4.2 Proposed Scheme

The Proposed Scheme consists of two domestic blocks (Block A and Block B) with 40 and 41 domestic storeys (each with an additional refuge floor) respectively atop a 4-storey podium structure which includes a naturally ventilated carpark, which would overall stand at ~149mPD tall. The Proposed Scheme consist of a full height building separation of ~15m, a G/F empty bay of ~7m wide and ~5m tall. It also has a tower setback from the southwestern site boundary of ~25m, as well as building setbacks of 6m from southwestern site boundary, 11m from northeastern site boundary, and ~8-25m from northwestern site boundary. The naturally ventilated carpark as well as a permeable podium design would also assist the enhancement of ventilation performance.

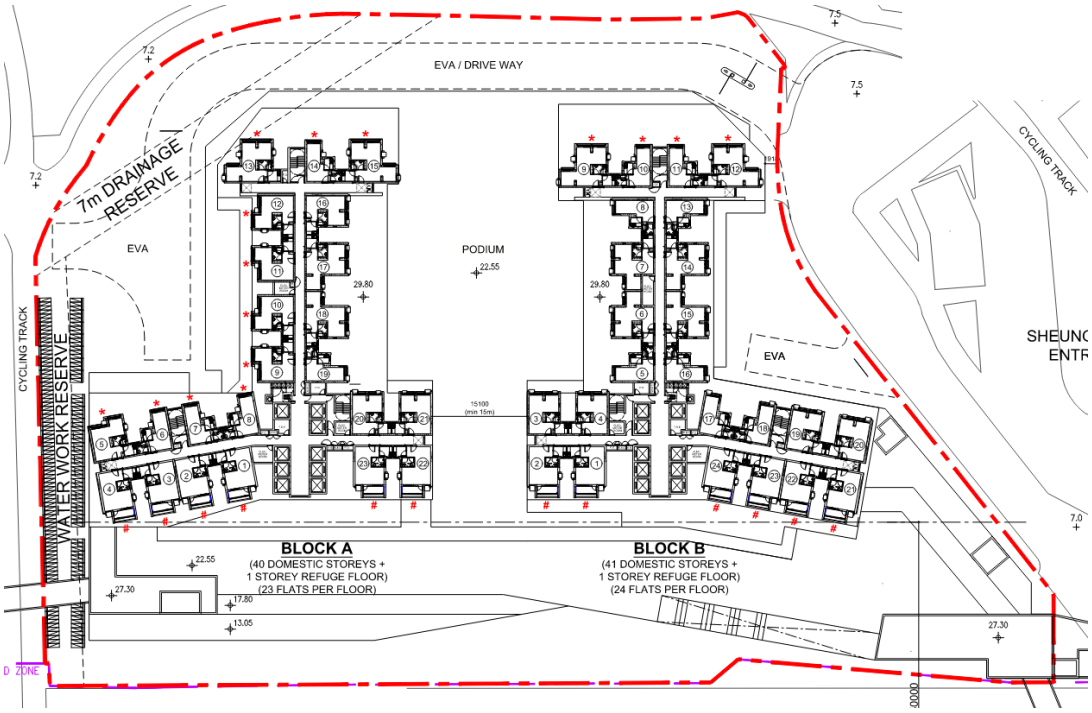

Figure 19 Proposed Scheme MLP

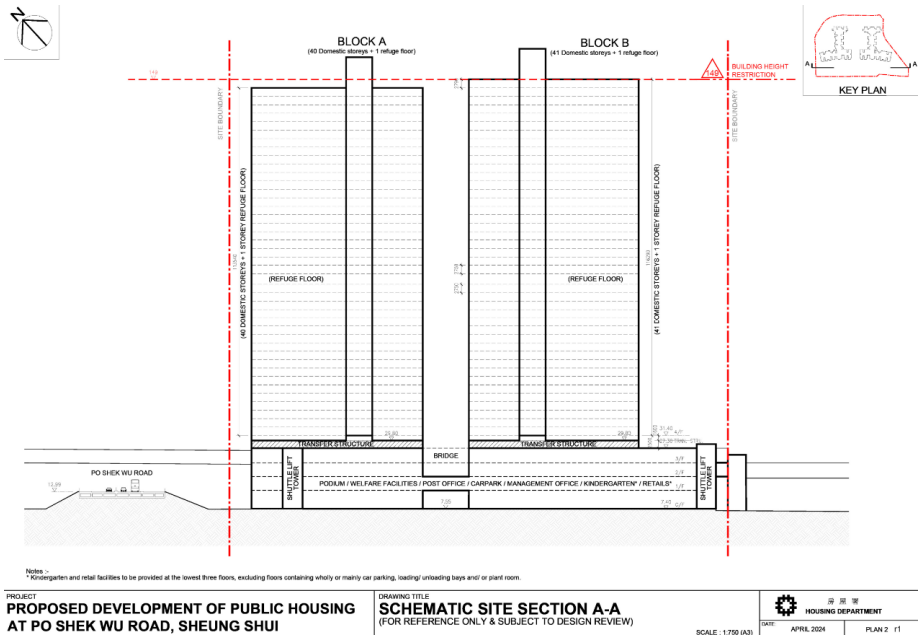

Figure 20 Proposed Scheme Section

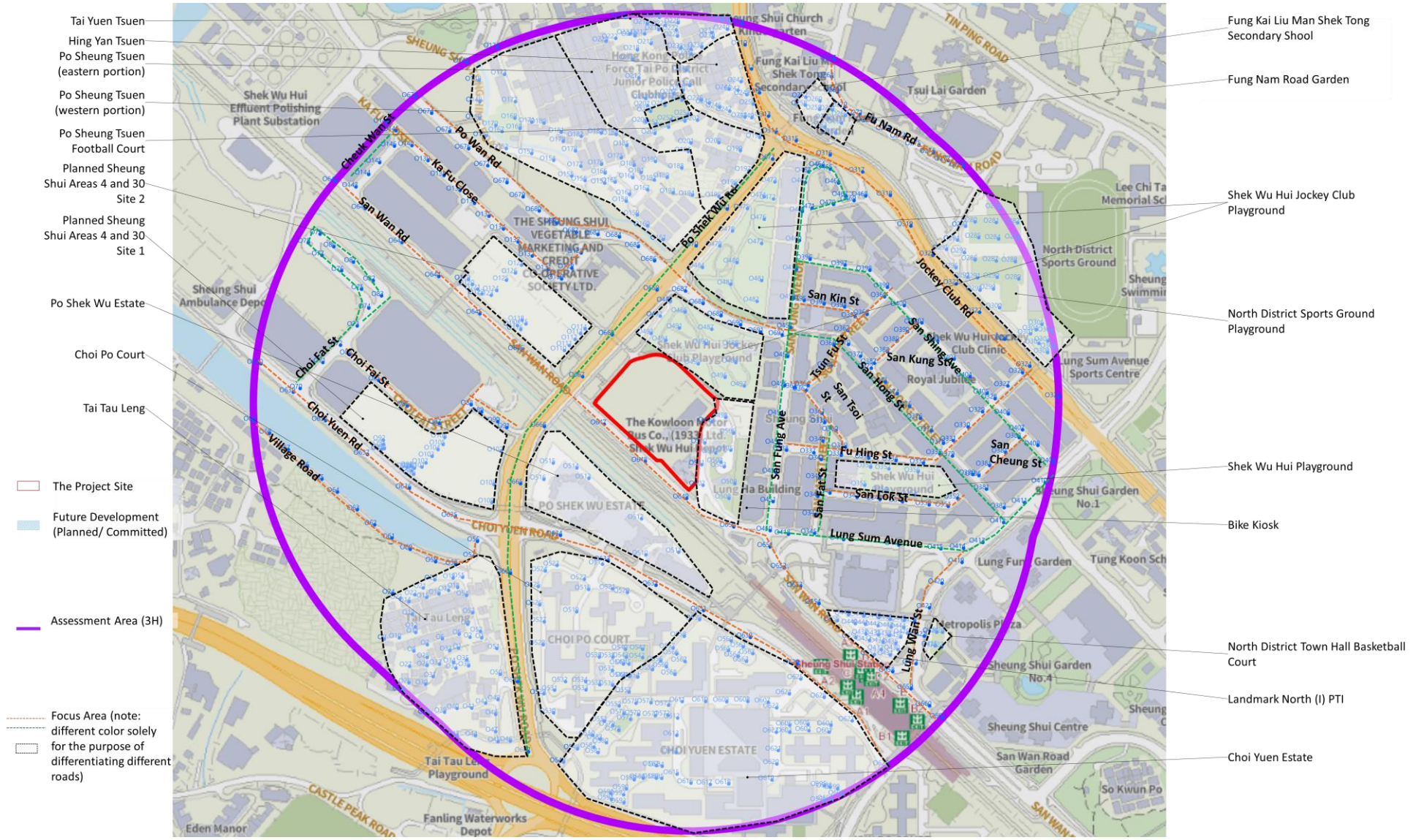

Figure 46 Location of Focus Areas outside the Application Site

6. Results and Discussion

6.1 Overview

The full set of contour and vector plots for are presented in Appendix C of the report.

The contour plots of annual weighted VR for the Baseline Scheme and Proposed Scheme are shown in Figure 47 and Figure 48.

6.1.1 Overall Ventilation Performance under Annual Wind Condition

