

BRE Certification Report

Project Name:	Havant (Shell & Core)
Submitted by:	Steven Russell
Assessor Organisation:	Yonder
Date Submitted:	12 Jan 2022
Report:	Design Stage
BREEAM Scheme & Version:	BREEAM 2018 UK New Construction SD5078: 3.0
Design Rating:	Excellent - 73.60%

Project Details

The project description has not been set.

Summary of Building's Assessment Performance

The building has achieved a score of **73.60%** against the **BREEAM 2018 UK New Construction SD5078: 3.0** Environmental and Sustainability Standard. This translates into a final design stage BREEAM rating of **Excellent**. The BREEAM assessor has determined this rating using an auditable trail of evidence, all of which is referenced throughout this assessment report.

Project Team

Name	Company
Gabor Antony	Delta Simons
Emma Aspinall	Tetrattech
Brian Barrett	Quartz Project Services
Patrick Cooke	TSL Projects
Niall Costello	TSL Projects
Natalie Crockett	TSL Projects
Graham Davies	Tatratch
Sam Edwards	Quartz
Mike Fleet	TSL Projects
Mark Graham	TSL Projects
John Griffiths	KTA
Derrick Hatchett	TSL Projects
Paul Heywood	Delta Simons
Joe Jackson	Lizard Landscape Design and Ecology
Yonder Ltd	Yonder Ltd
Nigel Mann	Tatratch
Michael McDonnell	TSL Projects
David Meigh	UK Pinnacle
Keith Miller	Lizard Ecology
John Mulcahy	TSL Projects
Charlie O'Sullivan	TSL
Bradley Pearce	TSL Projects
Richard Pearson	Pinnacle
Russel Peters	Quartz Project Services
Liz Porter	TSL Projects
David Pummell	B Sims
Simon Rispin	SMR Architects
Steven Russell	Yonder
George Sayer	Lizard Ecology
George Sayer	Lizard Landscape & Ecology
Craig Self	TSL Projects
Jeremy Sharland	Knightsbridge Estates
Catriona Sinclair	B Sims
Zuzanna Towarek	UK Pinnacle
Lauryus Valantinavicus	TSL Projects
Christian Verrill	SMR Architects
Derry Waters	SMR Architects
Gary Westwell	KTA
Jason Wigglesworth	TSL Projects
Grier Woodford	TSL Projects
Joe Woolf	TSL Projects

Mandatory Requirements

Rating Level:	Pass	Good	Very Good	Excellent	Outstanding
Achieved:	YES	YES	YES	YES	NO

Performance by Section

Name	Weighting	Credits Available	Credits Achieved	% Achieved	Weighted Score
Management	11.00%	18	17	94.44%	10.39%
Health and Wellbeing	8.00%	10	5	50.00%	4.00%

Energy	14.00%	21	16	76.19%	10.67%
Transport	11.50%	12	6	50.00%	5.75%
Water	7.00%	9	7	77.78%	5.44%
Materials	17.50%	14	7	50.00%	8.75%
Waste	7.00%	10	8	80.00%	5.60%
Land Use and Ecology	15.00%	13	13	100.00%	15.00%
Pollution	9.00%	12	8	66.67%	6.00%
Innovation	10.00%	10	2	20.00%	2.00%
Total Score				73.60%	

Management

Credits Achieved:	17 out of 18
% Achieved:	94.44%
Weighting:	11.00%
Weighted Score:	10.39%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Man 01: Project brief and design > 1. Project delivery planning	1	1	100.00%	0.61%
Man 01: Project brief and design > 2. Stakeholder consultation	1	1	100.00%	0.61%
Man 01: Project brief and design > 3. BREEAM Advisory Professional : BREEAM AP (Concept Design)	1	1	100.00%	0.61%
Man 01: Project brief and design > 3. BREEAM Advisory Professional : BREEAM AP (Developed Design)	1	1	100.00%	0.61%
Man 02: Life cycle cost and service life planning > 1. Elemental life cycle cost (LCC)	2	2	100.00%	1.22%
Man 02: Life cycle cost and service life planning > 2. Component level life options appraisal	1	1	100.00%	0.61%
Man 02: Life cycle cost and service life planning > 3. Capital cost reporting	1	1	100.00%	0.61%
Man 03: Responsible construction practices > 1. Pre-requisite - Legal and sustainable timber	0	0	0.00%	0.00%
Man 03: Responsible construction practices > 3. Environmental management	1	1	100.00%	0.61%
Man 03: Responsible construction practices > 4. BREEAM Advisory Professional (Site)	1	1	100.00%	0.61%
Man 03: Responsible construction practices > 5. Responsible construction management	2	2	100.00%	1.22%
Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Pre-requisite	0	0	0.00%	0.00%
Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Utility consumption	1	1	100.00%	0.61%
Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Transportation of construction materials and waste	1	1	100.00%	0.61%
Man 04: Commissioning and handover > 1. Commissioning - testing schedule and responsibilities	1	1	100.00%	0.61%
Man 04: Commissioning and handover > 2. Commissioning - design and preparation	1	1	100.00%	0.61%
Man 04: Commissioning and handover > 3. Testing and inspecting building fabric	1	0	0.00%	0.00%
Man 04: Commissioning and handover > 4. Handover	1	1	100.00%	0.61%
Total Score				10.39%

Man 01: Project brief and design > 1. Project delivery planning

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Validation Statement

Criterion 1

- Ref 120 is the base build specification that outlines the roles, responsibilities and contributions of the project delivery stakeholders for each key phase of the project. This includes things such as flood risk assessments, HVAC systems, commissioning, demolition and more.

- Ref 1 is a copy of the project design team meeting for 24th June 2021. Ref 2 is a copy of the project design team meeting for 1st July 2021. These documents show project stakeholders met prior to RIBA Stage 2 to identify and define roles, responsibilities, and contributions.
- Ref 3 is a responsibilities schedule covering all parts of the project, including design, construction, and procurement.
- Ref 83 is a BREEAM pre-assessment. This report shows early BREEAM discussions and planning.
- Ref 134 is an employers requirements document showing formal BREEAM target of Excellent (page 28). It also provides names and details of the project team, including the architect, engineer, surveyor, and others.
- Ref 119 is a project directory confirming the roles of the project delivery stakeholders

Criterion 2

- The above documents cover the following:
 - **Criterion 2a** End user requirements - Ref 120 are requirements from the end user
 - **Criterion 2b** Aims of the design and design strategy - Ref 120 (Introduction, page 5)
 - **Criterion 2c** Particular installation and construction requirements or limitations - Ref 134 (Site Particulars, page 10)
 - **Criterion 2d** Occupiers' budget and technical expertise in maintaining any proposed systems - Ref 120
 - **Criterion 2e** Maintainability and adaptability of the proposals - Ref 120 all sections discuss maintainability and adaptability.
 - **Criterion 2f** Operational energy Ref 134 (page 77)
 - **Criterion 2g** Requirements for the production of project and end user documentation - Ref 134 (page 69)
 - **Criterion 2h** Requirements for commissioning, training and aftercare support - Ref 12 (page 17 and 18)

Criterion 3

- Ref 4 is a construction programme from the principal contractor, TSL Projects Ltd. It demonstrates how the outcomes of the project delivery stakeholders' contributions and the consultation process outcomes influence the Project Execution Plan (**Criterion 3b**)
- Ref 133 is a document that demonstrates how the project delivery stakeholders' contributions and the consultation process outcomes influence the Initial Project Brief (**Criterion 3a**) and Concept Design (**Criterion 3d**)
- Ref 134 is an employers requirements document showing how the project delivery stakeholders' contributions and the consultation process outcomes influence Communication Strategy (**Criterion 3c**)

Other

- Ref 6 is a compliance letter from the principal contractor, TSL. The letter confirms that roles and responsibilities were discussed prior to the completion of RIBA Stage 2 (Concept Design), or equivalent, with the relevant project delivery stakeholders. As such, Criterion 1 to 3 are confirmed. (page 1)
- Ref 161 is a RIBA dates spreadsheet from the principal contractor, TSL Projects Ltd. It confirms the dates for each key phase:
 - RIBA Stage 0 - 11/12/2019 to 10/02/2020
 - RIBA Stage 1 - 11/02/2020 to 10/03/2020
 - RIBA Stage 2 - 11/03/2020 to 20/02/2021
 - RIBA Stage 3 - 21/02/2021 to 14/08/2021
 - RIBA Stage 4 - 15/08/2021 to 21/02/2022
 - RIBA Stage 5 - 22/02/2022 to 20/03/2022
 - RIBA Stage 6 - 21/03/2022

Ref 1 demonstrates compliance with this issue.

