



Turing House Free School
BREEAM Pre-Assessment Summary Report

Pre-assessment

Uncontrolled revision

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1.0 Introduction

This report is intended as a summary of the BREEAM pre-assessment review for the following project:

Project Name	Turing House Free School
BREEAM Version	BREEAM 2014 NC
Assessment Stage	Pre-Assessment Stage
Lead Assessor	Stuart Flint
Target Rating	Very Good (55%)
Downloaded By	Stuart Flint
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2.0 Scoring scenarios

It should be noted that the pre-assessment scores have been based on the following scoring scenarios;

- Current - The number currently achieved.
- Target credits - Achieved plus agreed/specified target credits.
- Not used - N/A.

On this basis, the following scores are considered achievable under each scenario;

Scenario	Score	BREEAM Rating
Current	1.2	Unclassified
Target credits	57.2	Very Good
Not used	0	Unclassified

2.1 Minimum Standards

In addition performance against the minimum standards (required for the specified target rating) under each scenario is summarised below;

Issue	Current	Target credits	Not used
Man 03 - Responsible construction practices	✓	✓	✓
Man 04 - Commissioning and handover	✓	✓	✓
Man 05 - Aftercare	✓	✓	✓
Ene 01 - Reduction of energy use and carbon emissions	✓	✓	✓
Ene 02 - Energy Monitoring	✗	✓	✗
Wat 01 - Water Consumption	✗	✓	✗
Wat 02 - Water Monitoring	✗	✓	✗
Mat 03 - Responsible Sourcing of Materials	✗	✓	✗
Wst 01 - Construction Waste Management	✓	✓	✓
Wst 03 - Operational Waste	✓	✓	✓
LE 03 - Minimising impact on existing site ecology	✗	✓	✗

If the required minimum standards are not met then the target rating will not be achieved regardless of overall score.

3.0 - Credits and Comments Table

	Available	Current	Target credits	Not used	Comments	
Management						
Man 01	Project brief and design	4	0	0	0	<p>Credit 1 Stakeholder consultation (project delivery) - It is unlikely that consultation compliant with the BREEAM requirements has been undertaken.</p> <p>Credit 2 Stakeholder consultation (third party) - This credit can only be achieved when Credit 1 Stakeholder consultation has been awarded.</p> <p>Credit 3 Sustainability Champion (design) - As a sustainability champion was not appointed at the equivalent of RIBA Stage 1 this credit cannot be achieved.</p> <p>Credit 4 Sustainability Champion (monitoring progress) - This credit can only be achieved when Credit 3 Sustainability Champion (design) has been awarded.</p>
Man 02	Life cycle cost and service life planning	4	0	1	0	<p>Credit 1 Elemental life cycle cost (LCC) - An outline, entire asset elemental life cycle cost (LCC) plan would need to be carried out at Process Stage 2 (equivalent to Concept Design - RIBA Stage 2) in line with 'Standardised method of life cycle costing for construction procurement' PD 156865:2008.</p> <p>Credit 2 Component level LCC option appraisal - A component level LCC option appraisal would need to be developed by the end of Process Stage 4 (equivalent to Technical Design - RIBA Stage 4) in line with PD 156865:2008 and include the following component types: Envelope, Services, Finishes, External spaces.</p> <p>Credit 3 Capital cost reporting - The capital cost for the building in pounds per square metre (£k/m²) will be reported to BRE as part of the assessment (Target credit)</p>

