JOB NAME	Unit 7, Gateway 36
SCHEME	Industrial
Type	Industrial - Warehouse, storage or distribution
Project Scope	Shell & Core
Technical Manual	v6.1
Issue Number	1
Target Rating	EXCELLENT

Category	Weighting	Available	Targeted	Targeted weighting	Possible	Possible weighting
Management	11.0%	18	17	10.39%	17	10.39%
Health and Wellbeing	8.0%	10	7	5.60%	8	6.40%
Energy	14.0%	21	19	12.67%	19	12.67%
Transport	11.5%	12	8	7.67%	10	9.58%
Water	7.0%	9	7	5.44%	9	7.00%
Materials	17.5%	14	8	10.00%	9	11.25%
Waste	7.0%	9	8	6.22%	8	6.22%
Land Use and Ecology	15.0%	13	10	11.54%	10	11.54%
Pollution	9.0%	12	9	6.75%	9	6.75%
Innovation	10.0%	18	2	2.00%	2	2.00%
				78.28%		**83.80%**

Revision	Date	Notes
1	10/10/2024	Initial pre-assessment to show route through to an Excellent rating following meeting 03/10/2024. Target = 78.28%
2	21/10/2024	Initial pre-assessment for draft planning submission. Target = 78.28%

Credit Ref	Credit Name	Available credits	Target credits	Possible credits	Responsibility	RIBA Stage	Credit Summary	Comments
Management								
Man 01 Project brief and design	Project delivery planning	1	1	1	PM	**RIBA STAGE 2**	By concept design the project stakeholders have identified their roles and responsibilities for each key phase, demonstrating how this has influenced the project.	Credit requirements and examples issued through to RPP 10/10/2024.
	Stakeholder consultation (interested parties)	1	0	0	CLIENT/ PLANNING	**RIBA STAGE 2 & 4**	By concept design all interested parties have been consulted on minimum consultation content to influence project brief and concept design, with feedback provided by the end of detailed design.	
	Prerequisite for BREEAM Advisory Professional	-	-	-	CLIENT	**RIBA STAGE 1/2**	The project team and client formally agree strategic performance target early in the design process.	
	BREEAM AP (Concept Design)	1	1	1	PM/ BREEAM AP	**RIBA STAGE 2**	During concept design the BREEAM AP is appointed to monitor progress, proactively support the scheme and support corrective action towards target rating.	Orbis to act as BREEAM AP.
	BREEAM AP (Developed Design)	1	1	1	PM/ BREEAM AP	**RIBA STAGE 3**	During developed design the BREEAM AP is appointed to monitor progress, proactively support the scheme and support corrective action towards target rating.	Orbis to act as BREEAM AP.
Man 02 Life cycle cost and service life planning	Elemental LCC	2	2	2	LCC CONSULTANT	**RIBA STAGE 2**	During concept design an elemental LCC with design options appraisal is undertaken to influence design, minimise life cycle costs and maximise critical value.	Credit requirements issued through to RPP 10/10/2024. Chased and confirmed in email from RPP 18/10/2024 that they are going to undertake.
	Component level LCC options appraisal	1	1	1	LCC CONSULTANT	**RIBA STAGE 4**	During technical design a component level LCC options appraisal undertaken to influence design, minimise life cycle costs and maximise critical value.	Credit requirements issued through to RPP 10/10/2024. Chased and confirmed in email from RPP 18/10/2024 that they are going to undertake.
	Capital cost reporting	1	1	1	QS		Capital cost of the building in £/m2 (GIFA) is reported to the BRE.	Letter to be provided post-planning submission from RPP to confirm.
	Prerequisite - Legal and sustainable timber	-	-	-	MAIN CONTRACTOR		All the timber and timber-based products used during construction process are legal and sustainable timber.	Requirement to be included in Main Contractor prelims.
	Prerequisite - For Healthcare NHS buildings only	-	-	-	MAIN CONTRACTOR		Any party who manages the construction site operates an EMS covering their main operations.	
	Environmental management	1	1	1	MAIN CONTRACTOR		Any party who manages the construction site operates an EMS covering their main operations and follows PPG6 regarding pollution prevention procedures.	Requirement to be included in Main Contractor prelims.
	Prerequisite for the BREEAM AP credit	-	-	-	CLIENT/ MAIN CONTRACTOR		The client and contractor formally agree BREEAM performance targets.	Requirement to be included in Main Contractor prelims.

