

Appendix G – Overheating Checklist

Section 1 - Site features affecting vulnerability to overheating		
Site location	Urban – within central London or in a high density conurbation	No
	Peri-urban – on the suburban fringes of London	Yes
Air quality and/or Noise sensitivity – are any of the following in the vicinity of buildings?	Busy roads / A roads	Yes (A40)
	Railways / Overground / DLR	Yes (Underground + Railway)
	Airport / Flight path	Yes (Circa 9km from Heathrow and circa 1km from RAF Northolt)
	Industrial uses / waste facility	Several industrial estates nearby area
Proposed building use	Will any buildings be occupied by vulnerable people (e.g. elderly, disabled, young children)?	The residential development is likely to have a mixed demographic of occupants (e.g. elderly, disabled, young children)
	Are residents likely to be at home during the day (e.g. students)?	The residential development is likely to have a mixed demographic of occupants (e.g. students)
Dwelling aspect	Are there any single aspect units?	Yes
Glazing ratio	Is the glazing ratio (glazing: internal floor area) greater than 25%?	No
	If yes, is this to allow acceptable levels of daylighting?	N/A
Security - Are there any security issues that could limit opening of windows for ventilation?	Single storey ground floor units	Yes
	Vulnerable areas identified by the Police Architectural Liaison Officer	Officer has been consulted. Recommendations to be fulfilled.
	Other	Single storey ground floor dwellings facing the site boundary.
Section 2 - Design features implemented to mitigate overheating risk		
Landscaping	Will deciduous trees be provided for summer shading (to windows and pedestrian routes)?	Yes
	Will green roofs be provided?	Yes
	Will other green or blue infrastructure be provided around buildings for evaporative cooling?	Yes

Materials	Have high albedo (light colour) materials been specified?	Buildings 5, 6, 7, 8, and 9 will have light-coloured buff brick facades.
Dwelling aspect	% of total units that are single aspect	40%
	% single aspect with N / NE / NW orientation	0%
	% single aspect with E orientation	18%
	% single aspect with S / SE / SW orientation	5%
	% single aspect with W orientation	17%
Glazing ratio - What is the glazing ratio (glazing; internal floor area) on each facade?	N / NE / NW	15 - 20%
	E	15 - 20%
	S / SE / SW	15 - 20%
	W	15 - 20%
Daylighting	What is the average daylight factor range?	0.8% - 15.21% as per DL/SL report
Window opening	Are windows openable?	Yes. All windows are openable.
Window opening	What is the average percentage of openable area for the windows?	TBC at detailed design stage.
Window opening - What is the extent of the opening?	Fully openable	No windows.
	Limited (e.g. for security, safety, wind loading reasons)	All windows.
Security	Where there are security issues (e.g. ground floor flats) has an alternative night time natural ventilation method been provided (e.g. ventilation grates)?	TBC at detailed design stage.
Shading	Details of any external shading?	See planting plans.
	Details of any internal shading?	High performance Internal Blinds
Glazing specification	Is there any solar control glazing?	Residential Glazing: 1.2 W/m ² .K; G' value of 0.36

		Commercial glazing: 1.4 W/m ² .K; G' value of 0.36
Ventilation - What is the ventilation strategy?	Natural – background	No
	Natural – purge	Yes – Residential
	Mechanical – background (e.g. MVHR)	Yes – Residential and Commercial
	Mechanical – purge	Yes – Commercial
	What is the average design air change rate	2.3 ach
Heating system	Is communal heating present?	Yes – ASHP block by Block
	What is the flow/return temperature?	55/45 Deg
	Have horizontal pipe runs been minimised?	Yes
	Do the specifications include insulation levels in line with the London Heat Network Manual	Yes