<p>Man 03</p>	<p>Responsible construction practices</p>	<p>6</p>	<p>0</p>	<p>5</p>	<p>0</p>	<p>Credit 0 Pre-Requisite - All timber and timber based products used on the project (for construction purposes) is 'Legally harvested and traded timber' (Target credit)</p> <p>Credit 1 Environmental management - The principal contractor operates an environmental management system (Third party certified, to ISO 14001/EMAS) covering their main operations. The principal contractor implements best practice pollution prevention policies and procedures on-site in accordance with Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG6 (Target credit)</p> <p>Credit 2 Sustainability Champion (construction) - A site based Sustainability Champion is appointed to monitor the project to ensure ongoing compliance with the relevant sustainability performance/process criteria, and therefore BREEAM target(s), during the Construction, Handover and Close Out stages (as defined by the RIBA Plan of Works 2013, Stages 5 and 6). Not achievable.</p> <p>Credit 3 Considerate construction - Performance beyond compliance (score of 35+ and 7 in each section) will need to be achieved under the Considerate Constructors Scheme (Target credits)</p> <p>Credit 4 Monitoring of construction site impacts (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. 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 (Target credit)</p> <p>Credit 5 Monitoring of construction site impacts (Transport of construction materials & waste) - 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 (Target credit)</p>
<p>Man 04</p>	<p>Commissioning and handover</p>	<p>4</p>	<p>0</p>	<p>3</p>	<p>0</p>	<p>Credit 1 Commissioning and testing schedule and responsibilities - Commissioning activities will be conducted in accordance with current Building Regulations, BSRIA and CIBSE guidelines and/or other appropriate standards. Where a building management system (BMS) is specified, BMS commissioning procedures will meet BREEAM requirements. An appropriate project team members shall be appointed to monitor and programme pre-commissioning, commissioning, testing and, where necessary, re-commissioning activities on behalf of the client (Target credit)</p> <p>Credit 2 Commissioning building services - For buildings with complex building services and systems, a specialist commissioning manager is appointed during the design stage (by either the client or the principal contractor) with responsibility for:</p> <ul style="list-style-type: none"> - Undertaking design reviews and giving advice on suitability for ease of commissioning - Providing commissioning management input to construction programming and during installation stages - Management of commissioning, performance testing and handover/post-handover stages. <p>(Target credit)</p> <p>Credit 3 Testing and inspecting building fabric - The integrity of the building fabric, including continuity of insulation, avoidance of thermal bridging and air leakage paths shall be quality assured through completion of post construction testing and inspection. Any defects identified in the thermographic survey or the airtightness testing reports shall be rectified prior to building handover and close out. This is not likely to be achievable within the programme.</p> <p>Credit 4 Handover - A Building User Guide (BUG) is developed prior to handover for distribution to the building occupiers and premises managers. A training schedule is prepared for building occupiers/premises managers, timed appropriately around handover and proposed occupation plans (Target credit)</p>

Man 05	Aftercare	3	0	3	0	<p>Credit 1 Aftercare support - There is (or will be) operational infrastructure and resources in place to provide aftercare support to the building occupiers, which will include:</p> <ul style="list-style-type: none"> - A meeting programmed to occur between the aftercare team/individual and the building occupier/management (prior to initial occupation). - On-site facilities management training, to include a walkabout of the building and introduction to and familiarisation with the building systems, their controls and how to operate them in accordance with the design intent and operational demands. - Initial aftercare support provision for at least the first month of building occupation, e.g. on-site attendance on a weekly basis - Longer term aftercare support provision for occupants for at least the first 12 months from occupation. <p>There is (or will be) operational infrastructure and resources in place to co-ordinate the collection and monitoring of energy and water consumption data for a minimum of 12 months, once the building is occupied (Target credit)</p> <p>Credit 2 Seasonal commissioning - Seasonal commissioning duties will need to be included within the scope of commissioning works (Target credit)</p> <p>Credit 3 Post occupancy evaluation - The client or building occupier will need to make a commitment to carry out a BREEAM compliant post-occupancy evaluation (POE) exercise one year after initial building occupation (Target credit)</p>
Management Totals:		21	0	12	0	
Management score totals:		12	0	6.857	0	
Health & Wellbeing						

