BREEAM New Construction 2018 - Shell & Core
4408 - Belgrove House

Pass 30 credits **Good** 45 credits **Very Good** 55 credits **Excellent** 70 credits **Outstanding** 85 credits

	Targeted	Targeted +Potential	Achieved
Rating	EXCELLENT	OUTSTANDING	UNCLASSIFIED
Percentage	79.26%	93.19%	0.00%

Action Needed by Planning Application

Credit Information									
Credits Available	Credits Targeted	Potential Credit	Credits not targeted	Credit Issue	Title	Mandatory Credits	Aim	Summary of criteria	Comments and Actions	Responsible	Actions Required by
				For full details of credit compliance requirements, refer to the BREEAM 2018 Scheme Document (manual), which takes precedence to this document							
18	**17**	**0**	**1**	**Management**							
4	1		0	Man 01 (4 credits)	Project brief and design - Project delivery planning	N/A	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.	1 credit: Prior to completion of RIBA Stage 2 - Identify stakeholder roles, responsibilities and contributions and prepare and undertake consultation.	Typically no meeting minutes for client meetings. A10 to provide templates for minutes and documentation. Retrospectively evidenced. A10 requires list of stakeholders	Precis	RIBA Stage 2
	1		0		Project brief and design - Stakeholder consultation (interested parties)			1 credit: Prior to completion of RIBA Stage 2 - Undertake consultation and demonstrate stakeholders' contributions. Prior to completion of RIBA Stage 4 - consultation feedback is given to all relevant parties.	Typically no meeting minutes for client meetings. A10 to provide templates for minutes and documentation. Retrospectively evidenced. A10 requires list of stakeholders		RIBA Stage 2
	1		0		Project brief and design - BREEAM AP (Concept Design)			1 credit: BREEAM AP appointment no later than RIBA Stage 1. BREEAM performance targets are formally agreed.	A10 appointed as BREEAM AP		RIBA Stage 3
	1		0		Project brief and design - BREEAM AP (Developed Design)			1 credit: Achieve 'project brief and design - BREEAM AP (Concept Design)' + monitor progress against the agreed BREEAM performance targets.	BREEAM AP to be appointed for Stage 3-4.		RIBA Stage 3
4	2		0	Man 02 (4 credits)	Life cycle cost and service life planning - Elemental life cycle cost	N/A	To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.	2 credits: At RIBA Stage 2 - An elemental life cycle cost (LCC) analysis by a competent person.	Alinea to carry out analysis.	Alinea	RIBA Stage 2
	1		0		Life cycle cost and service life planning - Component level life options appraisal			1 credit: At RIBA Stage 4 - a component level LCC analysis. The results of the analysis and consideration of LCC have been implemented.	Cost Consultant to undertake component level life options appraisal by Stage 4		RIBA Stage 4
	1		0		Life cycle cost and service life planning - Capital cost reporting			1 credit: Report the capital cost for the building in pounds per m².	Cost Consultant to report capital cost by Stage 4.		RIBA Stage 4
6	-	-	-	Man 03 (6 credits + 1 Exemplary)	Responsible construction practices - Prerequisite	**Excellent: Minimum 1 credit in responsible construction management** *Outstanding: Minimum 2 credits in responsible construction management*	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	Prerequisite: All timber to be 'legally harvested and traded timber'.	Engage with contractors in Stage 4.	Precis	RIBA Stage 4
	1		0		Responsible construction practices - Environmental management			1 credit: All parties who at any stage manage construction site operate a qualifying EMS and practice pollution prevention policies and procedures.	Precis to include the following requirements in tender for Main Contractor • Operate an EMS • Practices pollution prevention policies		RIBA Stage 4
	1		0		Responsible construction practices - BREEAM AP (Site)			1 credit: Establish formally agreed performance targets and appoint a BREEAM AP to consult and monitor progress during construction.	Precis to include the following requirements in tender for Main Contractor • Appoint a BREEAM AP		RIBA Stage 4