Man 03 Responsible construction practices	BREEAM AP (Site)	1	1	1	MAIN CONTRACTOR		he BREEAM AP is appointed to monitor and report ongoing compliance of the project against relevant sustainability performance criteria during the construction, handover and close out stages.	Requirement to be included in Main Contractor prelims.
	Responsible construction management	2	2	2	MAIN CONTRACTOR		Up to two credits based upon the responsible construction mangement by any party who manages the construction site, either via the checklist in the manual or CCS.	One credit: Excellent Two credits: Outstanding
								Requirement to be included in Main Contractor prelims.
	Monitoring of construction site impacts - Utility consumption	1	1	1	MAIN CONTRACTOR		Monitoring, recording and reporting of on-site energy/carbon and water used during the construction process with comparison against targets.	Requirement to be included in Main Contractor prelims.
	Monitoring of construction site impacts - transportation of construction materials and waste	1	1	1	MAIN CONTRACTOR		Monitoring, recording and reporting of transport carbon emissions used during the construction process with comparison against targets.	Requirement to be included in Main Contractor prelims.
Man 04 Commissioning and handover	Commissioning - testing schedule and responsibilities	1	1	1	M&E/ MAIN CONTRACTOR		Undertake monitoring, programming, pre-commissioning, commissioning and re-commissioning in line with best practice guidelines. An appropriate project team member is appointed to monitor commissioning on behalf of the client	One credit: Very Good, Excellent, Outstanding
								Requirement to be included in M&E specification.
	Commissioning - design and preparation	1	1	1	M&E/ MAIN CONTRACTOR		The principal contractor appoints a project team not involved in the general installation for design reviews, management and handover. A specialist commissioning manager is needed where there are complex building services.	Requirement to be included in M&E specification.
	Testing and inspecting building fabric	1	1	1	MAIN CONTRACTOR		Air tightness testing and a thermographic study is undertaken post-construction to confirm continuity of insulation, avoidance of excessive thermal bridging, air leakage paths and any remediation required.	Requirement to be included in Main Contractor prelims.
	Handover	1	1	1	MAIN CONTRACTOR		Production of both a technical and non-technical building user guide and training schedules.	Criterion 11 (Building User Guide): Very Good, Excellent, Outstanding
								Requirement to be included in Main Contractor prelims.
Man 05 Aftercare	Aftercare support				MAIN CONTRACTOR		Aftercare support provided for 12 months from occupation. Operational infrastructure and resources are established to record energy and water use, with comparison against expected.	
	Commissioning - implementation				M&E/ MAIN CONTRACTOR		Undertake post-completion seasonal commissioning of complex and simple systems for minimum of 12 months following substantial occupation.	One credit: Excellent, Outstanding

Aftercare	Post-occupancy evaluation (POE)				OPERATOR		Independent 3rd party Post Occupancy Evaluation is undertaken 12 months after occupation. This includes a review of design & construction process, feedback from building users and sustainability performance. The client will disseminate this information to share good practice and lessons learned.	
	Category score	18	17	17				
	Category Weighting	11%						
	% Score	11.00%	10.39%	10.39%				
Health and Wellbeing								
Hea 01 Visual comfort	Control of glare from sunlight				ARCHITECT		All relevant areas have used glare control strategies to design out the potential for glare.	
	Daylighting (building type dependent)	1	0	0	ENERGY MODELLING		80% of the occupied spaces have a daylight factor of at least 2%. In addition uniformity, view of sky and room depth criteria must be satisfied.	Discussed at meeting 03/10/2024, FHP to check on the layout quickly if the credit could be achieved and provide a fee to Harworth to undertake the study if the credit could be awarded.
	View out	1	0	1	ARCHITECT		95% of the floor spaces in 95% of the relevant building areas provide an adequate view out.	Discussed at meeting 03/10/2024, considered a possible credit. Requirements sent on email to THP 10/10/2024.
	External lighting	1	1	1	M&E		Specification of internal and external lighting levels in line with the relevant British Standards and CIBSE guidance. Internal lighting controls are in line with BREEAM guidance.	Details sent to THP to pass to Kingfisher to incorporate into the design. Requirement to be included in M&E specification.
Hea 02 Indoor air quality	Prerequisite - Indoor air quality (IAQ) plan	-	-	-	M&E/ AIR QUALITY		Mandatory pre-requisite for Hea 02, a site-specific indoor air quality plan is produced.	Requirement to be included in Main Contractor prelims.
	Ventilation	1	1	1	M&E		Fresh air is provided into the building is in accordance with the relevant standard for ventilation. Design must ensure ventilation pathways are designed to prevent ingress and build-up of pollutants.	Requirement to be included in M&E specification.
	Emissions from construction products				ARCHITECT/ MAIN CONTRACTOR		Up to two credits based upon the number of internal finishes have met the testing requirements and emission levels for Total Volatile Organic Compounds (TVOCs) and carcinogens.	
	Post-construction indoor air quality measurement				MAIN CONTRACTOR		Formaldehyde and other airborne Total Volatile Organic Compounds (TVOC) concentration levels are measured post-construction, and remediation undertaken where the levels do not meet the BREEAM standards.	
	Thermal modelling	1	1	1	M&E	**RIBA STAGE 4**	Dynamic thermal comfort analysis undertaken to ensure CIBSE comfort levels are met and the building complies with the relevant 'Time out of Range' metric for summer and winter.	Requirements issued to FHP 10/10/2024 to provide a fee to undertake pre-tender, with requirement included in M&E specification for the tenderer to take the model on with their design.