<p>Hea 01</p>	<p>Visual Comfort</p>	<p>5</p>	<p>0</p>	<p>4</p>	<p>0</p>	<p>Credit 1 Glare control - A combination of glare control measures are specified to meet the credit requirements and Climate Based Daylighting Modelling has been undertaken to demonstrate that these are effective (Target credit)</p> <p>Credit 2 Daylighting - The daylighting requirements within the Facilities Output Specification: Generic Design Brief (Education Funding Agency, June 2013) will be met and the BREEAM credits can therefore be awarded (Target credit)</p> <p>Credit 3 View out - This credit is not achievable as the window/openings in all areas are not $\geq 20\%$ of the surrounding wall area and a number of areas are internal.</p> <p>Credit 4 Internal and external lighting levels, zoning and control - All fluorescent and compact fluorescent lamps are to be fitted with high frequency ballasts. Lighting is to be designed in accordance with:- - SLL Code for Lighting 2012 (or any other relevant industry standard) - CIBSE Lighting Guide 7 (in office areas) - BS 5489-1:2013 Lighting of roads and public amenity areas - BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places Internal lighting is zoned to allow for occupant control (see Relevant definitions) in accordance with the criteria below for relevant areas present within the building: - In office areas, zones of no more than four workplaces - Workstations adjacent to windows/atria and other building areas separately zoned and controlled - Seminar and lecture rooms: zoned for presentation and audience areas - Library spaces: separate zoning of stacks, reading and counter areas - Teaching space or demonstration area - Whiteboard or display screen - Auditoria: zoning of seating areas, circulation space and lectern area - Dining, restaurant, café areas: separate zoning of servery and seating/dining areas (Target credit)</p>
<p>Hea 02</p>	<p>Indoor Air Quality</p>	<p>5</p>	<p>0</p>	<p>1</p>	<p>0</p>	<p>Credit 1 Indoor air quality (IAQ) plan - An indoor air quality plan will be developed for the project (Target credit)</p> <p>Credit 2 Ventilation - This credit is unlikely to be achieved as there are multiple local ventilation inlets and outlet locations and it is not possible to achieve the required 10m separation and distance from sources of external pollution.</p> <p>Credit 3 Volatile organic compound (VOC) emission levels (products) - All paints and varnishes must meet the VOC emission standards defined by BREEAM. At least five of the seven remaining product categories listed must meet the testing requirements. Not targeted.</p> <p>Credit 4 Volatile organic compound (VOC) emission levels (post construction) - A programme of compliant VOC testing will be difficult to accommodate within the construction programme.</p> <p>Credit 5 Potential for natural ventilation - It is unlikely that all occupied spaces of the building will be capable of providing fresh air entirely via a natural ventilation strategy.</p>

Hea 03	Safe containment in laboratories	1	0	0	0	<p>Credit 1 <i>Laboratory containment devices and containment</i> - An objective risk assessment of the proposed laboratory facilities has been carried out prior to completion of the Developed Design (RIBA Stage 3 or equivalent) to ensure potential risks are considered in the design of the laboratory. Where containment devices such as fume cupboards are specified their manufacture and installation meet best practice safety and performance requirements and objectives, demonstrated through compliance with the following standards:</p> <ul style="list-style-type: none"> - General purpose fume cupboards: BS EN 14175 Parts 1-7 (as appropriate)¹ - Recirculatory filtration fume cupboards: BS 7989:2001
Hea 04	Thermal comfort	3	0	2	0	<p>Credit 1 <i>Thermal modelling</i> - An AM11 compliant thermal model will need to demonstrate that for naturally ventilated/free running buildings: 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 (where this sets a higher or more appropriate requirement/level for the building type i.e. BB101). The building is designed to limit the risk of overheating, in accordance with the adaptive comfort methodology outlined in CIBSE TM52 (Target credit)</p> <p>Credit 2 - <i>Adaptability for a projected climate change scenario</i> - Although the thermal comfort criteria for a projected climate change scenario (2020) will likely be met, the credit requirement to comply with 2050 data is not likely to be possible.</p> <p>Credit 3 <i>Thermal zoning and controls</i> - The thermal modelling analysis has informed the temperature control strategy for the building and its users and addresses:</p> <ul style="list-style-type: none"> - Zones within the building - The degree of occupant control required for these zones - How the proposed systems will interact with each other - The need or otherwise for an accessible building user actuated manual override for any automatic systems <p>(Target credit)</p>
Hea 05	Acoustic Performance	3	0	3	0	<p>Where the design is compliant with, and will be subject to pre-completion testing to show performance is in accordance with BB93 on the following issues:</p> <ul style="list-style-type: none"> - Sound insulation - Indoor ambient noise level - Reverberation times <p>(Target credit)</p>
Hea 06	Safety and Security	2	0	0	0	<p>Credit 1 <i>Safe access</i> - It is unlikely that all of the credit requirements can be accommodated within the proposed site layout.</p> <p>Credit 2 <i>Security of site and building</i> - A suitably qualified security specialist (SQSS) has not conducted an evidence-based Security Needs Assessment (SNA) during or prior to Concept Design (RIBA Stage 2 or equivalent) and therefore it cannot be demonstrated that their recommendations were implemented within the design.</p>
Health & Wellbeing Totals:		19	0	10	0	
Health & Wellbeing score totals:		15	0	7.895	0	
Energy						
Ene 01	Reduction of energy use and carbon emissions	12	0	8	0	Based upon the ITT BRUKL output document (April 2018) and the enhanced BER required to meet the 35% reduction in emissions, the EPR_{nc} will be 0.629. Eight credits will be targeted (Target credits)

