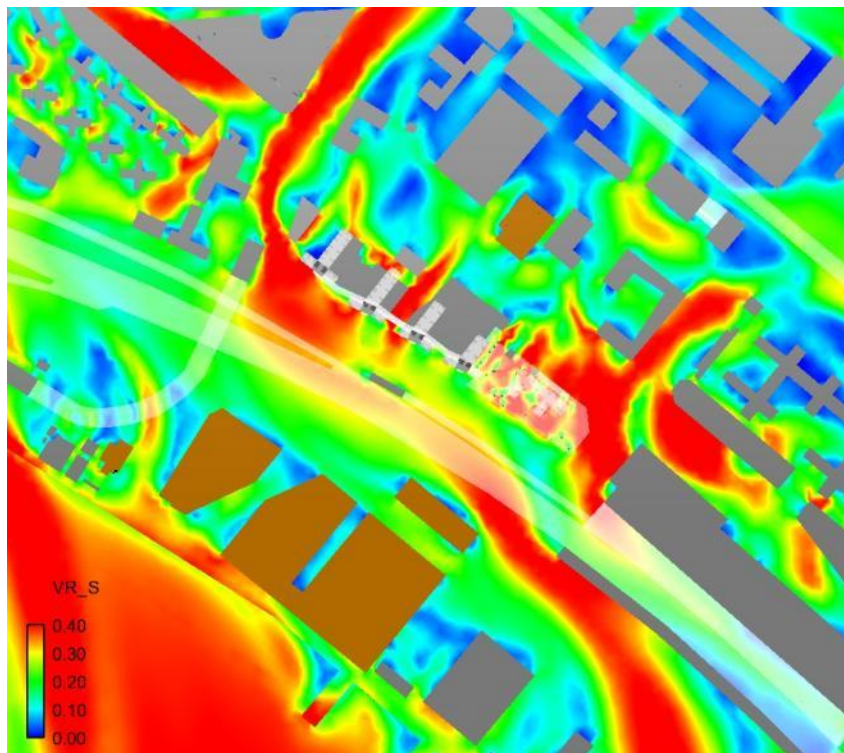


SE Direction (Baseline Scheme)



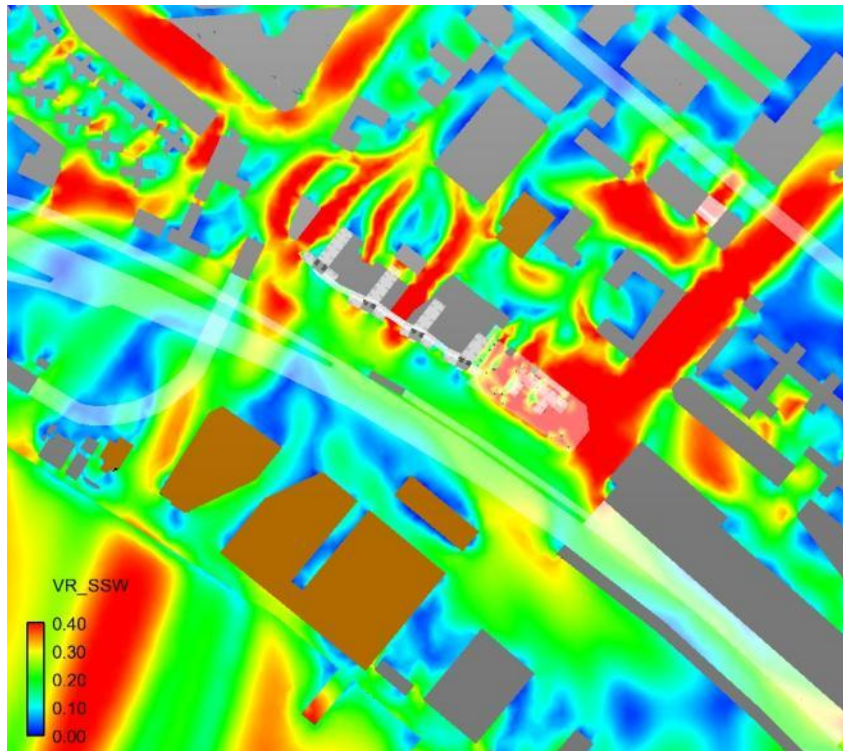


SSE Direction (Baseline Scheme)

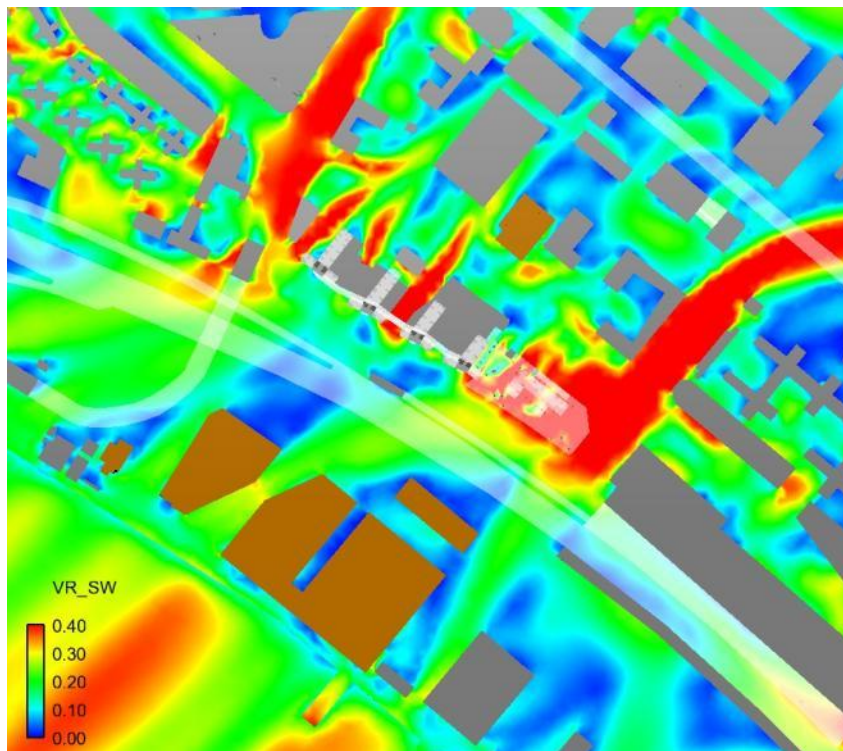


S Direction (Baseline Scheme)

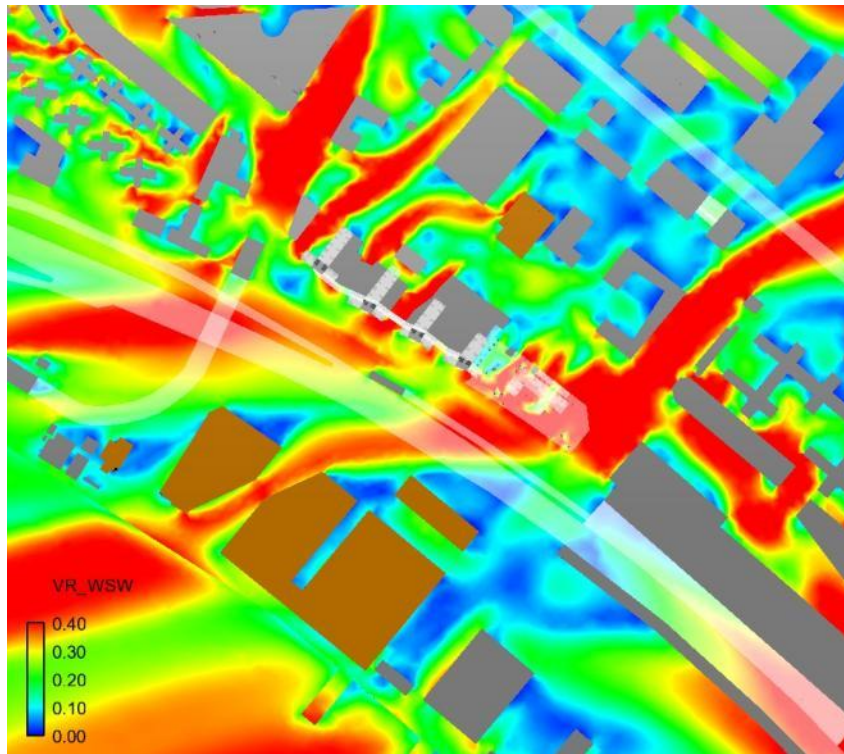




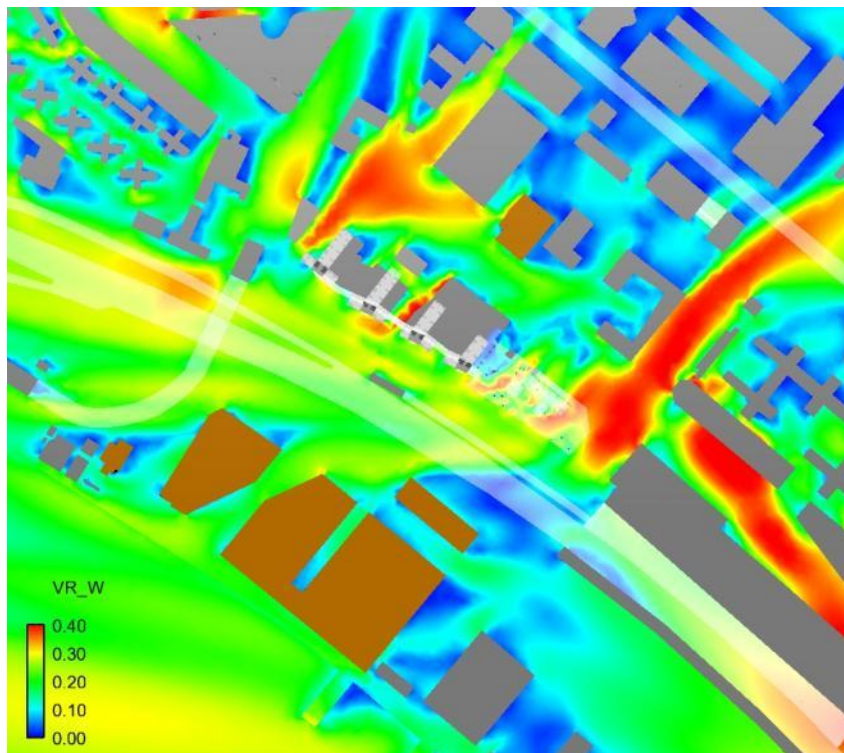
SSW Direction (Baseline Scheme)



SW Direction (Baseline Scheme)

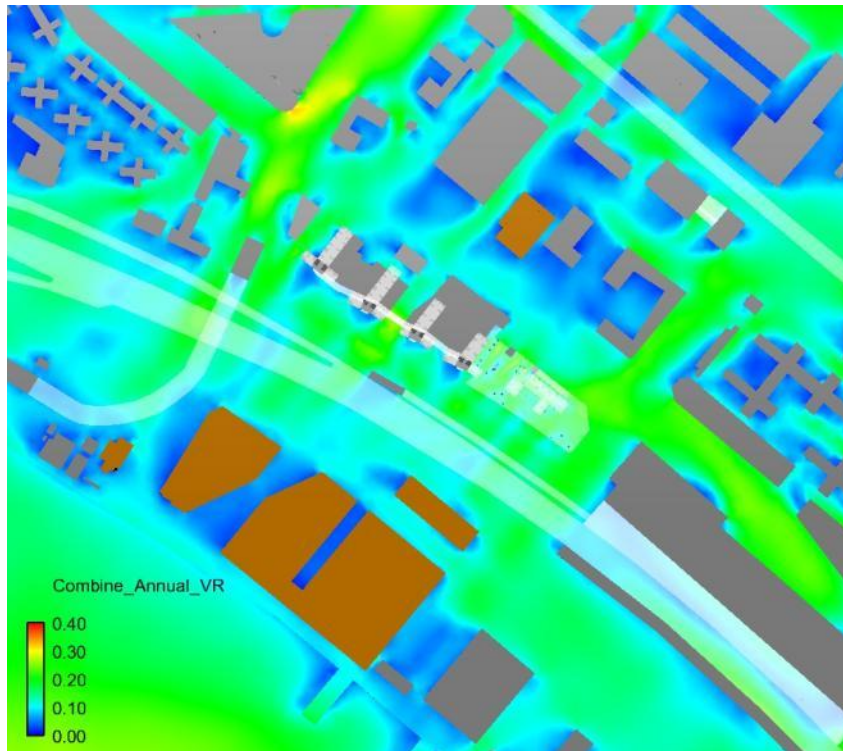


WSW Direction (Baseline Scheme)

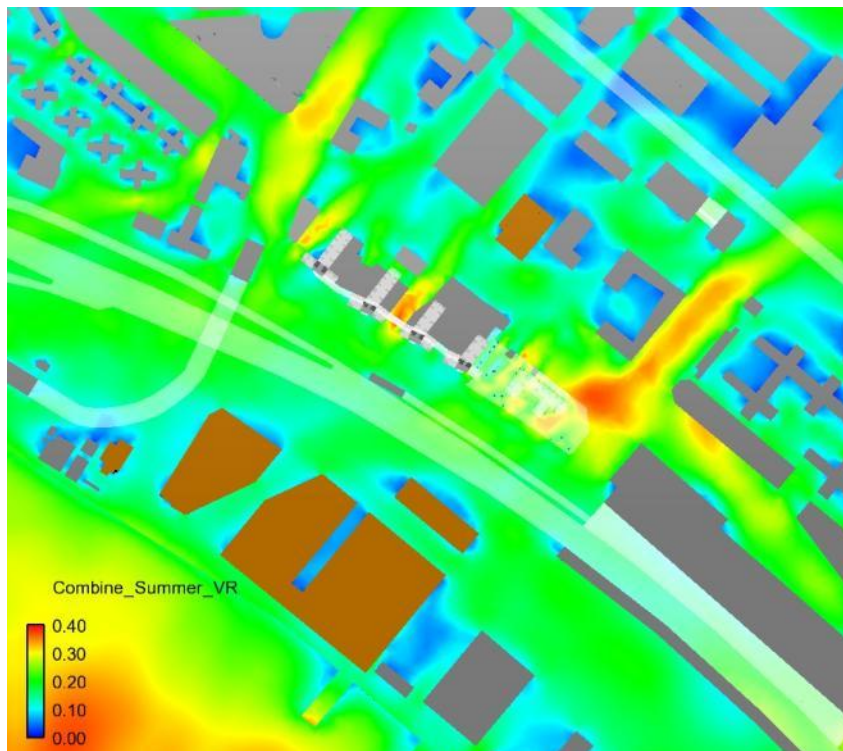


W Direction (Baseline Scheme)





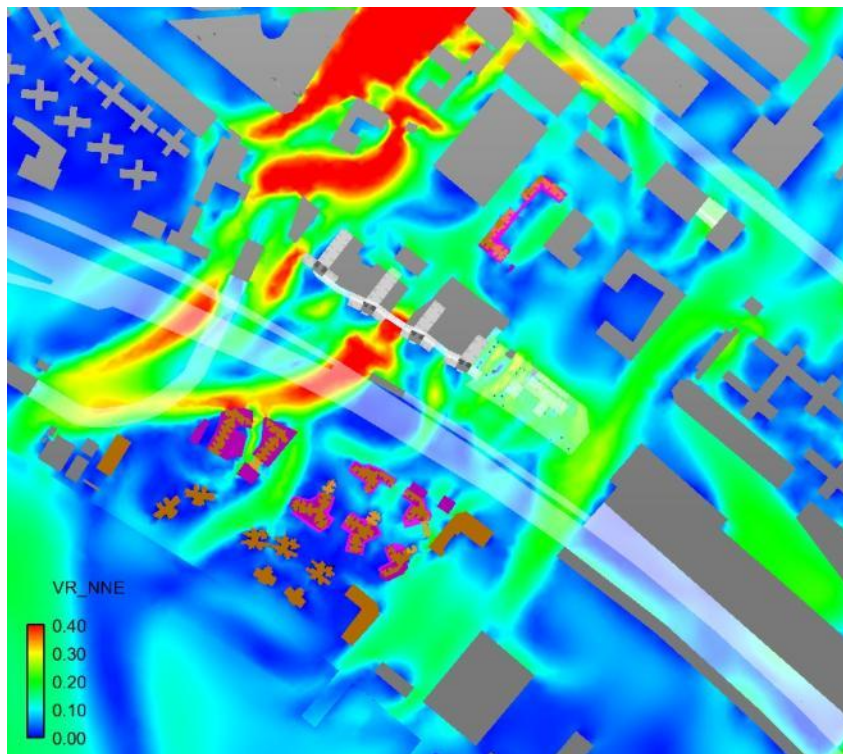
Combine Annual (Baseline Scheme)



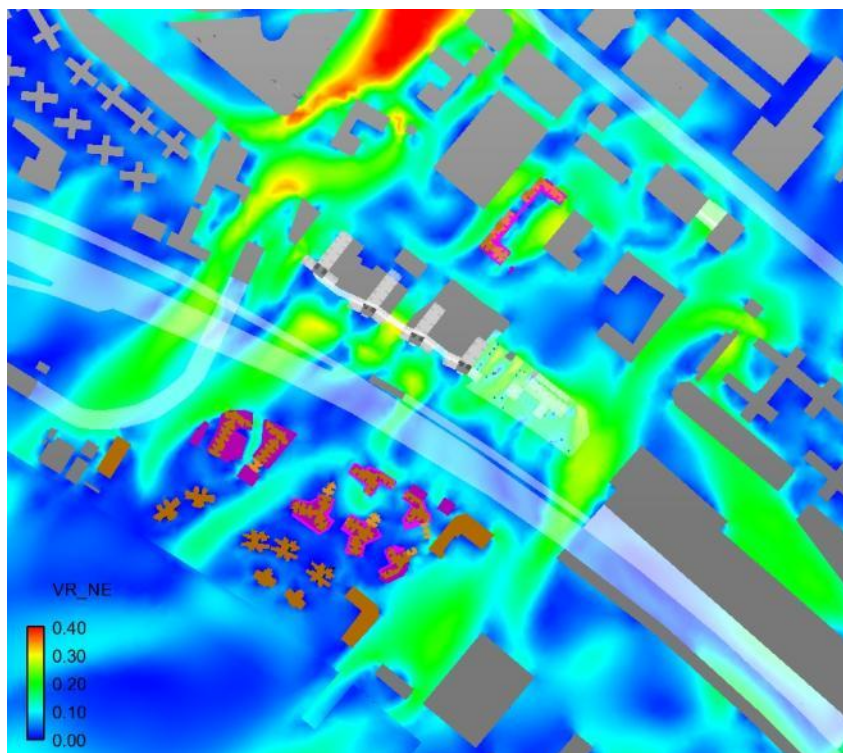
Combine Summer (Baseline Scheme)



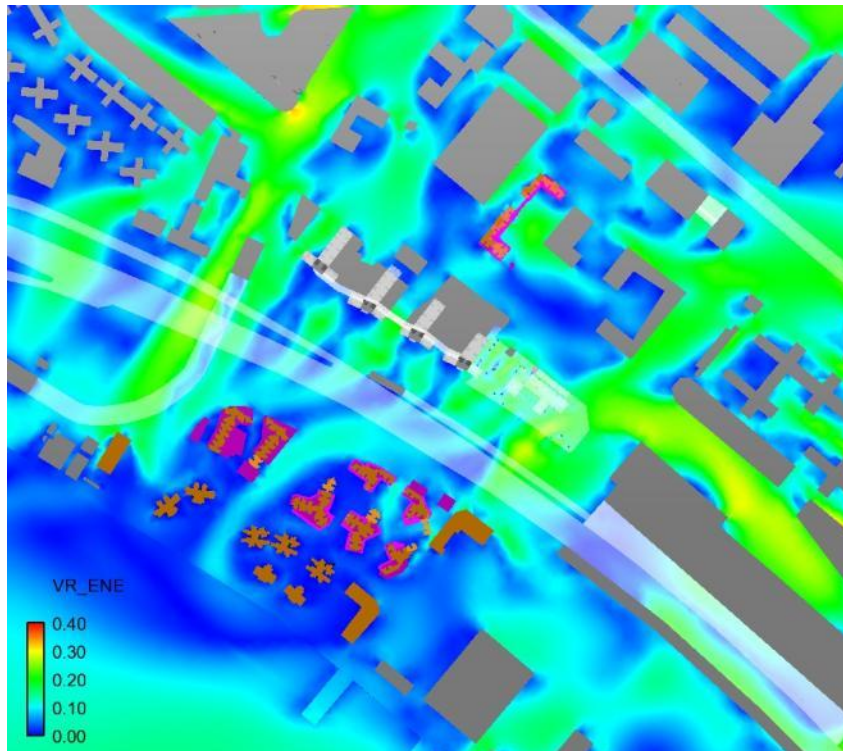
## C2 Indicative Scheme Directional VR Contour Plots