Ref 2 demonstrates compliance with this issue.

Ref 3 demonstrates compliance with this issue.

Ref 4 demonstrates compliance with this issue.

Ref 6 demonstrates compliance with this issue.

Ref 83 demonstrates compliance with this issue.

Ref 119 demonstrates compliance with this issue.

Ref 120 demonstrates compliance with this issue.

Ref 133 demonstrates compliance with this issue.

Ref 134 demonstrates compliance with this issue.

Ref 161 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 1	Quartz, Havant Proport Investments LLP, 210624 P20-110 Project Design Team Meeting (ISSUE), Man 01, 01_07_2021.pdf	
Ref 2	Quartz, Havant Proport Investments LLP, 210701 P20-110 Project Design Team Meeting (Issue), Man 01, 24_06_2021.pdf	
Ref 3	TSL, Recipient Unknown, DPO1 - Havant - AED Log, Man 01, 29_07_2021.pdf	
Ref 4	TSL, Recipient Unknown, DPO1 Havant Construction Programme 09-07-21, Man 01, 09_07_2021.pdf	
Ref 6	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 01, 07_09_2021.pdf	
Ref 83	Yonder, TSL Ltd., 2225 32 New Lane Pre-assessment, Man 01, 29_01_2021.pdf	
Ref 119	TSL, Steven Russell, 21.06.25 O20-110 Project Directory, Man 01, 27_09_2021.pdf	
Ref 120	TSL, Steven Russell, Havant Design Criteria - Base Build Specification, Man 01, 27_09_2021.pdf	
Ref 133	Bradley Pearce, Steven Russell, 2020 X DC8.3 to DC8.4 bridging document, Man 01, 27_09_2021.pdf	
Ref 134	Bradley Pearce, Steven Russell, Employers Requirements Vol 1 Preliminaires, Man 01, 11_10_2021.pdf	
Ref 161	Bradley Pearce, Steven Russell, Havant - RIBA Spreadsheet, Man 01, 25_10_2021.xlsx	

Man 01: Project brief and design > 2. Stakeholder consultation

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Validation Statement

Criterion 4

- Ref 211 is a folder of documents showing how the design team consulted with interested parties, such as the building occupier and the local council. The communications occurred prior to completion of Concept Design Stage and covered the relevant aspects of consultation content. Below are examples of discussion topics and how the consultation influenced and changed the design of the building:
 - "The key with the development of the site for a BTS scheme will be the preservation of residential amenity, so due care should be given to noise, lighting and air quality and we will need to negotiate with the Council closely to avoid any restrictive conditions regarding 24 hour operations" - Building Occupier
 - "The Council does not provide a online list of TPO trees in the Borough but works to the trees have been undertaken in recent years as can be seen by the planning history. As such, I attached a revised version of the Stage One DDR that includes a plan on page 10 pointing out both T1-1034 and T2-1034. For complete clarity, I also attach a screenshot with the trees marked out so that this can seen in the wider context of the site" - Building Occupier

- "Flipping the yard would mean that the Line Haul would access via a proposed access located opposite the residential properties which we have tried to stay away from" - SMR Architects
- Ref 210 is a Planning Statement. Section 4 (page 7) confirms a consultation was conducted during pre-application, early enough to collect feedback that could influence initial project brief and concept design:
 - "A pre-application enquiry was submitted to Havant Borough Council and Hampshire County Council in relation to the proposals in June 2020 and a pre-application meeting was held virtually with Principal Planning Officer, Daphney Haywood from Havant Borough Council and representatives from Hampshire Highways, Chris Hirst and Holly Drury on the 27 July 2020" (section 4.7, page 7)

Criterion 5

- Ref 213 is a folder containing initial brief design drawings from SMR Architects. And ref 212 is the final brief design drawing from SMR Architects. It shows how the consultation influenced the Initial Project Brief and Concept Design. The architect has labelled the elements of the consultation that were influenced or changed due to the consultation.
- Ref 209 is an initial specification from the building occupier and client, building occupier
- Ref 210 is a Planning Statement. Section 4 (page 7) confirms how the consultation was conducted and how it influenced the Initial Project Brief and Concept Design:
 - "The comments received during pre-application and the consultation process have influenced the detailed design including greater attention to new landscaping, some of these changes are illustrated below" (section 4.11, page 10)

Criterion 6

- Ref 211 is a folder of documents showing how the design team consulted with interested parties, such as the building occupier, and the local council. These communications show interested parties both gave and received consultation feedback.
- Ref 210 is a Planning Statement. Section 4 (page 7) confirms how the consultation was conducted.
 - "A public consultation was carried out to ensure that those who may be interested or affected by the proposals were contacted. This was shared with the planning officer at Havant Borough Council for comment, who carried out the pre-application discussions prior to the site being acquired" (Section 4.1, page 7)
 - "A summary of comments received is contained in the table below and how we have responded to each of the points raised" (section 4.10, page 8)

Criterion 7

- not relevant

Criterion 8

- Ref 135 is an employers requirements document showing formal BREEAM target of Excellent (page 28)
- Ref 210 is a Planning Statement. Section 8.44 (page 29 and 30) confirms BREEAM targets were set out early in the design process:
 - "The applicant has sought to go above current policy requirements in line with emerging policy and achieve BREEAM 'Excellent' sustainability rating. Please see the accompanying pre-assessment produced by Yonder for further details" (page 30)

Other

- Ref 7 is a compliance letter from the principal contractor, TSL. The letter confirms that prior to completion of the Concept Design, we confirm the following:
 - The design team will consult with all interested parties on matters that cover the minimum consultation content.
 - We will demonstrate how the stakeholder contributions and consultation exercise outcomes influence the Initial Project Brief and Concept Design.
 - Prior to completion of the detailed design (RIBA Stage 4, Technical Design or equivalent), all interested parties will give and receive consultation feedback (page 1)

Ref 7 demonstrates compliance with this issue.

Ref 135 demonstrates compliance with this issue.

Ref 209 demonstrates compliance with this issue.

Ref 210 demonstrates compliance with this issue.

Ref 211 demonstrates compliance with this issue.

Ref 212 demonstrates compliance with this issue.

Ref 213 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 7	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 01, 07_09_2021.pdf	
Ref 135	Bradley Pearce, Steven Russell, Employers Requirements Vol 1 Preliminaires, Man 01, 11_10_2021.pdf	
Ref 209	Derry Waters, Steven Russell, Initial Specification, Man 01, 25_11_2021.pdf	
Ref 210	Derry Waters, Steven Russell, Planning Statement Havant 20210210 REDUCED, Man 01, 25_11_2021.pdf	
Ref 211	Derry Waters, Steven Russell, Communication Records, Man 01, 25_11_2021.zip	
Ref 212	Derry Waters, Steven Russell, Final Brief, Man 01, 25_11_2021.pdf	
Ref 213	Derry Waters, Steven Russell, Initial Brief, Man 01, 25_11_2021.zip	

Man 01: Project brief and design > 3. BREEAM Advisory Professional : BREEAM AP (Concept Design)

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Validation Statement

Criterion 9

- Ref 8 is a compliance letter from the principal contractor, TSL. The letter confirms that the project team, including the client, formally agreed strategic performance targets early in the design process with the support of the BREEAM AP. The letter also confirms that Sarah Howe has been appointed as BREEAM AP, Sarah will have the ability and authority to perform Criteria 9a to 9e. (page 2)
- SARAH NEEDS TO ADD THE AP REPORTS BEFORE SENDING THIS TO BRE**

Ref 8 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 8	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 01, 07_09_2021.pdf	

Man 01: Project brief and design > 3. BREEAM Advisory Professional : BREEAM AP (Developed Design)

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To optimise final building design through recognising and encouraging an integrated design process and robust stakeholder engagement.

