## Project No.: 256383 Project Name: Shuen Wan Golf Course - Environmental Impact Assessment Report Appendix 9.7 - Air Change Rate Calculation

Representative Facilities for Assessment	Approx. Total Area of Floor & Wall in contact with Landfill (A), m <sup>2</sup>	Height of Room (H), m	Approx. Volume of Room (V), m <sup>3</sup>	Gas Permeability (P) <sup>[1]</sup> , m/s	LFG Conc. Limit. (C) <sup>[2]</sup> , (v/v)	Hourly LFG Penetration (F) <sup>[3]</sup> , m <sup>3</sup> /hr	Minimum Air Change Rate Required per Hour <sup>[4]</sup>
Car Park <sup>[5]</sup>	7,000	4	26,000	1.00E-12	5.00E-03	2.52E-05	1.94E-07
Manager Quarters (one single room)	120	4	480	1.00E-12	5.00E-03	4.32E-07	1.80E-07
Staff Quarters (one single room)	25	4	100	1.00E-12	5.00E-03	9.00E-08	1.80E-07

Notes:

[1] According to LFG Hazard Assessment Guidance Note, membrane with gas permeability less than 10E-12 m/s shall be used.

[2] According to LFG Hazard Assessment Guidance Note, the concentrations of methane and carbon dioxide shall be less than 0.5% v/v.

[3] Hourly LFG Permeability in m<sup>3</sup>/hr = 3,600 AP

[4] Minimum air change rate required per hour = F / (CV)

[5] Car park will be directly in contact with the landfill and is therefore identified as the representative target at ancillary facilities for assessment.