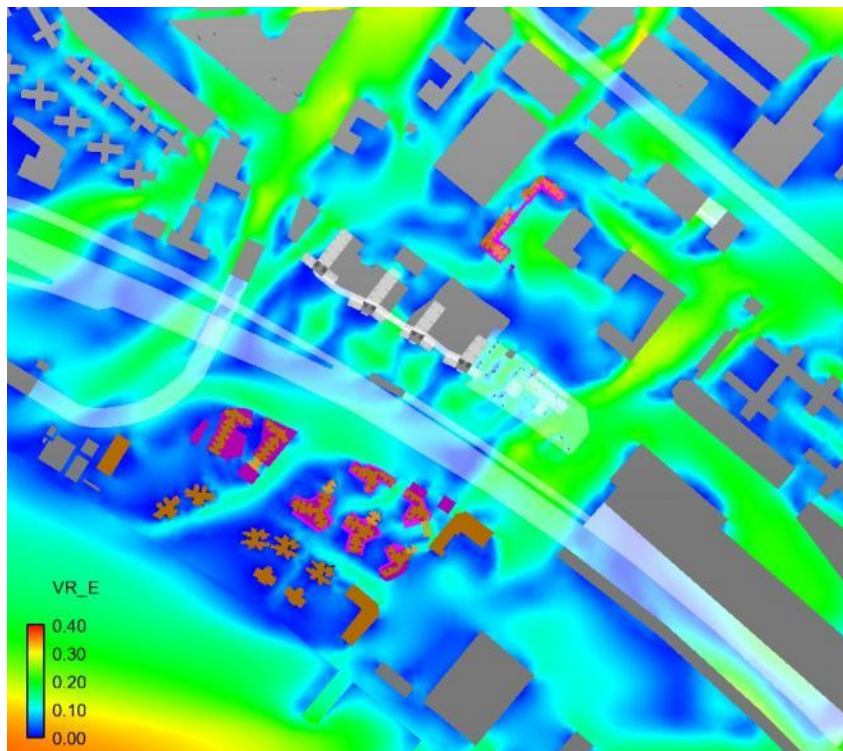
NNE Direction (Indicative Scheme)



NE Direction (Indicative Scheme)

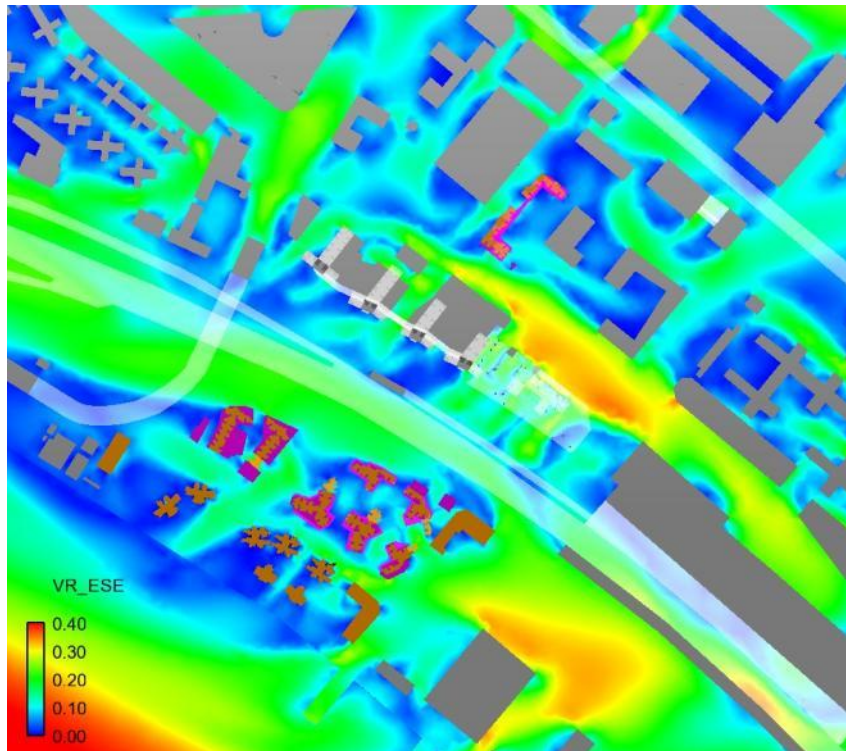


ENE Direction (Indicative Scheme)

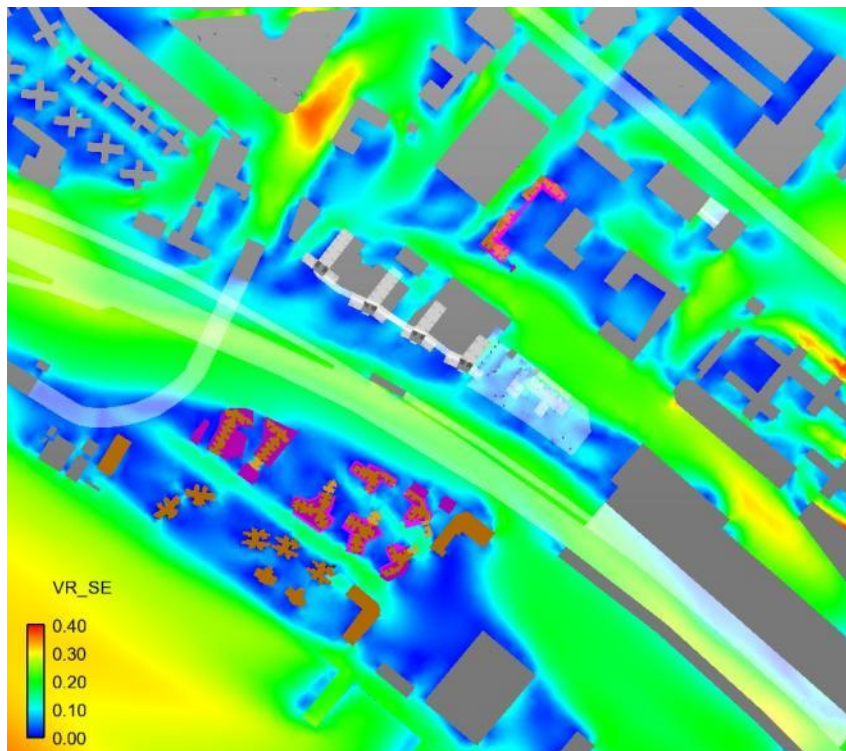


E Direction (Indicative Scheme)



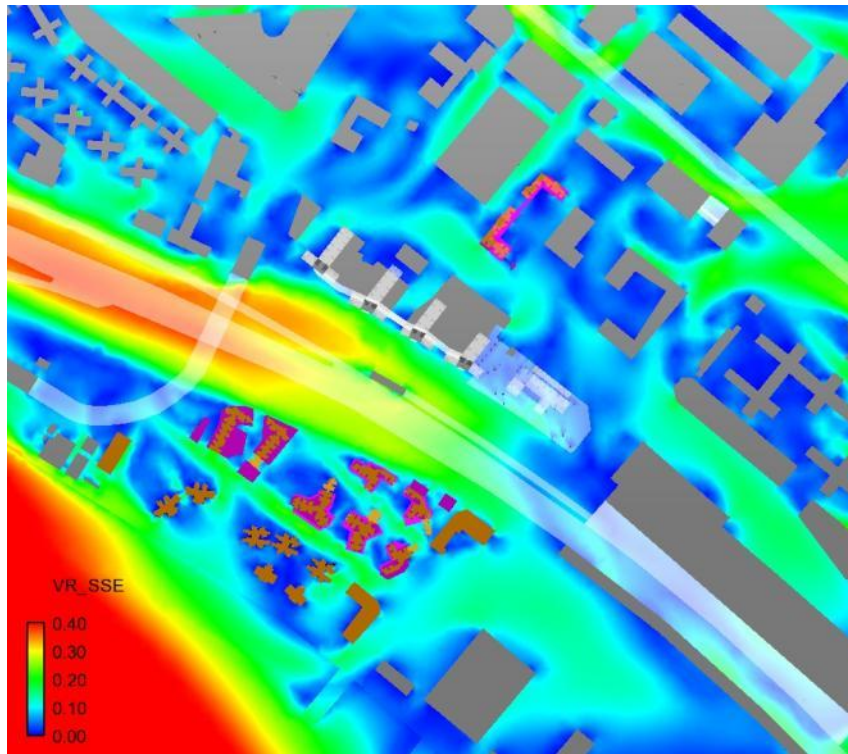


ESE Direction (Indicative Scheme)

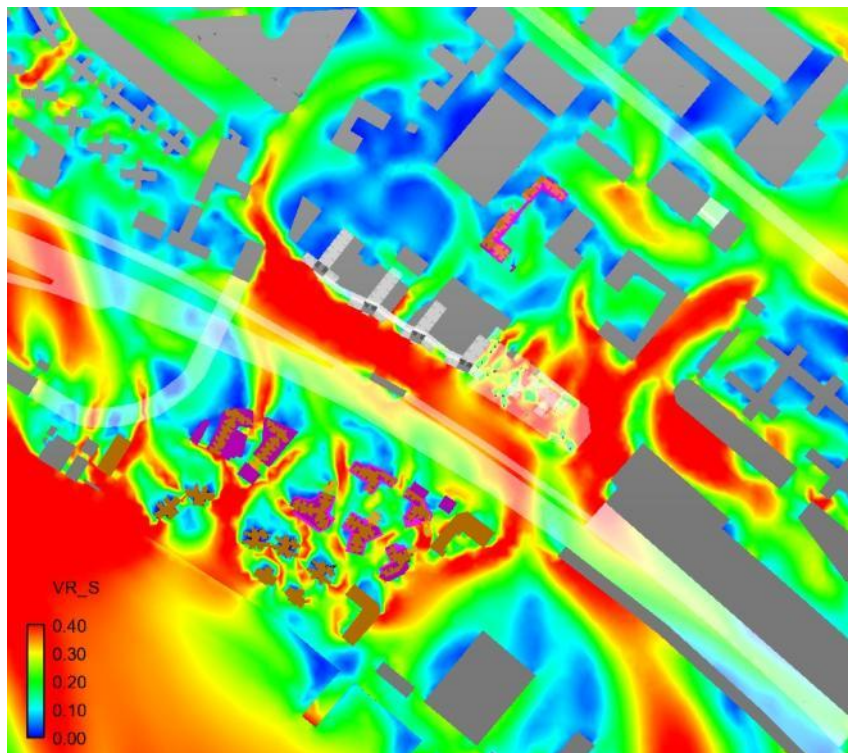


SE Direction (Indicative Scheme)

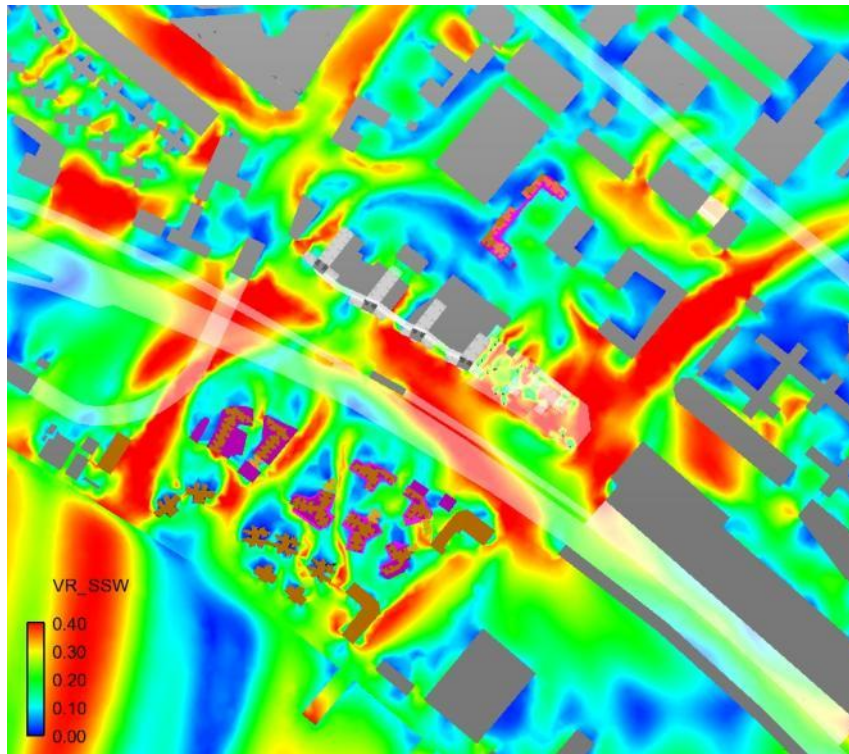




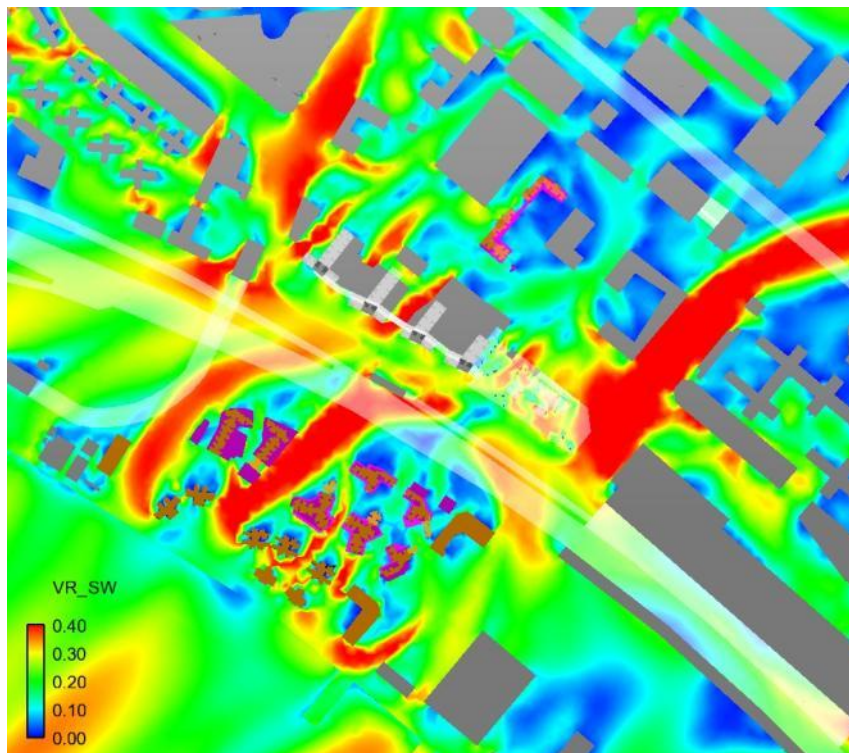
SSE Direction (Indicative Scheme)



S Direction (Indicative Scheme)

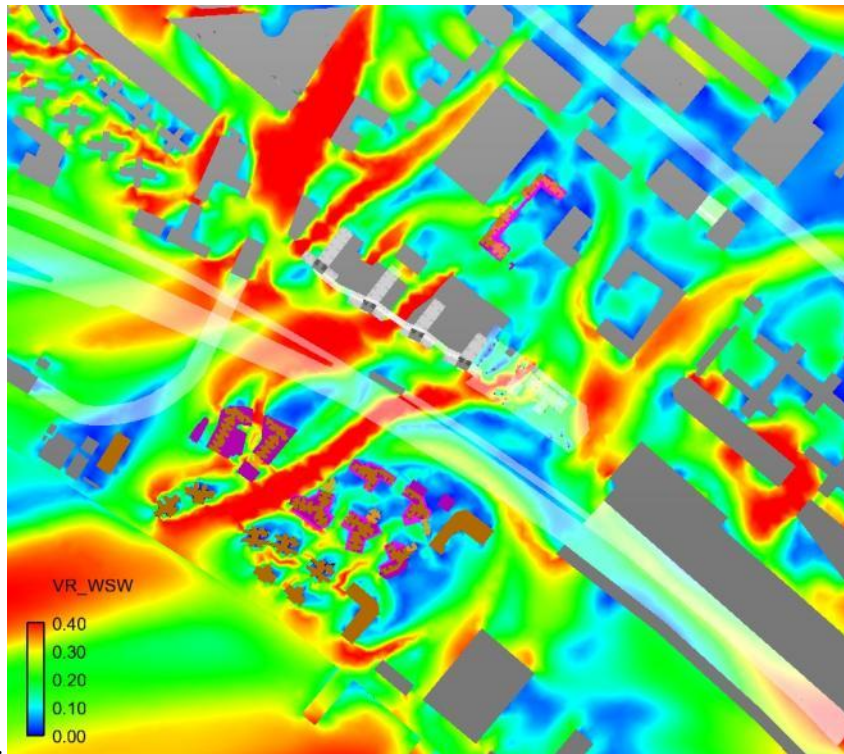


SSW Direction (Indicative Scheme)

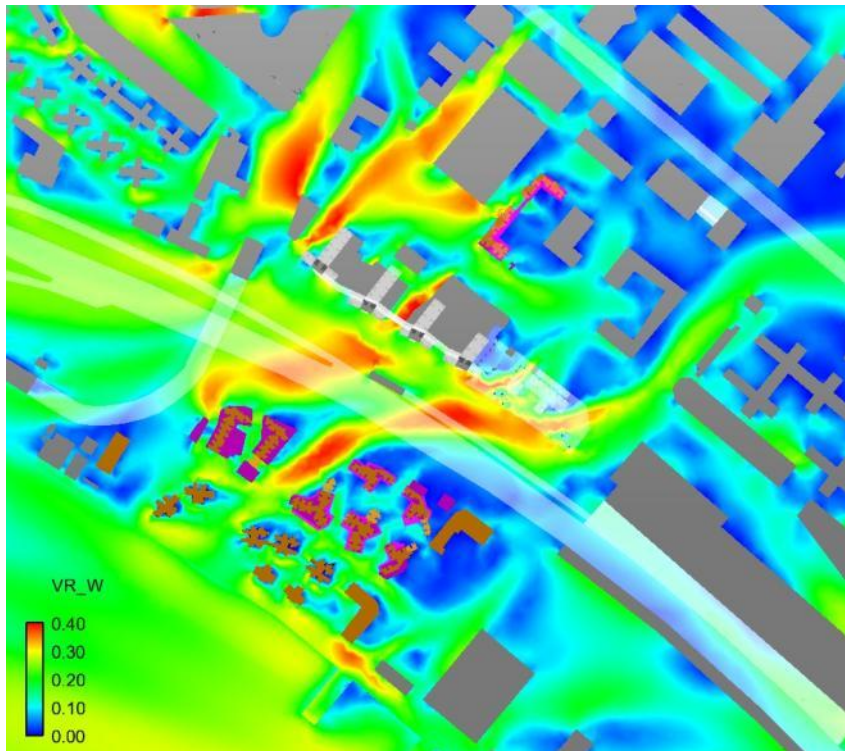


SW Direction (Indicative Scheme)



