

18th of December 2023

Cortland Build Ltd

By email only

RE: 4784 – Ascot Road, Watford -- BREEAM New Construction 2014

As a licensed BREEAM assessor who is working on the above project, I can confirm that from the initial pre-assessment conducted, the team were committed to complete a BREEAM New Construction 2014 Assessment to an Excellent standard. The project was due to achieve a final score of at least 70% under the BREEAM New Construction 2014 methodology, and therefore was set to achieve an Excellent rating for the Design and Post Construction stage BREEAM assessments.

The Ascot Road, Watford development consists of a single BREEAM New Construction 2014 assessment for the proposed commercial space within the project site. During the collection of evidence for the BREEAM assessment, the main contractor became insolvent. The insolvency of the Main Contractor and the consequences for the project were queried with the BRE who directed the BREEAM Assessor to Guidance Note KBCN0645, stating that if site activities of the previous contractor is not available it would not be appropriate to award the credits based on only recorded activities of the new contractor. This Guidance Note has been attached below in Appendix A.

Based on KBCN0645, discussion with the team about the remaining available credits for the scheme based on the limited evidence received prior to the insolvency confirms the project is unlikely to achieve at least a 70% score to attain the BREEAM Excellent rating targeted for the final as built. The highest available target score for this assessment based off discussion with the wider team on unforeseen evidence limitations, is 54.14% to achieve a 'Good' rating for the final combined design and post construction stage BREEAM assessment. The affected credits and the evaluation as to why they are unachievable for the above BREEAM Assessment are demonstrated in Appendix B and highlighted within the table below:









Credit	BREEAM Requirements	% Weight per credit on total % score	Reason why the credit is unlikely achievable
Man 3 Responsible Construction Practice	One Credit - Sustainability Champion appointed to monitor the targets set in Man 01 until stage RIBA 5 and 6. The targets are part of the contractors contract.	0.83%	The Main Contractor insolvency meant the individual appointed did not monitor construction processes and provide records throughout the construction period. Final records were not reported.
	One Credit - Monitoring utility consumption - Monitor and record data on principal constructor's and subcontractors' energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation.	0.83%	The Main Contractor insolvency meant the individual appointed did not monitor utility consumption and provide records throughout the construction period. Final records were not reported.
	One Credit - Monitor transport consumption data - Monitor and record data on transport movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site.	0.83%	The Main Contractor insolvency meant the individual appointed did not monitor transport consumption and provide records throughout the construction period. Final records were not reported.
Man 4 Commissioning and Handover	One Credit - Testing and inspecting building fabric - The integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths is quality assured through completion of post construction testing and inspection. Dependent on building type or construction, this can be demonstrated through the completion of a thermographic survey as well as an air tightness test and inspection.	0.83%	The Main Contractor insolvency meant final air tightness testing and thermographic surveys were not commissioned from a suitably qualified individual at the appropriate time to remedy any defects prior to building handover.
Hea 5 Acoustic Performance	One Credit - Where the building meets the acoustic performance standards and testing requirements detailed in Table - 23 of the BREEAM manual.	1.25%	The Main Contractor insolvency meant a Suitably Qualified Acoustician was not commissioned to undertake acoustic at the appropriate time to remedy any defects prior to building handover.
Mat01 Life Cycle Impacts	Two Credits - To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building	2.69%	The Main Contractor insolvency meant final material specifications cannot be confirmed as installed on site and their Green Guide ratings provided.
Wst 1 Construction Site Waste	Four Credits – Resource Management Plan to set targets for construction and demolition waste to be achieved on site.	5.50%	The Main Contractor insolvency meant no final resource management plan data was available to confirm if the waste targets for construction and demolition waste were achieved on site and whether best practice levels were adhered to.
Pol 3 Surface Water run-off	Two Credits – The Flood Risk Assessment for the site to confirm the	2.00%	The Main Contractor did not provide an updated Flood risk assessment to meet the Pol03 credit requirements when requested multiple times from







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users. Total	17.76%	
made available for the future building		
should be specified in high risk areas. An		
course pollution. Petrol/ oil interceptors		
specified in areas of low risk to water		
5mm of rainfall. SUDs should be		
is no discharge from the site for up to		
One Credit - where it is confirmed there	1.00%	As above.
leaving the site through SUDs.		
predicted volumes for the 100 year 6		
pre-developed site. Any additional		
the developed site than it was for the		
run-off volume should be no greater for		
system failure. The post development		
flood in the event of a local drainage		
One Credit - where the property will not	1.00%	As above.
change.		
calculations should be made for climate		
greater for the developed site than it		
rate from site to the watercourse is no		
are used to ensure that the peak run-off		
One Credit - where drainage measures	1.00%	As above.
		could be obtained.
		insolvent and no further information on this issue
		secured, since the Main Contractor became
		BRE and the Excellent BREEAM rating could not be
		stage assessment could not be re-submitted to the
commission probability of hooding.		assurance resubmission to the BRE. Failure to
Flood Zone of the development which		the BREEAM Assessor at the Design Stage Quality

Should you require any additional information please do not hesitate to get in touch.