	2		0		Responsible construction practices - Responsible construction management			1 credit: achieve 9 required responsible construction management items listed in the BREEAM manual. 2 credits: achieve 6 morelisted items in addition to the 9 required items.	Precis to include the following requirements in tender for Main Contractor • Meet the targeted Responsible Construction Management requirements		RIBA Stage 4
	2		0		Responsible construction practices - Monitoring of construction site impacts			Appoint an individual to monitor, record, report & target: 1 credit: Energy and water consumption 1 credit: Transport of construction materials & waste	Precis to include the following requirements in tender for Main Contractor • Monitor, record report and target: • Energy and water consumption • Transport		RIBA Stage 4

4	1		0	Man 04 (4 credits)	Commissioning and handover - Commissioning - testing schedule and responsibilities	**Very Good, Excellent & Outstanding:** Criterion 11 for two building user guides + Minimum 1 credit in commissioning test schedule and responsiblities.	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.	1 credit: Commissioning programme, roles and responsibilities	Client to appoint a commissioning manager during the design stage.	Precis	RIBA Stage 3
	1		0		Commissioning and handover - Commissioning - Design and Preparation			1 credit: In addition to achieving credit for 'commissioning - testing schedule and responsibilities', commissioning manager appointed during design stage to undertake design reviews, provide commissioning management and performance testing input .	Precis to appoint a commissioning manager during the design stage.		RIBA Stage 4
	0		1		Commissioning and handover - Testing and inspecting building fabric			1 credit: In addition to achieving credit for 'commissioning - testing schedule and responsibilities', conduct thermographic survey and/or airtightness test and inspection and rectify defects.	Precis to include requirement for Main Contractor tender to commission Thermographic Survey and Air Tightness test.		RIBA Stage 4
	1		0		Commissioning and handover - Handover			1 credit: Building User Guide and building occupiers/premises managers training schedule	Precis to include requirement for Main Contractor tender to provide Building User Guide (BUG). All relevant Consultants to contribute to BUG.		RIBA Stage 4
				MAN sub totals	11.0%						

11	9	0	2	Health & Wellbeing								
4	0		2	Hea 01 (Building type dependent with max 5 + 1 Exemplary)	Visual comfort - Daylighting	N/A	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered. Note: No. of credits will differ as per building types.	1-2 credits: Achieve specified average DF or annual illuminance requirement - building type dependent	Not targeted due to deep floor plate	Atelier Ten	RIBA Stage 2
	1		0		Visual comfort - View Out			1 credit: Achieve view out requirements	Façade designed with window-to-wall ratio exceeding 35%. Credit likely to be achieved		RIBA Stage 2
	1		0		Visual comfort - Internal and external lighting levels, zoning and control			1 credit: Develop external lighting design based on BS5489-1:2013+ BS EN 12464-2:2014	Precis to appoint lighting designer to design lighting in compliance with SLL CL 2012, LG7, BS5489-1:2013, BS EN 12464-2:2014.		RIBA Stage 4
1			0	Hea 02 (1 credit)	Indoor air quality - Indoor Air Quality (IAQ) plan	N/A	To encourage and support healthy internal environments with good indoor air quality.	Prerequisite: Develop and implement site specific IAQ plan as per Guidance Note GN06.	Atelier Ten to provide IAQ plan as part of planning documents	Atelier Ten	RIBA Stage 2
	1		0		Indoor air quality - Ventilation			1 credit: Provide fresh air into the building in accordance with the criteria of the relevant standard for ventilation.	MEP Engineers to develop the ventilation strategy based on relevant standards.		RIBA Stage 3
2	1		0	Hea 04 (2 credits)	Thermal comfort - Thermal modelling	**N/A**	To ensure the building is capable of providing an appropriate level of thermal comfort.	1 credit: Thermal modelling as per CIBSE AM11, to demonstrate compliance with CIBSE Guide A or CIBSE TM52/TM59 .	MEP Engineers to undertake thermal modelling for typical climate conditions throughout the design process and develop final model for Stage 4.	**MEP Engineers/ Energy Assessor**	**RIBA Stage 4**