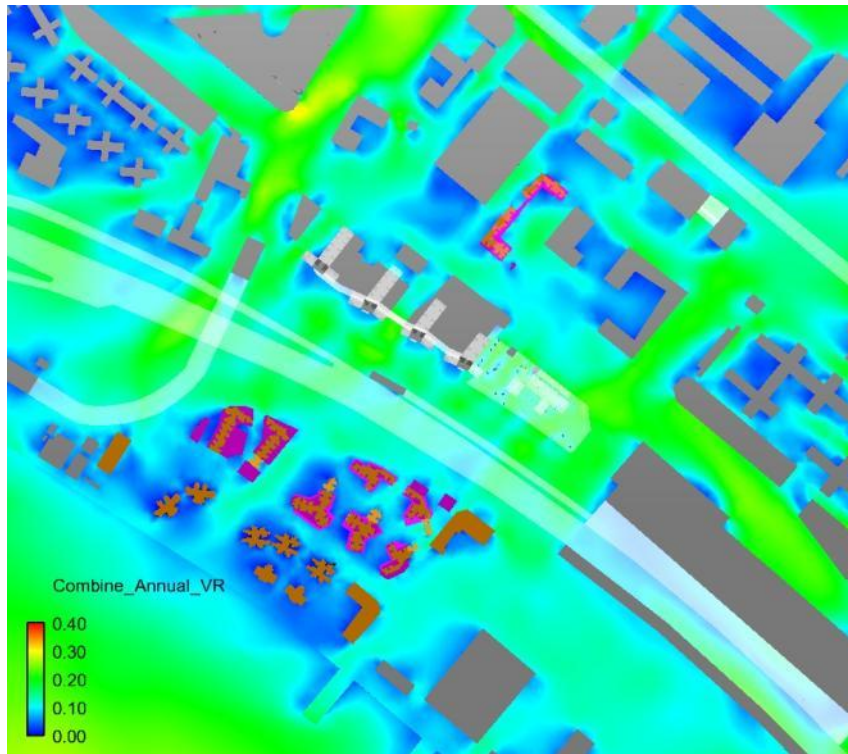


WSW Direction (Indicative Scheme)

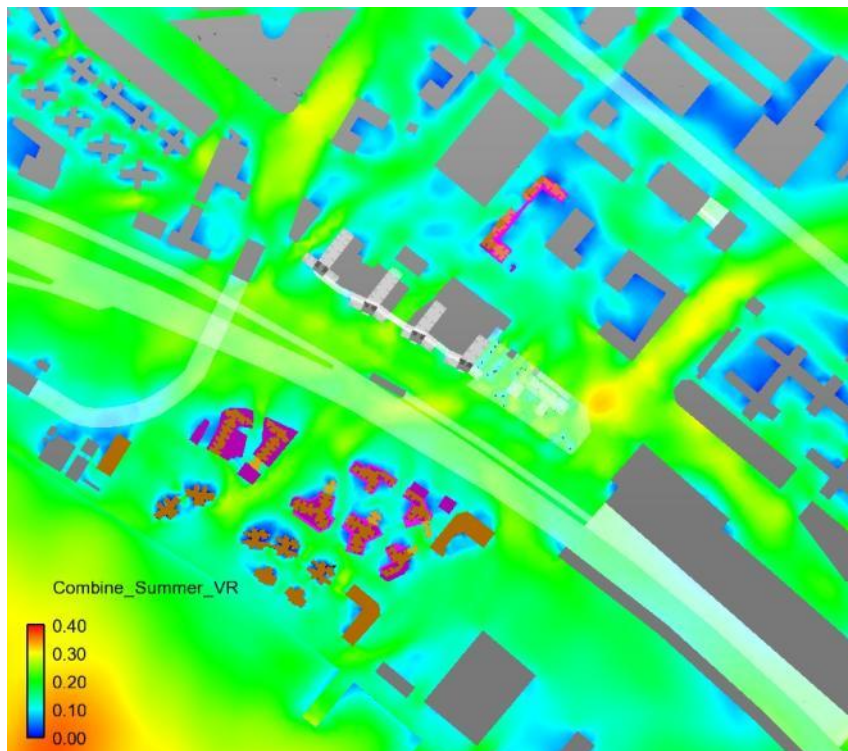


W Direction (Indicative Scheme)



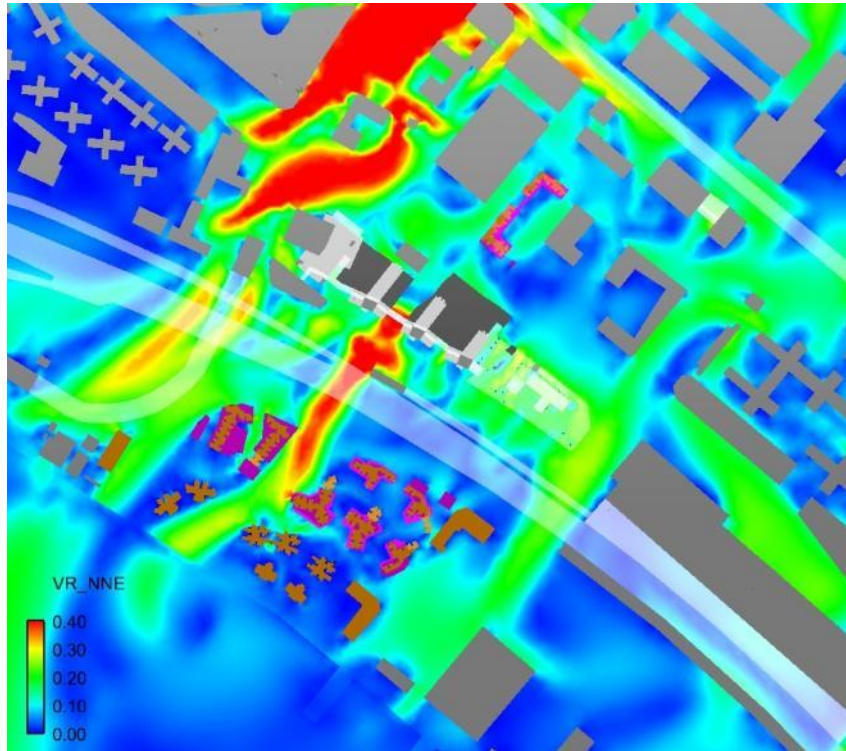


Combine Annual (Indicative Scheme)

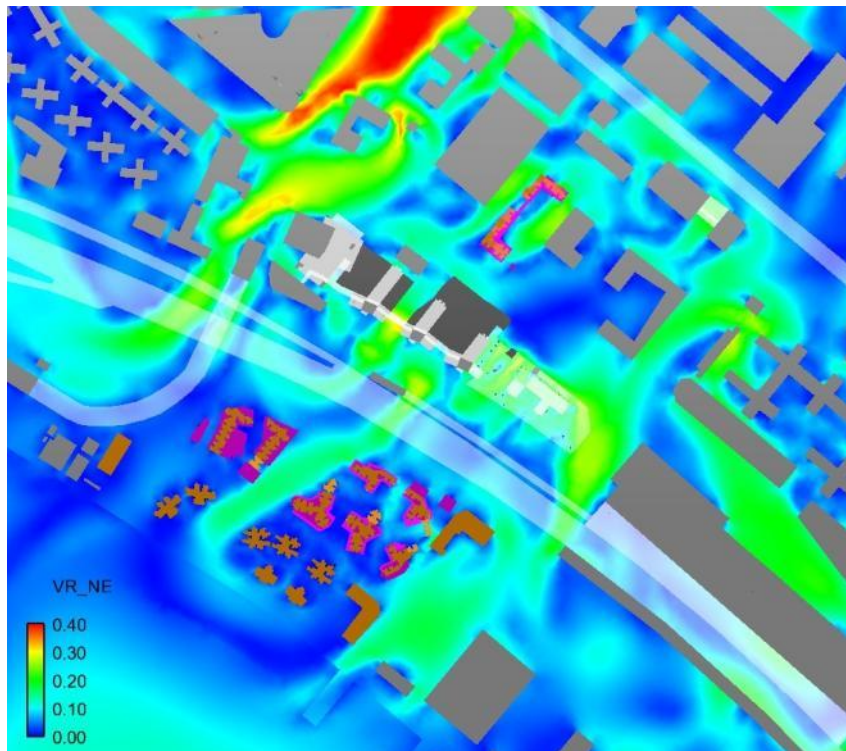


Combine Summer (Indicative Scheme)

## C3 Further Enhanced Scheme Directional VR Contour Plots

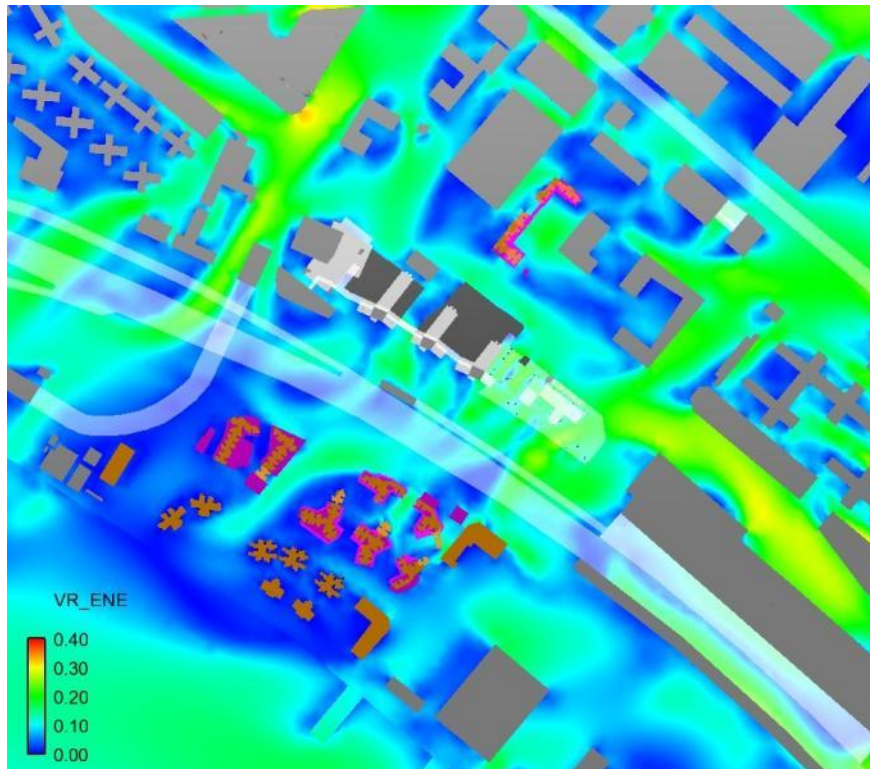


NNE Direction (Further Enhanced Scheme)

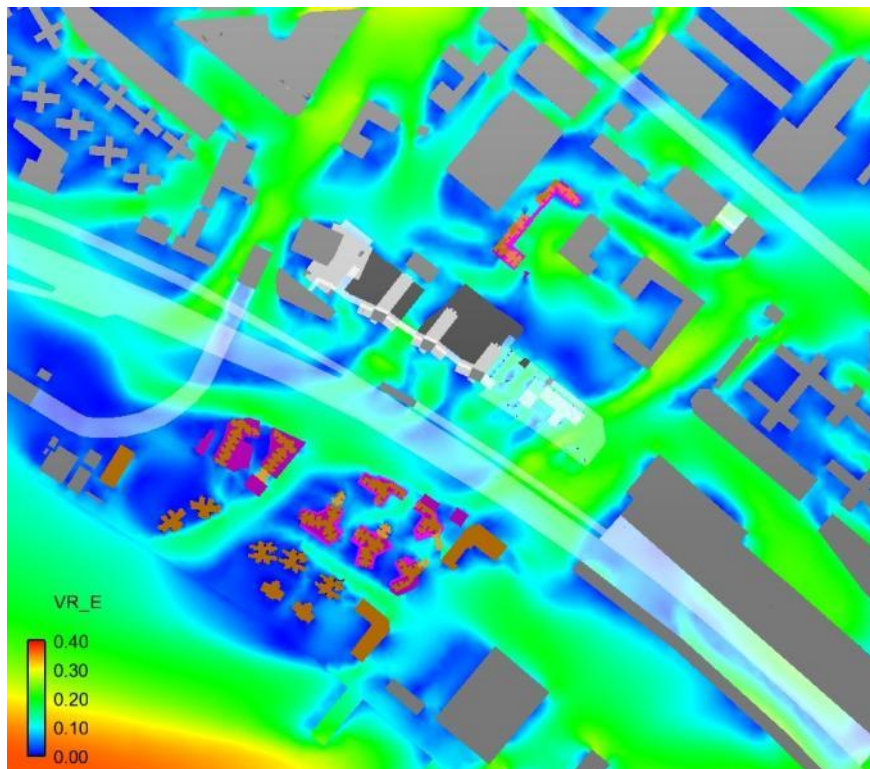


NE Direction (Further Enhanced Scheme)



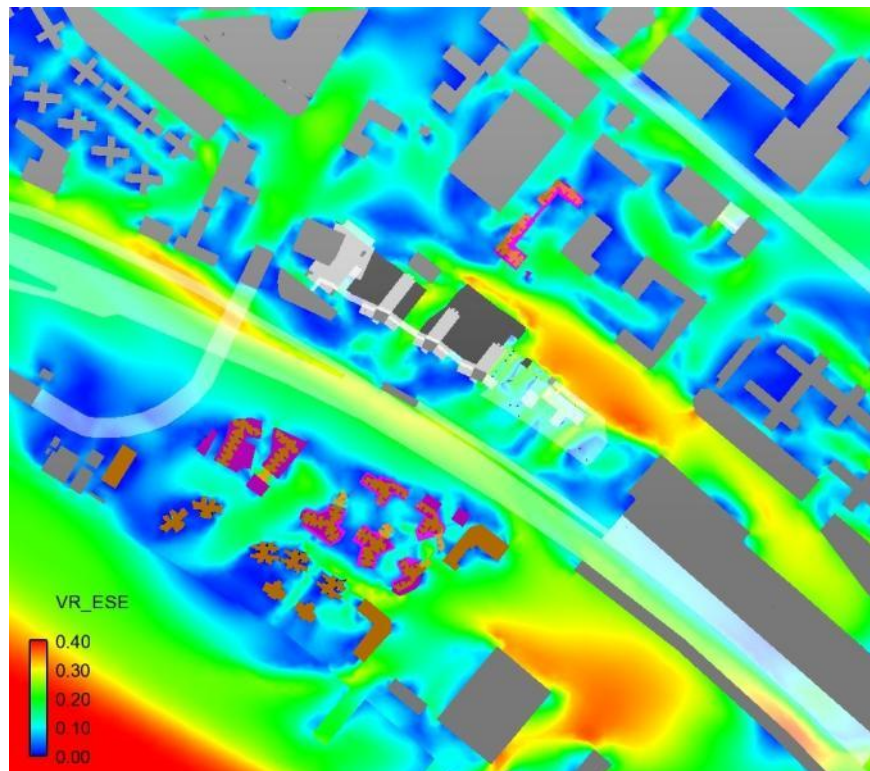


ENE Direction (Further Enhanced Scheme)

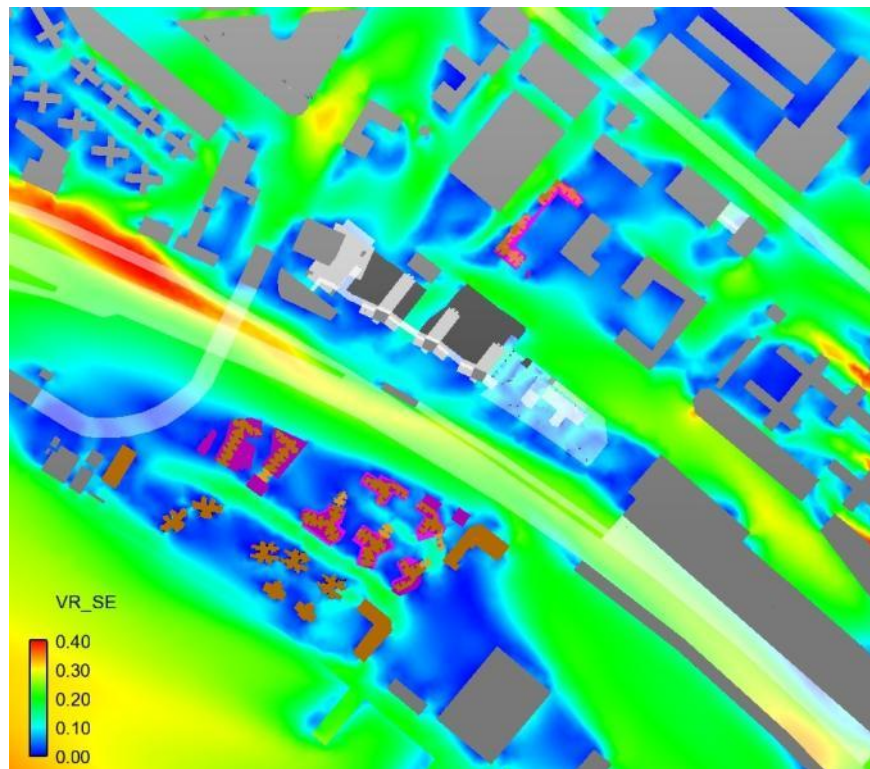


E Direction (Further Enhanced Scheme)

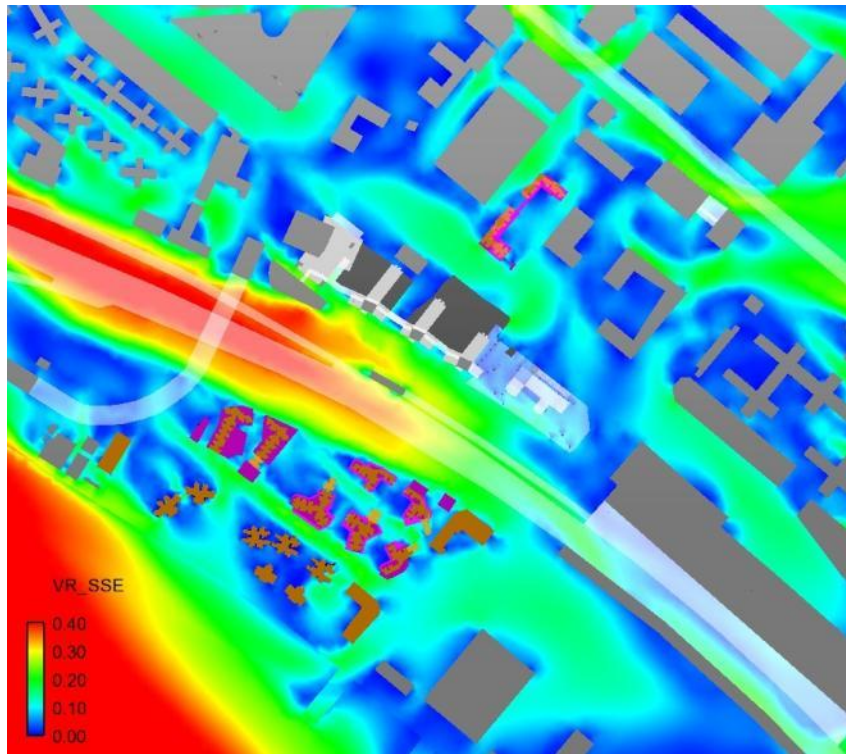




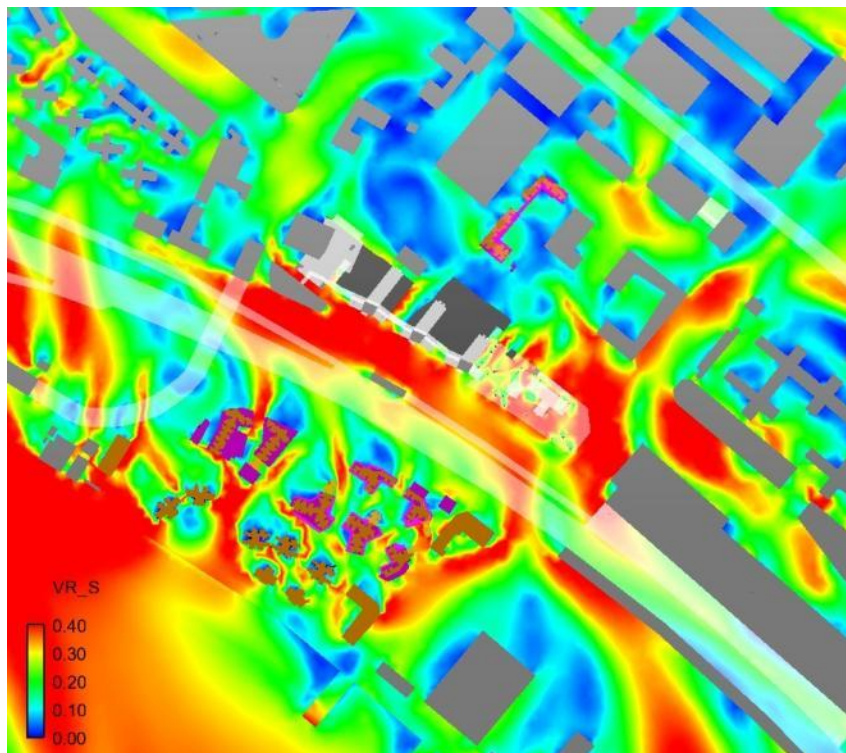
ESE Direction (Further Enhanced Scheme)



