BREEAM PRE-ASSESSMENT
for
RSS449 St Mary's University College R-Block

Job No 41052

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RSS449 St Mary's University College R-Block
BREEAM Pre-Assessment

Prepared for:-
St. Mary's University College, Twickenham

May 2007

Client order number 105913

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Executive Summary

Ingleton Wood LLP has been commissioned to carry out a Pre-BREEAM Report (BRE Environmental Assessment Method) for St. Mary's University College.

This report outlines the performance of the new development against the current BREEAM Schools 2006 criteria. The building currently achieves a score of **70**, which is a BREEAM rating of **Excellent**. This rating is based on the information provided at the workshop meeting 24th April, 2007. All information will need to be provided with the appropriate evidence before a full assessment can be made.

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Introduction

Ingleton Wood LLP has been commissioned to carry out a Pre-BREEAM (BRE Environmental Assessment Method) Schools Design and Procurement assessment of RSS449 St Mary's University College R-Block.

BREEAM

BREEAM is a voluntary scheme that aims to quantify and reduce the environmental burdens of buildings by rewarding those design that take positive steps to minimise their environmental impacts.

Projects are assessed using a system of credits. The credits are grouped within the following categories:

- Management
- Energy
- Transport
- Health and Well Being
- Water
- Materials and Waste
- Land use
- Site Ecological Value
- Pollution

The assessment process results in a report covering the issues assessed together with a formal certification giving a rating on a scale of PASS, GOOD, VERY GOOD and EXCELLENT.

BREEAM Scoring

Within each of the BREEAM categories outlined above, there are a number of credit requirements that reflect the options available to designers and managers of buildings.

An environmental weighting is applied to the scores achieved under each category, as shown below, in order to calculate the final BREEAM score. The weighting factors have been derived from consensus based research with various groups such as government, material suppliers and lobbyists. This research was carried out by BRE to establish the relative importance of each environmental issue.

The environmental weightings are as follows:

Issue Category	Issue Weighting
Management	0.15
Health and Wellbeing	0.15
Energy	-
Transport	-
Energy and Transport	0.25
Water	0.05
Materials and Waste	0.10
Land Use and Ecology	0.15
Pollution	0.15

The BREEAM rating bands are as follows:

RATING	SCORE
PASS	25
GOOD	40
VERY GOOD	55
EXCELLENT	70

PRE-ASSESSMENT ESTIMATOR

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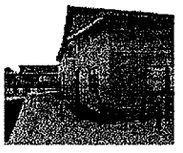
BREEAM Schools 2006

PRE-ASSESSMENT ESTIMATOR



breamschools Pre-Assessment Estimator

IMPORTANT
(Please read this before using the checklist).

This pre-assessment checklist allows a quick evaluation of the rating, that could be achieved, under a formal **BREEAM Schools** assessment.

The points system used in this checklist is an approximation of the scoring and weighting system in the formal BREEAM Schools method. In addition the checklist gives a brief summary of the compliance requirements for BREEAM Schools. The rating obtained by using this checklist is therefore for guidance only.

Estimated ratings may differ from those obtained through a formal assessment which must be carried out by a licensed BREEAM Schools assessor (a list of assessors is available from www.BREEAM.org). The assessor will require evidence to support each credit claimed.

USING THE PRE-ASSESSMENT ESTIMATOR

This checklist should be used when carrying out approximate assessments on New build or refurbishment schemes at the design stage.

COMPLETION OF THE CHECKLIST

Step 1	Complete the checklist by entering the number of points (shown in the 'Points' column shaded light grey) into the unshaded 'Points Achieved' column where the criteria is achieved. NOTE: Evidence of compliance will be required in the formal assessment.
Step 2	At the end of each section, total the Points Achieved column and enter in the box titled, 'Total points achieved to carry forward'.
Step 3	Complete for all sections.
Step 4	Sum the total points achieved to carry forward and enter in to the box titled 'Total of points achieved.'
Step 5	The total should then be assessed against the table titled 'Probable BREEAM Rating' – the score achieved will generate a rating of Fail, Pass, Good, Very Good or Excellent. Make a note of this rating.
NOTE:	In some cases, there are multiple performance levels for the same criteria, simply award the appropriate points score corresponding to the predicted level of achievement. NOTE: These points scores are not cumulative.
	Seek guidance from a licensed assessor early in the design process to ensure that the predicted rating is achieved during the design stages.