Hea 04 Thermal comfort	Design for future thermal comfort	1	1	1	M&E	**RIBA STAGE 4**	Additional modelling undertaken beyond the previous credit for a projected climate change environment. Where comfort levels are not met, the project team demonstrates how the building can be easily adapted in the future using passive design solutions to comply.	Requirements issued to FHP 10/10/2024 to provide a fee to undertake pre-tender, with requirement included in M&E specification for the tenderer to take the model on with their design.
	Thermal zoning and controls				M&E		The temperature control strategy has been informed by the thermal comfort modelling, and is suitable based upon the expected uses and occupancies of the building.	
Hea 05 Acoustic performance	Sound insulation				ACOUSTICIAN		The sound insulation between rooms and other occupied areas complies with the performance criteria given in Section 7 of BS 8233:2014. Alternatively, propose performance standard based on demonstrably best practice.	
	Indoor ambient noise level	1	1	1	ACOUSTICIAN		Achieve indoor ambient noise levels that comply with the design ranges given in Section 7 of BS 8233:2014.	Credit requirements issued to Sharps Redmore 10/10/2024 to provide a fee to undertake.
	Room acoustics.				ACOUSTICIAN		Achieve the requirements relating to sound absorption and reverberation times, where applicable, set out in Section 7 of BS 8233:2014.	
Hea 06 Security	Security of site and building	1	1	1	SECURITY CONSULTANT/ MAIN CONTRACTOR	**RIBA STAGE 2**	During concept design a 'Suitably Qualified Security Specialist' undertakes a Security Needs Assessment of the proposed scheme, site and surroundings. Any security controls and recommendations are incorporated within the design.	Details sent to Cpted for a fee to undertake 10/10/2024. Fee received from Cpted the same day. Email from RPP 16/10/2024 to Cpted provides instruction to proceed with the SNA.
Hea 07 Safe and healthy surroundings	Safe access	1	1	1	ARCHITECT		Safe access requirements for pedestrians and cyclists have been incorporated into the external design.	Discussed at meeting 03/10/2024, and should be possible to target. Requirements sent on email to THP 10/10/2024.
	Outside space	1	0	0	ARCHITECT		Incorporate an outside space providing building users with an external amenity area to encourage users to gather, socialise, relax and connect with the natural environment.	Discussed at meeting 03/10/2024, and not achievable.
		10	7	8				
		8%						
		8.00%	5.60%	6.40%				

Energy								
Ene 01 Reduction of energy use and carbon	Energy performance	9	8	8	ENERGY MODELLING		Up to nine credits awarded based on the building regulations analysis and the reduction in Energy Demand, Energy Consumption and Building Emission Rate.	Four credits: Excellent OR four credits for Prediction of operational energy Six credits: Outstanding 8 credits assumed based upon Unit 4. FHP to undertake model and include requirement within M&E specification for the subcontractor to comply.
	Prediction of						Achieve the passive design report is undertaken for Ene 04.	Four credits: Excellent* OR four credits for Energy Performance Four credits: Outstanding* *it must be demonstrated that the operational energy performance has been substantially improved.

carbon emissions	Prediction of operational energy consumption	4	4	4	ENERGY MODELLING		Four credits where additional energy modelling during design and post-construction stages to generate predicted energy consumption under differing scenarios.	Requirements issued to FHP 10/10/2024 to provide a fee to undertake.
Ene 02 Energy monitoring	Sub-metering of end-use categories	1	1	1	M&E		Insall energy monitoring system so at least 90% of estimated annual energy consumption of each fuel is assigned to end-use categories, and monitored via appropriate energy monitoring	One credit: Very Good, Excellent, Outstanding Requirement to be included in M&E specification.
	Sub-metering of high energy load and tenancy areas	1	1	1	M&E		Install energy monitoring system for sub-metering of the tenant/ building areas monitored via appropriate energy monitoring and management system.	Requirement to be included in M&E specification.
Ene 03 External lighting	External lighting	1	1	1	M&E		The average initial luminous efficacy of the external lighting fittings is not less than 70 luminaire lumens per circuit Watt, with automatic control to prevent operation during daylight hours and presence detection in areas of intermittent pedestrian traffic.	Details sent to THP to pass to Kingfisher to incorporate into the design. Requirement to be included in M&E specification.
Ene 04 Low carbon design	Passive design analysis	1	1	1	ENERGY MODELLING	**RIBA STAGE 2**	Achieve the first thermal comfort model credit for Hea 04. At concept design stage undertake a passive design report to reduce energy demand and carbon emissions through passive design measures.	Requirements issued to FHP 10/10/2024 to provide a fee to undertake.
	Free cooling	1	0	0	M&E		Undertake a free cooling analysis as part of the passive design analysis to identify and incorporate free cooling solutions in the design.	
	Low and zero carbon feasibility study	1	1	1	ENERGY MODELLING	**RIBA STAGE 2**	At concept design stage undertake a low and zero carbon feasibility study by an energy specialist, and incorporate the recommendations of the report to reduce carbon emissions.	Requirements issued to FHP 10/10/2024 to provide a fee to undertake.
Ene 06 Energy efficient transportation systems	Energy consumption	1	1	1	LIFT CONSULTANT/ MANUFACTURER		A transportation system analysis is carried out to determine and specify the optimum number, size and type of lifts. Specify the transportation system with the lowest energy consumption.	Requirement to be included in Main Contractor prelims.
	Energy efficient features	1	1	1	LIFT CONSULTANT/ MANUFACTURER		Incorporate the energy efficient features for the lifts, and regenerative drives where their use is demonstrated to save energy.	Requirement to be included in Main Contractor prelims.
Ene 08 Energy efficient equipment	Energy efficient equipment				OPERATOR/ MAIN CONTRACTOR		Identify and estimate the unregulated energy consuming loads within the building to identify the majority of unregulated energy use within the building to demonstrate a meaningful reduction in energy use.	
		21	19	19				