Yours Sincerely,

E. Cleall

Emily Cleall

BREEAM Consultant









Appendix A: BREEAM Knowledge Base Reference KBCN0645

BREEAM Knowledge Base Projects Tips About Home 🔠 English (UK) New Construction / NOR / 2016 / 01 - Management / MAN 03 New Construction / UK / 2011 / 01-Management / Man 02 - Responsible Construction Practices New Construction / UK / 2011 / 01-Management / Man 03 - Construction Site Impacts New Construction / UK / 2014 / 01-Management / Man 03 - Responsible construction practices Refurbishment and Fit Out / International / 2015 / 01 - Management / MAN 03 - Responsible Construction Practices Refurbishment and Fit Out / UK / 2014 / 01 - Management / MAN 03 - Responsible Construction Practices Change in main contractor Created: 22nd Nov 2016 Reference: KBCN0645 In situations where the main contractor changes mid-project, for example where the original contractor goes into administration and is replaced by another main contractor, it is acceptable for the post-construction credits to be awarded based on the new contractor providing information on their activities. This is providing the project is yet to start on site. This is in effect assessing the issue using the Post Construction Assessment route instead of a Post Construction Review. However, if the project has already started on site and information about the site activities of the previous contractor is not available it would not be appropriate to award the credit solely based on the new contractor activities.









Appendix B: BREEAM Schedule of Evidence Collection







Cudd Bentley Consulting Limited Registered Office: Ashurst Manor, Church Lane, Sunninghill, Berkshire SLS 7DD Registered in England No. 05335747 Regional Office: Solihull, Birmingham

4784	Ascot Road, Watford	BREEA	M New C	Constructi	on 2014 DS	& PCS (Shell only) - Ver 2 18.1	12.2023		Cudd Bentley	br	reeam
Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constru	Design AND uction stage	Reason Credit is unlikely achievable
						Management					
	One Credit: Stakeholder Consultation: Prior to completion of the Concept Design (RIBA Stage 2 or equivalent), the project delivery stakeholders have met to identify and define their roles, responsibilities and contributions for each of the key phases of project delivery; considering the following: a. End user requirements b. Aims of the design and design strategy c. Particular installation and construction requirements/limitations d. Occupiers' budget and technical expertise in maintaining any proposed systems e. Maintainability and adaptability of the proposals I. Requirements for the production of project and end user documentation g. Requirements for commissioning, training and aftercare support. Demonstrate that the consultation process has influence or changed the project brief, execution plan, communication strategy and the concept design	1	1	0.83	DS & PC - Project Manager	Communication records/meeting minutes. Communication strategy Design programme/matrix	DS & PC - Project Manager	As per design stage. Design Stage Certificate.	0	0.00	
Man 1 Project Brief and Design	One Credit - Stakeholder consultation Prior to completion of the Concept Design stage, all relevant third party stakeholders have been consulted by the deging team. The minimum consultation content of the consultation plan will be dependent on the building but would typically include the following: 1. Functionality, build quality and impact (including aesthetics). 2. Provision of appropriate internal and external facilities (for future building occupants and visitors/users). 3. Management and operational implications. 4. Maintenance resources implications. 5. Impacts on the local community, e.g. local traffic/transport impact. 6. Opportunities for shared use of facilities and infrastructure with the community/appropriate stakeholders, if relevan/tappropriate to building type. 7. Compliance with statutory (national/local) consultation requirements. 8. Inclusive and accessible design. In the case of educational building types, minimum content also includes: 9. How the building types containing technical areas or functions, e.g. Iaboratories, workshops etc., minimum content also includes: 10. The end users broad requirements for such facilities, including appropriate sizing, optimisation and integration of equipment and systems. Lasty, demonstrate how stakeholder contributions and outcomes have influenced/changed the brief/design and prior to RIBA stage 4 give feedback	1	1	0.83	DS & PC - Project Manager	Consultation plan setting out the process and scope of the consultation PLUS One or more appropriate vidence types; suggested: Communication records/meeting minutes. Contractual tree Relevant sections of the contract	DS & PC - Project Manager	As per design stage. Design Stage Certificate.	0	0.00	
	One Credit - Sustainability Champion to be appointed during stage 1. The defined BREEAM target performance are formally agreed no later than RIBA stage 2. At interim design stage the BREAM targets must be demonstrably achieved by the project team	1	1	0.83	DS & PC - CBC/ Project Manager	Commitment letter of appointed person Plus evidence that target are met - Champion's report	DS & PC - CBC/ Project Manager	Post Construction Stage Report	0	0.00	
	One Credit - Sustainability Champion (achieve the above credit) and to monitor the progress and formally report to client and design team	1	1	0.83	DS & PC - CBC/ Project Manager	Commitment letter of appointed person Plus evidence that target are met - Champion's report	DS & PC - CBC/ Project Manager	Post Construction Stage Report.	0	0.00	
e Planning	Two Credits - A Life Cycle Cost (LCC) analysis has been carried out at RIBA Stage 2 together with any design option appraisals in line with 'Standardised method of life cycle costing for construction procurement 'PD 156865:20081. The LCC analysis shows: a. An outline LCC plan for the project based on the building's basic structure and envelope, appraising a range of options and based on multiple cash flow scenarios e.g. 20, 30, 50+ years; b. The fabric and servicing strategy for the project outlining services component and fit-out options (if applicable) over a 15-year period, in the form of an 'elemental LCC Plan'.	2	0	0.00		Credit not targeted		Credit not targeted	0	0.00	