Validation Statement

Criterion 10

- Criterion 8 and 9 achieved

Criterion 11

- Ref 9 is a compliance letter from the principal contractor, TSL. The letter confirms that Sarah Howe has been appointed on the project at an appropriate time and level to perform the tasks outlined in Criteria 11a to 11e. (page 2)
- **SARAH NEEDS TO ADD THE BREEAM AP REPORTS BEFORE SENDING TO BRE**

Ref 9 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 9	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 01, 07_09_2021.pdf	

Man 02: Life cycle cost and service life planning > 1. Elemental life cycle cost (LCC)

Credits Achieved:	2 out of 2
Mandatory Requirements:	None
Aim:	To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Validation Statement

Criterion 1

- Ref 174 is an Elemental LCC report from Yonder Consulting. The report was carried out at RIBA Stage 2 and includes construction, operation and maintenance costs. The appraisal is carried out in accordance with the PD 156865:2008 buildings and constructed assets - service life planning part 5: life cycle costing. (page 3)

Criterion 2

- Ref 174 is an Elemental LCC report from Yonder Consulting. The results section (page 12) show future replacement costs over a period of 60 years (**Criterion 2a**). And includes service life, maintenance and operation cost estimates (see Table 1)

Criterion 3

- Ref 131 is an action log showing how the report influenced decisions.

Other

- Ref 10 is a compliance letter from the principal contractor, TSL. The letter confirms that a competent person will carry out an outline, entire asset LCC plan at Process Stage 2, Concept design together with any design options appraisals in line with 'Standardised method of life cycle costing for construction procurement' PD 156865:2008(6). The elemental LCC plan will include the following:
 - An indication of future replacement costs over a period of analysis as required by the client (e.g. 20, 30, 50 or 60 years);
 - Service life, maintenance and operation cost estimates. (page 2)

Ref 10 demonstrates compliance with this issue.

Ref 131 demonstrates compliance with this issue.

Ref 174 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 10	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 02, 07_09_2021.pdf	

Ref 131	Bradley Pearce, Steven Russell, Man 02- Meeting Minutes, Man 02, 16_09_2021.pdf	
Ref 174	Yonder Consulting, Steven Russell, 2225-YON-XX-XX-RP-Z-3201-01 LCC Elemental Report, Man 02, 10_03_2020.pdf	

Man 02: Life cycle cost and service life planning > 2. Component level life options appraisal

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Validation Statement

Criterion 4

- Ref 175 is a Component Level LCC report from Yonder Consulting created before the end of Process Stage 4 and in line with PD 156865:2008. The report includes five LCC critical components which have been identified and assessed together with alternatives that have the lowest discounted LCC over the period of analysis, providing their selection would result in at least one of the following:
 - Lower building energy consumption over the operational life span of the building (compared to other options/alternatives analysed);
 - A reduction in maintenance requirement/frequency;
 - Extended service lives of services infrastructure/systems and/or building fabric resulting in fewer replacement intervals;
 - Dismantling and recycling or reuse of building components.
- The outcome of life cycle cost appraisal (ref 175) shows the following components (sub-elements) had the lowest life cycle cost compared to the alternatives that have been considered:
 - Roof coverings: Colorcoat HPS200 Ultra® Steel Profile (**Criterion 4a** Envelope)
 - Internal wall partitions: Lafarge GTEC® Megadeco to BS 5234 severe duty (**Criterion 4b** Finishes)
 - Internal wall protection: Firemaster wall ultima and Armco barrier (**Criterion 4b** Finishes)
 - Air heating: Air Source Heat Pump Heating (**Criterion 4c** Services)
 - Pedestrian paving: In-situ concrete (**Criterion 4d** External Spaces)

Criterion 5

- Ref 177 is a letter from TSL, the main contractor, confirming the Elemental LCC and Component LCC reports prepared by Yonder were circulated around the design team for review. A meeting was held between the design team members where they were given the opportunity to discuss if the report had or will have influenced any decisions made on the project, to which they agreed there was none.

Other

- Ref 11 is a compliance letter from the principal contractor, TSL. The letter confirms that a competent person will develop a component level LCC options appraisal by the end of Process Stage 4, equivalent to Technical Design in line with PD 156865:2008. The component level LCC will include (where present):
 - Envelope, e.g. cladding, windows, or roofing
 - Services, e.g. heat source, cooling source, or controls
 - Finishes, e.g. walls, floors or ceilings
 - External spaces, e.g. alternative hard landscaping, boundary protection. (pages 2 and 3)

Ref 11 demonstrates compliance with this issue.

Ref 175 demonstrates compliance with this issue.

Ref 177 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 11	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance	

	Letter_SC_TSL, Man 02, 07_09_2021.pdf	
Ref 175	Yonder Consulting, Steven Russell, 2225-YON-XX-XX-RP-Z-3202-01 LCC Component report, Man 02, 11_11_2021.pdf	
Ref 177	Bradley Pearce, Steven Russell, DPO1 Havant - Man 04 Elemental Life Cycle Cost Meeting Minutes - 18.11.21, Man 02, 18_11_2021.pdf	

Man 02: Life cycle cost and service life planning > 3. Capital cost reporting

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To promote the business case for sustainable buildings and to deliver whole life value by encouraging the use of life cycle costing to improve design, specification, through-life maintenance and operation.

Validation Statement

Criterion 6

- Ref 12 is a compliance letter from the principal contractor, TSL. The letter confirms that the predicted capital cost for the building is currently confirmed at £10,242.09/m². (page 3)

Ref 12 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 12	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 02, 07_09_2021.pdf	

Man 03: Responsible construction practices > 1. Pre-requisite - Legal and sustainable timber

Credits Achieved:	Are all timber and timber-based products used during the construction process of the project 'legally harvested and traded timber'? Yes
Mandatory Requirements:	None
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Validation Statement

Criterion 1

- Ref 13 is a compliance letter from the principal contractor, TSL. The letter confirms that all timber and timber-based products used during the construction process of the project are legal and sustainable timber. (page 3)

Ref 13 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 13	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 03, 07_09_2021.pdf	

Man 03: Responsible construction practices > 3. Environmental management

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Validation Statement

Criterion 3a

- Ref 81 is an ISO 14001:2015 certificate for TSL Ltd. (the main contractor)
- Ref 82 is an ISO 14001:2015 certificate for Collins Earthworks Ltd. (the demolition contractor)

Criterion 4

- Ref 162 is a copy of PPG6, Pollution Prevention Guidelines checklist filled in by the principal contractor, TSL
- Ref 172 from the Principal contractor, TSL. It confirms that they will implement best practice pollution prevention policies and procedures on-site in accordance with Working at construction and demolition sites: PPG6, Pollution Prevention Guidelines

Other

- Ref 14 is a compliance letter from the principal contractor, TSL. The letter confirms that TSL operate an (independently verified) Environmental Management System to ISO 14001/EMAS standard (EMS UK/01/0009380928). Furthermore, the letter confirms the principal contractor will implement best practice pollution prevention policies and procedures on-site in accordance with the Environment Agency Pollution Prevention Guidelines, Working at construction and demolition-sites: PPG6. (page 3)

Ref 14 demonstrates compliance with this issue.

