

Mitigating Development Air Quality Impacts

IAQM Mitigation Hierarchy			Good Practice Examples	Application			
				Impact on	Site suitability		
I. Preventing or avoiding exposure/impacts to the pollutant in the first place by eliminating or isolating potential sources or by replacing sources or activities with alternatives			Making a potentially-polluting development a car-free scheme (and free from other vehicles if relevant)	✓			
			Making a potentially-polluting development a zero-emissions car/vehicle- only scheme	✓			
II. Reduction and minimisation of exposure/ impacts	Mitigation measures that act on the source	Measures that are designed or engineered to operate passively without continual intervention	Limiting number of parking places provided for the new development	✓			
			Preferential parking for low emission or car club vehicles or graduated parking charges based on emissions	✓			
			Provision of low vehicle emission infrastructure (e.g. electric vehicle charging bays, low emissions fuelling points)	✓			
			Agreement to achieve the specified emissions standards for service vehicles for the development	✓			
			Promoting and putting a car club in place at the development (to reduce absolute use and/or to give access to low-emissions vehicles e.g. electric cars)	✓			
		Active measures that require continual intervention, management or change in people's behaviours	Development and promotion of cycle-rental schemes	✓			
			Travel plans	✓			
			Scheme amended to increase the set-back distance of sensitive-use buildings from sources of pollution (e.g. a busy road)				✓
			Changes to building orientation and/or internal layout to increase effective separation distances of "habitable rooms" from air pollution sources (e.g. busy road) by placing corridors, stairwells, bathrooms, utility rooms, cellars, etc on the worst affected façade. Similarly, consider less-sensitive uses for the lower floor(s)				✓
			For mechanically-ventilated buildings, locating air-intakes away from the main source of air pollution				✓
	Mitigation measures that act on the pathway	Passive measures	Changes to scheme design to avoid creating a street canyon and trapping pollutants at receptors	✓	✓		
			Installation of bunds or barriers that interrupt the transport of polluted air to receptors	✓	✓		
			Installing green infrastructure (e.g trees) at locations between source and receptors (caution needed to ensure dispersion not compromised)	✓			
			None currently described in good practice guidance				
			Active measures	Positioning, design and screening of outside spaces of sensitive-use buildings, e.g. gardens, balconies and roof terraces		✓	
				Remove or re-locate balconies of sensitive-use buildings (especially at ground and first floors.		✓	
				Building designed without indoor combustion pollutant sources that would otherwise add to occupants' exposure. For example, fit electric cookers, electric water/space heaters, or centralised/ community water/space heating		✓	
		For mechanically- ventilated buildings, fit filters for incoming air and maintain filters in accordance with European standard EN13779.			✓		
	Mitigation measures at or close to the point of receptor exposure	Passive measures	For naturally-ventilated sensitive-use buildings, consider mechanical ventilation		✓		
			Installing green infrastructure (e.g. certain trees, green planting/walls and screens) at receptor locations.	✓	✓		
Installing air-tight windows (still openable at residents' discretion)							
Contributing funding to measures, including those identified in air quality action plans and low emission strategies, designed to offset the impact on air quality arising from the new development.			✓				
Working with the relevant planning authority or nearby property owners to identify suitable NOx and PM abatement measures off-site in the vicinity of the development.			✓				
Active measures		Contribution (can be a financial one) to help the authority develop and implement its action plan.	✓				
	Contribution to specific traffic management or road schemes.	✓					
	Contributions to local plans, related to the actual impact			✓			
	Contributing funding to measures, including those identified in air quality action plans and low emission strategies, designed to offset the impact on air quality arising from the new development.			✓			
	Working with the relevant planning authority or nearby property owners to identify suitable NOx and PM abatement measures off-site in the vicinity of the development.			✓			
III. Off-setting a new development's air quality impact by proportionately contributing to air quality improvements elsewhere			Contributing funding to measures, including those identified in air quality action plans and low emission strategies, designed to offset the impact on air quality arising from the new development.	✓			
			Working with the relevant planning authority or nearby property owners to identify suitable NOx and PM abatement measures off-site in the vicinity of the development.	✓			
			Contribution (can be a financial one) to help the authority develop and implement its action plan.	✓			
			Contribution to specific traffic management or road schemes.	✓			
			Contributions to local plans, related to the actual impact	✓			

The above hierarchy is a starting point; however, final selection of the appropriate mitigation solution should be based on the professional judgement of an appropriately qualified and experienced air quality professional on the costs and demonstrable efficacies of measures to proportionately reduce the impact for the development site in question.