SE Direction (Further Enhanced Scheme)

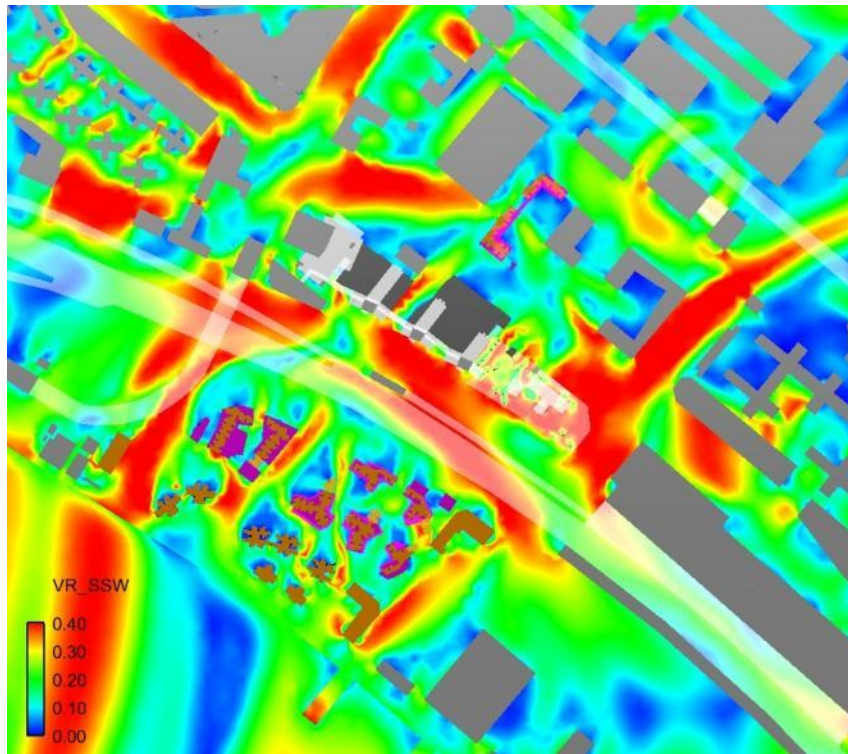


SSE Direction (Further Enhanced Scheme)

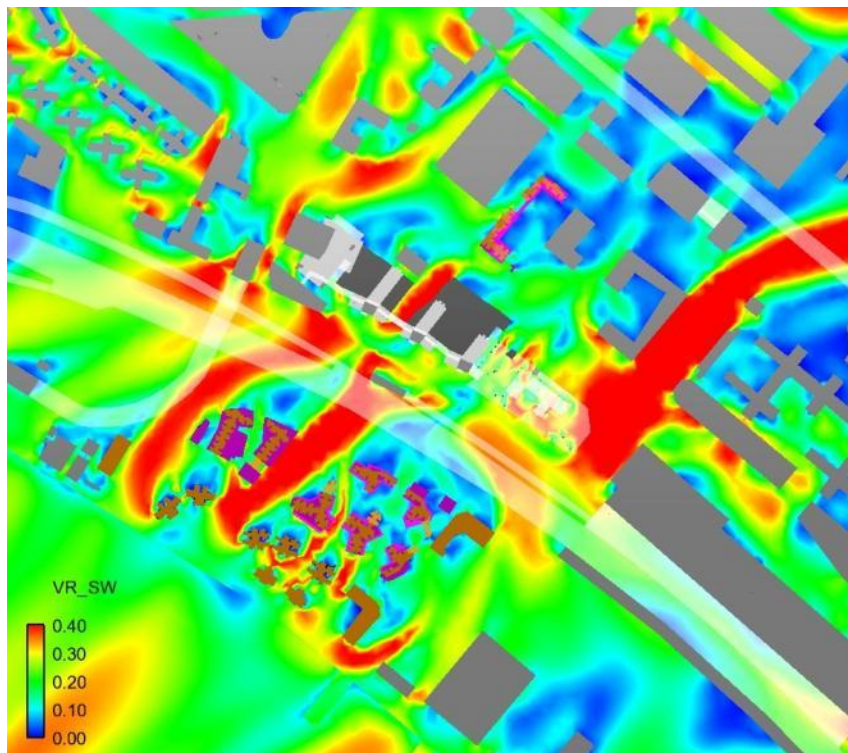


S Direction (Further Enhanced Scheme)

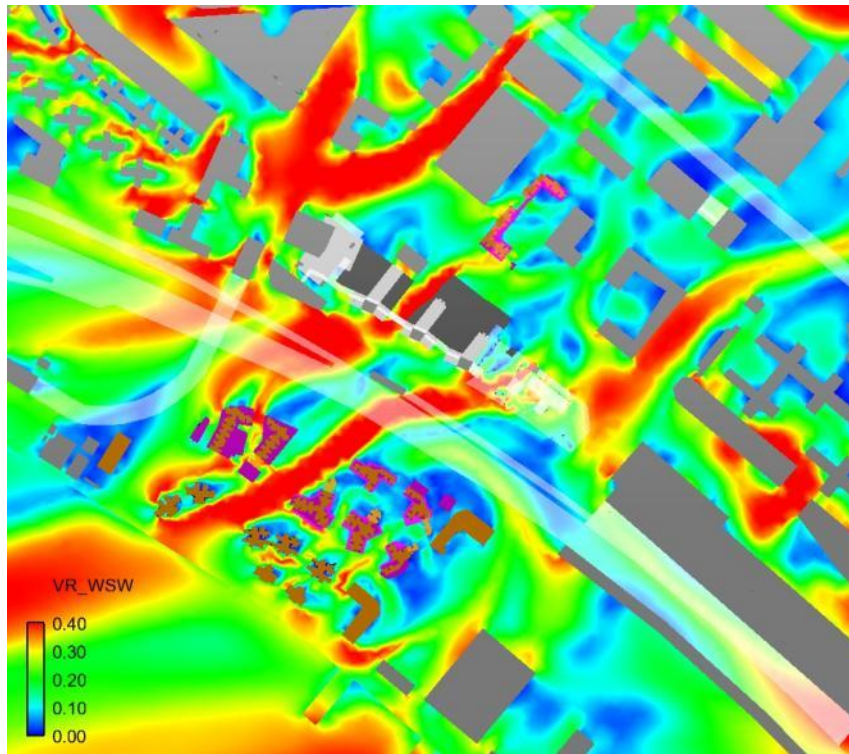




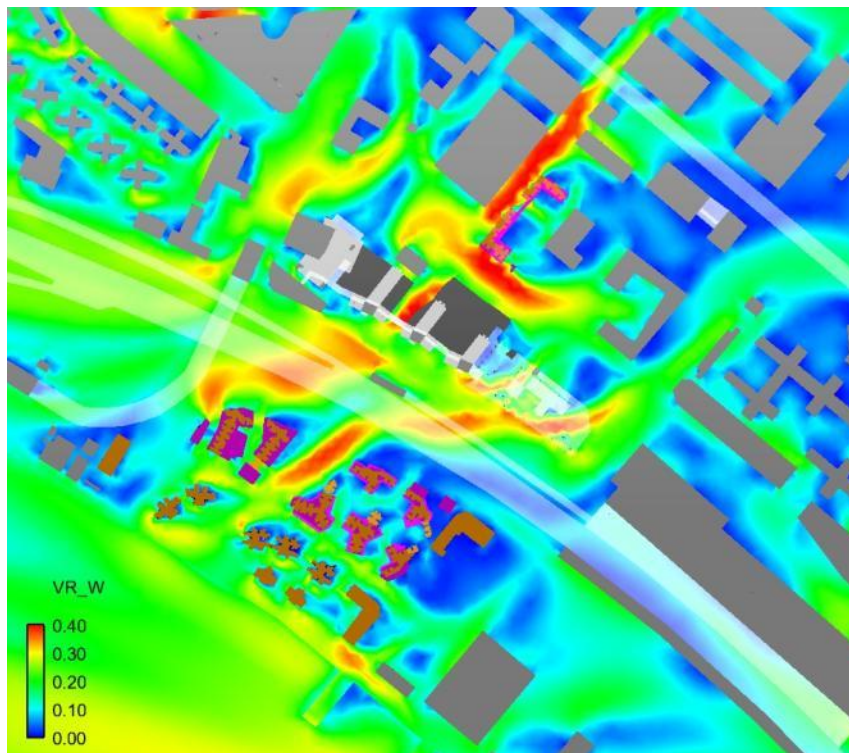
SSW Direction (Further Enhanced Scheme)



SW Direction (Further Enhanced Scheme)

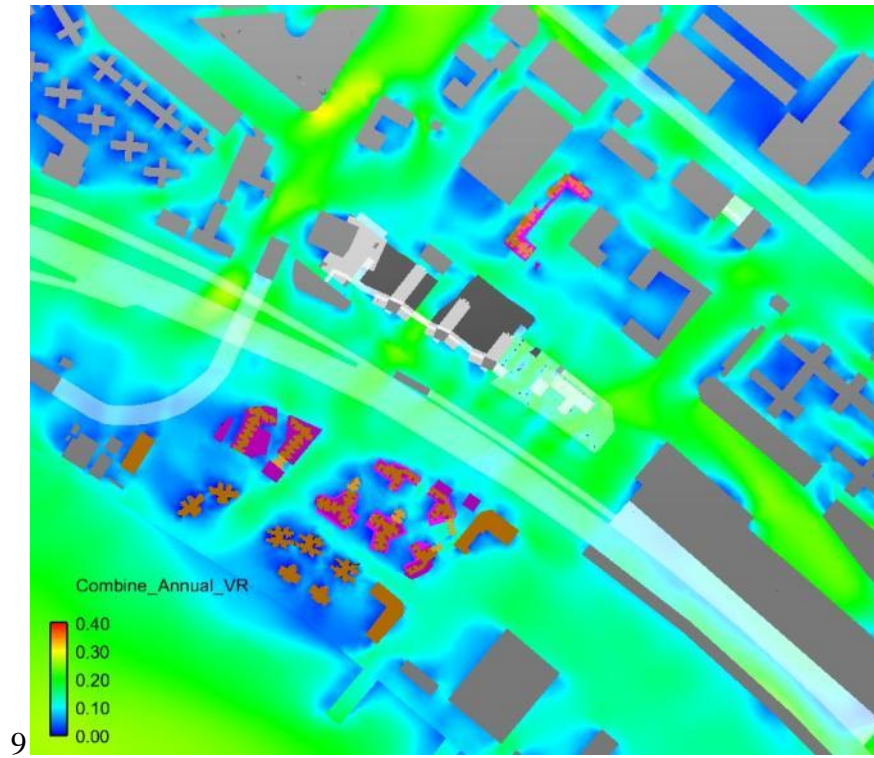


WSW Direction (Further Enhanced Scheme)

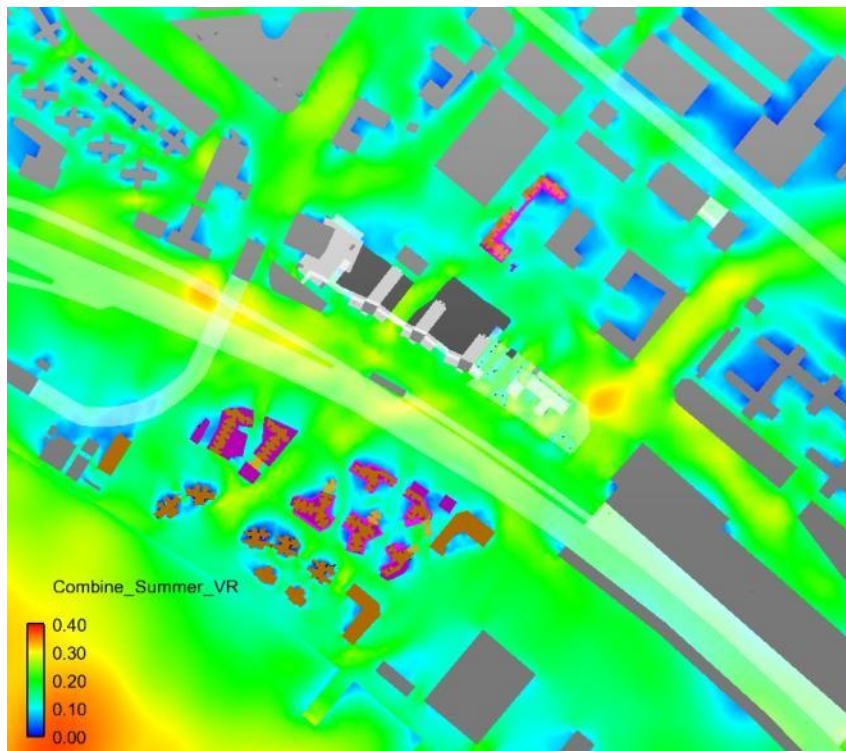


W Direction (Indicative Scheme)





Combine Annual (Further Enhanced Scheme)



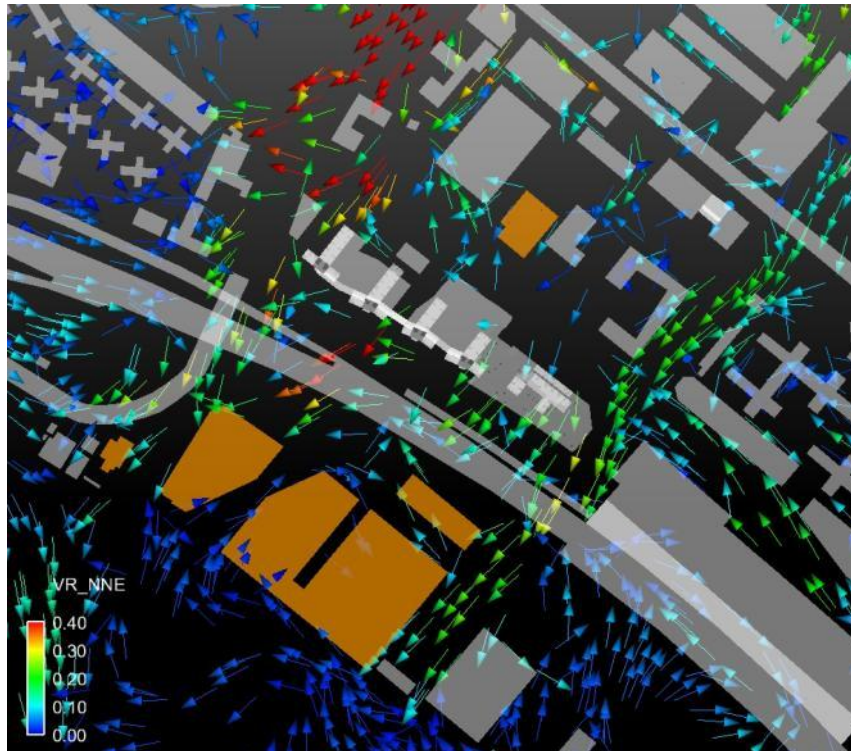
Combine Summer (Further Enhanced Scheme)

## Appendix D

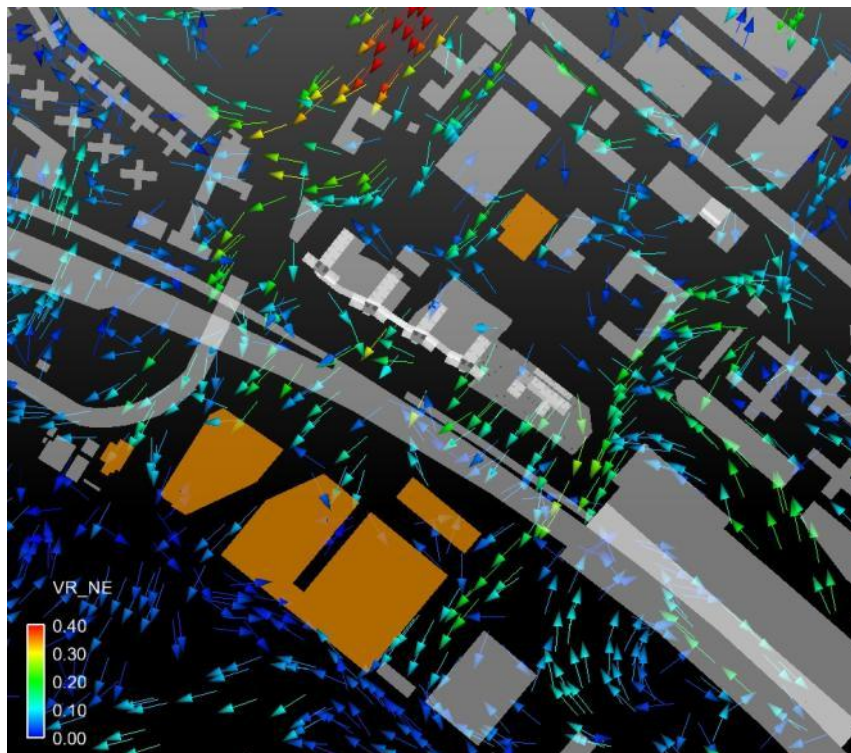
### Directional VR Vector Plots



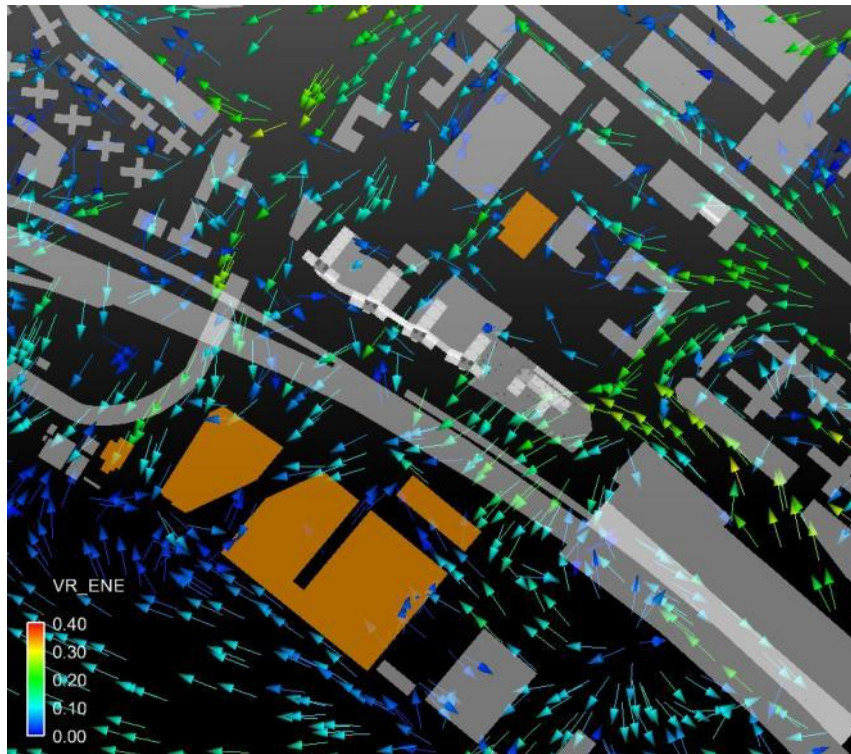
## D1 Baseline Scheme Directional VR Vector Plots