Ref 81 demonstrates compliance with this issue.

Ref 82 demonstrates compliance with this issue.

Ref 162 demonstrates compliance with this issue.

Ref 172 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 14	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 03, 07_09_2021.pdf	
Ref 81	Ocean Certification, TSL Ltd., Man 03-3 Certificate (ISO 14001;2015) TSL Projects Ltd, Man 03, 07_09_2021.pdf	
Ref 82	ISOQAR, Collins Earthworks Ltd., ISO14001 Colins Demolition, Man 03, 16_09_2021.pdf	
Ref 162	Bradley Pearce, Steven Russell, 529 - DPO1, Havant - PPG6-checklist - V1, 09 November 2021, Man 03, 09_11_2021.pdf	
Ref 172	TSL Projects, Steven Russell, DPO1 Havant - Man 03 Commitment to PPG6 - 11.11.21, Man 03, 11_11_2021.pdf	

Man 03: Responsible construction practices > 4. BREEAM Advisory Professional (Site)

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Validation Statement

Criterion 5

- Ref 138 is an employers requirements document showing formal BREEAM target of Excellent (page 28)
- Ref 137 is a pre-assessment from yonder, showing BREEAM targeted credits.

Criterion 6

- Ref 15 is a compliance letter from the principal contractor, TSL. The letter confirms that Sarah Howe, has been appointed as BREEAM AP, Sarah will perform the tasks outlined in Criteria 6a to 6e. (page 3)

Ref 15 demonstrates compliance with this issue.

Ref 137 demonstrates compliance with this issue.

Ref 138 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 15	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 03, 07_09_2021.pdf	
Ref 137	Yonder, TSL, 2225 32 New Lane Pre-assessment, Man 03, 28_09_2021.pdf	
Ref 138	Bradley Pearce, Steven Russell, Employers Requirements Vol 1 Preliminaires, Man 03, 11_10_2021.pdf	

Man 03: Responsible construction practices > 5. Responsible construction management

Credits Achieved:	2 out of 2	
Mandatory Requirements:	Excellent	Outstanding
	1 credit	2 credits
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	

Validation Statement

Criterion 8 & 9

- Ref 69 is a compliance letter from the principal contractor, TSL. The letter confirms that they will achieve the following mandatory responsible construction management items:
 - Vehicle Movement
 - Pollution Management:
 - Tidiness:
 - Health and Wellbeing
 - Training, Awareness and Feedback
 - Monitoring & Reporting
- The letter also confirms that they will achieve at least all 9 required items as well as the rest required for the exemplary criteria of the following:
 - Vehicle Movement
 - Pollution
 - Health and Wellbeing
 - Security Processes
 - Training, Awareness and Feedback
 - Monitoring and Reporting
- Finally, they also aim to achieve a CCS score of 40+ with at least 7 in each section (page 4 and 5)

Ref 69 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 69	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 03, 07_09_2021.pdf	

Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Pre-requisite

Credits Achieved:	Monitoring responsibility assigned? Yes	
Mandatory Requirements:	None	
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.	

Validation Statement

Criterion 10

- Ref 163 is a compliance letter from the principal contractor, TSL. The letter confirms that responsibility will be assigned to the Project Manager Charlie O'Sullivan for monitoring, recording and reporting the following data resulting from all on-site construction processes (and dedicated off-site monitoring)

throughout the build programme. The above individual has the appropriate authority and responsibility to request and access the data required.

Ref 163 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 163	Bradley Pearce, Steven Russell, DPO1 Havant - Man 03 Sustainability Champion and Targets - 09.11.21, Man 03, 09_11_2021.pdf	

Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Utility consumption

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Validation Statement

Criterion 11 & 15

- Criterion 10 achieved

Criterion 12, 13, 14, 16, 17, & 18

- Ref 164 is a compliance letter from the principal contractor, TSL. The letter confirms that monitoring and recording data on the 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 resulting from all construction processes. Reporting the total carbon dioxide emissions from the construction process via BREEAM projects.
 - **Energy**
 - **Criterion 13 & 14** - This data will be collected in total kWh and total kWh/£100k of project value. The total equivalent carbon dioxide emissions from the construction process will be reported to you at the end of the project, in total kgCO₂eq, and total kgCO₂eq per £100k of project value.
 - **Criterion 12** - Targets have been set for the project to adhere to, for energy the total kWh's being 118,298.25 kWh, and the kWh/£100k being 337.955 kWh/£100k. The CO₂ for energy targets are 10409.2 kgCO₂eq and 29.7 kgCO₂eq/£100k.
 - **Water**
 - **Criterion 17 & 18** - This data will be collected in m³ and the total net water consumption, i.e. consumption minus any recycled water use, will be reported to you at the end of the project in m³, and m³/£100k of project value.
 - **Criterion 16** - Targets have been set for the project for the total water used to not exceed 831.4 m³ and 2.3 m³/£100k of project value.

Ref 164 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 164	Bradley Pearce, Steven Russell, DPO1 Havant - Man 03 Sustainability Champion and Targets - 09.11.21, Man 03, 09_11_2021.pdf	

Man 03: Responsible construction practices > 6. Monitoring of construction site impacts : Transportation of construction materials and waste

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Validation Statement

Criterion 19

- Criterion 10 achieved

Criterion 20, 21, & 22

- Ref 165 is a compliance letter from the principal contractor, TSL. It confirms that Project Manager Charlie O'Sullivan will set targets for transportation movements and impacts resulting from delivery of the majority of construction materials to site and construction waste from site.
 - **Criterion 20** - These targets will include the transport of materials from the point of supply to the building site, including any transport, intermediate storage and distribution. This includes materials used in major building elements (i.e. those included in BREEAM NC 2018 issue Materials 01), including insulation, as well as groundworks and landscaping materials.
 - **Criterion 20** - They will also set targets for the transportation of construction waste from the construction gate to the waste disposal processing or recovery centre gate. This will include all construction waste contained within in the waste groups outlined in our resource management plan.
 - **Criterion 20** - Targets have been set for kgCO₂eq for transportation related to the project, the total equivalent carbon dioxide emissions shall no exceed 3320.0 kgCO₂eq and 9.5 kgCO₂eq/£100k project value.
 - **Criterion 21 & 22** - They will monitor and record data for the transportation movements noted above. This data will be recorded separately for materials and waste. The data will be recorded in the form of total distance travelled in km, total equivalent carbon dioxide emissions in kgCO₂eq, and total kgCO₂eq/£100k of project value. The final figures will be reported to you at the end of the project.

Ref 165 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 165	Bradley Pearce, Steven Russell, DPO1 Havant - Man 03 Sustainability Champion and Targets - 09.11.21, Man 03, 09_11_2021.pdf	

Man 04: Commissioning and handover > 1. Commissioning - testing schedule and responsibilities

Credits Achieved:	1 out of 1		
Mandatory Requirements:	Very Good	Excellent	Outstanding
	1 credit	1 credit	1 credit
Aim:	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.		

Validation Statement

Criterion 1

- Ref 136 is a Commissioning programme showing timeline for Commissioning and allowing time for recommissioning

Criterion 2

- Ref 185 is a letter from the principal contractor, TSL. The letter confirms that the schedule identifies the appropriate standards that all commissioning activities have been conducted in accordance with, including current Building Regulations BSRIA and CIBSE guidelines and/ or other appropriate standards.