4784	Ascot Road, Watford	BREEA	M New C	Constructi	ion 2014 DS	& PCS (Shell only) - Ver 2 18.	2.2023		Cudd Bentley	, br	eeam
Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constru	Design AND action stage	Reason Credit is unlikely achievable
Man 2 Life Cycle Cost and Service Li	One Credit - The analysis demonstrates that all constituent elements in at least two out of the four categories a) to d) have been analysed at a strategic and system level, comparing alternative options: a. Envelope b. Services c. Finishes d. External spaces The model outlined in the first LCC credit is updated during RIBA Work Stages 4 and a maintenance strategy is developed. Demonstrate, using appropriate examples provided by the design team, how the component level LCC plan has been used to influence building and systems design/specification to minimise life cycle costs and maximise critical value.	1	0	0.00		Credit not targeted		Credit not targeted	0	0.00	
	One Credit - Report the capital cost for the building in £k/ m2, via the BREEAM Assessment Scoring and Reporting tool.	1	1	0.83	DS - Contractor PC - Contractor	Programme/ formal document confirming capital cost.	DS - Contractor PC - Contractor	As per design stage. Complete PC letter reporting final cost	1	0.83	
	Pre-requisite - All timber and timber-based products used on the project is Legally harvested and traded timber' One Credit - The principal contractor operates an environmental management system (EMS) covering their main operations. The EMS must be either: ISO 14011/ EMSA or equivalent + compliance with BS8555:2003 and reached phase 4. The principal contractor implements best practice pollution prevention policies and procedures on-site in accordance with PPG6.	1	1	0.83	DS - Contractor PC - Contractor	Commitment that all timber used will be compliant. ISO 14001 certificate.	DS - Contractor PC - Contractor	Chain of Custody certificates for all timber used. Copy of EMS ISO certificatte and PPG6 policy compliance	0	0.00	
ractices	One Credit - Sustainability Champion appointed to monitor the targets set in Man 01 until stage RIBA 5 and 6. The targets are part of the contractors contract. At final construction the BREEAM targets must demonstrated as achieved. Sustainability Champions are members of formal schemes approved by the BRE. At present the following scheme are deemed to satisfy this requirement: *BREEAM Accredited Professional. *BRE Site Sustainability Manager Membership Scheme.	1	0	0.00	DS - Contractor PC - Contractor	Commitment that a Sustainability Champion will be appointed.	DS - Contractor PC - Contractor	Evidence of Sustainability Champion actions. Sustainability Champion report PC multi credit letter	0	0.00	Credit removed from target score due to Main Contractor insolvency.
Construction P	Up to two credits - Principal contractor has used a Considerate Construction Scheme(CCS) and achieve 'compliance' (25 and 34 with a score of at least 5 in each section) or over (35 and 39 with a score of at least 7 in each section).	2	2	1.67	DS - Contractor PC - Contractor	Commitment to adhere to CCS scheme. First site report (if available).	DS - Contractor PC - Contractor	Final CCS site monitors report and certificate.	0	0.00	
Man 3 Responsible	One Credit - Monitoring utility consumption - Monitor and record data on principal constructor's and subcontractors' energy consumption in kWh (and where relevant, litres of theu used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. Monitor and record data on principal constructor's and subcontractors' potable water consumption (m3) arising from the use of construction plant, equipment (mobile and fixed) and site accommodation. One Credit - Monitor transport consumption data - Monitor and record data on transport movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site. As a minimum this must cover: a. Transport of materials from the factory gate to the building site, including any transport, intermediate storage and distribution. b. Scope of this monitoring must cover the following as a minimum: i. Materials used in major building elements, including insulation materials. ii. Ground works and landscaping materials. c. Transport of construction waste from site to waste disposal processing/recovery centre gate. Scope of this monitoring must cover the construction waste groups outlined in the project's waste management plan.	2	0	0.00	DS - Contractor PC - Contractor	Commitment to and appointment of named individual to monitor and report site consumption data.	DS - Contractor PC - Contractor	Final site consumption data. (BREEAM Smartwaste report)	0	0.00	Credit removed from target score due to Main Contractor insolvency.
Man 4 Commissioning and Handover	One credit - Testing and inspecting building fabric - The integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths is quality assured through completion of post construction testing and inspection. Dependent on building type or construction, this can be demonstrated through the completion of a thermographic survey as well as an air lightness test and inspection. The survey and testing is undertaken by a Suitably Qualified Professional in accordance with the appropriate standard. Any defects identified in the thermographic survey or the air tightness testing reports are rectified prior to building handworer and close out. Any remedial work must meet the required performance characteristics for the building/ element.	1	0	0.00	DS - Contractor PC - Contractor	Commitment to carry out commission in compliance with criteria. Programme of works highlighting commissioning.	DS - Contractor PC - Contractor	As per design stage. Copy of thermographic survey and air tightness testing results; Suitably qualified professional credentials.	0	0.00	Credit removed from target score due to Main Contractor insolvency.

Green = Targeted Blue = Not Achieved Orange = Further Investigation Red = Credit removed from target score due to Main Contractor insolvency