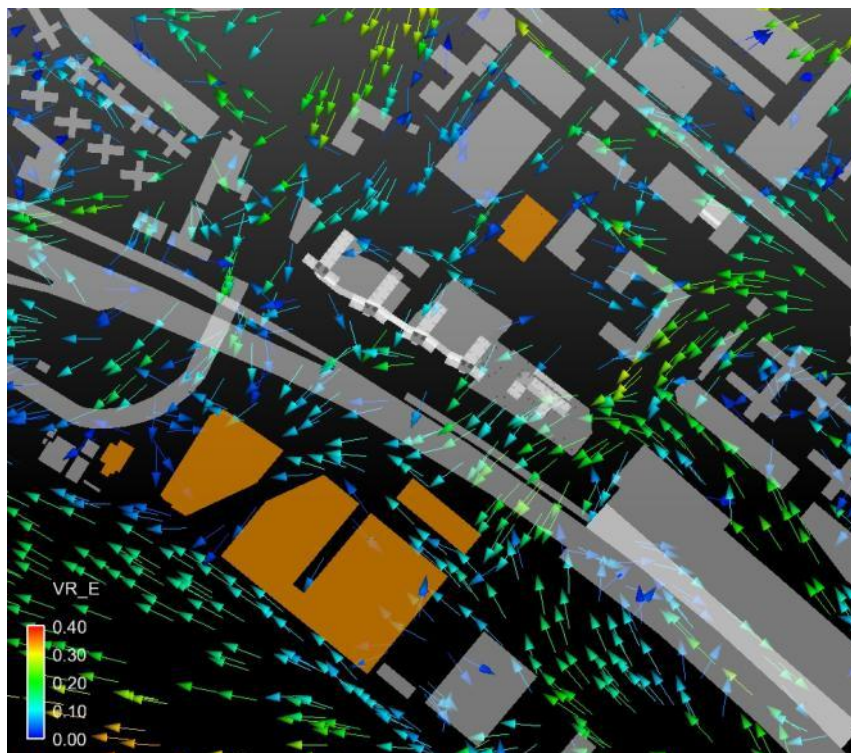
NNE Direction (Baseline Scheme)



NE Direction (Baseline Scheme)

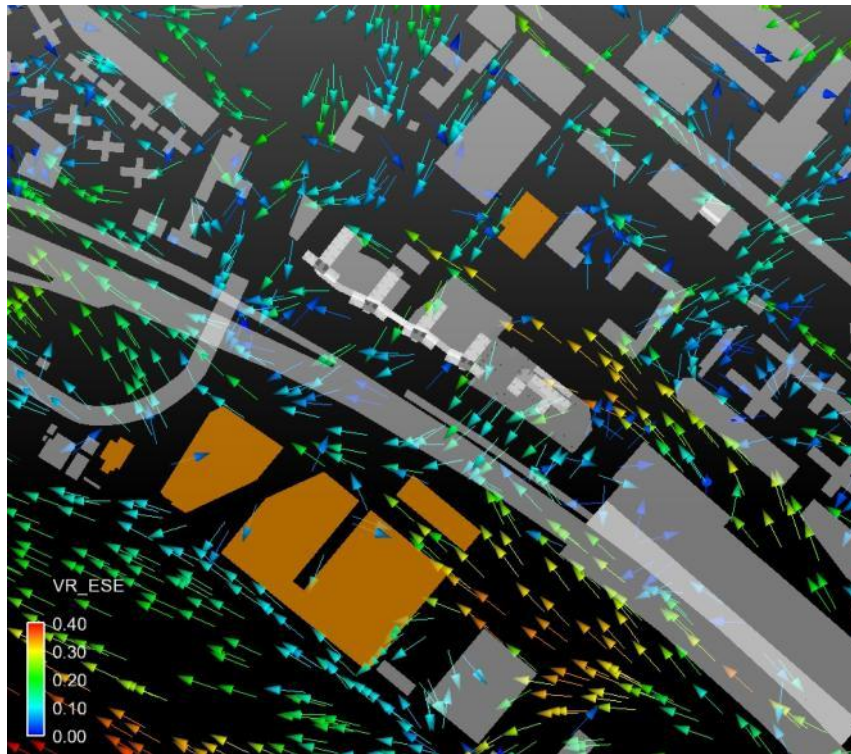


ENE Direction (Baseline Scheme)

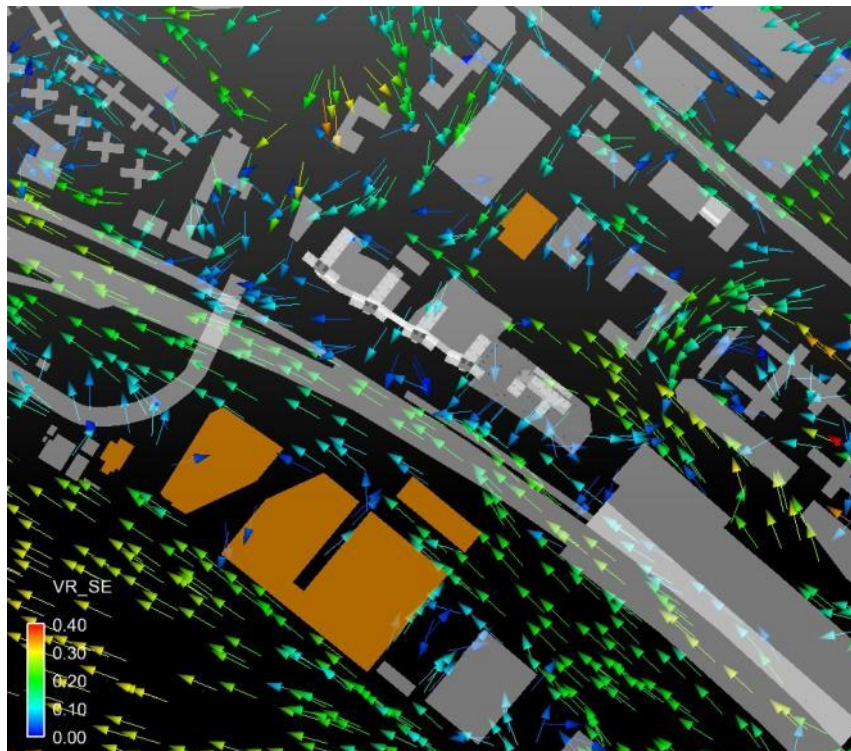


E Direction (Baseline Scheme)

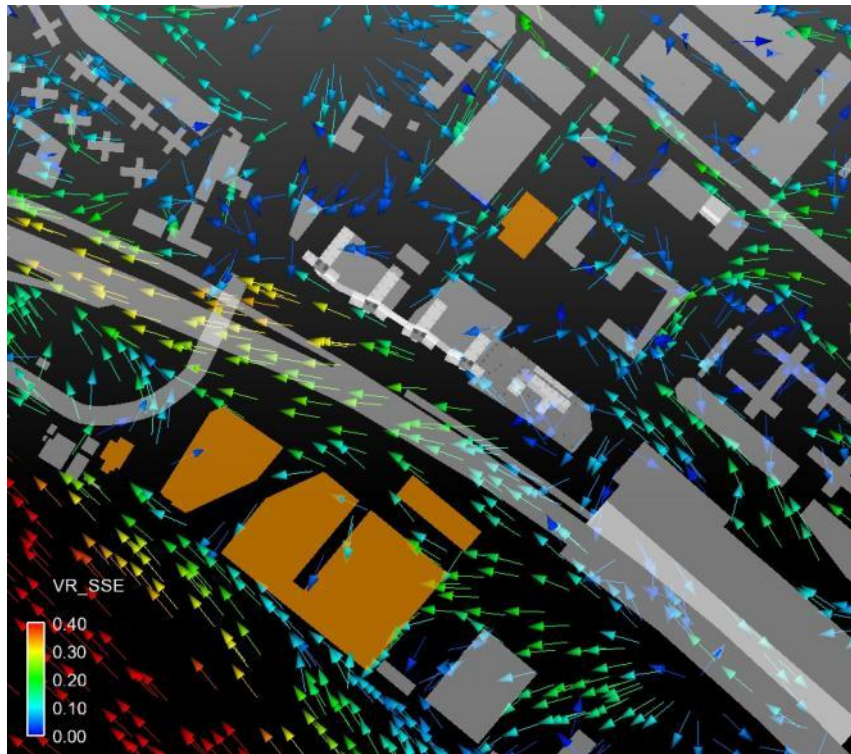




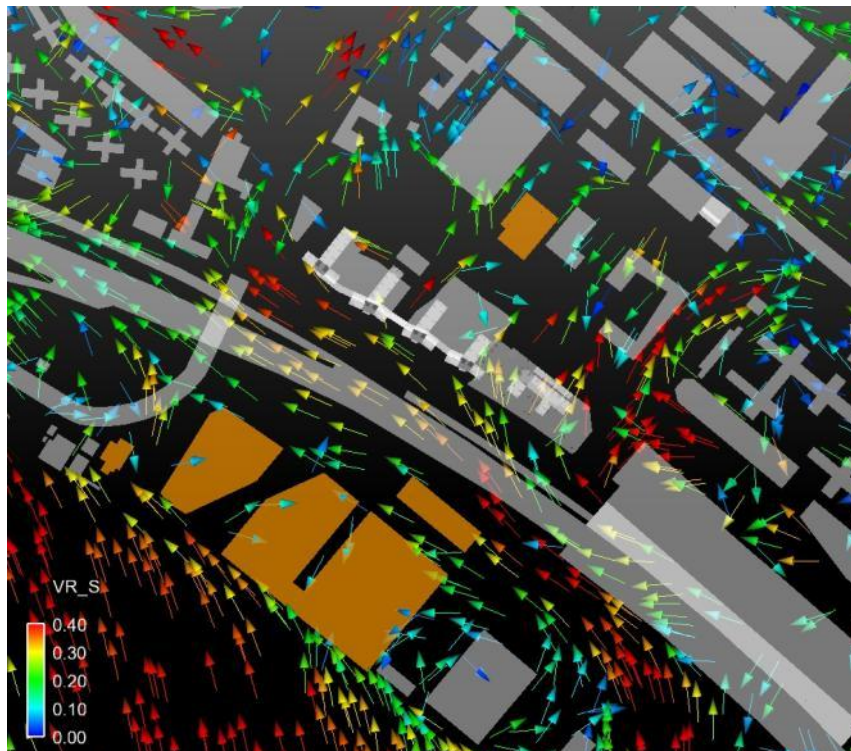
ESE Direction (Baseline Scheme)



SE Direction (Baseline Scheme)

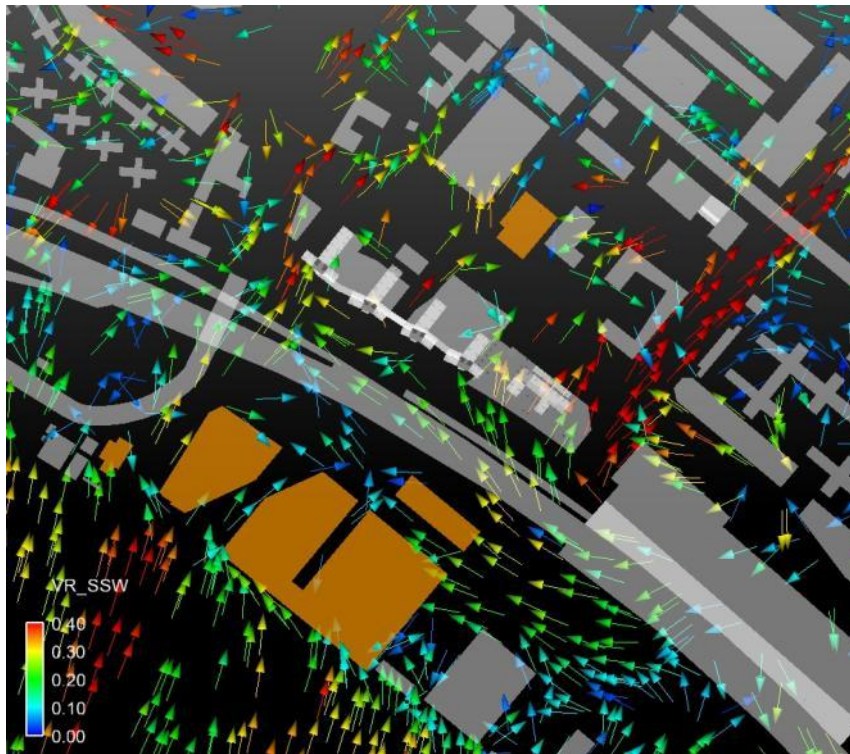


SSE Direction (Baseline Scheme)

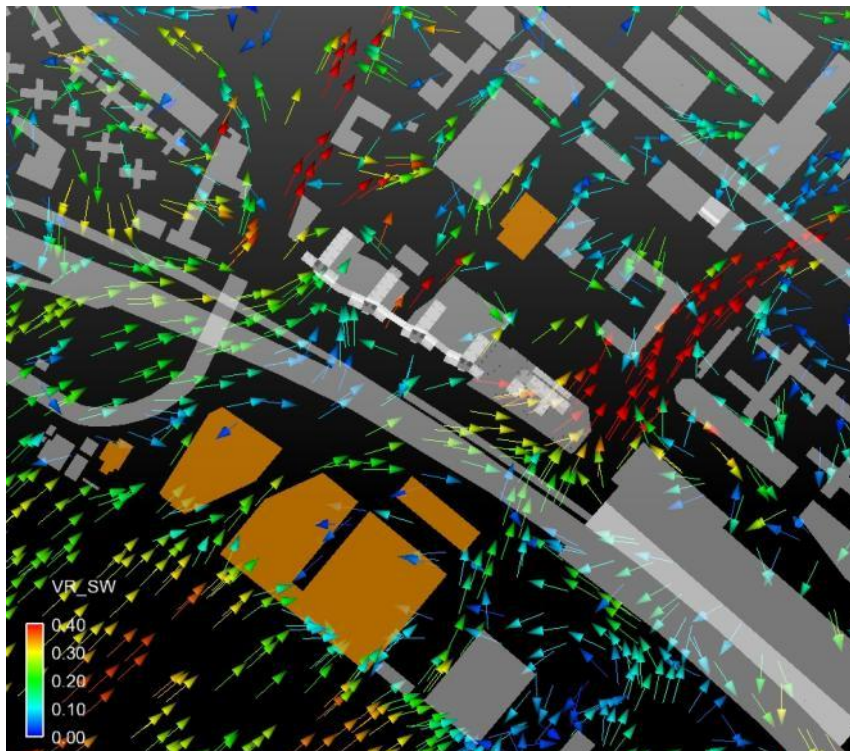


S Direction (Baseline Scheme)

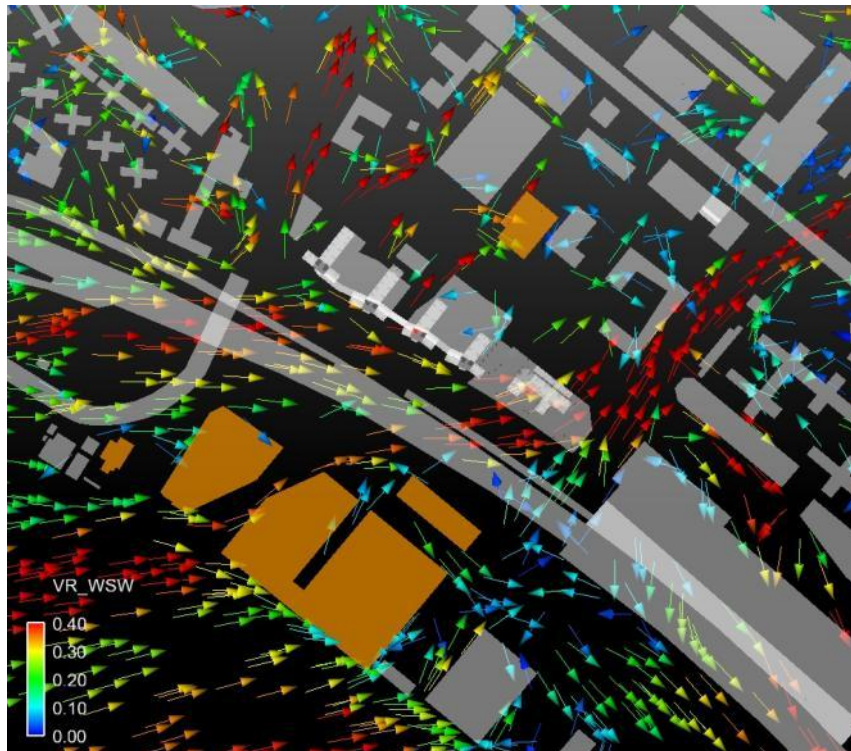




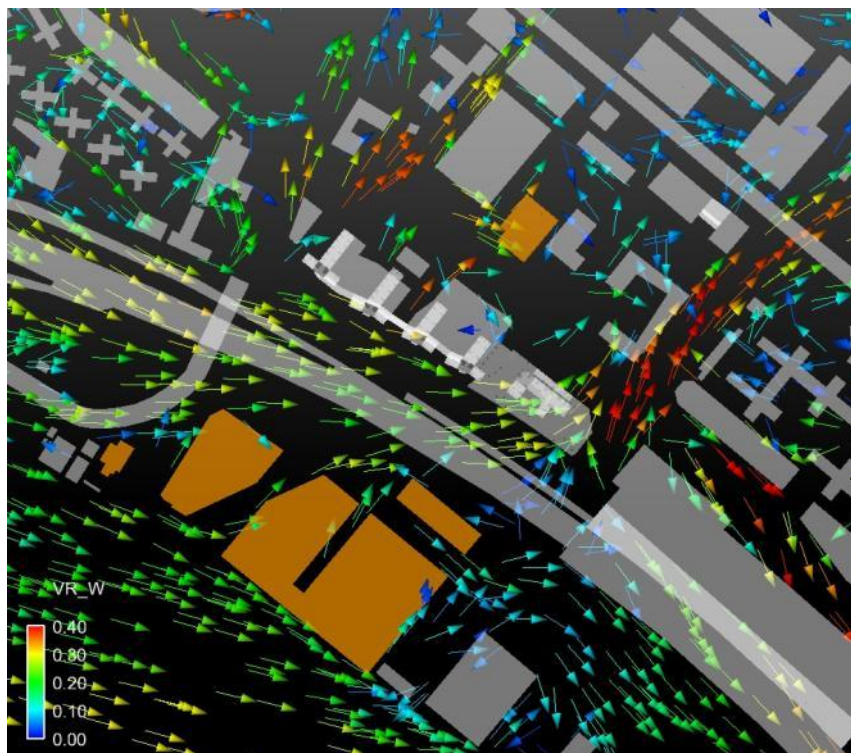
SSW Direction (Baseline Scheme)



SW Direction (Baseline Scheme)



