

16. CONCLUSIONS AND RECOMMENDATIONS

16.1 Air Quality Impact

16.1.1 Landuse and transport planning has provided a proactive approach in minimising the likely air quality impacts from road traffic and other sources. The approach included environmentally friendly public transportation, environmental friendly shuttle service, discourage through traffic movements, reducing traffic at local levels, reducing demand for through traffic, underground road design, and planning design. The amount of vehicular traffic in SEKD has been much reduced with traffic flow on most of the planned distributor roads being of about 1000 vehicles per hour in one direction. With the environmental shuttle service, it is estimated that the total daily car trips and bus trips to and from SEKD would be reduced by 20,000 veh-km and 22,000 veh-km respectively. This would accordingly reduce the daily nitrogen oxides and RSP emissions from SEKD by about 160 kg and 16 kg respectively based on 2011 vehicle emission factors. However, the SEKD would still be bounded by heavily trafficked existing trunk roads namely Prince Edward Road East and Kwun Tong Bypass which contribute to the poorer air quality at the periphery of SEKD.

16.1.2 The Outline Master Development Plan provided the basis for air quality assessment. Air quality sensitive receivers were identified and air quality impacts assessed. The main impact would be from traffic emissions of open roads and vent shafts of vehicle tunnels. The modeling results showed that the levels of impact within SEKD were generally within the respective AQOs. However, exceedances were predicted at close proximity of tunnel vent shafts. Mitigation measures in the form of environmental setback and higher vent shaft exhaust height should be allowed to avoid adverse air quality impact at nearby sensitive receivers. With the implementation of the recommended mitigation measures, the air quality impact will be acceptable at all sensitive uses.

16.2 Noise Impact

16.2.1 Landuse and transport planning has provided a proactive approach in minimizing the likely noise impacts from road traffic and other sources. The approach included environmentally friendly public transportation, environmental friendly shuttle service, discourage through traffic movements, reducing noise at local levels, reducing demand for through traffic, underground and depressed road design, and planning design. The amount of vehicular traffic in SEKD has been much reduced with traffic flow on most of the planned distributor roads being less than 1000 vehicles per hour in one direction. However, high traffic volume existing roads, namely Prince Edward Road East and Kwun Tong Bypass, would still bound SEKD.

16.2.2 The Outline Master Development Plan provided the basis for noise assessments. Noise sensitive receivers were identified and noise impacts assessed. The main impact would be from road traffic noise. The traffic noise impact due to road within SEKD were generally less than 3dB(A) above the standards while the impact due to existing roads (Prince Edward Road East and Kwun Tong Bypass) could be as high as 7dB(A) above the standards. Direct mitigation measures at sources were assessed and applied as far as possible. Together with the incorporation of suggested measures within planned sites including setback, podium, and special building design, acceptable noise levels could be achieved. Landuse planning was also considered to be a better approach in resolving the problem of road traffic noise than providing extensive direct measures at roads which would introduce side effects such as visual intrusions. Providing that mitigation measures were adopted at fixed noise sources at critical locations, residual impact would not be expected. The Outline Master Development Plan was acceptable in broad terms for noise.