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Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constru	Design AND action stage	Reason Credit is unlikely achievable
	Total	15	8	6.67					1	0.83	
						Health and Wellbeing					
	One Credit - Daylight where average daylight factor of 2% is achieved over at least 80% of the building.	2	0	0.00		Credit not targeted		Credit not targeted	0	0.00	
	One Credit: View out - 95% of the floor areas is within 7m of a window with an adequate view out.	1	0	0.00		Credit not targeted		Credit not targeted	0	0.00	
Hea 1 Visual Comfort	One Credit - Internal and external lighting levels, zoning and control - All fluorescent and compact fluorescent lamps are fitted with high frequency ballasts. Internal lighting in all relevant areas of the building is designed to provide an illuminance (two) level appropriate to the tasks undertaken, accounting for building user concentration and comfort levels. This can be demonstrated through a lighting design strategy that provides illuminance levels in accordance with the SLL Code for Lighting 2012 and any other relevant industry standard. For areas where computer screens are regularly used, the lighting design complies with CIBSE Lighting Guide 7 sections 3.3, 4.6, 4.7, 4.8 and 4.9. All external lighting located within the construction zone is designed to provide illuminance levels that enable users to perform outdoor visual tasks efficiently and accurately, especially during the night. To demonstrate this, external lighting provided is specified in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting rubards and public amenity areas and BS EN 12464-2:2014 Light and lighting Internal lighting is zoned to allow for occupant control.	1	1	1.25	DS - CBC PC - Contractor	Commitment that relevant lighting levels will be achieved.	DS - CBC PC - Contractor	As Built lighting schedule and external lighting layouts. Method of lighting control Confirmation of any changes to the Design Stage strategy. Site Inspection Report. (photographs)	0	0.00	
Hea 2 Indoor Air Quality	One Credit - The building ventilation strategy is designed to be flexible and adaptable to potential building occupant needs and climatic scenarios. This can be demonstrated as follows: a. Occupied spaces of the building are designed to be capable of providing fresh air entirely via a natural ventilation strategy. The following are methods decord to credit this offension decordent upon the compositive of the proposition to propose the strategy of the s	1	0	0.00		Credit not targeted		Credit not targeted	0	0.00	
Hea 4 Thermal Comfort	One Credit - Thermal modelling has been carried out using software in the intercent accordance with CIBSE AM11 Building Energy and Environmental Modelling. The software used to carry out the simulation at the detailed design stage provides full dynamic thermal analysis. For smaller and more basic building designs with less complex heating or cooling systems, an alternative less complex means of analysis may be appropriate. The modelling demonstrates that: a. For air conditioned buildings, summer and winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard. b. For naturally ventilated/free running buildings: i. Winter operative temperature ranges in occupied spaces are in accordance with the criteria set out in CIBSE Guide A Environmental design, Table 1.5; or other appropriate industry standard. For air conditioned buildings, the PMV (predicted mean vote) and PPD (predicted percent age of disstatified) indices based on the above modelling are reported via the BREEAM assessment scoring and reporting tool.	o	0	0.00	To be appointed by Contractor.	Credit not targeted	To be appointed by Contractor.	Credit not targeted	0	0.00	
Hea 5 Acoustic Performance	One credit - Where the building meets the acoustic performance standards and testing requirements detailed in Table - 23 of the BREEAM manual.	1	0	0.00	DS - Acoustician PC - Contractor	Acoustic report and stating that the they are suitably qualified Acoustician. Relevant section of the building specification or formal letter from the project team regarding commitments.	DS - Acoustician PC - Contractor	Result of pre-completion acoustic testing.	0	0.00	Credit removed from target score due to Main Contractor insolvency.

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Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constru	Design AND action stage	Reason Credit is unlikely achievable
Hea 6 Safety and Security	 One Credit - Where external site areas form part of the assessed development the following apply: 1. Dedicated cycle paths provide direct access from the site entrance to any cycle storage provided, without the need to deviate from the cycle path and, if relevant, connect to off-site cycle paths (or other appropriate safe route) where these run adjacent to the development's site boundary. 2. Foot paths on-site provide direct access from the site entrance to the building entrance(s) and connect to public foot paths off-site (where existing), providing practical and convenient access to local transport nodes and other off-site amenities (where existing). 3. Where provided, drop-off areas are designed off/adjoining to the access road and provide direct access to local transport nodes and other pedestrian cross vehicle access routes. 4. Dedicated pedestrian to cross vehicle access routes are in place to slow traffic down at these crossing points. 5. For large developments with a high number of public users or visitors, pedestrian for paths most be signposted to other local amenities and public transport nodes off-site (where existing). 6. The lighting for access routes. 	1	1	1.25	DS - Architect PC - Contractor	Drawinga/Plans and specification confirming safe access criteria.	DS - Architect PC - Contractor	As Built plans. Site Inspection Report. (photographs)	0	0.00	
-	One Credit - A Suitably Qualified Security Specialist (SQSS) conducts an evidence based Security Needs Assessment (SNA) during or prior to Concept Design. The SQSS develops a set of recommendations or solutions during or prior to Concept Design. These recommendations or solutions aim to ensure that the design of buildings, public and private car parks and public or amenity space are planned, designed and specified to address the issues identified in the preceding SNA. The recommendations or solutions proposed by the SQSS are implemented. Any deviations from the recommendations or solutions will need to be justified, documented and agreed in advance with a suitably qualified security specialist.	1	1	1.25	DS - Architect PC - BREEAM Assessor	Correspondence or feedback from the CPDA/ALO confirming the scope of their involvement, stage at which their advice was sought, summary of their recommendations. Design drawings highlighting measures compliant with recommendations.	DS - Architect PC - BREEAM Assessor	As Built plans highlighting secuirty needs assessment measures. Site Inspection Report. (photographs of measures in security needs assessment on site)	0	0.00	
	Total	8	3	3.75					0	0.00	
						Energy					
Ene 1 Reduction of CO2 Emissions	Up to Twelve Credits where evidence provided demonstrates an improvement in the energy efficiency of the building's fabric and services and therefore achieves lower building operational related CO2 emissions.	12	6	5.44	DS - CBC PC - Contractor	BRUKL output document confirming an Energy Performance Ratio of at least 0.15 is achieved.	DS - CBC PC - Contractor/cbc	As Built BRUKL Output Document confirming Energy Performance Ratio of 0.15 is achieved.	0	0.00	
Ene 3 External Lighting	One Credit - The building has been design to operate without external lighting OR All external light fittings for the construction site are not less than 60 OR 60 lamp Lumens / circuit Watt. External light fittings are controlled through a time switch, or daylight sensor, to prevent operation during daylight hours and presence detection in area of intermittent pedestrian traffic.	1	1	0.91	DS - CBC PC - Contractor	One or more of the appropriate evidence types, suggested: Specification confirming lux levels. Design drawings.	DS - CBC PC - Contractor	As Built plans of external lighting and methods of control. Manufacturers literature. As Built lighting schedule. Site Inspection Report. (photographs)	0	0.00	
ies	One Credit - At RIBA 2, analysis to influence passive design solutions to reduce energy demand have been complete. The building has been designed using passive measures to reduce total heating, cooling, mechanical ventilation, lighting and energy load and demonstrates a meaningful reduction in the total energy demand as a result.	1	0	0.00	DS - CBC PC - Contractor	Passive design analysis report/evidence.	DS - CBC PC - Contractor	As Built plans confirming passive design strategy. Site Inspection Report.	0	0.00	
rbon Technolog	One Credit - The free cooling analysis should demonstrate consideration of appropriate technologies from the following: 1. Night time cooling (which could include the use of a high exposed thermal mass) 2. Ground coupled air cooling 3. Displacement ventilation (not linked to any active cooling system)	1	0	0.00		Credit not targeted		Credit not targeted	0	0.00	