	1		0		Thermal comfort - Design for future thermal comfort			1 credit: Achieve 'Thermal comfort - Thermal modelling' and show pathway for thermal comfort compliance based on projected climate change environment.	MEP Engineers to undertake thermal modelling for projected climate conditions throughout the design process and develop final model for Stage 4.		**RIBA Stage 4**
1	1		0	Hea 05 (Building type dependent with max 4)	Acoustic performance - Acoustic performance	N/A	To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.	1 credit: Achieve the internal indoor ambient noise level standards.	Current façade arrangement fails to meet these criteria. Design coordination between Sandy Brown, AHMM and FMDC ongoing.	Sandy Brown	RIBA Stage 2
1	1		0	Hea 06 (1 credit + 1 Exemplary)	Security - Security of site and building	N/A	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.	1 credit: Security Needs Assessment by a suitably qualified security specialist latest by RIBA Stage 2.	AHMM to consult with a suitably qualified security specialist before end of RIBA stage 2	Precis	RIBA Stage 2
2	1		0	Hea 07 (2 credits)	Safety and healthy surroundings - Safe access	N/A	To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.	1 credit: Develop foot- and cycle-paths, drop off and parking areas to provide safe access to building users.	AHMM to develop foot- and cycle-paths, drop-off, delivery and parking areas to ensure safe access.	AHMM	RIBA Stage 2
	1		0		Safety and healthy surroundings - Outside space			1 credit: Include outside space providing building users with an external amenity area.	Accessible terraces on Lvl 04 and 05 meet this criterion		RIBA Stage 2
				HEA sub totals	8.0%						

24	**18**	**2**	**4**	**Energy**								
13	6		3	Ene 01 (13 credits + up to 5 Exemplary credits)	Reduction of energy use and carbon emissions - Energy performance	Excellent: minimum 4 credits in Energy Performance *Outstanding: minimum 6 credits in Energy performance + minimum 4 credits in Energy modelling and reporting*	To minimise operational energy demand, primary energy consumption and CO_2 emissions. Info needed: i. Building floor area (m^2) ii. Notional building energy demand (MJ/m^2) iii. Actual building energy demand (MJ/m^2) iv. Notional building energy consumption (kWh/m^2) v. Actual building energy consumption (kWh/m^2) vi. Target Emission Rate ($kgCO_2/m^2$) vii. Building Emission Rate ($kgCO_2/m^2$)	Up to 9 credits: Calculate an Energy Performance Ratio for New Constructions (EPR_{NC}) using BREEAM's Ene 01 calculator for: 1 credit: EPR_{NC} = 0.1 4 credits: EPR_{NC} = 0.4 = Excellent: 6 credits: EPR_{NC} = 0.6 = Outstanding: 9 credits: EPR_{NC} = 0.90 AND zero net regulated CO_2 emissions	6 credits achievable with latest energy model. To be updated with frozen design.	Atelier Ten	RIBA Stage 2
	4	0	0		Reduction of energy use and carbon emissions - Prediction of operational energy consumption			4 credits: Organise a design workshop focusing on operational energy use during Stage 2 and develop/report additional operational energy use assessment during design and post-construction stages.	Atelier Ten to undertake organise operational energy use workshop during Stage 3 and develop assessment.		RIBA Stage 3
2	1		0	Ene 02 (Building type dependent with max 2)	Energy monitoring - Sub-metering of end-use categories	Very Good, Excellent & Outstanding: Minimum 1 credit in sub-metering of end-use categories	To encourage the installation of energy sub-metering to facilitate the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.	1 credit: Energy metering systems for 90% of the estimated annual energy consumption of each fuel separated by end-use categories.	MEP Engineer to include BREEAM requirements for energy monitoring into their specification.	MEP Engineer	RIBA Stage 4
	1		0		Energy monitoring - Sub-metering of high energy load and tenancy areas			1 credit: Separate energy sub-metering for each separate tenanted unit or floor plate within the assessed development with an accessible EMS or meters with pulsed or other open protocol communication outputs.	MEP Engineer to include BREEAM requirements for energy monitoring into their specification.		RIBA Stage 4