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Credit Reference	MANAGEMENT	Points	Points Achieved
M01	Where evidence provided demonstrates that an appropriate project team member has been appointed to monitor commissioning on behalf of the client to ensure commissioning will be carried out in line with current Building Regulations and (where applicable), best practice.	0.75	1.5
	Where evidence provided demonstrates that seasonal commissioning will be carried out during the first year of occupation, post construction (or post fit out).	0.75	
	NOTE: These point scores ARE cumulative.		
M04	Where evidence provided demonstrates that there is a commitment to comply with best practice site management principles. **OR** Where evidence provided demonstrates that there is a commitment to go significantly beyond best practice site management principles.	0.75 1.5	1.5
	NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.		
M05	Where evidence provided demonstrates that • 2 or more of items a-g, listed below are achieved. **OR** • 4 or more of items a-g, listed below are achieved. **OR** • 6 or more of items a-g, listed below are achieved. a) Monitor and report CO_2 or energy arising from site activities. b) Monitor and report on water consumption from site activities. c) Monitor and report transport to and from site to enable CO_2 emissions arising from transport to be calculated. d) Monitor construction waste on site. e) Sort and recycle construction waste on site. f) Adopt best practice policies in respect to air (dust) pollution. g) Adopt best practice policies in respect to water (ground and surface) pollution. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	0.75 1.5 2.25	2.25
	Where temporary timber is used on site during construction, this is from a sustainably responsible source OR is re-used or recycled.	0.75	0.75
M06	Where evidence is provided to demonstrate that the design team has carried out a detailed site investigation of the selected site. This must confirm that the following have been assessed: ground conditions, engineering properties of the soil, chemical constituents of the soil, site heritage.	0.75	0.75
M08	Where evidence provided demonstrates that consultation has been undertaken and feedback given to the local community and building users.	0.75	0.75

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	OR Where, in addition to the above, evidence provided demonstrates that the consultation process is undertaken using an independent method such as DQI, DQM or School Works, facilitated by a third party. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	1.5	–
M09	Where evidence provided demonstrates that shared facilities have been provided as a consequence of consultation feedback. **OR** Where evidence provided demonstrates that these facilities can be accessed without compromising the safety of the building and its occupants. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	0.75 1.5	1.5
M10	Where the project team will consult the Architectural Liaison Officer (ALO) or the Crime Reduction Design Adviser (CRDA) and carry out a Crime Pattern Analysis for the site to assess the level of risk.	0.75	0
M11	Where evidence provided demonstrates the provision of a simple guide that covers information relevant to the tenant/occupants and non-technical building manager on the operation and environmental performance of the building.	0.75	0.75
M14	Where evidence provided demonstrates that the design team are committed to publicising information about the new development via the internet, newsletters, site visits, presentations etc.	0.75	0 *
M16	Where the proposed building and landscape design provides a learning resource that can be used to facilitate development of environmental issues within the school curriculum.	0.75	0.75
M20	Where evidence provided demonstrates that specifications for the building and the building services / systems and landscaping have considered ease and efficiency of maintenance in line with best practice.	0.75	0.75
M21	Where evidence is provided to demonstrate that assessments of Whole Life Costing have been, or will be, carried out early in the design process to influence the fundamental decisions taken regarding the building strategy (such as lightweight vs heavyweight construction, passive cooling vs mechanical air conditioning etc.) **OR** Where evidence is provided that the Whole Life Cost model has been developed early in the design process to influence the fundamental decisions. AND Where this is later followed up when the design is more advanced so that the team can focus on specifications at a more detailed level (such as type of window / cladding system, internal finishes etc). **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	0.75 1.5	0
	Total points achieved to carry forward		11.25