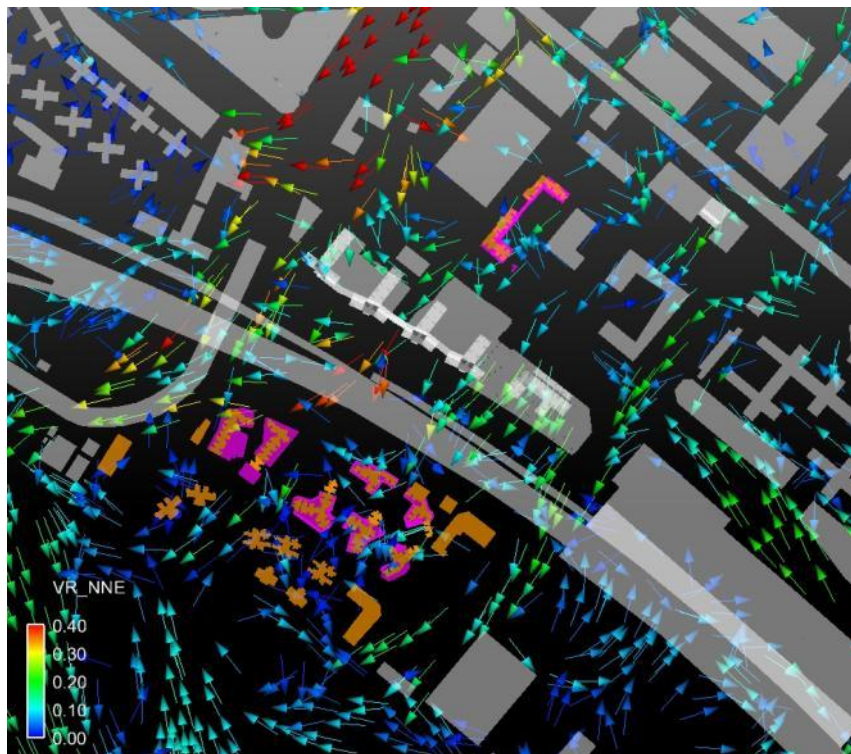
WSW Direction (Baseline Scheme)



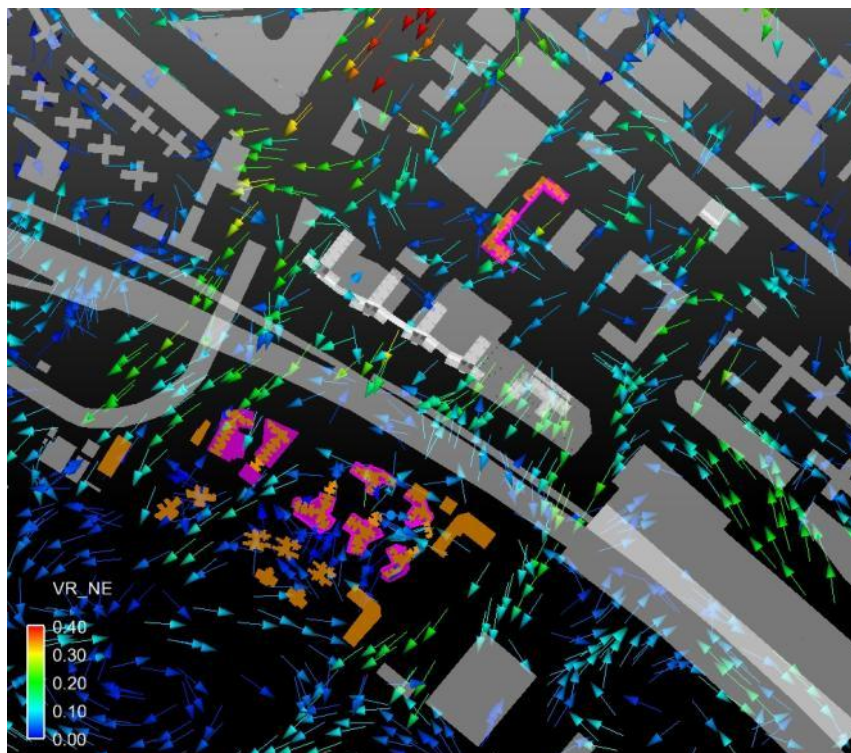
W Direction (Baseline Scheme)



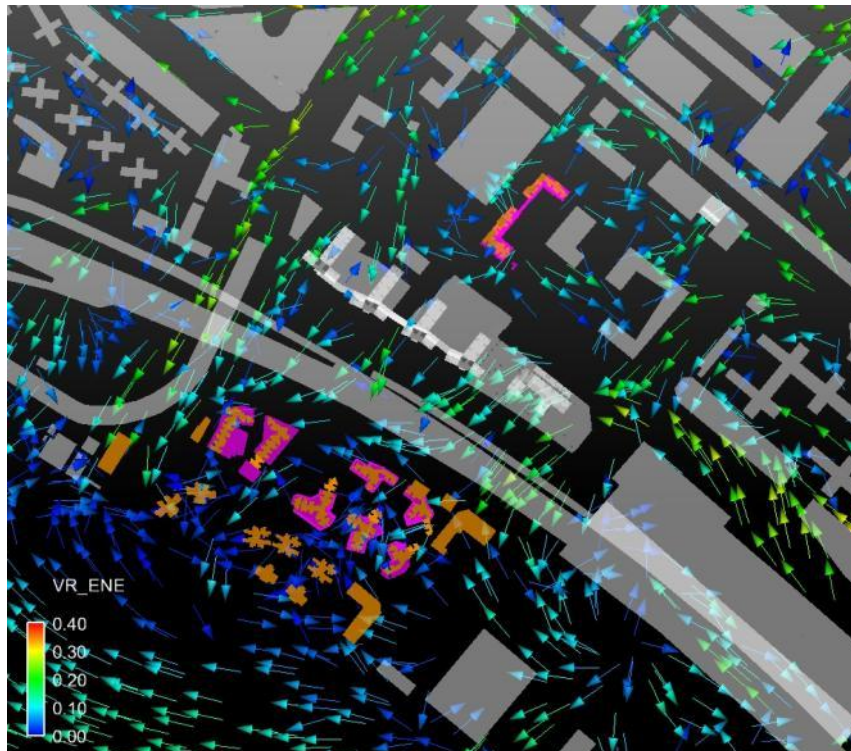
## D2 Indicative Scheme Directional VR Vector Plots



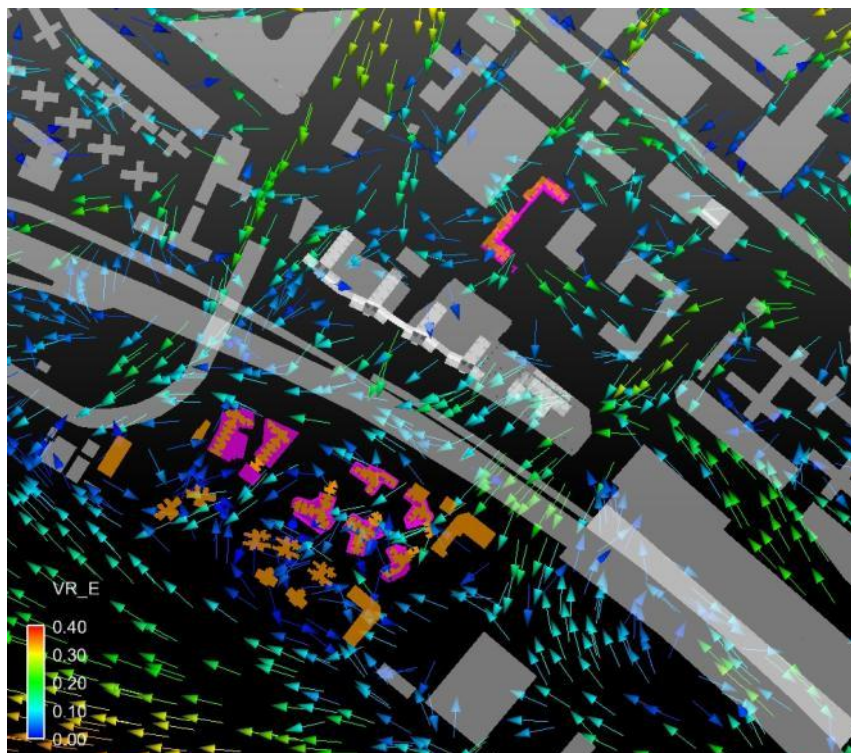
NNE Direction (Indicative Scheme)



NE Direction (Indicative Scheme)

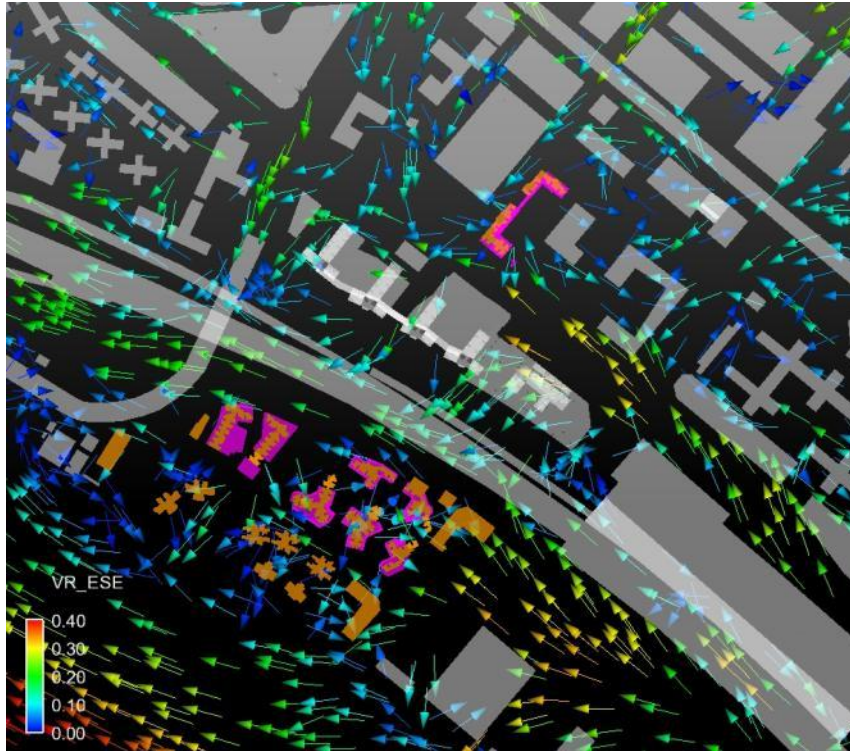


ENE Direction (Indicative Scheme)

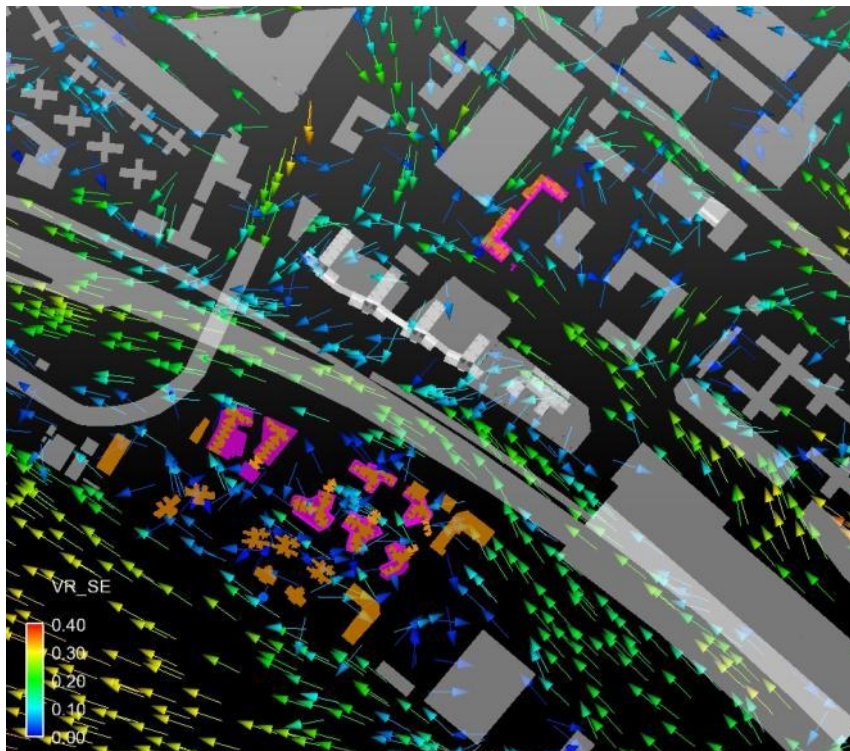


E Direction (Indicative Scheme)

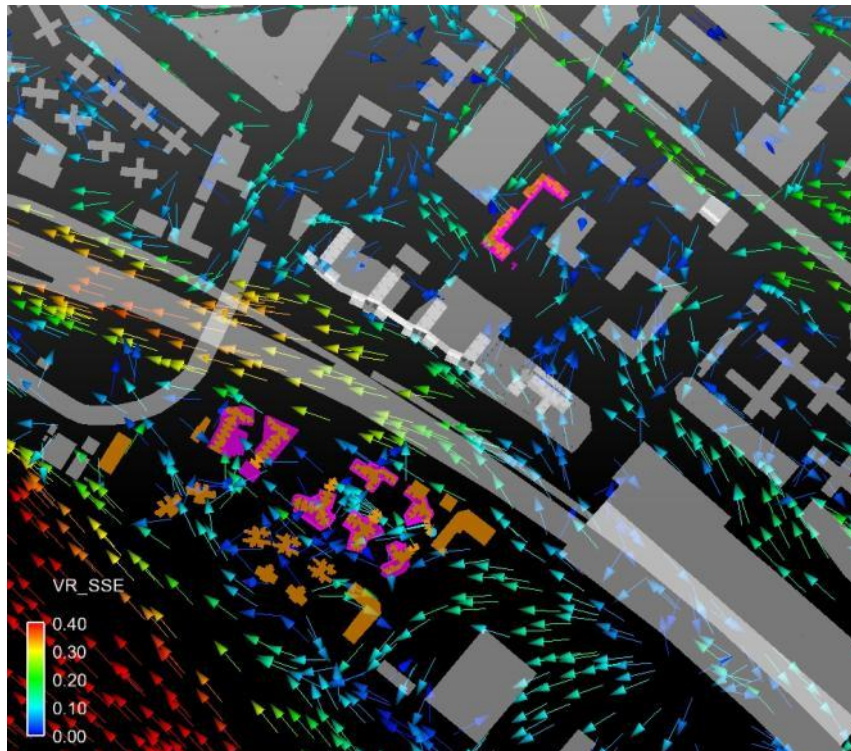




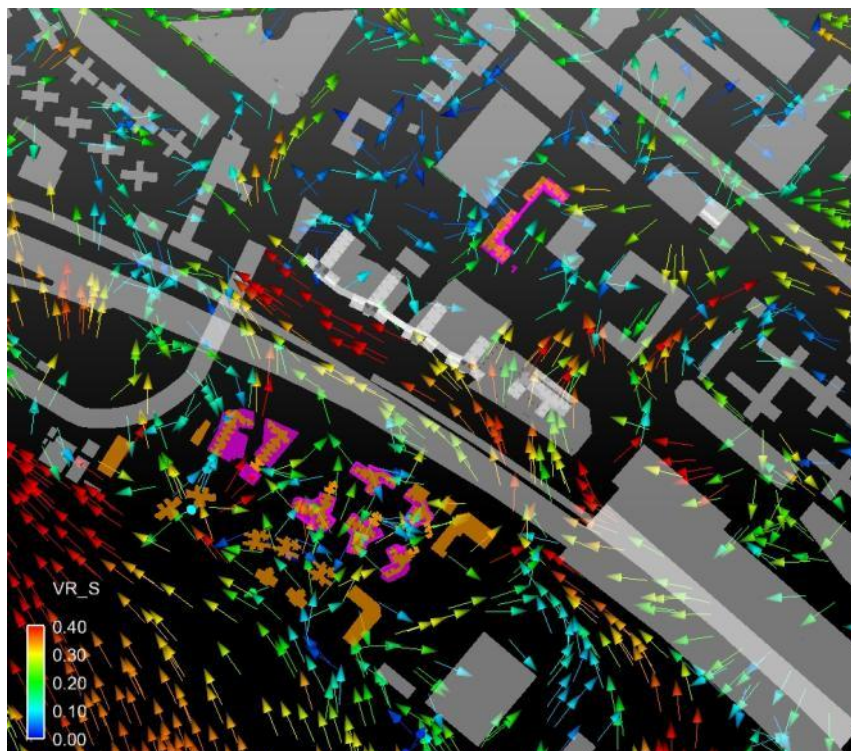
ESE Direction (Indicative Scheme)



SE Direction (Indicative Scheme)

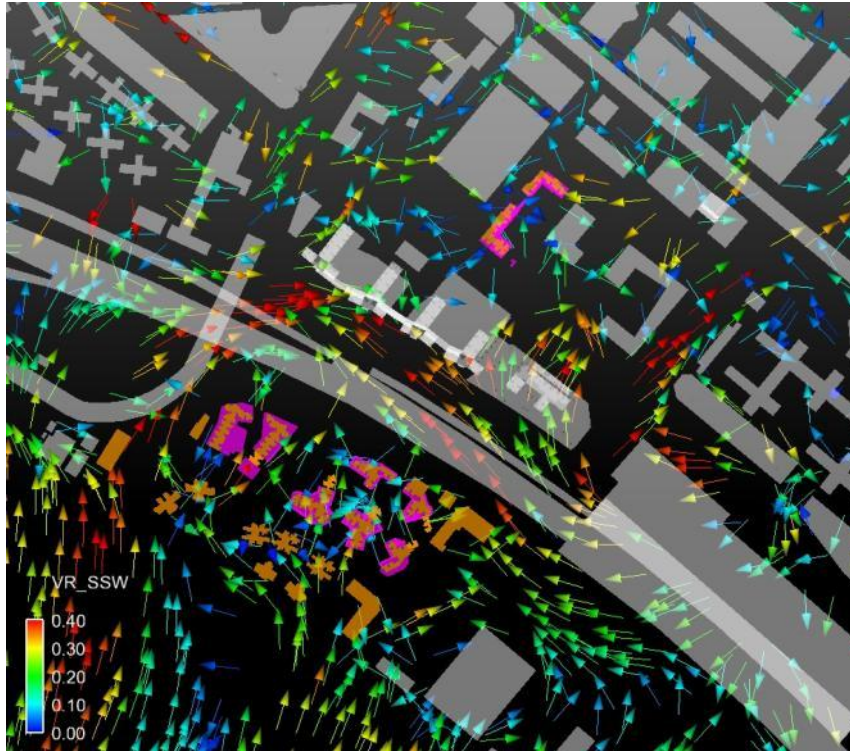


SSE Direction (Indicative Scheme)

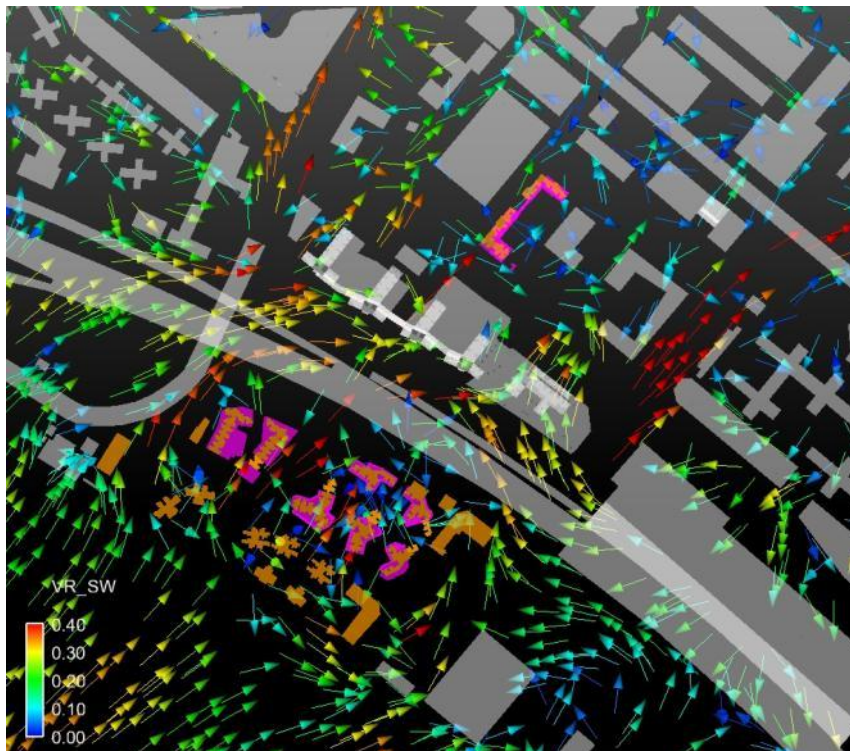


S Direction (Indicative Scheme)