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Ene 4 Low and Zero C	One Credit where a Feasibility Study has been carried out to establish the most appropriate low or zero carbon technology for the site. As a minimum the study covers: "Energy generated from LZC energy source per year; "Life cycle cost of the potential system, accounting for payback; "Local planning criteria, including land use and noise; "Feasibility of exporting heat/ electricity from the system; "Any available grants; "All technologies appropriate to the site and energy demand of the development; "Reasons for excluding other technologies; "Where appropriate, connecting the building to an existing local community CHP system or specifying a site CHP system.	1	1	0.91	DS - CBC PC - Contractor	A copy of the Feasibility Study. Report/calculations/output from approved software of the carbon reductions possible. Results from a dynamic simulation model demonstrating the feasibility of the free cooling strategy and meeting the first credit for Hea 04.	DS - CBC PC - Contractor	As Built Brukis. As Built plans detailing LZC installed technologies Site Inspection Report. (photographs)	0	0.00	
	Total	16	8	7.25					0	0.00	
						Transport					
Tra 1 Public Transport Accessibility	Up to three Credits are available when the development is in proximity to a range of compliant transport nodes (bus/rail).	5	3	3.83	DS & PC - BREEAM Assessor	Scale map highlighting the location of the development and all public transport nodes in proximity of the building. Timetables for the services at each transport node. The calculated Accessibility Index. Tra 01 calculator.	DS & PC - BREEAM Assessor	As per design stage. Accessibility index to be updated for current date.	2	2.56	
Tra 2 Proximity to Amenities	One Credit - The building is within 500m of appropriate food outlet, cash machine and either an outdoor space or recreation/leisure facility for fitness (building type dependent) as the core amenities plus a number of others (number and type building specific)	1	1	1.28	DS & PC - BREEAM Assessor	Marked up map with amenities and route on a scaled map. OR A letter of commitment that these will be installed- within the development with a timescale of the development.	DS & PC - BREEAM Assessor	Site Inspection Report. Accessibility index to be updated for current date.	1	1.28	
Facilities	One Credit - The number of compliant cycle storage spaces equivalent to 1 for every 10 members of staff.	1	1	1.28	DS - Architect/ CBC PC - Contractor	Design drawings and specification confirming number of cycle storage spaces to be installed. Numbers of building users or a break down of the site areas in m2 (e.g. office/warehouse/kitchen).	DS - Architect/ CBC PC - Contractor	Manufacturers literature. (installed cycle racks) Site Inspection Report. (photographs)	0	0.00	
Tra 3 Cyclist	One Credit: At least two of the following cycling facilities should be provided. (Gender specific) a.Showers b.Changing facilities c.Lockers d.Drying spaces.	1	1	1.28	DS - Architect/ CBC PC - BREEAM Assessor	Design drawings and specification confirming type and number of cyclist facilities provided. Numbers of building users or a break down of the site areas in m2 (e.g. office/warehouse/kitchen).	DS - Architect/ CBC PC - BREEAM Assessor	As Built layouts highlighing facilities Site Inspection Report. (photographs)	0	0.00	
Tra 5 Travel Plan	One Credit - A travel plan is developed to include measures to minimise car based travel and take into the findings of a site specific transport survey. As a minimum the transport survey should cover the following: "Where relevant, existing travel patterns and opinions of existing building users, so that site constraints can be identified; "Travel patterns and transport impact of future building users; "Current local environment for cyclists and walkers; "Disabled access; "Dublic transport links serving the site; "Current facilities for cyclists. The travel plan includes a package of measures to encourage the use of sustainable modes of transport and movement of people and goods during the building's operation and use. If the occupier is known, they must be involved in the development of the travel plan and they must confirm that the travel plan will be implemented post construction and be supported by the building's management in operation	1	1	1.28	DS & PC - Transport Consultant	Travel Plan & site specific transport survey. Design drawings demonstrating design measures in support of travel plan findings. Letter from the occupier that the travel plan will be implemented (if applicable) - Travel plan still required if building user is not known.	DS & PC - Transport Consultant	As design stage. Site Inspection Report. (photographs)	0	0.00	
	Total	9	7	8.94					3	3.83	
						Water					

