Europa Capital Construction and Major Project Sustainability Guide

This guide must be used to inform decision making for the development of sustainability plans for development and major refurbishment programmes.

**Consider Sustainable Site Selection. Have the following risks and opportunities been considered?**

* Climate/climate change related risks – physical hazard exposure
* Connection to transport links and multi-modal transit networks
* Locate projects within existing developed areas
* Historical and heritage sites
* Community impact
* Brownfield redevelopment sites
* Contaminated land
* Irremediable pollution
* Follow guidance available within appropriate external codes (relevant to the location where development is planned)

**Consider Sustainable Site Development Requirements. Can the following issues be considered?**

* Reduction of pollution and land development impacts from automobile use
* Minimize site disruption by using the most sustainable building footprint
* Protection or restoration of habitats and promotion of biodiversity
* Implementation of a storm water management plan
* Reduction of heat island effects to minimize impact on microclimate and human and wildlife habitat
* Minimize light pollution
* Construction activity pollution prevention
* Community connectivity

**Consider Community Engagement.**

* What are the community impacts?
* How can these be mitigated?
* Are there any positive community opportunities?
	+ Employment creation in local community
	+ Enhancement programs for public spaces
	+ Research and network activities
	+ ESG education program
	+ Supporting local charities and community groups
* What communication methods are provided to ensure effective communication – to received feedback and to address community concerns?

**Consider community impact monitoring.**

* Development and implementation of a communication plan / community consolation strategy for each project
* Development and implementation of a community monitoring plan for each project
* Identification of key stakeholders and impacted group for the project
* Identification of disruption and nuisance risks
* Development of a risk mitigation plan
* Can community engagement and long-term socio-economic impacts on the community be monitored through the project?
	+ Housing affordability
	+ Crime levels
	+ Local job creation
	+ Local income generated
	+ Walkability score of project

**Can Sustainable Materials be specified? Consider:**

* Use of building materials or products that have been locally extracted or recovered
* All materials used should be ‘Red List Free’ from the International Living Future Institute
* Use of rapidly renewable materials and recycled content materials
* Materials that disclose environmental impact
* Materials that disclose potential health hazards
* Use of third-party certified wood-based materials and products
	+ Procurement of Forest Stewardship Council (FSC) wood as minimum standard
* Use of low-emitting Volatile Organic Compounds (VOC) materials (including paints, coating, adhesives, and sealants)
* Low embodied carbon materials
* Use refrigerants and insulants with a Global Warming Potential (GWP) less than 10

**Consider Green Building Certification Schemes. Are any of the following feasible?**

* BREEAM
* LEED
* SKA
* HQE
* DGNB
* WELL
* FITWEL
* Others
* Minimum target rating for BREEAM 2018 NC Excellent/ In-Use Very Good / HQE Good / LEED Gold for all projects, where feasible.
* Alignment to BREEAM Very Good requirements for all projects, even where certification not targeted.

**Consider the feasibility of completing a life cycle assessment. Has a lifecycle assessment been completed?**

* Quantitative assessment
* Qualitative assessment

**Net Zero considerations. Is alignment to a Net Zero code/standard targeted?**

* Net Zero carbon construction
* Net Zero carbon operational energy

**Consider Energy Performance. Can the following be implemented?**

* Minimum EPC rating of B (or local equivalent)
* Alignment to EU taxonomy criteria
	+ Minimum requirement to meet Nearly Zero Energy Building Standard (NZEB)
	+ Net primary energy demand that is at least 20% lower than the level mandated by national regulations
* Energy performance that exceeds applicable mandatory requirements by at least 10% for new construction projects and 5% for major renovations
* Development and implementation of a commissioning plan
* Verification of the installation and performance of the building energy systems
* Installation of a building management system, where feasible

**Can Renewable Energy be generated on site? Consider feasibility of:**

* Solar/photovoltaic
* Wind
* Geothermal
* Hydro
* Biofuels
* Co/tri-generation

**Does the entity implement measures specifically focused on occupant wellbeing for new construction and major renovation projects? Consider:**

* Optimisation of the indoor environment
	+ Acoustic comfort
	+ Biophilic design
	+ Daylight
	+ Humidity
	+ Illumination
	+ Indoor air quality
	+ Natural ventilation
	+ Thermal comfort
	+ Water quality
* Avoid overheating and excessive heat generation, through consideration of the following hierarchy
	+ Minimise heat generation through energy efficient design
	+ Reduce heat generation through consideration of orientation, shading albedo (white paint / reflective materials), fenestration, insulation, green roofs, and walls
	+ Passive ventilation
	+ Mechanical ventilation
	+ Active cooling systems (lowest carbon options)
* Provision of user-friendly building facilities, furnishings and fit-outs
* Provision of services to support and encourage active transport methods
* Provision of active design features and facilities that promote physical activity

**Has Energy Efficiency been considered?**

* Air conditioning
* Energy modelling
* High efficiency equipment and appliances
* Lighting
* Occupant controls
* Space heating
* Water heating
* Ventilation
* Energy systems commissioning
* Pressure testing to ensure air tightness
* Automatic meter reading (AMR) devices

**Has Water Efficiency been considered?**

* High-efficiency fixtures
* Dry fixtures
* Leak detection system
* Drip/smart irrigation
* Drought tolerant landscaping
* Occupant sensors to reduce the potable water demand
* Re-use of storm water and grey water for non-potable applications
* On-site wastewater treatment
* Water systems commissioning
* Automatic meter reading (AMR) devices

**What Waste Management policies are feasible during construction?**

* Waste management plans
* Education for contractors and relevant employees on waste management requirements
* Construction waste signage
* Diversion rate requirements
* Incentives for contractors for recovering and recycling building materials
* Project specific targets for waste stream recovery, reuse, and recycling
* Waste management plan
* Waste separation facilities
* Waste volume monitoring for hazardous and non-hazardous waste streams

**Consider Contractor Requirements**

* Contractor needs to be in compliance with an international standard (e.g., ISO 14001)
* Contractor needs to have sustainability resource/staff on site
* Contractor provides update reports on environmental and social aspects during construction
* Contractor ESG training
* Contractor needs to provide regular updates on safety monitoring metrics for construction sites