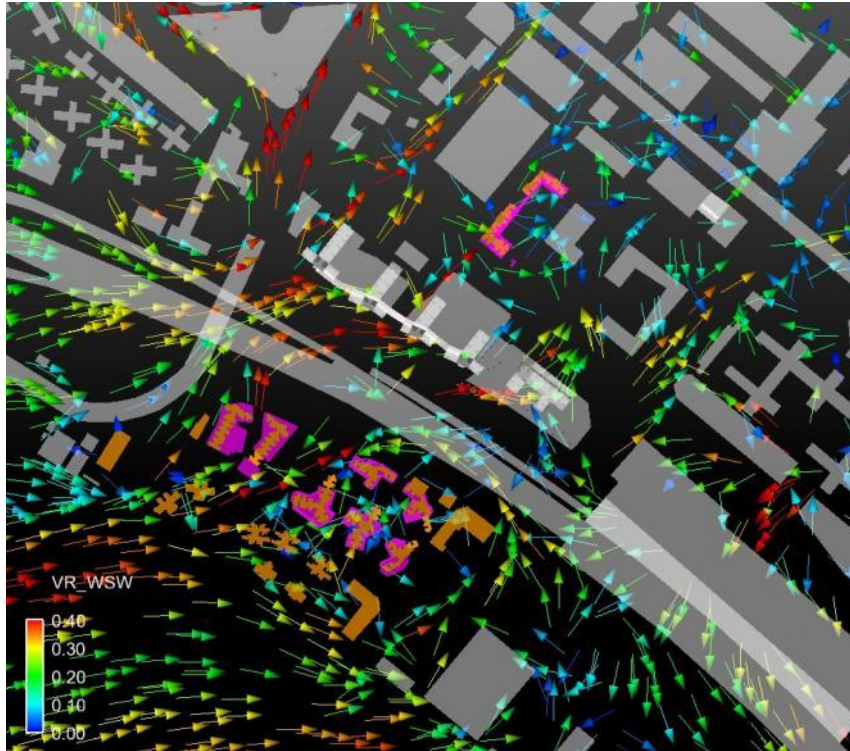




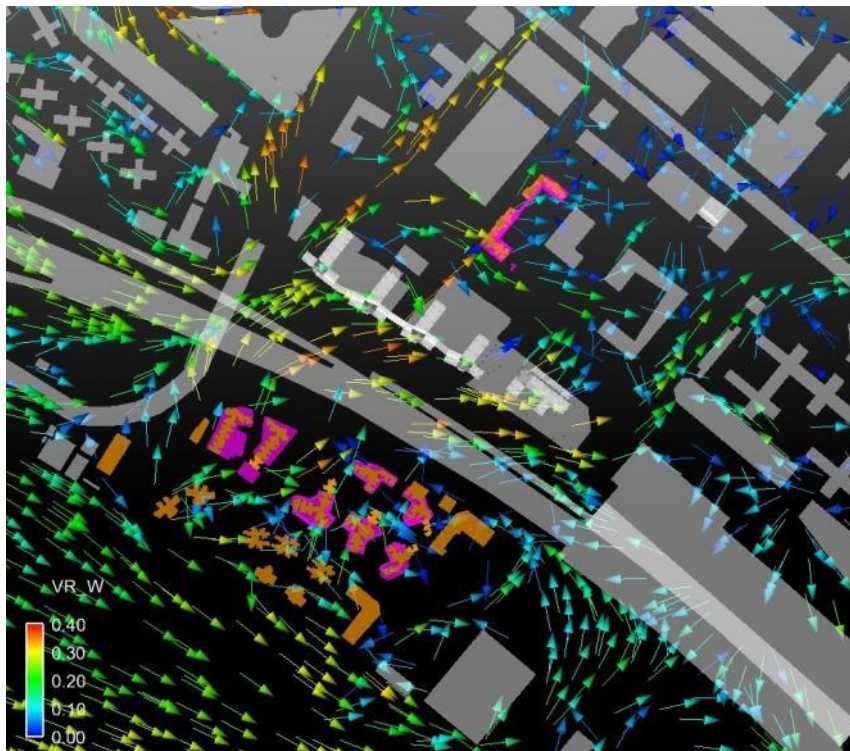
SSW Direction (Indicative Scheme)



SW Direction (Indicative Scheme)



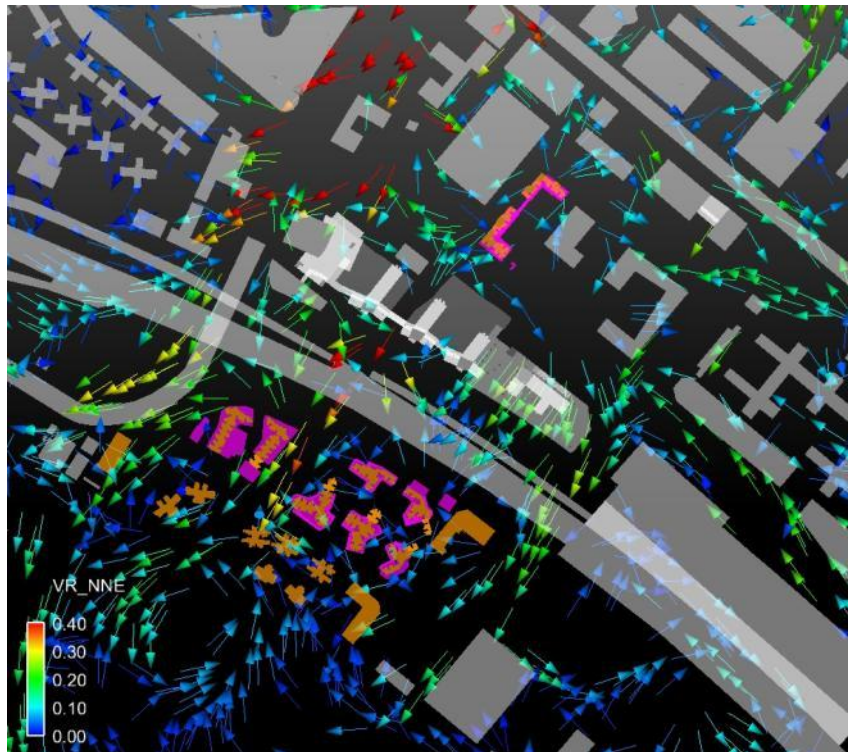
WSW Direction (Indicative Scheme)



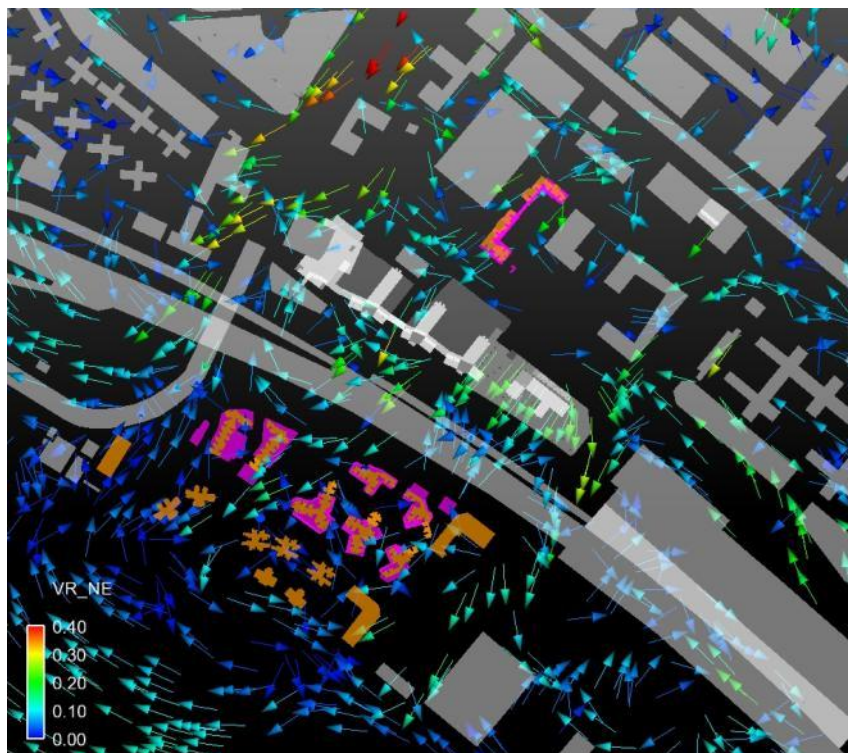
W Direction (Indicative Scheme)



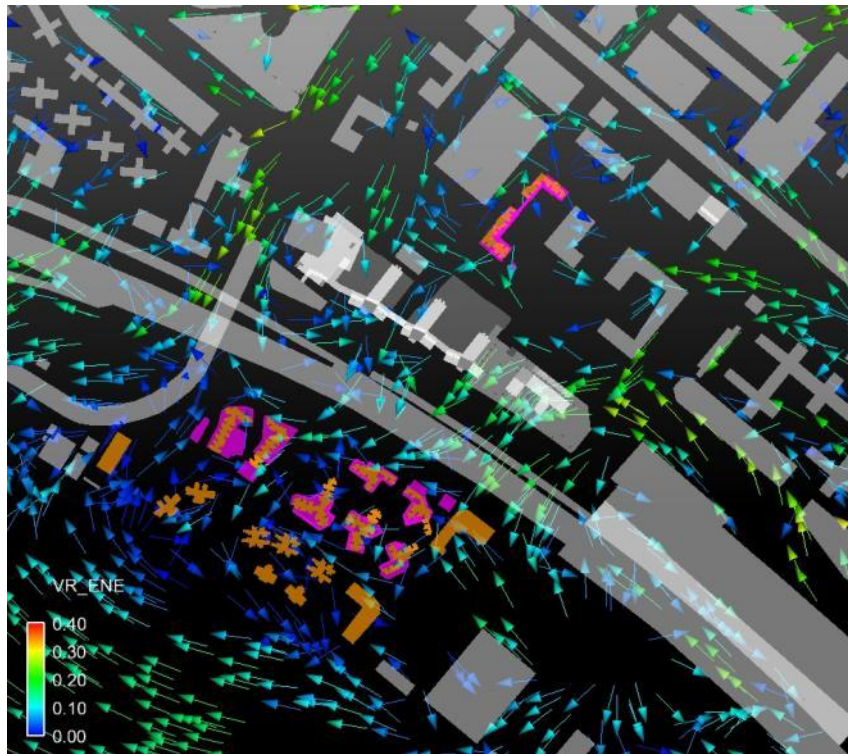
## D3 Further Enhanced Scheme Directional VR Vector Plots



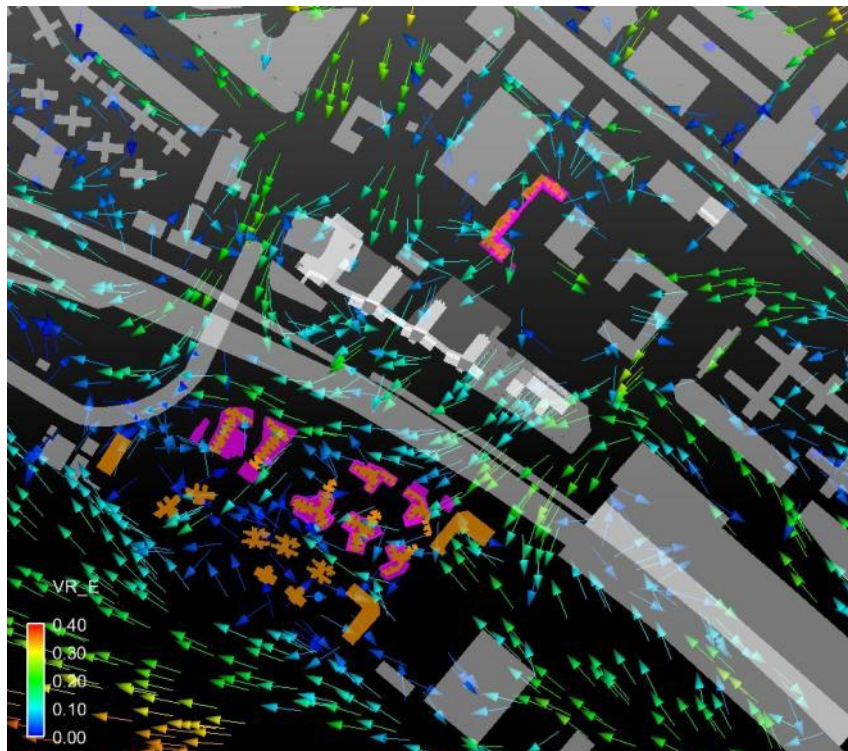
NNE Direction (Further Enhanced Scheme)



NE Direction (Further Enhanced Scheme)

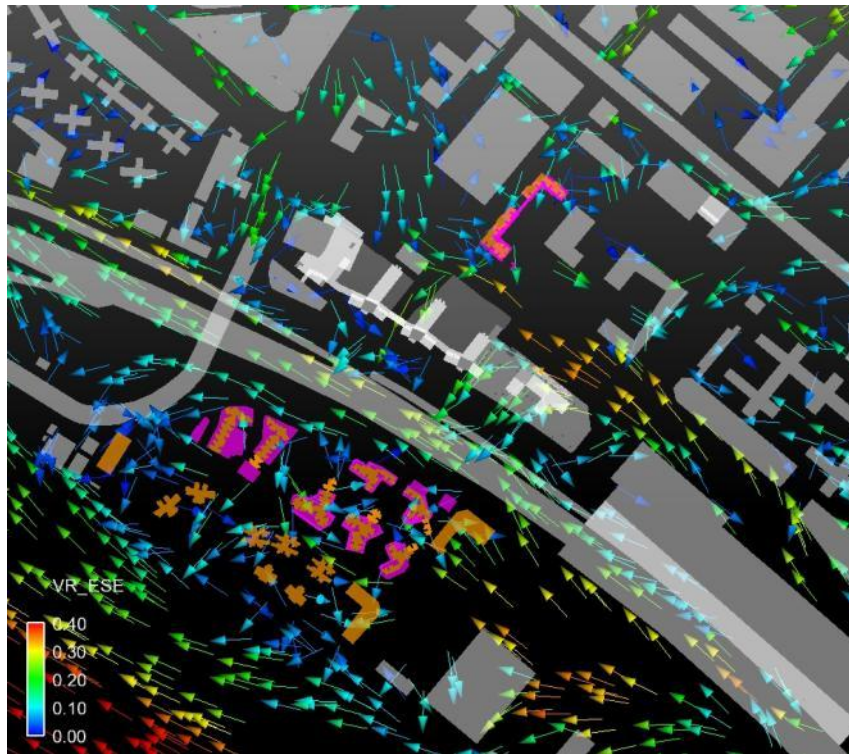


ENE Direction (Further Enhanced Scheme)

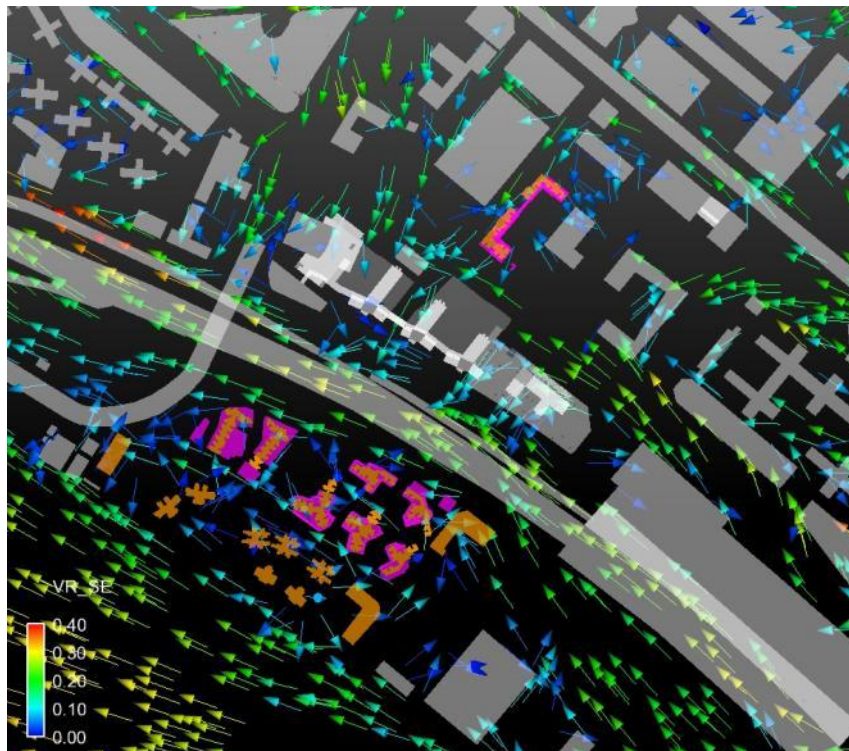


E Direction (Further Enhanced Scheme)

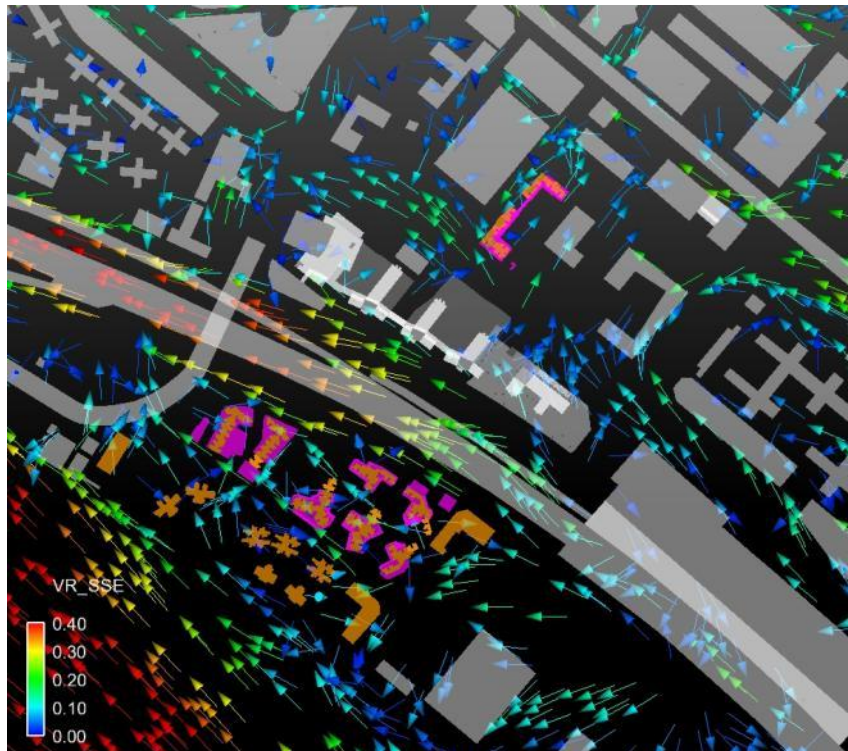




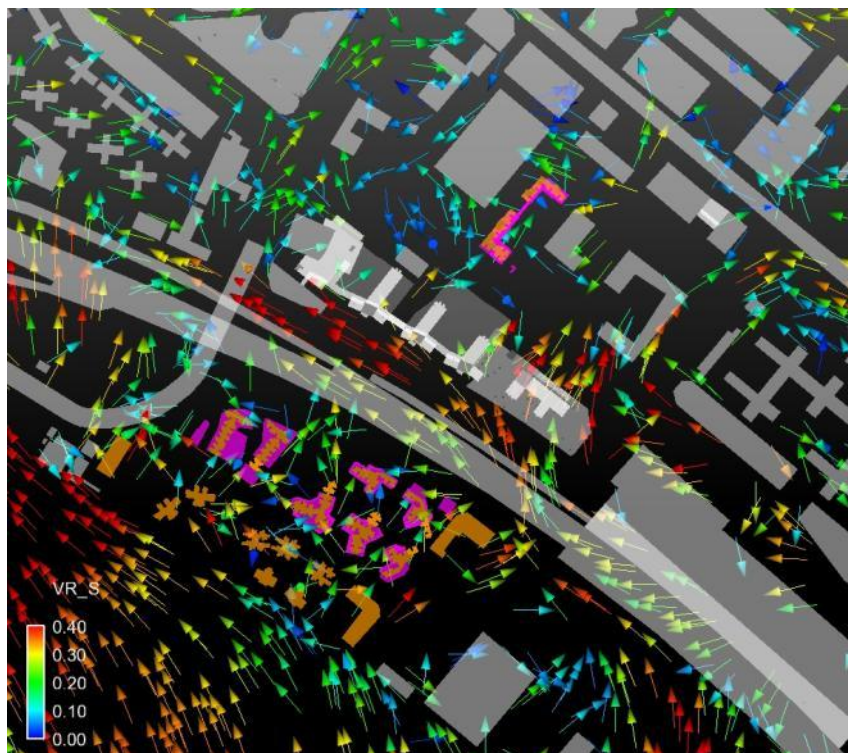
ESE Direction (Further Enhanced Scheme)