* : Could be achieved

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Credit Reference	HEALTH & WELLBEING	Points	Points Achieved
HW01	Where evidence is provided to demonstrate that either; At least 80% of occupied spaces will be adequately and evenly daylit with an average daylight factor exceeding 2%. **OR** Where all spaces will be adequately daylit with an average daylight factor exceeding 4% in single storey and 3% in multi-storey buildings. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	0.83 1.66	0.83 ? T.B.C [by calculation]
HW02	Where evidence provided demonstrates that all desks are within a 7m radius of a window.	0.83	0.83
HW03	Where evidence provided demonstrates that an occupant controlled glare control system (e.g. internal or external blinds) is specified.	0.83	0.83
HW04	Where all fluorescent luminaires are fitted with high frequency ballasts (HFB's).	0.83	0.83
HW05	Where evidence provided demonstrates that all internal and external lighting, where relevant, is specified in accordance with the appropriate maintained illuminance levels (in lux) recommended by CIBSE. and the levels set for classrooms are in accordance with Building Bulletin 90 Lighting Design for Schools.	0.83	0.83
HW06	Where evidence provided demonstrates that lighting, in all occupied areas, is zoned to allow separate control.	0.83	0.83
HW08	Where the natural ventilation strategy allows for sufficient control of the supply of fresh air. The control must be capable of providing at least two levels of control of the supply of fresh air.	0.83	0.83
HW09	Where air intakes serving occupied areas in mechanically ventilated buildings are over 10m apart to minimise recirculation AND intakes are over 20m from sources of external pollution. In naturally-ventilated buildings openable windows/ventilators must be over 10m from sources of external pollution.	0.83	0
HW11	Where EITHER In the case of mechanically ventilated and air conditioned buildings: • Fresh air is provided at a rate of 8 litres per second per person at normal occupancy and 3 litres per second per person at maximum occupancy. **OR** In the case of naturally ventilated buildings the following are all achieved: • Trickle vents are provided at the rate of 400mm2 per m2 of floor area • The credit for occupant controlled natural ventilation (HW08) is achieved. • The plan depth of the building is less than 15m. Where the plan depth of the building exceeds 15m additional ventilation measures (such as passive stack ventilation or a central atrium) must also be provided.	0.83	0.83

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HW13	Where the design team will review and minimise the use of all finishes and fittings containing volatile organic compounds (VOCs).	0.83	0.83
HW14	Where assessments have been made of thermal comfort levels at the design stage using a "full dynamic" model, as defined in CIBSE AM11 and where the results of these are significantly better than is recommended in the Ventilation section of Building Bulletin 87.	0.83	0
HW15	Where heating and cooling have been zoned to take account of the different loads in different areas of the building. This must allow separate control to be made of each perimeter area (within 7m of each external wall) and the central zone (over 7m from the external walls).	0.83	0.83
HW16	Where hot and cold water systems, cooling towers, evaporative condensers and humidification systems have been designed, or actions taken, to minimise risks of microbial contamination.	0.83	0.83
HW17	**FOR NEW BUILD PROJECTS** three credits are available as follows:		
	Where there is a commitment to carry out a programme of testing on the school buildings as described in Building Bulletin 93, and where there is a commitment to carry out any remedial works, as identified through the acoustic testing, to ensure that all spaces achieve the performance standards required by Building Bulletin 93	0.83	0 *
	For music accommodation (or multi purpose halls in primary schools with no music accommodation) where there is a commitment to achieve airborne sound insulation values that are at least 5dB higher, and impact sound insulation values that are at least 5dB lower, than the performance standards required by Building Bulletin 93.	0.83	
	Where the increase in the indoor ambient noise level during "heavy" rainfall does not exceed the levels defined in Table 1.1, Section 1.1, Building Bulletin 93 by more than 20dB in the design calculations.	0.83	
	OR FOR REFURBISHMENTS of existing buildings an alternative three credits are available as follows:		
	Where spaces achieve reverberation times compliant with table 1.5 of Section 1 of BB93	0.83	—
	Where the spaces comply with all the other performance standards of section 1 of BB93	0.83	
	Where the increase in the indoor ambient noise level during "heavy" rainfall does not exceed the levels defined in Table 1.1, Section 1.1, Building Bulletin 93 by more than 20dB in the design calculations.	0.83	
	NOTE: These point scores ARE cumulative.		
HW24	Where chilled mains fed dispensers are provided for pupil and staff use throughout the day.	0.83	0.83
		Total points achieved to carry forward	1.96