Ene 02	Energy Monitoring	2	0	1	0	<p>Credit 1 <i>Sub-metering of major energy consuming systems</i> - Sub-metering strategy to ensure that 90% of each fuel type can be assigned to its end uses, measured via pulse output meters including:</p> <ul style="list-style-type: none"> - Space heating - Domestic hot water heating - Humidification (if applicable) - Cooling - Ventilation, i.e. fans (major) - Pumps - Lighting - Small power - Renewable or low carbon systems (separately) - Controls - Other major energy consuming systems/plant, where appropriate. <p>Confirmation required that an energy monitoring and management system will be specified (Target credit)</p> <p>Credit 2 <i>Sub-metering of high energy load and tenancy areas</i> - An accessible energy monitoring and management system or separate accessible energy sub-meters with pulsed or other open protocol communication outputs to enable future connection to an energy monitoring and management system are provided, covering a significant majority of the energy supply to tenanted areas or, in the case of single occupancy buildings, relevant function areas or departments within the building. It is unlikely to be cost effective to meter all energy supplied to these areas.</p>
Ene 03	External Lighting	1	0	1	0	<p>External light fittings within the construction zone are to achieve an average efficacy of not less than 60 luminaire lumens per circuit watt. All external lighting to be automatically controlled to prevent operation during daylight hours and presence detection in areas of intermittent pedestrian traffic (Target credit)</p>
Ene 04	Low carbon design	3	0	3	0	<p>Credit 1 <i>Passive design (Passive design analysis)</i> - The project team carries out an analysis of the proposed building design/development to influence decisions made during Concept Design stage (RIBA Stage 2 or equivalent) and identify opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services (Target credit)</p> <p>Credit 2 <i>Passive design (Free cooling)</i> - The design currently includes night time cooling and thermal mass (Target credit)</p> <p>Credit 3 <i>Low and zero carbon technologies (LZC feasibility study)</i> - A BREEAM compliant LZC study, carried out at RIBA Stage 2 is required showing that a qualifying technology has been specified leading to a meaningful reduction in energy use or carbon emissions (i.e at least 5%) (Target credit)</p>
Ene 06	Energy Efficient Transportation Systems	3	0	3	0	<p>Credit 1 <i>Energy consumption</i> - A transport analysis and energy calculation to BS EN ISO 25745 needs to be undertaken for at least two fit for purpose lift strategies. The strategy with the lowest consumption needs to be specified (Target credit)</p> <p>Credit 2 <i>Energy efficient features</i> - The specified lift(s) will need to include the following features:-</p> <ul style="list-style-type: none"> - The lifts operate in a standby condition during off-peak periods. - The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 55 lamp lumens/circuit Watt. - The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor. <p>The use of regenerative drives will need to be considered, but only specified if energy savings are sufficient (Target credit)</p>

Ene 08	Energy Efficient Equipment	2	0	0	0	Relevant function within the building include: A) Small Power D) Data Centre and H) Kitchen and Catering Facilities. It is unlikely that the compliance points for H) - which requires two thirds of CIBSE TM50 requirements from each section to be incorporated into the kitchen design - can be met.
Energy Totals:		23	0	16	0	
Energy score totals:		15	0	10.435	0	
Transport						
Tra 01	Public Transport Accessibility	3	1	1	0	The Accessibility Index taken from TFL WebCAT is <4 and one credit is achieved.
Tra 02	Proximity to amenities	1	0	0	0	The building is not within 500m of two core amenities and one further amenity. This credit cannot be achieved.
Tra 03	Cyclist facilities	2	0	2	0	Compliant cycle storage will be provided at a rate of one covered cycle rack for every 10 building users (staff and students) (Target credit) The development will include compliant cyclist facilities (showers, changing facilities and lockers) (Target credit)
Tra 05	Travel Plan	1	0	1	0	A BREEAM compliant travel plan will be need to be developed during the design stages and measures to limit the impact of private car travel and deliveries will need to be implemented in the design proposals (Target credit)
Transport Totals:		7	1	4	0	
Transport score totals:		9	1.29	5.143	0	
Water						
Wat 01	Water Consumption	5	0	3	0	The following performance requirements would achieve 3 credits:- - WC - 4.5 /3 litres (3.375 litre effective flush volume) - Wash basin taps - 3.7 litres/min (@3 bar) - Showers - 8 litres/min - Kitchenette Taps - 31 litres/min (maximum flow rate) - Kitchenette domestic dishwasher - 9.91 litres/cycle - Commercial Dishwasher - 2 litres/rack - Catering taps (pre-rinse nozzle) 7.75 litres/min (Target credit)
Wat 02	Water Monitoring	1	0	1	0	A pulse output water meter shall be included on the incoming water supply to the building and a sub-meter for the kitchen and any end uses which consume >10% of calculated water demand (Target credit)
Wat 03	Leak Detection	2	0	2	0	Credit 1 Leak detection system - The cost of a BREEAM compliant major leak detection system on the incoming supply needs to be costed and incorporated into the specification (Target credit) Credit 2 Flow control devices - Toilets need to include a system to shut off the supply to the area when not occupied i.e. a solenoid and PIR (Target credit)
Water Totals:		8	0	6	0	
Water score totals:		7	0	5.25	0	
Materials						
Mat 01	Life Cycle Impacts	6	0	5	0	The Mat 01 Calculator needs to be completed detailing the areas, specification and green guide rating for the major elements: external walls, windows, roof, upper floors, internal walls and floor finishes (Target credit)