4784	Ascot Road, Watford	BREEA	M New (Construct	ion 2014 DS	& PCS (Shell only) - Ver 2 18.	12.2023		Cudd Bentley	br	eeam
Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constru	Design AND uction stage	Reason Credit is unlikely achievable
Wat 2 Water Meter	One Credit - The specification of a water meter on the mains water supply to each building; this includes instances where water is supplied via a borehole or other private source. Water-consuming plant or building areas, consuming 10% or more of the building's total water demand, are either fitted with sub meters or have water monitoring equipment integral to the plant or area (see Compliance notes). Each meter (main and sub) has a pulsed output to enable connection to a Building Management System (BMS) for the monitoring of water consumption. If the site on which the building is located has an existing BMS, managed by the same occupier/owner (as the new building), the pulsed water meter(s) for the new building must be connected to the existing BMS.	1	1	1.33	DS - CBC PC - Contractor	A copy of the specification clause confirming the specification and type of water meter. Design plans showing location of water meter.	DS - CBC PC - Contractor	Manufacturers literature confiming meters have pulsed output. Site Inspection Report. (photographs) As built drawings	0	0.00	
Wat 3 Water Leak Detection and Prevention	One Credit - Flow control devices that regulate the supply of water to each WC area/ facility according to demand are installed (and therefore minimise water leaks and wastage from sanitary fittings).	1	1	1.33	DS - CBC PC - Contractor	Relevant Sectiions of the specification and design drawings of leak detection system.	DS - CBC PC - Contractor	Manufactuer literature and Site inspection report	0	0.00	
Wat 4 Water Efficient Equipment	One Credit - The design team has identified all unregulated water demands that could be realistically mitigated or reduced. System(s) or processes have been identified to reduce the unregulated water demand, and demonstrate, through either good practice design or specification, a meaningful reduction in the total water demand of the building.	1	1	1.33	DS - Architect/ CBC PC - Contractor	Specification confirming how BREEAM criteria will be met.	DS - Architect/ CBC PC - Contractor	As Built plans. Site Inspection Report.	0	0.00	
	Total	3	3	4.00					0	0.00	

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Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constru	Design AND uction stage	Reason Credit is unlikely achievable
						Materials					
Mat 1 Life Cycle Impacts	Up to Two Credits - To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building. The embodied impacts of the materials specification for the key building elements (using the Green Guide rating), scored on a scale from A+ to E. The total score achieved determines the credits awarded:	5	0	0.00	DS - Architect PC - Contractor	Materials specification(s) and the appropriate Green Guide rating for certain elements, depending on building type. Manufactures literature. BREEAM Calculator tool (Mat 01)	DS - Architect PC - Contractor	Confirmation that there have been no changes since design stage. Site Inspection Report.	0	0.00	Credit removed from target score due to Main Contractor insolvency.
Mat 2 Hard Landscaping and Boundary Protection	One Credit where evidence provided demonstrates that at least 80% of the combined area of external hard landscaping and boundary protection specifications achieve an A or A+ rating, as defined by the Green Guide to Specification.	1	1	1.35	DS - Architect PC - Contractor	The Green Guide rating and element number for the assessed specifications.	DS - Architect PC - Contractor	Confirmation that there have been no changes since design stage. Site Inspection Report.	0	0.00	
	One Credit - The principal contractor sources materials for the project in accordance with a documented sustainable procurement plan.	1	1	1.35	DS & PC - Contractor	Sustainable Procurement Plan Complete proforma	DS & PC - Contractor	As per design stage. FSC certificates	0	0.00	
Mat 3 Responsible Sourcing of Materials	Three Credits - are available where evidence provided demonstrates that over 54% (to achieve 3 credits) of the assessed materials in the following building elements are responsibly sourced: 1. Ceiling (including ceiling finishes) 2.Door/window 3.Floor (including floor finishes) 4.Insulation 5.Internal partition/internal walls (including finishes) 6.Roof (including roof finishes) 7.Structure, primary and secondary 8.External wall (e.g. cladding, lining, render, including finishes) 0.Hard landscaping 10.Hard landscaping 11.Other Pre-requisite: All timber and timber-based products used on the project is Legally harvested and traded timber.	3	2	2.69	DS & PC - Contractor	NOTE: The legally harvested timber must be met in order to achieve this credit. Design plan and/or specification confirming the location of elements, materials specified and details of materials specified. A copy of the output from REFEAM Mat 03 Calculator. Copies of all relevant materials environmental certification including the chain of custody.	DS & PC - Contractor	Confirmation that there have been no changes since design stage. Site Inspection Report. Responsible sourcing certificates	0	0.00	
Mat 4 Insulation	One Credit - Any new insulation specified for use within the following building elements must be assessed: a.External walls b.Ground floor c.Roof d.Building services. The Insulation Index for the building fabric and services insulation is the same as or greater than 2.5.	1	1	1.35	DS - Architect/ Contractor PC - Contractor	The green guide rating and element number for the assessed insulation specifications. Copy of BREEAM Mat 04 calculator. Copies of all relevant materials environmental certification including the chain of custody.	DS - Architect/ Contractor PC - Contractor	Confirmation that there have been no changes since design stage. As buily sectional drawings to show insulation Site Inspection Report. (photographs)	0	0.00	
Mat 5 Designing for Durability and Robustness	One Credit - where protection is given to vulnerable parts of the building such as areas exposed to high pedestrian traffic, vehicular and trolley movements. "Protection from the effects of high pedestrian traffic in main entrances, public areas and thoroughtares. "Protection against any potential vehicular/trolley movement within 1m of the internal building fabric in storage, delivery, corridor and kitchen areas. "Protection against any potential vehicular collisions when vehicular parking and manceuvring occurs within 1m of external building facade for all car parks and 2m for delivery areas. Protecting the exposed parts of the building from materials degradation due to environmental factors (see criteria for further explanations and suggested methods).	1	1	1.35	DS - Architect PC - BREEAM Assessor	Design drawings marked up to illustrate vulnerable areas/parts of the building. Design drawing and/or specification confirming the durability measures specified.	DS - Architect PC - BREEAM Assessor	Site Inspection Report. (photographs) As built drawings	0	0.00	
Mat 6 Material Efficiency	One Credit - To recognise and encourage measures to optimise material efficiency in order to minimise environmental impact of material use and waste. Opportunities have been identified, and appropriate measures investigated and implemented, to optimise the use of materials in building design, procurement, construction, maintenance and end of life,	1	0	0.00		Credit not targeted		Credit not targeted	0	0.00	
	Total	13	6	8.08					0	0.00	
						Waste					