14%		
14.00%	12.67%	12.67%

Transport								
Tra 01 Transport assessment and travel plan	Transport assessment and Travel plan	2	2	2	TRANSPORT CONSULTANT/ ARCHITECT	**RIBA STAGE 2**	At concept design stage undertake a site-specific transport assessment and draft travel plan to influence the development design. Following the transport assessment develop a site specific travel plan with the occupier if known.	Credit requirements issued through to Mosodi to incorporate into the planning documents 10/10/2024.
Tra 02 Sustainable transport measures	Transport options implementation	10	6	8	-		Mandatory pre-requisite for Tra 02 to achieve criteria 3-5 in the Tra 01 credit.	
	Existing accessibility index	-	-	-	TRANSPORT CONSULTANT		Existing AI of >8 for all other building, or >4 for prisons, MOD, rural or 'other building type 3.	
	Increased accessibility index	-	-	-	TRANSPORT CONSULTANT		Demonstrate an increase in the existing accessibility index through improved public transport routes, nodes or frequency of services.	
	Public transport information system	-	-	-	ARCHITECT		Provide a realtime public transport information system.	
	Electric vehicle charging	-	-	-	ARCHITECT/ M&E		10% of the parking capacity to be minimum 7kW electric vehicle charging points.	Targeted on Unit 4. EV charging confirmation received from Mosodi 04/10/2024 confirming 26 EV spaces for 183 total parking spaces. Requirements sent on email to THP 10/10/2024. One credit targeted.
	Car Sharing	-	-	-	ARCHITECT/ OPERATOR		5% of the car parking spaces to be priority spaces for car sharers, and policy supported in operation (where operator known).	Targeted on Unit 4. Requirements sent on email to THP 10/10/2024. One credit targeted.
	Local authority foot/cycle-path improvements	-	-	-	TRANSPORT CONSULTANT		During initial brief the design team consults with the local authority on the most relevant local public foot/cycle-path improvements, and agree and implement at least one proposition.	Possible on Unit 4. Summary from Mosodi received 07/10/2024 confirming as part of the masterplan what foot and cycle path improvements were made for the scheme. Two credits targeted.
	Cycle spaces	-	-	-	ARCHITECT		Provide compliant cycle storage spaces in line with: - 1 cycle space per 10 staff (inc. sliding scale for compliance)	Targeted on Unit 4. Requirements sent on email to THP 10/10/2024. One credit targeted. Clarification on number of staff calculation using previous experience included.
	Cyclist facilities	-	-	-	ARCHITECT		Provide at least two compliant cyclist facilities: - Showers - Changing facilities - Lockers - Drying spaces	Targeted on Unit 4. Requirements sent on email to THP 10/10/2024. One credit targeted.
	Existing amenities	-	-	-	TRANSPORT CONSULTANT		At least three existing amenities are within 500m of the building via a safe pedestrian route.	

	Enhanced amenities	-	-	-	ARCHITECT		Up to three credits for incorporating new enhanced amenities within the building.	Response from BRE 24/09/2024 on Unit 4 confirms new outdoor space as part of the masterplan can be used in line with KBCN1432: "Where a masterplan scheme, undertaken by the same developer, includes a number of compliant amenities for Tra02, subject to meeting the criteria, these can be considered as 'new amenities' (rather than existing) for building level assessments on the site." Two credits targeted.
		12	8	10				
		12%						
		11.50%	7.67%	9.58%				
Water								
Wat 01 Water consumption	Water consumption	5	3	5	ARCHITECT/ M&E		Up to five credits for the reduction of potable water consumption beyond the baseline performance.	One credit: Good, Very Good, Excellent Two credits: Outstanding 3 credits assumed at planning stage. Increase to 5 credits would involve rain/ grey-water harvesting.
Wat 02 Water monitoring	Water monitoring & sub-monitoring	1	1	1	M&E		Install a main water meter on the supply to each building, and sub-meters in areas/plant with over 10% of building water demand. All meters must have a pulsed output and be connected to	Criterion 1 only: Good, Very Good, Excellent, Outstanding Requirement to be included in M&E specification.
Wat 03 Water leak detection	Leak detection system	1	1	1	M&E		Installation of a water leak detection unit within the building, and between the building and utilities water meter.	Requirement to be included in M&E specification.
	Flow control devices	1	1	1	M&E		Installation of flow-control devices to each WC area and sanitary facility to ensure water is only supplied according to demand, and minimise wastage and leaks.	Requirement to be included in M&E specification.
Wat 04 Water efficient equipment	Water efficient equipment	1	1	1	ARCHITECT/ M&E/ OPERATOR		The unregulated water demands have been identified, and mitigation or reduced where possible. This can be through either good practice design or specification to achieve a meaningful water demand reduction.	Discussed on Unit 4, comments received 03/10/2024 confirming that the planting has been designed to be resilient in terms of climate change and the vagaries of standard UK seasons. All plants are hardy to Zone 4 and are scheduled for planting in the winter months during the 'dormant' season. This ensures that plant roots develop and establish during the winter, helping prevent die-back in summer and promote healthy, low-maintenance planting typologies. Unit 4 also has an area of extensive green roof. This will likely be composed of a proprietary Sedum roof designed by a whole-roof-system design company such as Bauder or Alumasc. These should also be of low maintenance and should be able to withstand all UK climatic events, including prolonged hot, dry weather and should require no additional irrigation. Query sent back 04/10/2024 asking for formal note on this from Urban Wilderness for Unit 7.
		9	7	9				
		7%						
		7.00%	5.44%	7.00%				
Materials								

Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)	Superstructure - Option appraisal during Concept Design (all building types)	7	5	5	LCA CONSULTANT	**RIBA STAGE 2**	During concept design undertake a LCA options appraisal of at least two to four significantly different superstructure design options. Submit the results to the BRE at the end of concept design and before planning permission is applied for.	Discussed at meeting 03/10/2024, RPP confirm they are appointed to undertake. Chased and confirmed in email from RPP 18/10/2024 that they are going to undertake.
	Substructure and hard landscaping - Options appraisal during Concept Design (all building types)				LCA CONSULTANT	**RIBA STAGE 2**	During concept design undertake a LCA options appraisal of at least six different substructure or hard landscaping design options. Submit the results to the BRE at the end of concept design and before planning permission is applied for.	Discussed at meeting 03/10/2024, RPP confirm they are appointed to undertake. Chased and confirmed in email from RPP 18/10/2024 that they are going to undertake.
	Superstructure - Options appraisal during Technical Design (all building types)				LCA CONSULTANT	**RIBA STAGE 4**	During technical design undertake a LCA options appraisal of at least two to three significantly different superstructure design options. Submit the results to the BRE at the end of technical design.	
	Superstructure - Comparison with the BREEAM LCA benchmark during Concept Design (office, industrial and retail buildings only)				LCA CONSULTANT	**RIBA STAGE 2**	During concept design undertake a building LCA of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT compliant LCA tool. Submit the results to the BRE at the end of concept design and before planning permission is applied for.	Discussed at meeting 03/10/2024, RPP confirm they are appointed to undertake. Chased and confirmed in email from RPP 18/10/2024 that they are going to undertake.
	Superstructure - Comparison with the BREEAM LCA benchmark during Technical Design (office, industrial and retail buildings only)				LCA CONSULTANT	**RIBA STAGE 4**	During technical design undertake a building LCA of the superstructure design using either the BREEAM Simplified Building LCA tool or an IMPACT compliant LCA tool. Submit the results to the BRE at the end of technical design.	
Mat 02 Environmental impacts from construction products - EPD	Environmental Product Declarations (EPD)	1	0	0	MAIN CONTRACTOR		Specify construction products with an EPD achieve a combined point score of at least 20 calculated in line with BREEAM methodology.	
Mat 03 Responsible sourcing of construction products	Prerequisite - Legal and sustainable timber	-	-	-	MAIN CONTRACTOR		All the timber and timber-based products used on the project are legal and sustainable timber.	Criterion 1 only: Pass, Good, Very Good, Excellent, Outstanding Requirement to be included in Main Contractor prelims.
	Enabling sustainable procurement	1	1	1	CLIENT/ MAIN CONTRACTOR	**RIBA STAGE 2**	At concept design stage produce a documented sustainable procurement plan to be used by the design team to guide specification towards sustainable construction.	Requirements sent through to Harworth for comment 10/10/2024.
	Measuring responsible sourcing	3	2	2	MAIN CONTRACTOR		Up to three credits based on specifying materials whose manufacture and production processes have been certified through an EMS (Environmental Management System) process.	Requirement to be included in Main Contractor prelims.

Mat 05 Designing for durability and resilience	Designing for durability and resilience	1	0	1	ARCHITECT		Specifying suitable protection measures to areas vulnerable to pedestrian traffic, internal vehicular/trollies, external vehicles and malicious damage. Building elements are designed to limit degradation due to environmental factors. Convenient access to roof/ facade for cleaning, replacement and repair, and designed to prevent water damage, ingress and ponding.	Discussed at meeting 03/10/2024, concern regarding MEWP access externally and whether this would constitute easy access for maintenance and cleaning. Orbis have queried with the BRE 10/10/2024. Response from the BRE 10/10/2024 confirms that consideration of all the options for safe and convenient access and that the most appropriate has been selected. Where it is not possible to design safe access without using plant of some form, MEWP may be a solution to safe and convenient access. Details passed to THP 14/10/2024.
Mat 06 Material efficiency	Material efficiency	1	0	0	ARCHITECT/ MAIN CONTRACTOR	**RIBA STAGE 1**	At preparation and brief stage, and each subsequent RIBA stage opportunities have been identified, investigated and implemented to optimise the materials through procurement, construction, maintenance and end-of-life.	
		14	8	9				
		18%						
		17.50%	10.00%	11.25%				
Waste								
Wst 01 Construction waste management	Pre-demolition audit				DEMO SPECIALIST	**RIBA STAGE 2**	At concept design stage a pre-demolition audit of any existing buildings, structures or hard surfaces being considered for demolition is undertaken to determine whether refurbishment or reuse is feasible.	
	Construction resource efficiency	3	3	3	MAIN CONTRACTOR		A Resource Management Plan (RMP) shall be prepared covering waste use, monitoring and recording. Up to three credits awarded based upon the volume or weight of non-hazardous construction waste generated.	One credit: Outstanding Requirement to be included in Main Contractor prelims.
	Diversion of resources from landfill	1	1	1	MAIN CONTRACTOR		At least 70% (volume) or 80% (mass) of non-hazardous non-demolition construction waste, and 80% (volume) or 90% (mass) of non-hazardous demolition waste are diverted from landfill.	Requirement to be included in Main Contractor prelims.
Wst 02 Use of recycled and sustainably sourced aggregates	Project Sustainable Aggregate Points	1	0	0	MAIN CONTRACTOR		Details of the appropriate aggregates identified are used to calculate project sustainable aggregate points between 3.5 - 6 in line with the BREEAM requirements.	
Wst 03 Operational waste	Operational waste	1	1	1	ARCHITECT		Provide adequate segregated and accessible storage space for the expected general and recyclable waste streams operated on-site.	One credit: Excellent, Outstanding Requirements sent on email to THP 10/10/2024.
	Additionally for multi-residential buildings	-	-	-	ARCHITECT/ OPERATOR		Individual recycling containers are provided in the kitchen areas in addition to general storage waste, including composting waste.	