1	1		0	Ene 03 (1 credit)	External lighting	N/A	To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.	1 credit: No external lighting, or energy-efficient external lighting with less than 70 luminaire lumens per circuit watt, automated daylight control and presence detection in areas with intermittent pedestrian traffic.	Client to appoint lighting designer/consultant for efficient exterior lighting design.	Client	RIBA Stage 4
3	1		0	Ene 04 (3 credits)	Low carbon design - Passive design analysis	N/A	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.	1 credit: Achieve Hea 04 criterion 1, assess and adopt passive design solutions analysis at RIBA Stage 2 and quantify reduced energy metrics.	Atelier Ten to analyse passive design measures at RIBA stage 2.	Atelier Ten	RIBA Stage 2
			1		Low carbon design - Free cooling			1 credit: Achieve "Low carbon design - Free cooling" credit and assess/adopt free cooling strategies.	Free cooling strategies implemented using mixed-mode ventilation, this does not fulfill this credit		RIBA Stage 2
	1		0		Low carbon design - Low and zero carbon technologies			1 credit: Conduct feasibility study at RIBA Stage 2, adopt suitable technologies and quantify reduced CO2 emissions resulting from study.	Atelier Ten to conduct a feasibility study at RIBA stage 2.		RIBA Stage 2
2		1	0	Ene 05 (2 credits)	Energy efficient cold storage - Refrigeration energy consumption	N/A	To recognise and encourage the installation of energy efficient refrigeration systems, therefore reducing operational greenhouse gas emissions resulting from the system's energy use.	1 credit: Refrigeration system - Controls, design, installation, commission (as per Commercial Refrigeration Code of Conduct for Reducing Carbon Emissions, BS EN 378-2:2016, and Enhanced Capital Allowance (ECA) Energy Technology Product List) + commission as per Man 04.	MEP engineer to comment on applicability.	MEP Engineer	RIBA Stage 4
		1	0		Energy efficient cold storage - Indirect greenhouse gas emissions			1 credit: Above + The installed refrigeration system demonstrates a saving in indirect greenhouse gas emissions.	MEP engineer to comment on applicability.		RIBA Stage 4
3	1	0	0	Ene 06 (3 credits)	Energy efficient transportation systems - Energy consumption	N/A	To encourage the specification of energy efficient transportation systems within buildings.	1 credit: Analysis of transport demand, usage and energy use of lifts, escalators, etc.	Precis to appoint a transport consultant to undertake a demand analysis for the lifts	Transport consultant	RIBA Stage 2/3
	2		0		Energy efficient transportation systems - Energy efficient features			Up to 2 credits: Achieve 'Energy efficient transportation systems - Energy consumption' and specify lifts (1 credit) and/or escalators (1 credit) meeting efficiency requirements.	Precis to appoint a transport consultant to undertake an energy analysis for the lifts		RIBA Stage 4
ENE sub totals	14.0%											

12	**8**	**3**	**1**	**Transport**								
2	2		0	Tra 01 (2 credits)	Transport assessment and travel plan	N/A	To reward awareness of existing local transport and identify improvements to make it more sustainable.	2 credits: Develop a travel plan during feasibility and design stages based on site specific travel assessment to improve sustainable modes of transport and movement.	TTP to develop travel plan	TTP	RIBA Stage 2
10			0	Tra 02 (10 credits)	Sustainable transport measures - Prerequisite	N/A	To maximise the potential for local public, private and active transport through provision of sustainable transport measures appropriate to the site.	Prerequisite: Achieve Transport assessment and travel plan credit.	TTP to develop travel plan	Precis	RIBA Stage 2
	6	3	1		Sustainable transport measures - Transport options implementation			Up to 10 credits: Adopt sustainable, private and active transport measures as listed in the credit guidance.	88 bicycle storage facilities required, 226 provided. 10 redits targeted	AHMM / TTP	RIBA Stage 2
TRA sub totals	11.5%											

9	6	3	0	Water							
5	3	2	0	Wat 01 (5 credits + 1 Exemplary)	Water consumption	Good, Very good & Excellent: Minimum 1 credit *Outstanding:* *Minimum 2 credits.*	To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.	Up to 5 credits: Improvement over baseline case: 1 credit: 12.5%, 2 credits: 25%, 3 credits: 40%, 4 credits: 50%, 5 credits: 55%.	Initial study suggests 5 credits available	Atelier Ten	RIBA Stage 2