Criterion 3

- Ref 16 is a compliance letter from the main contractor, TSL. It confirms that all commissioning activities will be undertaken in accordance with appropriate standards, such as (but not restricted to) current Building Regulations, BSRIA and CIBSE Guidelines. Furthermore, as a Building Management System

(BMS) has been specified, the following commissioning procedures will be undertaken:

- **Criterion 3a.** Commissioning of air and water systems to be undertaken when all control devices are installed, wired and functional.
- **Criterion 3b.** (In addition to air and water flow results) commissioning results must include physical measurements of room temperatures, off-coil temperatures and other key parameters as appropriate.
- **Criterion 3c.** The BMS/Controls installation should be running in auto with satisfactory internal conditions prior to handover.
- **Criterion 3d.** All BMS schematics and graphics are fully installed and functional to user interface before handover.
- **Criterion 3e.** The occupier/facilities team is to be fully trained in the systems operation. (page 6)

Criterion 4

- Ref 185 is a letter from the principal contractor, TSL. The letter confirms that Dan Sibley was appointed to monitor and programme pre-commissioning, commissioning, testing and, where necessary, re-commissioning activities on behalf of the client.

Criterion 5

- Ref 185 is a letter from the principal contractor, TSL. The letter confirms that they have accounted for commissioning works and testing programme, responsibilities and criteria within our budget and main programme of works, allowing the required time to complete all commissioning and testing activities prior to handover.

Ref 16 demonstrates compliance with this issue.

Ref 136 demonstrates compliance with this issue.

Ref 185 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 16	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 04, 07_09_2021.pdf	
Ref 136	Bradley Pearce, Steven Russell, X; DPO1; Havant; Tender Stage Programme; 16-09-21; V8, Man 04, 27_09_2021.pdf	
Ref 185	Bradley Pearce, Steven Russell, DPO1 Havant - Man 04 Testing Schedule and Responsibilities - 18.11.21, Man 04, 18_11_2021.pdf	

Man 04: Commissioning and handover > 2. Commissioning - design and preparation

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.

Validation Statement

Criterion 6

- Criteria 1 to 5 achieved

Criterion 7

- Ref 197 is a letter from the principal contractor, TSL. It confirms Dan Sibley was appointed at Design Stage as the specialist commissioning manager in order to facilitate the following:
 - **Criterion 7a** - Undertake design reviews and give advice on suitability for ease of commissioning.
 - **Criterion 7b** - Provide commissioning management input to the construction programming and during installation stages.

- **Criterion 7c** - Manage commissioning, performance testing and handover/post-handover stages.
- Ref 196 is a Commissioning programme showing timeline for Commissioning and allowing time for recommissioning

Ref 196 demonstrates compliance with this issue.

Ref 197 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 196	Bradley Pearce, Steven Russell, x; DPO1; Havant; Tender Stage Programme; 16-09-21; V8, Man 04, 27_09_2021.pdf	
Ref 197	Bradley Pearce, Steven Russell, DPO1 Havant - Man 04 Testing Schedule and Responsibilities - 18.11.21, Man 04, 18_11_2021.pdf	

Man 04: Commissioning and handover > 3. Testing and inspecting building fabric

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Man 04: Commissioning and handover > 4. Handover

Credits Achieved:	1 out of 1		
	Have a technical and a non-technical building user guide been developed prior to handover? Yes		
Mandatory Requirements:	Very Good	Excellent	Outstanding
	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)	Criterion 11 (Building User Guide)
Aim:	To encourage a properly planned handover and commissioning process that reflects the needs of the building occupants.		

Validation Statement

Criterion 11

- Ref 18 is a compliance letter from the principal contractor, TSL. The letter confirms that the provision of two building user guides for the non-technical user (to be distributed to the building occupiers) and for the technical user (to distributed to the premises facilities managers). The content of the guides will broadly include information all the relevant information in accordance with the BREEAM manual. (page 7)

Criterion 12

- not relevant as this is a shell and core assessment

Ref 18 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 18	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 04, 07_09_2021.pdf	

Health and Wellbeing

Credits Achieved:	5 out of 10
% Achieved:	50.00%
Weighting:	8.00%
Weighted Score:	4.00%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Hea 01: Visual comfort > 2. Daylighting	1	0	0.00%	0.00%
Hea 01: Visual comfort > 3. View out	1	0	0.00%	0.00%
Hea 01: Visual comfort > 4. Internal and external lighting levels, zoning and control	1	1	100.00%	0.80%
Hea 02: Indoor air quality > 1. Pre-requisite	0	0	0.00%	0.00%
Hea 02: Indoor air quality > 2. Ventilation	1	1	100.00%	0.80%
Hea 04: Thermal comfort > 1. Thermal modelling	1	1	100.00%	0.80%
Hea 04: Thermal comfort > 2. Design for future thermal comfort	1	1	100.00%	0.80%
Hea 05: Acoustic performance > 2. Indoor ambient noise level	1	0	0.00%	0.00%
Hea 06: Security	1	0	0.00%	0.00%
Hea 07: Safe and healthy surroundings > 1. Safe access	1	1	100.00%	0.80%
Hea 07: Safe and healthy surroundings > 2. Outside space	1	0	0.00%	0.00%
Total Score			4.00%	

Hea 01: Visual comfort > 2. Daylighting

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Hea 01: Visual comfort > 3. View out

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Hea 01: Visual comfort > 4. Internal and external lighting levels, zoning and control

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Validation Statement

Criterion 9

- Ref 19 is a compliance letter from the principal contractor, TSL. The letter confirms that lighting is LED throughout. In relation to external lighting (within the construction zone) illuminance levels have been specified in accordance with BS5489-1:2013 Lighting of Roads and Public Amenity Areas and BS EN 12464-2:2014 Light and Lighting – Lighting of Workplaces – Part 2: Outdoor Workplaces. (page 8)
- Ref 143 is a Lux lighting plot with Luminaire schedule from KTA, showing the external lighting design.

Criterion 10

- Not relevant

Ref 19 demonstrates compliance with this issue.

Ref 143 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 19	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Hea 01, 07_09_2021.pdf	
Ref 143	John Griffiths, Havant Propt Investments LLP, 10290-PL-100C External Lighting Lux Level Plot, Hea 01, 01_02_2021.pdf	

Hea 02: Indoor air quality > 1. Pre-requisite

Credits Achieved:	Indoor air quality (IAQ) plan produced? Yes
Mandatory Requirements:	None
Aim:	To encourage and support healthy internal environments with good indoor air quality.

Validation Statement

Criterion 1

- Ref 176 is an indoor air quality plan by Yonder consulting. This plan includes the following:
 - a. Removal of contaminant sources (page 9)
 - b. Dilution and control of contaminant sources (page 11)
 - c. Procedures for pre-occupancy flush out (page 13)
 - d. Third party testing and analysis (page 14)
 - e. Maintaining good indoor air quality in-use (page 17)
- Ref 20 is a compliance letter from the principal contractor, TSL. The letter confirms that an Indoor Air Quality Plan will be produced and implemented with the objective of facilitating a process that leads to design, specification and installation decisions and actions that minimise indoor air pollution during the design, construction and occupation of the building. This will consider the relevant elements in accordance with the BREEAM manual. (page 8)
- Ref 166 is a conflict of interest statement from Rob Gill and Nathan Evans of Yonder Consulting

Ref 20 demonstrates compliance with this issue.

Ref 166 demonstrates compliance with this issue.

Ref 176 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 20	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Hea 02, 07_09_2021.pdf	
Ref 166	Yonder, Steven Russell, Conflict of Interest Statement, Hea 02, 10_11_2021.pdf	
Ref 176	Yonder Ltd, Steven Russell, 2414-YON-XX-XX-RP-Z-2100-01, Hea 02, 12_11_2021.pdf	

Hea 02: Indoor air quality > 2. Ventilation

Credits Achieved:	1 out of 1
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Mandatory Requirements:	None
Aim:	To encourage and support healthy internal environments with good indoor air quality.

Validation Statement

Criterion 2a

- Ref 154 is a mechanical specification document. Section 3.12 (page 167) outlines the buildings ventilation strategy, which includes delivering fresh supply of air and minimising pollutants.
- Ref 153 is a drawing of the Ventilation systems read in conjunction with ref 154
- Ref 21 is a compliance letter from the principal contractor, TSL. The letter confirms that the building has been designed to minimise the concentration and recirculation of pollutants in the building and provides fresh air into the building in accordance with the relevant standard(s) for ventilation. (page 8)

Ref 21 demonstrates compliance with this issue.