* To be reviewed at full BREEAM Assessment Stage

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ENERGY

Credit Reference		Points	Points Achieved
E01	Where the building demonstrates a percentage improvement above the requirement for CO_2 emissions as set out in the Building Regulations.		
	New Buildings / **Refurbishment**		
	• +1% / • -50%	1.00	
	• +2% / • -25%	2.00	
	• +4% / • +0%	3.00	
	• +6% / • +4%	4.00	
	• +8% / • +7%	5.00	
	• +10% / • +10%	6.00	
	• +12% / • +12%	7.00	
	• +14% / • +14%	8.00	10
	• +18% / • +18%	9.00	
	• +22% / • +22% – EVIDENCE TO BE PROVIDED	10.00	
	• +30% / • +30%	11.00	
	• +40% / • +40%	12.00	
	• +50% / • +50%	13.00	
	• +60% / • +60%	14.00	
	• ≥70% / • ≥70%	15.00	
	NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.		
E02	Where evidence is provided to demonstrate the provision of direct sub-metering of substantive energy uses within the building.	1.00	2
	OR Where sub-meters are specified with a pulsed output for remote monitoring	2.00	
	NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.		
E04	Where energy efficient external luminaires are specified and all light fittings controlled for the presence of daylight.	1.00	1
E20	Where evidence can be provided to demonstrate that the design incorporates a system of providing free cooling to completely displace the need for a mechanical cooling system (excluding exceptional circumstances, for example server rooms) and the thermal comfort requirements of credit HW14 are achieved. Compliance with this credit will be shown if the design has used a free cooling technology, such as: • night-time cooling, requires fabric to have a high thermal mass, • ground coupled air cooling, • displacement ventilation, • ground water cooling, • surface water cooling, • evaporative cooling, direct or indirect, • desiccant dehumidification and evaporative cooling, using waste heat, • Absorption cooling, using waste heat.	1.00	0 *

* = Gold be achieved

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Total points achieved to carry forward	13

TRANSPORT

Credit Reference		Points	Points Achieved
T01	Where the transport node is within 800m of the school with a frequent service at peak times OR Where a school bus service is provided at the beginning and end of the school day. **OR** Where the transport node is within 400m of the school with a frequent service at peak times. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	1.00 2.00	2
T05	Where some provision of cyclist lockup facilities (minimum of five spaces for single form entry, 10 for two form entry, etc) are made for pupils and staff, as well as community users and parents. Where showers are provided that can be accessed by pupils and staff. **AND** Either compliant changing facilities and lockers for clothes **OR** provision of drying space for wet clothes is provided. **OR** Were provision is as set out below: **Primary Schools:** 10% of pupils and staff where the number of building occupants ≤ 500 PLUS 7% for additional building occupants in the range of 501 - 1000 **Secondary Schools** 10% where the number of building occupants is in the range of 501 - 1000 PLUS 7% for additional building occupants > 1000 **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	1.00 2.00	2
T06	Where the site layout has been designed to minimise risks to pedestrians and cyclists, and each of the following issues have been addressed: • The schools onsite foot and cycle paths are connected to offsite public foot and cycle paths (where present) without crossing vehicular routes, • Where delivery routes have been located away from parking areas, access points/routes, classrooms, outside areas or other buildings occupied by pupils, • Drop-off areas are designed off-road and to avoid crossing of busy roads without controlled crossings.	1.00	0
T08	Where evidence is provided to demonstrate that a travel plan has been developed and tailored to the specific needs of the users of the assessed development. The plan must include policies that address constraints, opportunities, targets and actions for the following: • reduction in single occupancy based journeys to and from the school site by car • walking • cycling • public transport • deliveries and contractors vehicles • visitors	1.00	1