1	1		0	Wat 02 (1 credit)	Water monitoring	Good, Very good, Excellent & Outstanding: Minimum criterion 1	To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.	Specifying a water meter, with pulsed output, on the mains water supply to each building (including borehole or other source). Water-consuming plant or building areas, (with 10% or more of the total water demand) fitted with sub meters or water monitoring equipment.	MEP Engineer to include BREEAM requirements for leak detection into their specification.	MEP Engineer	RIBA Stage 3/4
2	1		0	Wat 03 (2 credits)	Water leak detection - Leak detection system	N/A	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.	1 credit: A compliant leak detection system is specified or installed on the building's water supply.	MEP Engineer to include BREEAM requirements for leak detection into their specification.	MEP Engineer	RIBA Stage 4
	1		0		Water leak detection - Flow control devices			1 credit: Flow control devices are fitted to each WC area/facility to regulate water supply according to demand.	MEP Engineer to incorporate required flow control devices into their specification.		RIBA Stage 4
1		1	0	Wat 04 (1 credit)	Water efficient equipment	N/A	To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.	1 credit: Identify all unregulated water demands and mitigate/reduce the demand through good practice design or specification.	Atelier Ten to assess opportunities for water use reduction under enduses not included in Wat 1 such as water use for irrigation.	Atelier Ten	RIBA Stage 2
				WAT sub totals	7.0%						

14	11	3	0	Materials							
7	5	1	0	Mat 01 (7 credits + 3 exemplary)	Environmental impacts from construction products - Building life cycle assessment (LCA) - Superstructure	N/A	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.	Up to 6 credits: Conduct and submit superstructure LCA comparison with BREEAM benchmark during Stage 2, and/or Stage 4 and compare 2 to 4 significantly different superstructure design options during Stage 2 and/or Stage 4 to identify opportunities reducing environmental impacts and justify decisions for adopted designs.	Atelier Ten have carried out LCA. To be officially registered with BREEAM	Atelier Ten	Before planning
		1	0		Environmental impacts from construction products - Building life cycle assessment (LCA) - Substructure and hard landscaping options appraisal during Concept Design			1 credit: Assess option appraisal criteria for superstructure during Stage 2 and carry out building LCA options appraisal for a total of at least 6 significantly different substructure or hard landscaping design options (at least two of each category is required).	Atelier Ten have carried out LCA. To be officially registered with BREEAM	Atelier Ten	RIBA Stage 2
1	1		0	Mat 02 (1 credit)	Environmental impacts from construction products - Environmental Product Declarations (EPD)	N/A	To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.	1 credit: Achieve total EPD points score of at least 20 according to the methodology described in the credit by selecting materials with EPDs.	AHMM to identify and specify materials with compliant EPDs.	AHMM	RIBA Stage 4
4	-	-	-	Mat 03 (4 credits + 1 Exemplary)	Responsible sourcing of construction products - Prerequisite	All rating levels: Minimum Criterion 1	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.	Pre-requisite: All timber used on the project is sourced in accordance with the UK Government's Timber Procurement Policy.	Compliant timber products must be specified throughout the project.	Precis	RIBA Stage 4
	1		0		Responsible sourcing of construction products - Enable Sustainable procurement			1 credit: Materials must be procured in accordance with a documented sustainable procurement plan put in place before Concept Design.	A sustainable procurement plan must be adopted before Concept Design.		RIBA Stage 2