Mat 02	Hard Landscaping and Boundary Protection	1	0	0	0	Green Guide A/A+ ratings are difficult to achieve and may not be suitably robust. This credit is not targeted.
Mat 03	Responsible Sourcing of Materials	4	0	1	0	<p>Credit 0 Pre-requisite - All timber and timber based products used on the project shall be 'Legally harvested and traded timber' (Mandatory requirement)</p> <p>Credit 1 Sustainable Procurement Plan - The principal contractor sources materials for the project in accordance with a documented sustainable procurement plan (Target credit)</p> <p>Credit 2 Responsible sourcing of materials (RSM) - The number of responsibly sourced elements targeted will need to be determined later in the design process.</p>
Mat 04	Insulation	1	0	1	0	Building fabric and services insulation will be specified to have an A+ rating under the Green Guide to Specification, or will be A rated and have an Environmental Product Declaration (cradle to cradle or with options) (Target credit)
Mat 05	Designing for durability and resilience	1	0	0	0	It could not be demonstrated that an analysis has been undertaken to ensure that the relevant building elements incorporate appropriate design and specification measures to limit material degradation due to environmental factors, in accordance with the BREEAM methodology.
Mat 06	Material efficiency	1	0	0	0	Opportunities have not been identified, investigated and implemented to optimise the use of materials in building design, procurement, construction, maintenance and end of life at RIBA Stage 1 and 2 and this cannot be achieved.
Materials Totals:		14	0	7	0	
Materials score totals:		13.5	0	6.75	0	
Waste						
Wst 01	Construction Waste Management	4	0	2	0	<p>Credit 1 Construction resource efficiency - A Resource Management Plan (RMP) shall be developed covering the non-hazardous waste related to on-site construction and dedicated off-site manufacture or fabrication (including demolition and excavation waste) generated by the building's design and construction. Construction waste related to on-site construction and dedicated off-site manufacture/fabrication (excluding demolition and excavation waste) shall be <11.1 tonnes / 100m² of gross building floor area (Target credit)</p> <p>Credit 4 Diversion of resources from landfill - 80% (by weight) of the non-hazardous construction waste (on-site and off-site manufacture/fabrication in a dedicated facility) shall be diverted from landfill. 90% of demolition and excavation waste generated by the project shall be diverted from landfill (Target credit)</p>
Wst 02	Recycled Aggregates	1	0	0	0	It is not considered viable to utilise recycled aggregates in all of the specific end uses required by BREEAM.
Wst 03	Operational Waste	1	0	1	0	The building includes catering area which will generate consistent volumes of waste. Evidence is required demonstrating that the sizing of waste storage areas was based upon the end users needs, and that recycled and general waste will have dedicated areas within the bin stores. A washdown point shall be provided to the waste management area (Target credit)
Wst 05	Adaptation to climate change	1	0	0	0	A climate change adaptation strategy appraisal for structural and fabric resilience was not undertaken by the end of Concept Design (RIBA Stage 2 or equivalent), in accordance with the BREEAM methodology.
Wst 06	Functional adaptability	1	0	0	0	A building-specific functional adaptation strategy study has not 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. This is because it was not considered possible to identify a viable change of use.
Waste Totals:		8	0	3	0	
Waste score totals:		8.5	0	3.188	0	