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Credit	Criteria	Available Credits	Credits likely /	Percentage%	Design Stage Responsibility	Design Stage Evidence Requirement	Post Construction Responsibility	Post Construction Stage Evidence Required	Achieved for Post Constr	Design AND uction stage	Reason Credit is unlikely achievable
Wst 1 Construction Site Waste Management	Up to Three Credits - are available where evidence provided (Resource Management Plan - RMP) demonstrates that the amount of non-hazardous construction waste (m3/100m2 or tonnes 100m2) generated on site by the development and dedicated off-site manufacture or fabrication (including demolition and excavation waste) are recorded and construction waste is the same as or better than good or best practice levels below: 1 credit = 13.3m ³ /100m ³ Or 11.1 tonnestm ² 2 credit = 7.5m ³ /100m ³ Or 5.5 tonnestm ² 3 credit = 3.4m ³ /100m ³ Or 3.2 tonnestm ² One Credit where evidence provided demonstrates that a significant majority of non-hazardous construction waste generated by the development will be diverted from landfil and reused or recycled.(80% Tonnage - Non demolition and 90% tonnage - demolition)	4	0	0.00	DS & PC - Contractor	A copy of the compliant Site Waste Management Plan/RMP containing the appropriate guidance from any of the following: DEFRA, BRE or WRAP. Pre-Demolition audit (if appropriate to site)	DS & PC - Contractor	Final complete Site Waste Management Plan, Including final waste figures.	0	0.00	Credit removed from target score due to Main Contractor insolvency.
Wst 2 Recycled Aggregates	One Credit - where the total amount of recycled and/or secondary aggregate specified is greater than % (by weight or volume) in table 54 -of the total high- grade aggregate specified for the development.	1	0	0.00		Credit not targeted		Credit not targeted	0	0.00	
Wst 3 Operational Waste	One Credit - where there is a dedicated space to cater for segregation and storage of operational waste volumes generated by the building. The space should be appropriately sized, clearly labelled and accessible to building users. Provision of the following where applicable: "Compactor or baler in a dedicated waste management area; "Vessel for composting suitable organic waste or adequate space for storing segregated food waste; "Where organic waste is to be stored/ composted, a water outlet should be provided within the facility for cleaning and hygiene purposes.	1	1	1.38	DS - Architect PC - Contractor	Relevant sections of the building specification. Design drawings detailing the m2 area location. Letter confirming likely operational waste streams.	DS - Architect PC - Contractor	Site Inspection Report. (photographs) As built drawings that show waste areas	0	0.00	
Wst 5 Adaptation to Climate Change	One Credit - Conduct a climate change adaptation strategy appraisal for structural and fabric resilience by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the following approach: Carry out a systematic (structural and fabric resilience specific) risk assessment to identify and evaluate the impact on the building over its projected life cycle from expected extrem weather conditions arising from climate change and, where feasible, mitigate against these impacts. The	1	0	0.00	DS - Architect PC - Architect	Credit not targeted	DS - Architect PC - Architect	Credit not targeted	0	0.00	
Wst 6 Functional Adaptability	One Credit - A building-specific functional adaptation strategy study has been undertaken by the client and design team by Concept Design (RIBA Stage 2 or equivalent), which includes recommendations for measures to be incorporated to facilitate future adaptation. Functional adaptation measures have been adopted in the design by Technical Design stage (RIBA Stage 4 or equivalent) in accordance with the functional adaptation strategy recommendations, where practical and cost effective. Omissions have been justified in writing to the assessor.	1	1	1.38	DS - Architect PC - BREEAM Assessor	Functional adaptation strategy (stage 2) and updated implementation plan report (Stage 4).	DS - Architect PC - BREEAM Assessor	As design stage Site Inspection Report.	0	0.00	
	Total	8	2	2.75					0	0.00	
						Land Use and Ecology					
e Selection	One Credit - where 75% of the proposed development's footprint is on an area of land which has previously been developed.	1	1	1.30	DS - Architect PC - Contractor	Design drawings showing: "Type and duration of previous land use; "Area (m2) of previous land use; "Location and footprint (m2) of proposed development and temporary works.	DS - Architect PC - Contractor	As Built plans. Site Inspection Report.	0	0.00	
LE 1 Sit	One Credit - where the site is deemed to be significantly contaminated as confirmed by a contaminated land specialist's site investigation.	1	1	1.30		Land contamination report. Details of remediation works undertaken. PLUS A copy of the remediation strategy and implementation plan.		As per design stage.	0	0.00	
ue of Site and gical Features	One Credit where the land within the construction zone can be defined as of low ecological value' by a Suitably Qualified Ecologist.	1	1	1.30	DS & PC - Ecologist	Suitably Qualified Ecologist's report confirming the low value which should include all points from BREEAM checklist AND/OR a completed BREEAM checklist	DS & PC - Ecologist	As per design stage. Copy of Ecologist qualifications	0	0.00	