Wst 04 Speculative finishes (Offices only)	Speculative floor and ceiling finishes	-	-	-	ARCHITECT		For tenanted areas, where the future occupant is not known and carpets or other floor or ceiling finishes are installed, these must be limited to a show area only.	
Wst 05 Adaptation to climate change	Resilience of structure, fabric, building services and renewables installation	1	1	1	ARCHITECT/ STRUCTURES / M&E	**RIBA STAGE 2 & 4**	During concept design stage, a climate change adaptation strategy appraisal for structure, fabric, building services and renewables installation resilience is undertaken. During technical design stage the recommendations are incorporated where practical and cost-effective.	Requirements sent on email to THP 10/10/2024.
Wst 06 Design for disassembly and adaptability	Design for disassembly and functional adaptability - recommendations	1	1	1	ARCHITECT	**RIBA STAGE 2**	During concept design stage, an ease of disassembly and functional adaptation potential study is undertaken which includes recommendations to enable and facilitate disassembly and functional adaptation.	Requirements sent on email to THP 10/10/2024.
	Disassembly and functional adaptability – implementation	1	1	1	ARCHITECT	**RIBA STAGE 4**	During technical design stage the recommendations are incorporated where practical and cost-effective. A guide is produced outlining the functional adaptability and disassembly to future tenants.	Requirements sent on email to THP 10/10/2024.
		9	8	8				
		7%						
		7.00%	6.22%	6.22%				

Land Use and Ecology								
LE 01 Site selection	Previously occupied land	1	0	0	ARCHITECT		At least 75% of the developments footprint is on an area of previously developed land for industrial, commercial or domestic purposes in the last 50 years.	
	Contaminated land	1	0	0	SITE INVESTIGATION		A contaminated land professional undertakes a site investigation, risk assessment and appraisal, which deems if the site is contamination. If the site is deemed contaminated, appropriate remediation shall be implemented.	
LE 02 Ecological risks and opportunities	Prerequisite - Statutory obligations	-	-	-	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	
	Survey and evaluation	1	1	1	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	A SQE is appointed to carry out survey and evaluation early enough to influence site preparation, layout and straegic planning decisions. The survey shall determine the ecological baseline, the current and potential ecological value of the site and ZOI, direct and indirect risks and capacity for enhancement. Recommendations and data and shared with project team members to influence early stage decisions.	Credit details sent to FPCR to undertake 10/10/2024.

	Determining ecological outcomes	1	1	1	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	The project team liaise and collaborate with representative stakeholders early enough to influence key planning decisions to identify optimal ecological outcomes, select measures to meet the optimal ecological outcomes for the site in line with the mitigation hierarchy of action.	Credit details sent to FPCR to undertake 10/10/2024.
LE 03 Managing impacts on ecology	Prerequisite – Ecological risks and opportunities	-	-	-	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	The LE02 'Survey and evaluation' and 'Determining ecological outcomes' criteria have been achieved.	
	Planning and measures on-site	1	1	1	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Further planning to avoid and manage negative ecological impacts on-site is carried out early enough to influence concept design and the design brief. On-site measures for managing negative ecological impacts during site preparation and constructionare implemented in-practice.	Credit details sent to FPCR to undertake 10/10/2024.
	Managing negative impacts	2	2	2	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Negative impacts from the site preparation and construction works have been managed according to the mitigation hierarchy, in line with the SQE's recommendations - 1 credit where loss of ecological value has been minimised. - 2 credits where no overall loss of ecological value has occurred.	Credit details sent to FPCR to undertake 10/10/2024.
	Prerequisite - Managing negative impacts on ecology	-	-	-	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	LE03 criterion 6 (foundation) or 8 (comprehensive) has been achieved. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.	
	Change and enhancement of ecology (foundation)	-	-	-	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Locally relevant ecological measures have been implemented that enhance the site's ecological value. The measures adopted are based on recommendations from local expertise, input and guidance, and input from the project team in collaboration with representative stakeholders and data as part of LE02 'Determining ecological outcomes'.	

LE 04 Ecological change and enhancement	Ecological enhancement (comprehensive	1	1	1	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Measures have been implemented that enhance ecological value, which are based on input from the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02. - On site, and where this is not feasible. - Off site within the Zone of Influence. Data collected are analysed and where potentially valuable, provided to the local environmental records centres nearest to, or relevant for, the site.	Credit details sent to FPCR to undertake 10/10/2024.
	Change and enhancement of ecology	3	2	2	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Up to three credits are awarded based on the change in ecological value occurring as a result of the project, calculated accordance with the process set out in GN36. - 1 credit for 75% and 94% - Minimising loss. - 2 credits for 95% and 104% - No net loss for the habitats assessed. - 3 credits for 105% and 109% - Net gain for the habitats assessed.	Credit details sent to FPCR to undertake 10/10/2024.
LE 05 Long term ecological management and maintenance	Prerequisite - Statutory obligations, planning and site implementation	-	-	-	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site. LE03 criterion 6 (foundation) or 8 (comprehensive) has been achieved, and at least one credit under LE04 'Change and enhancement of ecology'.	
	Management and maintenance throughout the project	1	1	1	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Measures have been implemented to manage and maintain ecology throughout the project. These measures are based on input from the project team in collaboration with representative stakeholders and data collated as part of LE02. The meaures must monitor and review the effectiveness of the mitigation and enhancement measures in place for LE 03 & LE 04 to ensure they are implemented.	Credit details sent to FPCR to undertake 10/10/2024.
	Landscape and ecology management plan	1	1	1	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	A Landscape and Ecology Management Plan, or equivalent, has been developed in accordance with BS 42020:2013 Section 11.1 covering at least the first five years after project completion to include all BREEAM required elements. The landscape and management plan or similar will be updated to support maintenance of the ecological value of the site	Credit details sent to FPCR to undertake 10/10/2024.
		13	10	10				
		15%						
		15.00%	11.54%	11.54%				