Land Use & Ecology						
LE 01	Site Selection	2	0	0	0	<p>Credit 1 <i>Previously occupied land</i> - It cannot be demonstrated that at least 75% of the new development is on previously occupied land.</p> <p>Credit 2 <i>Contaminated land</i> - The site is not significantly contaminated and the credit cannot be achieved.</p>
LE 02	Ecological Value of Site and Protection of Ecological Features	2	0	0	0	The credits related to the site value and protection of ecological features will be confirmed when detailed site surveys have been undertaken by the suitably qualified ecologist.
LE 03	Minimising impact on existing site ecology	2	0	1	0	The mandatory requirement to achieve a change in ecological value of -9 species/hectare or better will be met (Target credit)
LE 04	Enhancing site ecology	2	0	0	0	The credit for ecological enhancement will be assessed when detailed site surveys have been undertaken by the suitably qualified ecologist and the viability of their recommendations has been assessed.
LE 05	Long Term Impact on Biodiversity	2	0	2	0	A suitably qualified ecologist will provide recommendations to ensure that the long term impact requirements are met (Target credits)
Land Use & Ecology Totals:		10	0	3	0	
Land Use & Ecology score totals:		10	0	3	0	
Pollution						
Pol 01	Impact of Refrigerants	3	0	2	0	<p>Mechanical cooling plant will have a DELC_{CO2} of <1,000 (by calculation) (Target credit)</p> <p>The total refrigerant charge in each cooling unit shall be <6kg (Target credit)</p>
Pol 02	NOx emissions	3	0	3	0	All space heating boilers will need to be specified to have NO _x emissions of less than 40mg/kWh at 0% excess O ₂ (Target credits)
Pol 03	Surface Water Run Off	5	0	3	0	<p>Credit 1 <i>Flood resilience</i> A flood risk assessment is required which demonstrates the risk of flooding from all sources is low (Target credits)</p> <p>Credit 2 <i>Surface water run-off</i> - Where drainage measures are specified to ensure that the peak rate of run-off from the site to the watercourses (natural or municipal) is no greater for the developed site than it was for the pre-development site. This should comply at the 1-year and 100-year return period events. Calculations include an allowance for climate change; this should be made in accordance with current best practice planning guidance (Target credit)</p>
Pol 04	Reduction of Night Time Light Pollution	1	0	1	0	External lighting shall be designed to achieve compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011. All external lighting (except for safety and security lighting) shall be capable of being automatically switched off between 23:00 and 07:00. If safety or security lighting is provided and will be used between 23:00 and 07:00, this part of the lighting system complies with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes (Target credit)
Pol 05	Noise Attenuation	1	0	1	0	A noise impact assessment in compliance with BS 7445 shall be carried out by a suitably qualified acoustician to determine background noise at the nearest noise sensitive source and the noise level from the proposed development. The noise level from the proposed site/building shall be no greater than +5dB during the day (07:00 to 23:00) and +3dB at night (23:00 to 07:00) compared to the background noise level (Target credit)
Pollution Totals:		13	0	10	0	

Pollution score totals:		10	0	7.692	0	
Innovation						
Man 03	Responsible construction practices	1	0	0	0	
Man 05	Aftercare	1	0	1	0	There is (or will be) operational infrastructure and resources in place to co-ordinate the following activities at quarterly intervals for the first three years of building occupation: - Collection of occupant satisfaction, energy consumption and water consumption data. - Analysis of the data to check the building is performing as expected and make any necessary adjustments to systems / controls or to inform building user behaviours. - Setting targets for reducing water and energy consumption and monitor progress towards these. - Feedback any 'lessons learned' to the design team and developer for use in future projects. - Provision of the actual annual building energy, water consumption and occupant satisfaction data to BRE. (Target credit)
Hea 01	Visual Comfort	1	0	0	0	
Hea 02	Indoor Air Quality	2	0	0	0	
Ene 01	Reduction of energy use and carbon emissions	5	0	0	0	
Wat 01	Water Consumption	1	0	0	0	
Mat 01	Life Cycle Impacts	3	0	0	0	
Mat 03	Responsible Sourcing of Materials	1	0	0	0	
Wst 01	Construction Waste Management	1	0	0	0	
Wst 02	Recycled Aggregates	1	0	0	0	
Wst 05	Adaptation to climate change	1	0	0	0	
AI	Approved Innovation	1	0	0	0	
Innovation Totals:		19	0	1	0	
Innovation score totals:		19	0	1	0	
OVERALL SCORE TOTALS:		119	1.29	57.21	0	