SE Direction (Further Enhanced Scheme)

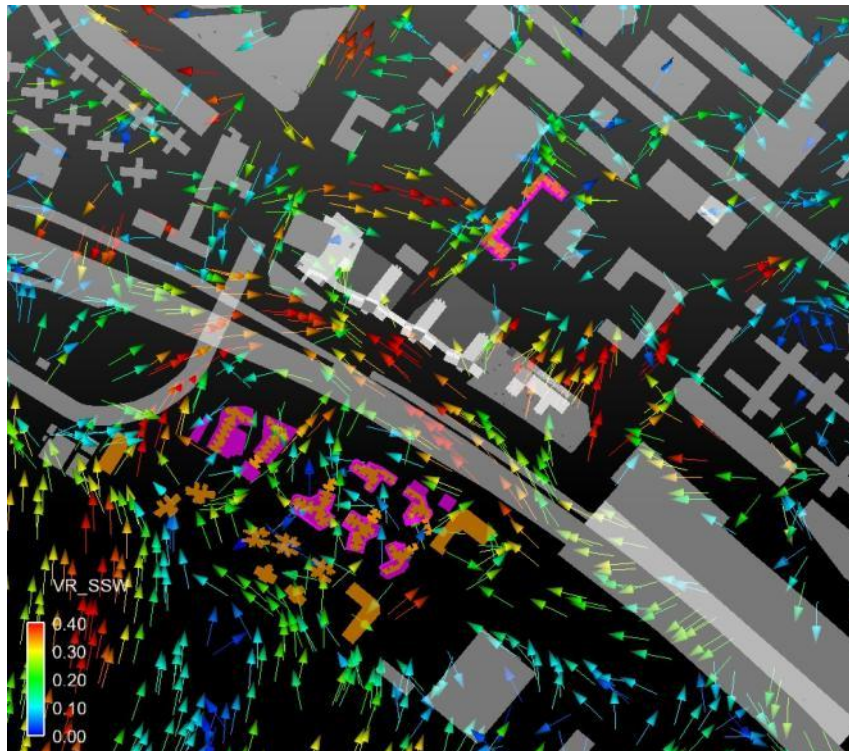


SSE Direction (Further Enhanced Scheme)

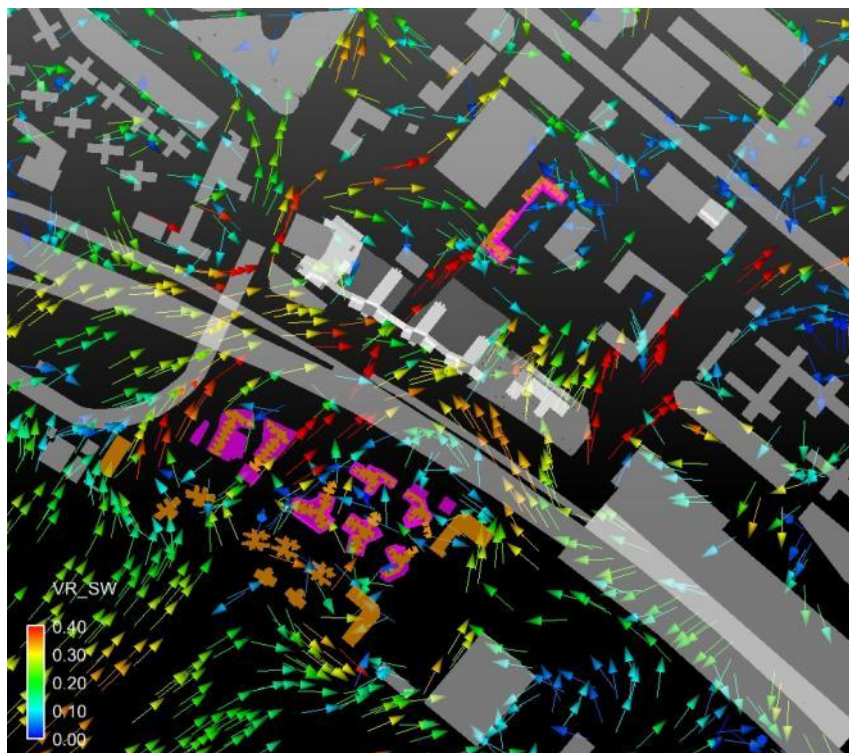


S Direction (Further Enhanced Scheme)

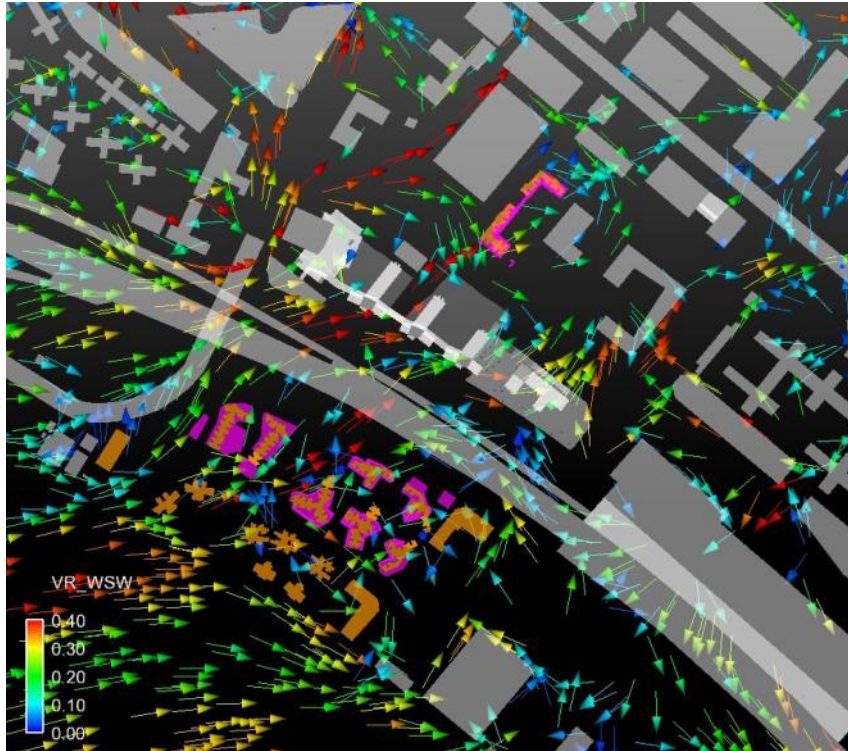




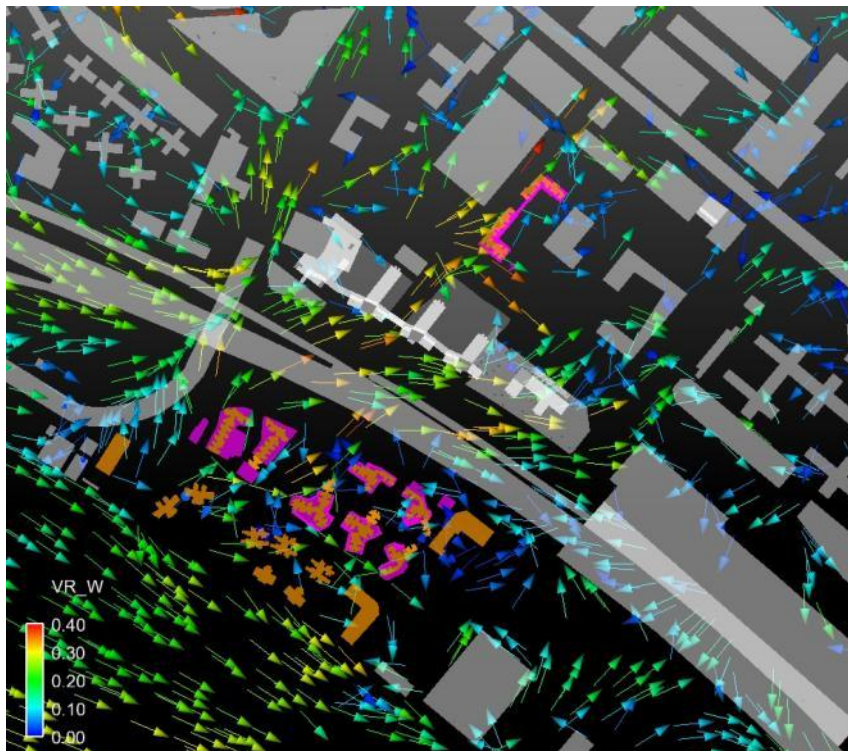
SSW Direction (Further Enhanced Scheme)



SW Direction (Further Enhanced Scheme)



WSW Direction (Further Enhanced Scheme)

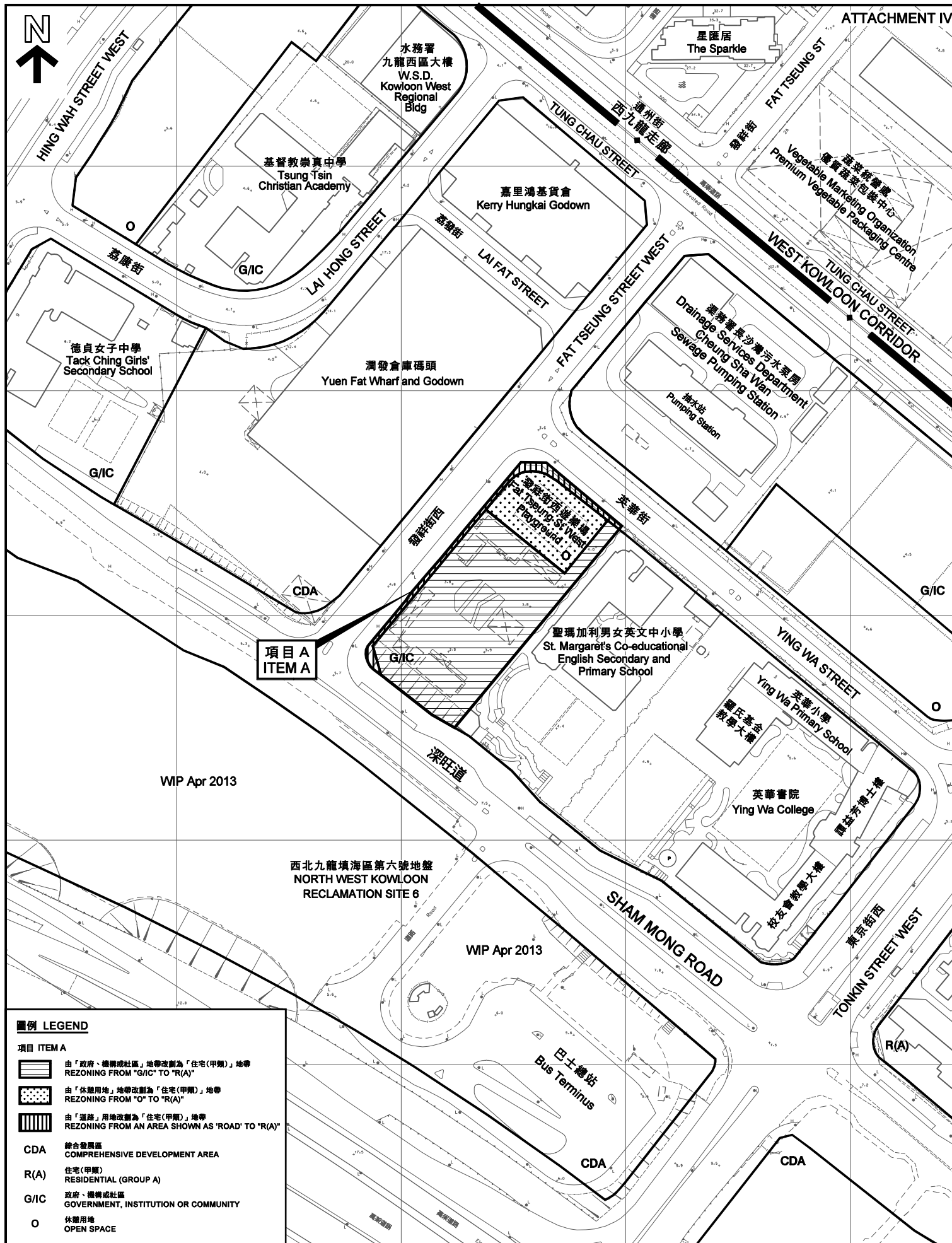


W Direction (Indicative Scheme)



## Appendix E

### Proposed Amendments to the Approved South West Kowloon Outline Zoning Plan No. S/SK20/28



本摘要圖於2013年4月22日製備。  
所根據的資料為測量圖編號11-NW-13A/B  
EXTRACT PLAN PREPARED ON 22.4.2013  
BASED ON SURVEY SHEETS No.  
11-NW-13A/B

平面圖 - 項目 A  
SITE PLAN - ITEM A  
西南九龍分區計劃大綱核准圖  
編號 S/K20/28 的擬議修訂項目  
PROPOSED AMENDMENTS TO  
APPROVED SOUTH WEST KOWLOON OZP No. S/K20/28

SCALE 1 : 1 500 比例尺

米 METRES 20 0 20 40 60 80 100 120 米 METRES

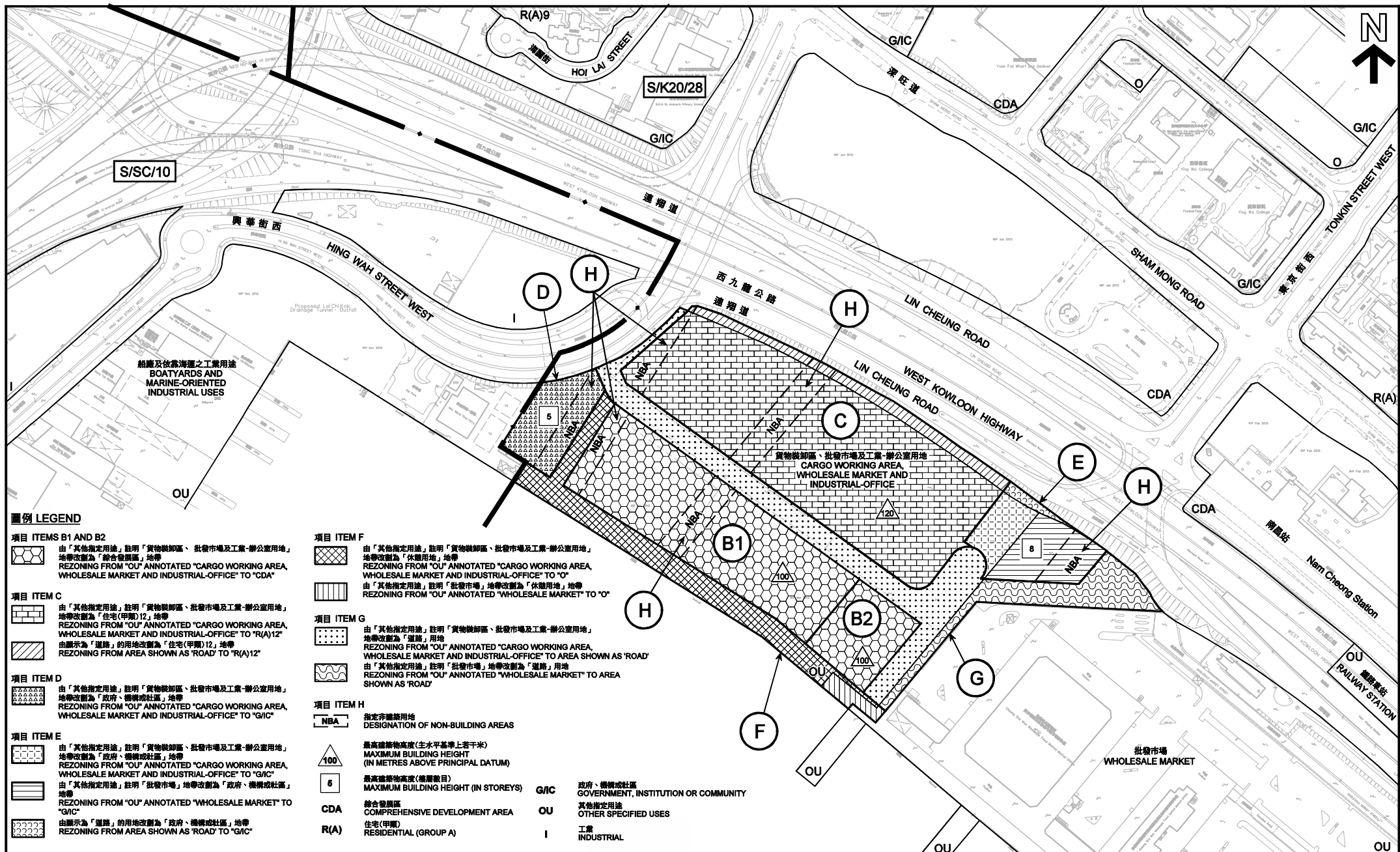
規劃署  
PLANNING  
DEPARTMENT



參考編號  
REFERENCE No.  
M/K20/13/9

圖 PLAN  
3





本摘要圖於2013年5月23日製備，所根據的資料為  
 測量圖編號11-NW-12B、12D、13A、13B、13C和13D

EXTRACT PLAN PREPARED ON 23.5.2013 BASED ON  
 SURVEY SHEETS No. 11-NW-12B, 12D, 13A, 13B, 13C AND 13D

平面圖 - 項目 B 至 H  
 SITE PLAN - ITEMS B to H  
 西南九龍分區計劃大綱核准圖編號 S/K20/28 的擬議修訂  
 PROPOSED AMENDMENTS TO APPROVED SOUTH WEST KOWLOON OZP No. S/K20/28

米 METRES 50 0 50 100 150 200 METRES 米  
 SCALE 1 : 3 000 比例尺

規劃署  
 PLANNING DEPARTMENT



參考編號  
 REFERENCE No.  
 M/SD/13/43

附件 Attachment  
 V