Pollution								
Pol 01 Impact of refrigerants	No refrigerant use	-	-	-	M&E		No refrigerant use within the installed plant or systems.	
	Prerequisite	-	-	-	M&E		All systems with electric compressors comply with the requirements of BS EN 378-2:2016 and BS EN 378-3:2016+A1:2020. Refrigeration systems containing ammonia comply with the Institute of Refrigeration Ammonia Refrigeration Systems code of practice.	
	Impact of refrigerant	2	1	1	M&E		1 credit where systems using refrigerants have a DELC of ≤1000kgCO_2-eq/kW cooling and heating capacity. 2 credits where systems using refrigerants have a DELC of ≤100kgCO_2-eq/kW cooling and heating capacity OR all refrigerants used have a global warming potential (GWP) ≤10.	Requirement to be included in M&E specification.
	Leak detection	1	0	0	M&E		All systems are hermetically sealed or only use environmentally benign refrigerants. OR Where the systems are not hermetically sealed they have a permanent automated refrigerant leak detection system, capable of continuously monitoring for leaks AND an inbuilt automated diagnostic procedure for detecting leakage is enabled. In the event of a leak, the system must be capable of automatically responding and managing the remaining refrigerant charge to limit loss of refrigerant	
Pol 02 Local air quality	Local air quality	2	2	2	M&E		2 credits where all heating and hot water is supplied by non-combustible systems, e.g. electric. OR Up to 2 credits where the NOx emissions for the applicable appliance do not exceed the maximum levels noted within the BREEAM criterion.	Requirement to be included in M&E specification.
	Prerequisite	-	-	-	CIVILS		An appropriate consultant is appointed to carry out and demonstrate the development's compliance with all criteria.	Credit requirements issued to HJCE 10/10/2024. Email 13/10/2024 from HJCE confirms to use the sitewide FRA from Unit 4. Credits awarded.

Pol 03 Flood and surface water management	Flood resilience	2	2	2	CIVILS		Undertake a site-specific flood risk assessment taking into account all current and future sources of flooding into consideration. - 2 credits for the FRA confirming the development is in a flood zone with a low annual probability of flooding. - 1 credit for the FRA confirming the development is in a flood zone with a medium/high annual probability of flooding. Measures are taken to increase the resilience and resistance of the development to flooding via ground and access levels OR the design to reflect recommendations within section 5 of BS 8533:2017.	Credit requirements issued to HJCE 10/10/2024. Email 13/10/2024 from HJCE confirms to use the sitewide FRA from Unit 4. Credits awarded.
	Prerequisite for surface water run-off credits	-	-	-	CIVILS		Surface water run-off design solutions must be bespoke. The priority levels detailed in the Methodology must be followed, with justification given by the appropriate consultant where water is allowed to leave the site.	Credit requirements issued to HJCE 10/10/2024. Query sent to HJCE 21/10/2024 asking if the phase 2/3 report for Unit 4 can cover Unit 7, or if the Unit 7 design note will address.
	Surface Water Run-Off - Rate	1	1	1	CIVILS		Surface water run-off requirements for brownfield/ greenfield to be met including an allowance for climate change.	Credit requirements issued to HJCE 10/10/2024. Query sent to HJCE 21/10/2024 asking if the phase 2/3 report for Unit 4 can cover Unit 7, or if the Unit 7 design note will address.
	Surface Water Run-Off - Volume	1	1	1	CIVILS		Flooding will not occur in the event of a local drainage system failure, and surface water volume levels to meet the credit requirements.	Credit requirements issued to HJCE 10/10/2024. Query sent to HJCE 21/10/2024 asking if the phase 2/3 report for Unit 4 can cover Unit 7, or if the Unit 7 design note will address.
	Minimising watercourse pollution	1	0	0	CIVILS		Suitable watercourse pollution measures (SUDS or oil separators) are specified in line with Pollution Prevention Guidance 3 and the SUDS manual. In addition there is no discharge from site for rainfall up to 5mm.	Credit requirements issued to HJCE 10/10/2024.
Pol 04 Reduction of night time light pollution	Reduction of night time light pollution	1	1	1	M&E		The external lighting strategy has been designed in compliance with table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011. All external lighting can be automatically switched off between 2300-0700 hours. Security lighting shall comply ith the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes. Illuminated advertisements are designed in compliance with ILP PLG05 The Brightness of Illuminated Advertisements.	Details sent to THP to pass to Kingfisher to incorporate into the design. Requirement to be included in M&E specification.