Under annual condition, the majority of the prevailing wind would arrive at the Development from the eastern quadrant flowing over the generally low-rise eastern surroundings of the Development. A few mid-rise eastern surrounding buildings would impede a small portion of prevailing wind. Overall, the prevailing wind could reach the Development relatively freely.

The taller building under Proposed Scheme would be able to downwash more prevailing wind reaching the eastern facades of the Development as compared to Baseline Scheme, which would in turn allow for more ventilation at its immediate upwind surroundings, such as the Bike Kiosk. A marginally higher VR is also observed in the G/F empty bay in the Proposed Scheme adjacent to the Bike Kiosk, as compared to that in the air path between Block B and Lift tower under Baseline Scheme, which is also cause by a more prominent downwash under the taller tower of Proposed Scheme.

Under both schemes the 15m air path between the two towers would enhance permeability of the Development and allow for prevailing to penetrate to the leeward area. However, under Proposed Scheme, the narrower tower separation in the northeastern portion of the Development would increase the channelling effect for prevailing wind passing through it, thereby accelerating the wind penetrating to the leeward area. The wind environment at the leeward area could therefore be enhanced, such as a localised portion of San Wan Road immediate south of the Development.

6.1.2 Overall Ventilation Performance under Summer Wind Condition

The contour plots of summer weighted VR for the Baseline Scheme and Proposed Scheme are shown in Figure 49 and Figure 50.

Under summer condition, prevailing wind would arrive mainly from the southwestern quadrant. As compared to annual condition, the wind environment would be relatively dominated by the windward surrounding environment as it comprises mainly of mid-rise and high-rise buildings including the planned Y/FSS/19, SS Site 1, Po Shek Wu Estate etc. A wind shadow would be created to the northeast of the Development.

The taller building under Proposed Scheme would be able to downwash more prevailing wind reaching the southern facades of the Development, which would in turn allow for more ventilation at its immediate surroundings such as a localised portion of San Wan Road immediate south of the Development. This could however limit prevailing wind at pedestrian level from reaching the downwind area such as the downwind portion of Po Shek Wu Road, a downwind localised portion of San Wan Road and Landmark North PTI, where a relatively higher VR would be observed Baseline Scheme. The prevailing wind under Proposed Scheme would on the other hand be diverted by the stronger downwashed wind to ventilate northwestern surroundings of the Development such as Ka Fu Close and a localised portion of Po Wan Road immediately west of Po Shek Wu Road.

On the other hand, the building disposition of Baseline Scheme would allow for more wind to be diverted towards northeast, which would in ventilate the immediate northeastern surroundings of the Development such as Shek Wu Hui Jockey Club Playground under southwestern summer prevailing wind.