Environmental Construction and Design Policy

1. General requirements

Description		Policy	
1.1	The Environmental Policy Statement of Great Portland Estates plc ('GPE') states that: "The Company's objective is to minimise the adverse environmental impact of new developments, refurbishment and repair works by careful consideration of design, selection of materials and construction techniques."	1.1.1	Consultants and contractors are required to follow the Company's Environmental Construction and Design Policy for all construction and design activities
		1.1.2	This Policy relates to GPE and all subsidiary companies including B & HS Management Limited.
1.2	Building Research Establishment Environmental Assessment - BREEAM	1.2.1	A BREEAM assessment should be carried out on all refurbishment projects over 20,000 sq. ft. with the aim of achieving 'very good' or better.
		1.2.2	All new build projects above £20 million are to achieve an excellent rating
		1.2.3	New build projects below £20 million should achieve a very good rating.
1.3	Information relating to the site	1.3.1	To assist GPE in discharging its requirements under the CDM regulations, all consultants and contractors are to advise GPE of any information known about the site, particularly in relation to the site or the construction work, proposals for the structure as a workplace and/or the existing Health and Safety file.

2. Design considerations

2.1	Water consumption and drainage	2.1.1	During refurbishment, drainage plans should be checked or compiled to assist with the management of wastewater.
		2.1.2	Where technically and economically feasible, oil interceptors should be installed during refurbishment on sites where significant areas of car parking are provided to reduce the risk of contamination of watercourses.
		2.1.3	Where feasible, water efficiency measures should be installed in order to reduce the amount of water consumed. Such measures may include dual-flush cisterns, reduced consumption taps, push-button taps, water efficient flush systems for urinals and rain harvesting measures.

Description		Policy	
2.2	Energy efficiency and consumption	2.2.1	During the design stage, consideration should be given to the installation of feasible energy efficiency measures. These may include, but are not limited to, the following: • appropriate zoning of heating, cooling and lighting controls; • use of movement, light and other sensors where practicable; • energy efficient lighting, where appropriate; • insulation; • secondary glazing; and • cavity wall insulation.
		2.2.2	Targets for energy consumption should be set based on best practice, case studies and benchmarks, where appropriate.
		2.2.3	Where air conditioning is a requirement, the most effective system for that particular application should be selected. The use of ozone depleting chemicals should be minimised. As a minimum requirement all consultants and contractors must ensure that compliance with the Montreal Protocol and the EC Regulation on Ozone Depleting Substances is achieved.
		2.2.4	To ensure that use of energy on all refurbished sites is managed, in most cases meters should be provided to allow individual metering of tenants' energy consumption in accordance with the Electricity Act 1989. In addition, where considered appropriate for the particular building, a Building Management System (BMS) should be installed.
		2.2.5	Consideration should be given to the selection of plant and equipment that may reduce the environmental impact of a site. This may include equipment to reduce atmospheric emissions such as low NOx burners and boilers, energy efficient fittings etc.
		2.2.6	A Planned Preventative Maintenance proposal should be included to ensure that the design criteria are maintained at optimum levels.
2.3	Noise, light and sound	2.3.1	Where refurbishment activities include replacement of plant and equipment on site, equipment generating lower levels of noise should be selected where appropriate. All designs must comply with all necessary planning consents and conditions.
		2.3.2	Alternative low level lighting should be considered to prevent undue light intrusion.

Description		Policy	
2.4	Waste management	2.4.1	During the design process, where waste management facilities are to be provided by the landlord, they should be designed to allow for recycling and to allow wastes to be stored securely.
		2.4.2	Suitable preventative pest control measures should be incorporated in all designs where appropriate.
2.5	Transport and travel	2.5.1	Consideration should be given to providing storage and changing facilities for cyclists.
		2.5.2	Transport issues should be considered as part of all new development schemes with a view to enhancing the use of public transport, shared vehicle usage or cycling.
		2.5.3	Where required, the Green Travel Plan should be written, implemented and managed for the building.
2.6	Regeneration and local environment issues	2.6.1	The impact of any significant changes to the building design on neighbouring buildings and surrounding areas should be reviewed and should include: • visual impact; • changes to wind and microclimate; and • rights of light and air.
		2.6.2	During the design process, landscape, visual impact, local issues and conservation should be considered. Neighbours and local communities should be considered during the construction process.
		2.6.3	Existing heritage, historic buildings and archaeology should be considered when considering design proposals for the building.
		2.6.4	Accessing of local amenities and open spaces should be considered during design.
2.7	Internal environment	2.7.1	Indoor air quality within the building should be optimised.
		2.7.2	Designs should ensure there is no risk of cross contamination of air inlet and air extract, either from the building or adjacent buildings.