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	• car sharing		
	Total points achieved to carry forward	5	

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WATER

Credit Reference		Points	Points Achieved
W01	Credits are awarded based on the improvement over standard specification of water fittings. A standard specification would include 6 litre flush toilets, urinals with no controls, a shower that uses 12-15 litres per minute, standard taps with no flow restrictors. In a formal BREEAM assessment the predicted water consumption will be calculated using the BREEAM water calculator, _ as a guide the following can be used as a rough estimate of likely number of credits:		
	• where some of the fittings use less water than a standard fitting	0.714	
	OR • where all of the fittings are low water or, where only some of the fittings are low water, rainwater or grey water systems are specified.	1.43	1.43
	OR • where the water fittings are all low water and rainwater or greywater fittings have been specified.	2.14	
	NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.		
W02	Where a water meter with a pulsed output is installed to all building supplies	0.714	0.714
W03	Where evidence is provided to demonstrate that a leak detection system is specified or installed.	0.714	0 *
W04	Where evidence is provided to demonstrate that proximity detection shut off is provided to the water supply to all urinals and WC's.	0.714	0.714
W05	Where evidence is provided to demonstrate the specification of systems that collect, store, and where necessary, treat rainwater or greywater for WC and urinal flushing purposes.	0.714	0
	Total points achieved to carry forward		2.858

* = Could be achieved

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Credit Reference	MATERIALS	Points	Points Achieved
MW01	Where the building meets either of the criteria below:		
	Where at least 50% of the floor finishes achieve an A rating in the Green Guide to Specification.	0.556	0.556
	OR Where at least 80% of the floor finishes achieve an A rating in the Green Guide to Specification.	1.112	
	NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.		
	Where at least 80% by area of the upper floor specification achieves an A rating in the Green Guide to Specification.	0.556	0
	Where at least 80% by area of the external walls achieve an A rating in the Green Guide to Specification.	0.556	0.556
	Where at least 80% by area of the internal walls achieve an A rating in the Green Guide to Specification.	0.556	0.556
	Where at least 80% by area of the roof achieves an A rating in the Green Guide to Specification	0.556	0
	Where at least 80% by area of the windows achieve an A rating in the Green Guide to Specification.	0.556	0
	NOTE: These point scores ARE cumulative		
MW02	Where at least 80% of the combined area of external hard landscaping and boundary protection specifications achieve an A rating, as defined by the Green Guide to Specification.	0.556	0.556
MW05	Where at least 50% of the total façade (by area) is reused and at least 80% of the reused façade (by mass) comprises in-situ reused material.	0.556	0
MW06	Where evidence provided demonstrates that a design reuses at least 80% of an existing primary structure and for part refurbishment and part new build, the volume of the reused structure comprises at least 50% of the final structure's volume	0.556	0
MW07	Where significant use of crushed aggregate, crushed masonry or alternative aggregates (manufactured from recycled materials) is specified for 'high grade' aggregate uses (such as the building structure, ground slabs, roads, etc.).	0.556	0
MW08	Where materials used in structural and non-structural elements are responsibly sourced. For timber products this requires third party certification to show that the timber has come from a sustainably managed source and for non-timber products that the materials have EMS certification at either the process stage or the process and extraction phases.	1.668	0