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LE 2 Ecological Val Protection of Ecolo	One Credit - All existing features of ecological value within the assessment zone are adequately protected from damage during clearance, site preparation and construction activities in line with BS42002: 2013. In all cases, the principal contractor is required to construct ecological protection recommended by the Suitably Qualified Ecologist (SQE), prior to any preliminary site construction or preparation works of the site or erection of temporary site facilities.	1	1	1.30	DS & PC - Contractor	Confirmation that ecological protection will be installed.	DS & PC - Contractor	Site Inspection Report. (photographs)	0	0.00	
LE 3 Mitigating Ecological Impact	One Credit - where the change in ecological value of the site is less than zero but equal or greater than minus nine - a minimal change. OR Two Credits - where the change in ecological value of the site is equal to or greater than zero - no negative change.	2	2	2.60	DS - Ecologist PC - BREEAM Assessor	Design drawings of existing and proposed site plans in areas of locations types specified m2. Copy of output from ecology calculator and evidence of data used to complete the tool (if applicable). Copy of ecologists report stating if there is a negative change to the site.	DS - Ecologist PC - BREEAM Assessor	Site Inspection Report. (photographs)	0	0.00	
LE 4 Enhancing Site Ecology	One Credit - where an Ecologist is appointed to report on enhancing and protecting the ecology of the site. The general recommendations of the ecologist are implemented. One Credit - where the Ecologists recommendations result in an increase of at least 6 plant species.	2	1	1.30	DS - Ecologist PC - BREEAM Assessor	All Credits - Ecologists report which should include guidance/recommendations for improving the site. Design drawings to show the recommendations have been included. Letter of commitment that this will be undertaken within 18 month of completion (if not already completed at post construction stage) Copy of output from ecology calculator and evidence of data used to complete the tool (if applicable).	DS - Ecologist PC - BREEAM Assessor	Site Inspection Report. (photographs) As built drawings confirming recommendations implemented on site (landscaping plan)	0	0.00	
LE 5 Long Term Impact on Biodiversity	IDp to Two Credits - The ecologist confirms that all UK and EU relevant legislation has been complied with during the design and construction process. A landscape and habitat management plan, is produced covering at least the first 5 year after project completion. All relevant additional BREEAM will be achieved: a. Nomination of a 'Biodiversity Champion' by the main contractor. b. Site workforce is trained on how to protect ecology. c. Main contractor records actions taken to protect site biodiversity and monitor effectiveness throughout the project. d. A new ecologically valuable habitat is created in compliance with national/ regional/ local Biodiversity Action Plans. e. Site works are programmed to minimise disturbance to wildlife.	2	2	2.60	DS & PC - Ecologist Contractor	Confirmation that BREEAM criteria will be achieved.	DS & PC - Ecologist/ Contractor	The ecologist confirms that all UK and EU relevant legislation has been complied with. 4 additional measures achieved. Site's land space or habitat management plan OR relevant sections/clauses of the building specifications or contract. Site inspection report (photographs).	0	0.00	
		10	9	11.70					0	0.00	
						Pollution					
	Two credits - where the building is situated in a low flood zone not at risk from flooding. (ON) One Credit is available where the development is situated in a flood zone where the probability of flooding is likely (medium to high)). This is to be confirmed within a site specific Flood Risk Assessment which confirms the probability of flooding from all sources.	2	0	0.00	DS - Capita PC - Contractor	Flood Kisk Assessment.	DS - Capita PC - Contractor	Continuation that there have been no changes required to the Flood Risk Assessment. Site Inspection Report. (photographs)	0	0.00	Credit removed from target score due to Main Contractor insolvency.
ce Water Run Off	Pre-requisite - an appropriate Consultant is appointed to carry out/confirm compliance with the following criteria: One Credit where drainage measures are used to ensure that the peak run- off rate from site to the watercourse is no greater for the developed site than it was for the pre-developed site - calculations should be made for climate change.	1	0	0.00	DS - Capita PC - Contractor	Drainage calculations and plans.	DS - Capita PC - Contractor	As Built drainage plans.	0	0.00	Credit removed from target score due to Main Contractor insolvency.
Pol 3 Surfa	One Credit - where the property will not flood in the event of a local drainage system failure. The post development run-off volume should be no greater for the developed site than it was for the pre-developed site. Any additional predicted volumes for the 100 year 6 hour event must be prevent from leaving the site through SUDs.	1	0	0.00	DS - Capita PC - Contractor	Drainage calculations and plans.	DS - Capita PC - Contractor	As Built drainage plans. Site Inspection Report. (photographs)	0	0.00	Credit removed from target score due to Main Contractor insolvency.
	One Credit - where it is confirmed there is no discharge from the site for up to 5mm of rainfall. SUDs should be specified in areas of low risk to water course pollution. Petrol/ oil interceptors should be specified in high risk areas. An up-to- date drainage plan should be made available for the future building users.	1	0	0.00	DS - Capita PC - Contractor	as above	DS - Capita PC - Contractor	as above	0	0.00	Credit removed from target score due to Main Contractor insolvency.

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Pol 4 Reduction of Night Time Light Pollution	One Credit - External lighting has been eliminated through effective design OR The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the ILE Guidance notes for the reduction of obtrusive light, 2005. All external lighting (except for safety and security lighting) can be automatically switched off between 2300hrs and 0700hrs. This can be achieved by providing a timer for all external lighting set to the appropriate hours. It safety or security lighting is provided and will be used between 2300hrs and 0700hrs, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 1 of the ILE's Guidance notes, for example by using an automatic switch to reduce the lighting levels at 2300 or earlier. Illuminated advertisements, where specified, must be designed in compliance with ILE Tech-nicely Report 5 – The Brightness of Illuminated Advertisements.	1	1	1.00	DS - CBC PC - Contractor	The M&E engineer or lighting design must Indicate examples where and how elimination has been achieved. Drawings. Specification or external lighting calculations.	DS - CBC PC - Contractor	Confirmation that the design specification has been installed. As built external lighting drawings timeclock literature Site Inspection Report. (photographs)	0	0.00	
	Total	6	1	1.00					0	0.00	
								Current	Score	4.67	
								Final	Score	54.14	