3. Selection of raw materials

Description		Policy	
3.1	Sustainable resources	3.1.1	Raw materials used in the construction process may impact on the environment during their manufacture, their use and their final disposal. When selecting raw materials, consideration should be given to those materials demonstrating positive environmental credentials. These may include: • materials that are energy efficient; • materials that are not manufactured from a scarce or finite resource; • materials which are not hazardous to health; • materials that contain recycled products; • materials that can be reused or recycled at the end of their useful life; • materials that do not present problems during final disposal; and • materials with a low embedded carbon/energy content.
3.2	Local materials	3.2.1	Consideration should be given to sourcing materials locally to reduce the environmental impact arising from the transportation of materials, in terms of time and economics.
3.3	Certified timber	3.3.1	Care should be taken to ensure that the timber products purchased are certified as being from sustainable sources. No tropical hardwoods should be used unless it can be demonstrated, with documentation, that this is the case. Plywood that may contain tropical hardwoods is included in this requirement. Timber used in temporary works must also comply.

4. Construction techniques

4.1	Environmental information	4.1.1	Appropriate environmental information should be issued to contactors before commencing work on the site. This should include, but is not limited to, the following: • information regarding the drainage routes on the site, where available; • information regarding their responsibilities for waste disposal; and • action to be taken in the event of contamination of a surface water drain or a sewer drain.
4.2	On site contamination	4.2.1	The Project Manager should be informed immediately in the event that contractors find unexpected contamination, hazardous substances or articles of potential archaeological interest.

Description		Policy	
4.3	Site storage	4.3.1	Contractors storing hazardous substances on site during refurbishment should provide bunding, in order to reduce the risk of contamination resulting from a leak or spillage.
		4.3.2	Areas allocated for the storage of hazardous substances should be located away from environmentally sensitive areas, including storm water drains and rivers. Consideration should also be given to protecting the storage facilities from vandalism.
		4.3.3	Deliveries of hazardous substances should be supervised by the persons responsible for the procurement of that substance, or by a responsible, trained person, nominated by that company.
4.4	Spill management	4.4.1	Spillage kits should be provided and maintained for all development and refurbishment work. These should be maintained by contractors and their employees trained in its use.
4.5	Impact on local environment	4.5.1	Site surveys should be instructed for redevelopment to consider the impact of the development on local resources and environment, traffic generation, energy consumption and local amenities, where appropriate
		4.5.2	As a minimum, contractors must carry out the works in accordance with the local authority environmental guidelines in respect of noise.
		4.5.3	All working hours should respect the specific local occupiers and a voluntary Section 60 notice should be served.
		4.5.4.	All principal contractors and sites are to be registered with the appropriate Considerate Contractors scheme.
		4.5.5	Visual screening should be erected where noise is likely to be an issue with local occupiers and or tenants.
		4.5.5	All appropriate measures should be taken to ensure dust is minimised during the works.
4.6	Energy and water consumption during construction.	4.6.1	All contractors should monitor and report energy and water consumption measures to minimise consumption during the works.

Description		Policy	
4.7	Waste management	4.7.1	Wherever possible, the environmental impact arising from wastes should be minimised. GPE encourages the reduction, reuse and recycling of materials. Once all practical opportunities to reuse or recycle waste have been employed, waste may be disposed of to licensed waste disposal facilities.
		4.7.2	Duty of care regulations must be complied with at all times by contractors. This should include, but is not limited to, ensuring that only contractors holding a waste carrier's licence are permitted to carry wastes and that wastes are disposed of at appropriately licensed waste management sites.
		4.7.3	Contractors involved with removing demolition/refurbishment waste are required to hold a waste carriers licence even if they are the producer. All documentation relating to the disposal of wastes should be retained
		4.7.4	Site Contractors should ensure that during refurbishment work, adequate facilities are provided to ensure that waste is stored securely and cannot escape from waste containers.
		4.7.5	Special wastes should be segregated and appropriately disposed of.
		4.7.6	Inert wastes may also be segregated and if appropriate, disposed of to landfill sites under the lower rate of landfill tax.
		4.7.7	Burning of wastes is not permitted under any circumstances.
4.8	Environmental awareness	4.8.1	Contractors should ensure that environmental awareness training is provided to their employees and subcontractors.