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MW10	Where protection is given to vulnerable parts of the building such as areas exposed to high pedestrian traffic, vehicular and trolley movements. Suitable durability measures are listed below: • Bollards/high kerbs to vehicle drop-off areas • Corridor walls specified to Severe duty (SD) as per BS 5234-2 • Rails to walls of corridors where trolleys will be used (i.e. Science accommodation) • Kick plates/impact protection on doors • Hard wearing and easily washable floor finishes in heavily used circulation areas (i.e. main entrance, corridors etc).	0.556	0.556
MW12	Where a central, dedicated storage space will be provided for materials that can be recycled. This can be either within the building itself, or on site using skips, (provided there is good access for collections and it is within easy reach of the school).	0.556	0.556
	Where, in addition, policies/procedures have been established at the design/construction stages which: a. include procedures for collection and recycling of consumables; b. are endorsed at governor level; c. Are or will be operational at a local level. **NOTE: These point scores ARE cumulative**	0.556	0.556
	Total points achieved to carry forward		3.892

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Credit Reference	LAND USE & ECOLOGY	Points	Points Achieved
LE01	Where the footprint of the proposed development largely falls within the boundary of land previously developed.	1.25	0
LE02	Where land used for the new development has, prior to development, been defined as contaminated, and where adequate remedial steps have been taken to decontaminate the site prior to construction.	1.25	0
LE03	Where evidence is provided to demonstrate that the construction zone is defined as land of low ecological value and all existing features of ecological value will be fully protected from damage during site preparation and construction works.	1.25	1.25
LE04	Credits are awarded based upon the degree of negative impact the new development has on the site's existing ecology. In a formal BREEAM assessment the ecological impact of the development is calculated based on the area of habitat and number of floral species displaced, using BREEAM's ecological value calculator. As a guide, the following can be used to estimate the likely number of credits: No credits can be awarded where the new development will displace a significant majority of the existing site's ecological habitat types and areas. Where a majority of the existing site's ecological habitat types and areas are not displaced as a result of the new development. Where either the development displaces none of the existing site's ecological habitat types and areas. Or, where there is no, or very limited existing site ecology; for example the new development is a refurbishment, or it is on contaminated land or Brownfield land that has been derelict/unoccupied for less than one year. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	1.25 2.5	2.5
LE05	Where evidence is provided to demonstrate that the design team (or client) has i) appointed a professional to advise and report on enhancing and protecting the ecological value of the site; and ii) implemented the professional's recommendations for general enhancement and protection for site ecology. **OR** Where evidence is provided to demonstrate a positive increase in the ecological value of the site of up to (but not including) 6 species. **OR** Where evidence is provided to demonstrate a positive increase in the ecological value of the site of 6 species or greater. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	1.25 2.5 3.75	3.75
LE06	Where evidence is provided to demonstrate that the client has committed to achieving the mandatory requirements listed below and:		

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	At least two of the additional requirements. **OR** at least four of the additional requirements. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.** **Mandatory Requirements** A suitably qualified ecologist must confirm in writing that: • All relevant UK and EU legislation relating to protection and enhancement of ecology has been, or will be, complied with during the design and construction process. • An appropriate management plan is produced covering at least the first 5 years after project completion. This should include details of the scope of the management plan. • Key responsibilities, and with whom these responsibilities lie, e.g. owner, landlord, occupier, FM, other. **Additional Requirements** • A 'Biodiversity Champion' has been nominated • The relevant site work-force have been trained on how to protect site ecology during the project. • Record and monitor actions taken to protect biodiversity throughout key stages of construction • The client requires that a new ecologically valuable habitat, appropriate to the local area, be created. • The client requires the contractor to programme site works to minimise disturbance to wildlife. • The client requires actions to be taken to protect/enhance biodiversity • A Biodiversity Champion must have sufficient authority and time on site to influence activities and ensure that they have minimal detrimental impact on biodiversity • Local biodiversity expertise should be sought at, or before, the design stage • Where a site is deemed to have no ecological value The refurbishment of a listed building may be exempt from the credit requirements if they conflict with the need to maintain the building's listed features	1.25 2.5	2.5
LE07	Where evidence can be provided to demonstrate that the design team will; 1. Consult staff and pupils to determine their educational and social needs from the school grounds, and their ideas for the school ground design, 2. Agree to keep students and staff informed of how their ideas are built into the design. For new schools where no staff or pupils can be identified consultation with relevant people from the local catchment area must be carried out.	1.25	0 *
LE08	Where the design team sets up a partnership with a local group with wildlife expertise (e.g. the local wildlife trust). The partnership should be set up with the aim of: • Obtaining advice, early on in the design process, on species of local importance to protect and/or provide habitat for on the site and on design that is in keeping with the local environment. • Providing a basis for on-going support and advice, to help the school to manage and develop its outdoor space in the longer term.	1.25	0
	Total points achieved to carry forward		10