Pol 05 Reduction of noise pollution	Reduction of noise pollution	1	1	1	ACOUSTICIAN		A noise impact assessment is undertaken by a 'Suitably Qualified Acoustician' compliant with BS 4142:2014 shall be undertaken to determine noise levels for existing background, at nearest noise-sensitive developments and noise rating from the assessed building. The noise level from the assessed building, as measured in the locality of the nearest or most exposed noise-sensitive development, must be at least 5 dB lower than the background noise throughout the day and night.	Credit requirements issued to Sharps Redmore 10/10/2024 to provide a fee to undertake.
		12	9	9				
		9%						
		9.00%	6.75%	6.75%				
Innovation								
Man 03 Responsible construction practices	Responsible construction management	1	0	0	MAIN CONTRACTOR		Achieving all the responsible construction management items outlined in the checklist and/or via CCS.	
Hea 01 Visual comfort	Daylighting (building type dependent)	1	0	0	ENERGY MODELLING		80% of the occupied spaces have a daylight factor of at least 3% (multi-storey) and 4% (single-storey). In addition uniformity, view of sky and room depth criteria must be satisfied.	
	Internal and external lighting levels, zoning and control				M&E		Lighting in each zone can be manually dimmed by occupants down to 20% of the maximum light output using dimmer switches positioned in accessible locations. Dimming and control gear should avoid flicker and noise.	
Hea 02 Indoor air quality	Emissions from construction products				ARCHITECT/ MAIN CONTRACTOR		3 out of the 5 product specifications of internal finishes have met the exemplary testing requirements and emission levels for Volatile Organic Compounds (VOCs).	
Hea 06 Security	Security of site and building	1	0	0	SECURITY CONSULTANT		A compliant risk based security rating scheme has been used. The performance against the scheme has been confirmed by independent assessment and verification.	
Ene 01	Beyond zero net regulated carbon	3	0	0	ENERGY MODELLING		Up to 3 credits where the building achieves an EPRNC ≥0.9 and zero net regulated emissions, based upon the percentage of carbon emissions from unregulated energy sources that are offset via LZC sources.	

Ene 01 Reduction of energy use and carbon emissions	Post-occupancy evaluation of operational energy consumption	2	0	0	M&E		Pre-requisite of achieving 2 credits in Ene 02, and all 4 credits for prediction of operational energy in Ene 01. 2 credits where the client/building occupier commits funds to pay for post occupancy energy modelling where performance targets are set in relation to an external rating scheme, or where project specific include 3rd party verification.	
Wat 01 Water consumption	Water consumption	1	0	0	ARCHITECT/ M&E		Reducing potable water consumption by 65% over baseline.	
Mat 01 Environmental impacts from construction products - Building life cycle assessment (LCA)	Core building services - Option appraisal during Concept Design (all building types)	1	1	1	LCA CONSULTANT	**RIBA STAGE 2**	During concept design undertake a LCA options appraisal of at least three significantly different core building services design options. Submit the results to the BRE at the end of concept design and before planning permission is applied for.	Comments as Mat 01.
	LCA and LCC alignment	1	0	0	LCA CONSULTANT	**RIBA STAGE 2 & 4**	Pre-requisite of achieving Elemental LCC plan and Component Level LCC credits of Man 02. 1 credit where the LCA and LCC are aligned and incorporated within the design decision-making process.	
	Third party verification	1	1	1	LCA CONSULTANT	**RIBA STAGE 2 & 4**	S suitably qualified third party either carries out the LCAs or produces a report verifying the LCAs produced accurately represent the designs under consideration during Concept Design and Technical Design.	Comments as Mat 01.
Mat 03 Responsible sourcing of construction products	Measuring responsible sourcing	1	0	0	MAIN CONTRACTOR		EMS certification of materials for their manufacture and supply chain processes such as production and abstraction, including building services to meet the exemplary standards.	
Wst 01 Construction waste management	Construction resource efficiency & Diversion of resources from landfill	1	0	0	MAIN CONTRACTOR		The reduction of non-hazardous waste to be <1.6m3 or 1.9 tonnes per 100m2 gross internal floor area. OR At least 85% (volume) or 90% (mass) of non-hazardous non-demolition construction waste, and 85% (volume) or 95% (mass) of demolition waste are diverted from landfill, and 95% (volume) or 95% (mass) of excavation waste are diverted from landfill	
Wst 02 Use of recycled and sustainably sourced aggregates	Project Sustainable Aggregate Points	1	0	0	MAIN CONTRACTOR		Details of the appropriate aggregates identified are used to calculate project sustainable aggregate points greater than 6 in line with the BREEAM requirements.	

Wst 05 Adaptation to climate change	Responding to climate change	1	0	0	MAIN CONTRACTOR		Achieving the following criteria points in addition to the standard Wst 05 requirements: - Criterion 6 of Hea 04 has been achieved, - At least 6 credits have been achieved under Ene 01, - The 'Passive Design Analysis' credit of Ene 04 has been achieved, - At least 3 credits have been achieved under Wat 01, - Criterion 2-4 of Mat 05 has been achieved, - At least 1 and 2 credits have been achieved under the 'Flood Risk' and 'Surface Water Run-off' requirements of Pol 03 respectively.	
LE 02 Ecological risks and opportunities	Wider site sustainability	1	0	0	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Wider site sustainability-related activities are considered along with the potential for ecosystem service related benefits, in addition to; - The 2 credits of Hea 07 has been achieved, - Criteria 5-23 of Pol 03 has been achieved, - The 1 credit of Pol 05 has been achieved.	
LE 04 Ecological change and enhancement	Change and enhancement of ecology	1	0	0	ECOLOGY/ MAIN CONTRACTOR	**RIBA STAGE 1/2**	Where the change in ecological value calculated under criterion 6 above confirms significant net gain has been achieved as set out in GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2.	
		18	2	2				
		10%						
		10.00%	2.00%	2.00%				