	2	1	0		Responsible sourcing of construction products - Measuring responsible sourcing			Based on the achieved Responsible Sourcing of Materials (RSM) points: 1 credit: RSM point => 10% (superstructure only) 2 credits: RSM point >= 20% (superstructure, internal finishes and substructure + hardscaping.) 3 credits: RSM point >= 30% (superstructure, internal finishes and substructure + hardscaping.)	Responsibly sourced materials to be specified as per the credit requirements.		RIBA Stage 4
1	1		0	Mat 05 (1 credit)	Designing for durability and resilience	N/A	To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.	1 credit: Protect vulnerable parts of the building from damage and exposed parts of the building from material degradation.	AHMM to consider appropriate robustness measures and cost consultant to allow for their additional cost. Currently being developed	AHMM / Alinea	RIBA Stage 2
1	1		0	Mat 06 (1 credit)	Material efficiency	N/A	To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.	1 credit: Set targets, implement and record measures at each RIBA stage to optimise the use of materials in building design, procurement, construction, maintenance and end of life.	AHMM to ensure that building materials are optimised at each stage. Stage 2 work is done.	AHMM	RIBA Stage 2
				MAT sub totals	17.5%						

10	9	0	2								
Waste											
5	1		0	Wst 01 (5 credits + 1 Exemplary)	Construction waste management - Pre-demolition audit	*Outstanding: Minimum 1 credit*	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.	1 credit: Complete a pre-demolition audit during Stage 2 for opportunities to reuse and minimise waste, and reference it in the RMP.	Pre-demolition audit currently being arranged.	RealPM	RIBA Stage 2
	2		1		Construction waste management - Construction resource efficiency			Up to 3 credits: RMP + the amount of non-hazardous on-site/off-site construction waste (m^3/100m^2 or tonnes/100m^2) generated: 1 credit: 13.3 / 11.1, 2 credits: 7.5 / 6.5, 3 credits: 3.4 / 3.2.	Set targets at Stages 2&3 and include in Contractor tender.		RIBA Stage 2/3
	1		0		Construction waste management - Diversion of resources from landfill			1 credit: Divert from landfill (volume or tonnage) Demolition = 80%/90% Non-demolition = 70%/ 80%.	Precis to set targets at Stages 2&3 and include in Contractor tender.		RIBA Stage 4
1	1		0	Wst 02 (1 credit + 1 Exemplary)	Use of recycled and sustainably sourced aggregates	N/A	To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.	Prerequisite: Achieve Wst-01-1 by completing pre-demolition audit. 1 credit: Identify all aggregate uses, types and quantities and regionally source sustainable aggregates to calculate Sustainable Aggregate Points.	AHMM/ AKT II to confirm whether recycled aggregates can be sourced locally. Client to include targets in contractor tender	AKT II	RIBA Stage 2
1	1		0	Wst 03 (1 credit)	Operational waste	Excellent & Outstanding: Minimum 1 credit	To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.	Clearly labelled, accessible, dedicated space for segregation and storage of operational recyclable waste and static waste compactor(s) or baler(s), composting (if applicable).	Confirm the size of waste management areas and need for static waste compactor and composter with specialist, dedicate space in plans.	AHMM	RIBA Stage 2
1	1		0	Wst 05 (1 credit + 1 exemplary)	Adaptation to climate change	N/A	To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.	1 credit: Climate change adaptation strategy appraisal including risk assessment for resiliency of structural, fabric, building services and renewables installations RIBA Stage 2.	Design team led by the Atelier Ten to produce climate change adaptation strategy appraisal for building services, renewables, structural and fabric resiliency at RIBA Stage 2. Done	Design Team / Atelier Ten	RIBA Stage 2
2	1		0	Wst 06 (2 credits)	Design for disassembly and adaptability - Recommendations	N/A	To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.	1 credit: Conduct a study to explore the ease of disassembly and functional adaptation potential of different design scenarios by RIBA Stage 2 and develop recommendations.	Design team led by AHMM to develop building adaptation options at RIBA Stage 2. Currently being carried out	AHMM	RIBA Stage 2