Ref 153 demonstrates compliance with this issue.

Ref 154 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 21	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Hea 02, 07_09_2021.pdf	
Ref 153	John Griffiths, Havant Proptert Investments LLP, 10290-M-110-111 Office Ground & First Floor Ventilation Layout, Hea 02, 01_07_2021.pdf	
Ref 154	John Griffiths, Havant Proptert Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Hea 02, 05_10_2021.pdf	

Hea 04: Thermal comfort > 1. Thermal modelling

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To ensure the building is capable of providing an appropriate level of thermal comfort.

Validation Statement

Criterion 1

- Ref 194 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements", confirms:
 - "the modelling has been carried out using IES Virtual Environment version 2021.2.0.0 which is an industry standard Dynamic Simulation Modelling software package which is fully in accordance with CIBSE AM11 'Building Energy and Environmental Modelling'. As recommended in CIBSE Guide A, Clause 1.4.2.4, the simulations for all occupied areas have been carried out using the most appropriate CIBSE Design Summer Year (DSY) file, see 'External Weather Data' section of this report." (page 6)

Criterion 2

- Ref 194 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements", confirms:
 - "The software used to carry out simulations at detailed design stage does provide full dynamic thermal analysis in accordance with CIBSE AM11 Building Performance Modelling." (page 6)

Criterion 3a

- Ref 194 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements", confirms:
 - "Table 3.1 demonstrates compliance with this criterion" (page 21)

Criterion 4

- Ref 194 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements", confirms:
 - "Tables 3.3 & 3.4 demonstrate compliance with this criterion" (page 23)

Other

- Ref 22 is a compliance letter from the principal contractor, TSL. The letter confirms that thermal modelling has been carried out using software selected and applied in accordance with CIBSE AM11 'Building Energy and Environmental Modelling'. The name of the thermal comfort modelling software used is IES VE Version 6.0.3. This software provides a full dynamic thermal analysis. (For air-conditioned buildings) The model will show that summer and winter operative temperatures in occupied spaces will be in accordance with the criteria set out in CIBSE Guide A: Environmental Design (Table 1.5) or other appropriate industry standard. The Predicted Mean Vote (PMV) and Predicted Percentage of Dissatisfied (PPD) indices will be reported. (page 8)
- Ref 167 is a conflict of interest statement from Rob Gill and Nathan Evans of Yonder Consulting

Ref 22 demonstrates compliance with this issue.

Ref 167 demonstrates compliance with this issue.

Ref 194 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 22	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Hea 04, 07_09_2021.pdf	
Ref 167	Yonder, Steven Russell, Conflict of Interest Statement, Hea 04, 10_11_2021.pdf	
Ref 194	Steven Russell, Steven Russell, 2225-YON-XX-XX-RP-Z-2040-01, Hea 04, 01_09_2021.pdf	

Hea 04: Thermal comfort > 2. Design for future thermal comfort

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To ensure the building is capable of providing an appropriate level of thermal comfort.

Validation Statement

Criterion 5

- Criterion 1 to 4 achieved

Criterion 6

- Ref 195 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements" (page 6) confirms that:
 - "Table 3.2 demonstrates compliance with this criterion"

Criterion 7

- Ref 195 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements" (page 6) confirms that:
 - "The outcome of the dynamic simulation shows that the required thermal criteria have been fully met under the projected climate change scenario."

Criterion 8

- Ref 195 is a Thermal Comfort report from Yonder Consulting. Section "1.1 BREEAM 2018 HEA 04 Requirements" (page 6) confirms that:
 - "Tables 3.5, 3.6, 3.7 & 3.8 demonstrate compliance with this criterion."

Other

- Ref 73 is a compliance letter from the principal contractor, TSL. The letter confirms that the thermal model report demonstrates that the applicable thermal comfort standards will be achieved for the projected climate change environment. Where these are not met, they will demonstrate how the building has been adapted or designed to be easily adapted in the future using passive design solutions in order to subsequently meet the required thermal standards. For air-conditioned buildings, the PMV and PPD indices based on the above modelling will be reported. (page 8)
- Ref 168 is a conflict of interest statement from Rob Gill and Nathan Evans of Yonder Consulting

Ref 73 demonstrates compliance with this issue.

Ref 168 demonstrates compliance with this issue.

Ref 195 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 73	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Hea 04, 07_09_2021.pdf	
Ref 168	Yonder, Steven Russell, Conflict of Interest Statement, Hea 04, 10_11_2021.pdf	
Ref 195	Steven Russell, Steven Russell, 2225-YON-XX-XX-RP-Z-2040-01, Hea 04, 01_09_2021.pdf	

Hea 05: Acoustic performance > 2. Indoor ambient noise level

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To ensure the building is capable of providing an appropriate acoustic environment to provide comfort for building users.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Hea 06: Security

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Hea 07: Safe and healthy surroundings > 1. Safe access

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.

Validation Statement

Criterion 1 to 6

- Ref 160 is a marked up design drawing showing safe access measures for pedestrians and vehicles.
- Ref 23 is a compliance letter from the principal contractor, TSL. The letter confirms that they will provide dedicated cycle paths which provide direct access from the site entrance(s) to the provided cycle storage. There will be no need to deviate from the cycle path and will connect to off-site cycle paths (or other

appropriate safe route) where these run along the development's site boundary. Footpaths will provide direct access from the site entrance(s) to the building entrance(s) and connect to (existing) off-site public footpaths. (Where provided) drop-off areas will be designed off/adjoining to the access road and provide direct access to pedestrian footpaths, therefore avoiding the need for the pedestrian to cross vehicle access routes. Dedicated pedestrian crossings will be provided where pedestrian routes cross vehicle access routes, and appropriate traffic calming measures will be in place to slow traffic down at these crossing points. The lighting for access roads, pedestrian routes and cycle lanes will be compliant with the external lighting criteria defined in Hea 01 Visual comfort, i.e. in accordance with BS 5489-1:2013 Lighting of roads and public amenity areas. Delivery areas will not be directly accessed through general parking areas and do not cross or share pedestrian and cyclist routes and other outside amenity areas accessible to building users and general public. There will be dedicated parking/waiting areas for goods vehicles with appropriate separation from the manoeuvring area and staff and visitor car parking. Parking and turning areas will be designed for simple manoeuvring according to the type of delivery vehicle likely to access the site, thus avoiding the need for repeated shunting. There will be a dedicated space for the storage of refuse skips and pallets away from the delivery vehicle manoeuvring area and staff/visitor car parking (if appropriate given the building type/function). (page 9)

Ref 23 demonstrates compliance with this issue.

Ref 160 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 23	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Hea 07, 07_09_2021.pdf	
Ref 160	Derry Waters, Steven Russell, DPO1-SMR-01-ZZ-DR-A-3503-S4-P1 SAFE ACCESS, Hea 07, 21_10_2021.pdf	

Hea 07: Safe and healthy surroundings > 2. Outside space

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage the provision of safe access around the site and outdoor space that enhances the wellbeing of building users.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Energy

Credits Achieved:	16 out of 21
% Achieved:	76.19%
Weighting:	14.00%
Weighted Score:	10.67%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Ene 01: Reduction of energy use and carbon emissions > 1. Energy performance	9	5	55.56%	3.33%
Ene 01: Reduction of energy use and carbon emissions > 2. Prediction of operational energy consumption	4	4	100.00%	2.67%
Ene 02: Energy monitoring > 1. Sub-metering of end use categories	1	1	100.00%	0.67%
Ene 02: Energy monitoring > 2. Sub-metering of high energy load and tenancy areas	1	1	100.00%	0.67%
Ene 03: External lighting	1	1	100.00%	0.67%
Ene 04: Low carbon design > 1. Passive design : Passive design analysis	1	1	100.00%	0.67%
Ene 04: Low carbon design > 1. Passive design : Free cooling	1	0	0.00%	0.00%
Ene 04: Low carbon design > 2. Low and zero carbon technologies	1	1	100.00%	0.67%
Ene 06: Energy Efficient transportation systems > 1. Energy consumption	1	1	100.00%	0.67%
Ene 06: Energy Efficient transportation systems > 2. Energy efficient features : Lifts	1	1	100.00%	0.67%
Total Score				10.67%

Ene 01: Reduction of energy use and carbon emissions > 1. Energy performance

Credits Achieved:	5 out of 9	
Mandatory Requirements:	Excellent	Outstanding
	4 credits *	6 credits
	* Credits can be achieved under any part of Ene 01 - Reduction of energy use and carbon emissions to meet the minimum requirements.	
Aim:	To minimise operational energy demand, primary energy consumption and CO2 emissions.	