* Could be considered

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Credit Reference	POLLUTION	Points	Points Achieved
P01	Where evidence provided demonstrates the use of refrigerants with a global warming potential (GWP) of less that 5 or where there are no refrigerants specified for use in building services.	1.07	1.07
P02	Where evidence provided demonstrates that refrigerant leaks can be detected AND that the provision of automatic refrigerant pump down is made to a heat exchanger (or dedicated storage tanks) with isolation valves or where there are no refrigerants specified for the development.	1.07	1.07
P04	Where evidence provided demonstrates that the specification of insulating materials avoids the use of substances with a global warming potential (GWP) of 5 or more in either manufacture or composition	1.07	1.07
P06	Where evidence provided demonstrates that the maximum dry NO_x emissions from delivered space heating energy are: • ≤100 mg/kWh delivered heating energy (at 0% excess O_2). **OR** • ≤70 mg/kWh delivered heating energy (at 0% excess O_2). **OR** • ≤40 mg/kWh delivered heating energy. AND where emissions from delivered water heating energy are 100 mg/kWh or less (at 0% excess O_2). **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	1.07 2.14 3.21	3.21
P07	Where evidence provided demonstrates that the assessed development is located in a zone defined as having a low annual probability of flooding. **OR** Where evidence provided demonstrates that the assessed development is located in a zone defined as having a medium annual probability of flooding and the ground level of the building, car parking and access is above the design flood level for the site's location. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.** Where evidence provided demonstrates that Sustainable Urban Drainage techniques are specified to minimise the risk of localised flooding, resulting from a loss of flood storage on site through development.	2.14 1.07 1.07	- 1.07 1.07
P08	Where on site treatment, such as oil separators/interceptors or filtration have been specified for areas at risk from pollution, i.e. vehicle manoeuvring areas, laboratory delivery or plant areas.	1.07	1.07
P11	Where evidence provided demonstrates that a feasibility study considering renewable and low emission energy has been carried out and the results implemented.	1.07	-

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	OR Where evidence provided demonstrates that the first credit has been achieved and 10% of total energy demand for the building/development is supplied from local renewable, or low emission energy, sources. OR Where evidence provided demonstrates that the first credit has been achieved and 15% of total energy demand for the building/development is supplied from local renewable, or low emission energy, sources. **NOTE: These point scores are not cumulative, simply award the appropriate points score corresponding to the predicted level of achievement.**	2.14 3.21	3.21
P12	Where evidence provided demonstrates that the external lighting design is in compliance with the guidance in the Institution of Lighting Engineers (ILE) Guidance notes for the reduction of obtrusive light, 2005.	1.07	1.07
	Total points achieved to carry forward		13.91

SCORING	
TOTAL OF POINTS ACHIEVED	70

BREEAM Schools Rating Scale

Rating	Minimum Score Required
	Design stage & Post Construction Review
PASS	25
GOOD	40
VERY GOOD	55
EXCELLENT	70

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