	1		0		Design for disassembly and adaptability - Implementation			1 credit: Achieve 'Design for disassembly and adaptability - Recommendations,' update the study during RIBA Stage 4 to include revised and adopted recommendations and produce a guide for tenants.	Design team led by AHMM to update the building adaptation study and develop guide for tenants.		RIBA Stage 4
WST sub totals				7.0%							

13	11	2	0								
Land Use & Ecology											
2	1		0	LE 01 (2 credits)	Site selection - Previously occupied land	N/A	To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.	1 credit: 75% footprint on previously developed land.	Site contamination survey scheduled to commence May 18th. Waiting for final report	RealPM	RIBA Stage 2
		1	0		Site selection - Contaminated land			1 credit: Contaminated land investigation by a contaminated land specialist and remediation.			RIBA Stage 2
2	-	-	-	LE 02 (Up to 2 credits + 1 Exemplary)	Identifying and understanding the risk and opportunities for the project - Prerequisite	N/A	To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.	Prerequisite: Identify assessment methodology using GN34 and commit to monitor compliance against all relevant legislation relating to ecology.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.	PJC	RIBA Stage 2
	1		0		Identifying and understanding the risk and opportunities for the project - Survey and evaluation			1 credit: Establish ecological baseline and capacity and feasibility for enhancement of the ecological value for the project.			RIBA Stage 2
	1		0		Identifying and understanding the risk and opportunities for the project - Determining the ecological outcomes for the site.			1 credit: Achieve Survey and evaluation requirements, and select optimal ecological outcome for the site after liaising with representative stakeholders and the project team.			RIBA Stage 2
3	1		0	LE 03 (Up to 3 credits)	Managing negative impacts on ecology - Planning, liaison, implementation and data	N/A	To avoid, or limit as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.	1 credit: Roles and responsibilities are clearly defined during Stage 2 through liaison with representative stakeholders and works on site have been developed accordingly.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.	PJC	RIBA Stage 2
	2		0		Managing negative impacts on ecology - Managing negative impacts of the project			1 credit: Change in site ecological value is minimised to the extent possible. 2 credits: No overall loss of ecological value.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.	PJC	RIBA Stage 2
	-	-	-		Change and enhancement of ecological value - Prerequisite			Prerequisite: Achieve L03 for managing negative impacts on ecology and commit to monitor compliance against all relevant ecology legislations.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.		RIBA Stage 3

4	1		0	LE 04 (Up to 4 credits)	Change and enhancement of ecological value - Liaison, implementation and data collection	N/A	To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.	1 credit (available only if an SQE has been appointed): Coordination with representative stakeholders and available data.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.	PJC	RIBA Stage 3
	2	1	0		Change and enhancement of ecological value - Enhancement of ecology			Up to 3 credits: Credits are awarded based on change of ecological value.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.		RIBA Stage 3
2	-	-	-	LE 05 (Up to 2 credits)	Long term ecology management and maintenance - Prerequisite	N/A	To secure ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.	Prerequisite: Monitor compliance with all relevant national and international standards related to ecology + LE 04 is achieved including role distribution and site preparation planning.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.	PJC	RIBA Stage 3
	1		0		Long term ecology management and maintenance - Planning, liaison, data, monitoring and review management and maintenance			If a qualified ecologist has been appointed: 1 credit: Put in place applicable review, monitoring, information sharing and maintenance measures to ensure long term success of ecological strategies. 1 credit: Landscape and ecology management plan in accordance with BS42020:2013 covering at least first five years after completion. If no qualified ecologist appointed, project can earn only 1 credit for meeting requirements of BOTH credits above.	PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.		RIBA Stage 3