Validation Statement

Criterion 1

- Ref 170 is a Part L2A Compliance Report from Yonder Consulting. Based on the results presented in this report, this building would be expected to achieve 5 credits (page 3). This report also contains the following:
 - Ian Andrews (the assessor) accreditation details (page 6)
 - BRUKL Output document (appendix 4.2, page 31)
 - Energy Performance Certificate (appendix 4.3, page 44)
- Ref 169 is a conflict of interest statement from Rob Gill and Nathan Evans of Yonder Consulting

Ref 169 demonstrates compliance with this issue.

Ref 170 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 169	Yonder, Steven Russell, Conflict of Interest Statement, Ene 01, 10_11_2021.pdf	
Ref 170	Yonder, Steven Russell, 2225-YON-XX-XX-RP-Z-2030-01, Ene 01, 01_02_2021.pdf	

Ene 01: Reduction of energy use and carbon emissions > 2. Prediction of operational energy consumption

Credits Achieved:	4 out of 4		
Mandatory Requirements:	Excellent	Outstanding	
	4 credits *	4 credits	
	* Credits can be achieved under any part of Ene 01 - Reduction of energy use and carbon emissions to meet the minimum requirements.		
Aim:	To minimise operational energy demand, primary energy consumption and CO2 emissions.		

Validation Statement

Criterion 2

- Ref 25 is a compliance letter from the principal contractor, TSL. The letter confirms that prior to the completion of Concept Design (or equivalent) a design workshop (or similar) will be held focusing on operational performance. (page 9)
- Ref 191 is a Design Stage Initial Energy Report by Yonder Consulting. Appendix A (page 18) are communication records involving relevant members of the design team in an energy design workshop focusing on operational energy performance.

Criterion 3

- Ref 25 is a compliance letter from the principal contractor, TSL. The letter confirms that additional energy modelling will be undertaken during the design and post construction stages to generate predicted operational energy consumption figures (page 9)
- Ref 191 is a Design Stage Initial Energy Report by Yonder Consulting.

Criterion 4

- Ref 25 is a compliance letter from the principal contractor, TSL. The letter confirms that they will report predicted energy consumption targets by end use, design assumptions and input data. (page 9)
- Ref 191 is an Initial Energy Report by Yonder Consulting. The predicted energy usage for the project, at 1,195 MWh per year, is considered satisfactory when compared to typical practice benchmarks as outlined by TM54. There is scope to reduce this by around 9% to 1,087 MWh in the case of good management strategies, however due to the speculative nature of the development this is difficult to predict and the responsibility lies on the future tenant. (page 4)

Criterion 5

- Ref 191 is a Design Stage Initial Energy Report by Yonder Consulting. The Management Factors section (page 8), the Scenarios Covered section (page 9), and the Sensitivity section (page 10) provides a risk assessment to highlight any significant design, technical, and process risks that should be monitored and managed throughout the construction and commissioning process.

Ref 25 demonstrates compliance with this issue.

Ref 191 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 25	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 01, 07_09_2021.pdf	
Ref 191	Steven Russell, Steven Russell, 2225-YON-XX-XX-RP-Z-2080-01, Ene 01, 01_02_2021.pdf	

Ene 02: Energy monitoring > 1. Sub-metering of end use categories

Credits Achieved:	1 out of 1		
Mandatory Requirements:	Very Good	Excellent	Outstanding
	1 credit (First sub-metering credit)	1 credit (First sub-metering credit)	1 credit (First sub-metering credit)
Aim:	To encourage the installation of energy sub-metering to facilitate the		

	monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.
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Validation Statement

Criterion 1

- Ref 26 is a compliance letter from the principal contractor, TSL. The letter confirms that energy metering systems will be installed that enable at least 90% of the estimated annual energy consumption of each fuel to be assigned to the various end-use categories of energy consuming systems to be monitored. (page 10)
- Ref 144 is an LV panel schematic confirming that energy metering systems will be installed in at least 90% of the estimated annual energy consumption of each fuel is assigned to the end-use categories.

Criterion 2a

- Ref 26 is a compliance letter from the principal contractor, TSL. The letter confirms that reference will be made to CIBSE TM39: Building Energy Metering for further information. The systems will be metered using an appropriate energy monitoring and management system. (page 10)

Criterion 3

- Ref 26 is a compliance letter from the principal contractor, TSL. The letter confirms that all end energy consuming uses will be identifiable to the building user. (page 10)

Ref 26 demonstrates compliance with this issue.

Ref 144 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 26	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 02, 07_09_2021.pdf	
Ref 144	John Griffiths, Havant Propert Investments LLP, 10290-E-100 LV Panel Schematic, Ene 02, 01_07_2021.pdf	

Ene 02: Energy monitoring > 2. Sub-metering of high energy load and tenancy areas

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the installation of energy sub-metering to facilitate the monitoring of operational energy consumption. To enable managers and consultants post-handover to compare actual performance with targets in order to inform ongoing management and help in reducing the performance gap.

Validation Statement

Criterion 4

- Ref 27 is a compliance letter from the principal contractor, TSL. The letter confirms that an accessible energy monitoring and management system will be provided to cover the majority of the energy supply to tenanted or high energy load areas within the development (where applicable). (page 10)
- Ref 151 is an LV panel schematic showing the relevant areas are metered, connected to BMS and meters are labeled to be easily identifiable.

Criterion 5

- not relevant

Ref 27 demonstrates compliance with this issue.

Ref 151 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 27	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 02, 07_09_2021.pdf	
Ref 151	John Griffiths, Havant Proport Investments LLP, 10290-E-100 LV Panel Schematic, Ene 02, 01_07_2021.pdf	

Ene 03: External lighting

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To reduce energy consumption through the specification of energy efficient light fittings for external areas of the development.

Validation Statement

Criterion 1

- Not relevant

Criterion 2

- Ref 190 is a mechanical tender specification document. It confirms that all external lights will (page 185):
 - have an average initial luminous efficacy of not less than 70 luminaire lumens per circuit Watt
 - Automatic control to prevent operation during daylight hours
 - Presence detection in areas of intermittent pedestrian traffic.
- Ref 145 is a LUX plot and Luminaire Schedule showing the external lighting design
- Ref 28 is a compliance letter from the principal contractor, TSL. The letter confirms that the average initial luminous efficacy of the external light fittings within the construction zone is not be less than 70 luminaires per circuit Watt. These are to be automatically controlled for prevention of operation during daylight hours and presence detection in areas of intermittent pedestrian traffic. (page 10)

Ref 28 demonstrates compliance with this issue.

Ref 145 demonstrates compliance with this issue.