	1	0	0		Long term ecology management and maintenance - Landscape and ecology management plan (or similar) development				PJC appointed as SQE. Initial ecological appraisal (PEA) has been carried out. PJC to finalise BREEAM ecology report.		RIBA Stage 3
				LE sub totals	15%						

12	9	2	1	Pollution							
3			1	Pol 01 (3 credits)	Impact of refrigerants - No refrigerant use	N/A	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.	Pre-requisite: All systems comply with the requirements of BS EN 378:2016 (parts 2 and 3) and if applicable, IRARSCP. 2 credits: Refrigerants have Direct Effect Life Cycle CO2 equivalent. emissions (DELC CO2e) of ≤100 kgCO2e/kW cooling/heating capacity OR GWP ≤ 10. OR 1 credit: Refrigerants have Direct Effect Life Cycle CO2 equivalent emissions (DELC CO2e) of ≤1000 kgCO2e/kW cooling/heating capacity.	Atelier Ten to specify refrigerants that achieve (DELC CO2e) of <1000 kgCO2e/kW	Atelier Ten	RIBA Stage 4
	1				Impact of refrigerants - Impact of refrigerant						RIBA Stage 4
	1				Impact of refrigerants - Leak detection			1 credit: Use hermetically sealed or environmentally benign refrigerants, OR install leak detection system & automatic response to reduce leak.	Atelier Ten to specify robust leak detection systems and response mechanisms.		RIBA Stage 4
2	2		0	Pol 02 (2 credits)	Local air quality	N/A	To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.	Up to 2 credits based on project location, type of heating equipment and NO_2, VOC and PM emission rates for combustion systems (if any).	Belgrove House will not result in an increase in pollution during operation since it relies entirely on non-combusting technologies	Atelier Ten	RIBA Stage 2
5	-	-	-	Pol 03 (5 credits)	Flood and surface water management - Prerequisite	N/A	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.	Prerequisite: An appropriate consultant must be appointed to carry out and demonstrate compliance.	AKT II have been appointed as structural engineers.	AKT II	RIBA Stage 2
	2		0		Flood and surface water management - Flood resilience			2 credits: Site specific FRA confirming low risk zone. OR 1 credit: FRA confirms medium or high risk zone yet outside of functional floodplain. Increase the resilience and resistance to flooding by raising ground floor levels or reflecting measures in BS8533:2017.	AKT II to produce a FRA and to advise on SUDs.		RIBA Stage 2/3
	1	1	0		Surface water run-off - Surface water run-off			Pre-requisite: run-off design solutions must be bespoke and justified for the specific site. 1 credit: Peak rate of run-off is 30% less than the pre-developed site also accounting for climate change, with long term maintenance in place. 1 credit: Flooding will not occur if local drainage system fails AND SUD techniques are adopted to limit run-off volume to pre-developed levels.	AKT II to produce a FRA and to advise on SUDs.		RIBA Stage 2/3
		1	0		Surface water run-off - Minimising watercourse pollution			1 credit: SUDs or source control systems with no discharge from site for rainfall up to 5mm and containment of pollution sources.	AKT II to produce a FRA and to advise on SUDs.		RIBA Stage 2/3
1	1		0	Pol 04 (1 credit)	Reduction of night time light pollution	N/A	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.	1 credit: EITHER eliminate external lighting without adversely affecting safety and security, OR design external lighting in line with ILP Guidance Notes for the reduction of obtrusive light, 2011 and include required control measures for external lighting.	Precis to appoint specialist for external lighting specification.	Precis	RIBA Stage 2/3
1	1		0	Pol 05 (1 credit)	Reduction of noise pollution	N/A	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.	1 credit: EITHER there are no noise-sensitive areas or buildings within 800m radius OR noise impact assessment in compliance with BS 4142:2014 by a suitably qualified acoustician, along with necessary remediations.	Assessment will be carried out by Sandy Brown as Design progresses. Initial assessment provided, report to be finalised	Sandy Brown	RIBA Stage 2
				POL sub totals	9.0%						