Ref 190 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 28	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 03, 07_09_2021.pdf	
Ref 145	John Griffiths, Havant Proport Investments LLP, 10290-PL-100C External Lighting Lux Level Plot, Ene 03, 01_02_2021.pdf	
Ref 190	John Griffiths, Havant Proport Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Ene 03, 05_10_2021.pdf	

Ene 04: Low carbon design > 1. Passive design : Passive design analysis

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Validation Statement

Criterion 1

- Hea 04 achieved

Criterion 2

- Ref 193 is a Passive Design Analysis from Yonder Consulting completed during Concept Design Stage. The following recommendations are made for the proposed building design:
 - Shallow plan perimeter rooms to maximise natural daylight penetration
 - Improved thermal performance by improving fabric u-values and air permeability to reduce annual heating energy demands
 - Exposure of the buildings thermal mass to flatten the thermal response curve throughout the day and reduce peak heating and cooling demands
 - Selection of solar control glazing to reduce the total solar radiation entering the building and therefore reduce ventilation and cooling demands (page 15)

Criterion 3

- Ref 208 is a design drawing from SMR Architects showing how the passive design measures will be implemented.

Criterion 4

- Ref 193 is a Passive Design Analysis from Yonder Consulting. The results show that the implementation of these recommendations makes a reduction of 4.5% in predicted annual energy consumption and 4.4% in total carbon emissions when compared to the base building. Based on the results presented in this report, this building would be expected to achieve the 1no. Ene04 credit under the BREEAM 2018 assessment methodology (page 15)

Other

- Ref 29 is a compliance letter from the principal contractor, TSL. The letter confirms that a passive design analysis report will be produced (no later than the Concept Design Stage, RIBA Stage 2), or equivalent, which will identify opportunities for the implementation of passive design solutions that reduce demands for energy consuming building services. The outcomes of the above will inform the use of passive design measures to reduce the total heating, cooling, mechanical ventilation and lighting loads and energy consumption of the building by at least 5%. The report will include an analysis of suitable free cooling options and will identify opportunities for the implementation of the preferred free cooling solution(s). (page 10)

Ref 29 demonstrates compliance with this issue.

Ref 193 demonstrates compliance with this issue.

Ref 208 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 29	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 04, 07_09_2021.pdf	
Ref 193	Yonder, TSL, 2225_YON_XX_XX_RP_2090_01, Ene 04, 22_11_2021.pdf	
Ref 208	Derry Waters, Steven Russell, DPO1-SMR-00-ZZ-DR-A-8701-S2-P1, Ene 04, 26_11_2021.pdf	

Ene 04: Low carbon design > 1. Passive design : Free cooling

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Ene 04: Low carbon design > 2. Low and zero carbon technologies

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the adoption of design measures, which reduce building energy consumption and associated carbon emissions and minimise reliance on active building services systems.

Validation Statement

Criterion 9

- Ref 171 is a LZC report from Yonder Consulting. According to the report:
 - "The report has been approved by Mr Nathan Evans CEng MCIBSE MSc LCC, I can confirm that I comply with BREEAM definition of an energy specialist, I have substantial experience of undertaking feasibility studies and design with the commercial building sector and hold and Energy Assessor accreditation with CIBSE, accreditation number LCEA138924. I am not tied to any individual technology or manufacturer" (page 3)

Criterion 10

- Ref 171 is a LZC report from Yonder Consulting. According to the report the following LZC energy sources are appropriate for the building (page 30):
 - Photovoltaics
 - Heat Pump (VRF)
 - Air Source Heat Pump (Hot Water)

Criterion 11

- Ref 171 is a LZC report from Yonder Consulting. According to the report:
 - "It is recommended that the design is progressed with utilizing Photovoltaic Panels (PV) as the primary carbon saving technology. Further reductions in carbon will be seen by providing an Air Source Heat Pump for hot water." (page 31)

Criterion 12

- Ref 171 is a LZC report from Yonder Consulting. The reduced regulated carbon dioxide (CO₂-eq) emissions are quantified in section "Energy Consumption & CO₂ Emissions" (starting on page 26)

Other

- Ref 250 is a design drawing from SMR Architects confirming PV panels will be installed.
- Ref 30 is a compliance letter from the principal contractor, TSL. The letter confirms that a feasibility study has been undertaken by an energy specialist (as defined under credit Ene 04 BREEAM New Construction) at RIBA Stage 2, or equivalent. This has established the most appropriate (on-site or near-site) low or zero carbon (LZC) energy source for the building. It covers the following:
 - Energy generated from LZC energy source per year
 - Carbon dioxide savings from LZC energy source per year
 - Life cycle cost of the potential specification, 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 to the building type, connecting the proposed building to an existing local community CHP system or source of waste heat or power OR specifying a building/site CHP system or source of waste heat or power with the potential to export excess heat or power via a local community energy scheme.
- They will specify the local LZC technology in line with the recommendations of this feasibility study, or (dependant on project type) provide the required infrastructure for a future tenant to install it. (page 11)

Ref 30 demonstrates compliance with this issue.

Ref 171 demonstrates compliance with this issue.

Ref 250 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 30	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 04, 07_09_2021.pdf	
Ref 171	Yonder, Steven Russell, 2225_YON_XX_RP_Z_2050_01, Ene 04, 01_02_2021.pdf	
Ref 250	SMR Architects, Steven Russell, DPO1-SMR-02-ZZ-DR-A-3103-S4-P3 PROPOSED ROOF PLAN, Ene 04, 23_08_2021.pdf	

Ene 06: Energy Efficient transportation systems > 1. Energy consumption

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the specification of energy efficient transportation systems within buildings.

Validation Statement

Criterion 1

- Ref 31 is a compliance letter from the principal contractor, TSL. The letter confirms that an analysis of transportation demand and usage patterns for the building will be carried out to determine the optimum number and size of lifts (**Criterion 1a**). Energy consumption will be calculated in accordance with BS EN ISO 25745 Energy performance of lifts, Escalators and Moving Walks, Part 2: Energy Calculation and Classification for Lifts (Elevators) for one of the following:
 - Criterion 1bi** - At least two types of system (for each transportation type required); OR
 - Criterion 1bii** - An arrangement of systems (e.g. for lifts, hydraulic, traction, machine room-less lift (MRL)); OR
 - Criterion 1c** - A system strategy which is 'fit for purpose'.
 - Criterion 1d** - The use of regenerative drives has been considered and the transportation system with the lowest energy consumption will be specified (page 11)

Ref 31 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 31	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 06, 07_09_2021.pdf	

Ene 06: Energy Efficient transportation systems > 2. Energy efficient features : Lifts

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the specification of energy efficient transportation systems within buildings.

Validation Statement

Criterion 2

- Criterion 1 will be achieved

Criterion 3 & 4

- Ref 32 is a compliance letter from the principal contractor, TSL. The letter confirms that an analysis of transportation demand and usage patterns for the building will be carried out to determine the optimum number and size of lifts.
 - For each lift, the following three of the energy efficient features will be specified:
 - Criterion 3a** - The lifts operate in a standby condition during off-peak periods.

- **Criterion 3b** - The lift car lighting and display lighting provides an average lamp efficacy, (across all fittings in the car) of > 70 lamp lumens/circuit Watt.
- **Criterion 3c** - The lift uses a drive controller capable of variable speed, variable-voltage, and variable-frequency (VVVF) control of the drive motor.
- **Criterion 4** - Where the use of regenerative drives is demonstrated to save energy, they will be specified. (page 11)

Ref 32 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 32	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Ene 06, 07_09_2021.pdf	

Transport

Credits Achieved:	6 out of 12
% Achieved:	50.00%
Weighting:	11.50%
Weighted Score:	5.75%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Tra 01: Transport assessment and travel plan	2	0	0.00%	0.00%
Tra 02: Sustainable transport measures	10	6	60.00%	5.75%
Total Score				5.75%

Tra 01: Transport assessment and travel plan

Credits Achieved:	0 out of 2
Mandatory Requirements:	None
Aim:	To reward awareness of existing local transport and identify improvements to make it more sustainable.

Validation Statement

Criterion 1

- Ref 253 is a site specific transport assessment and travel plan by Vectos (appointed by Havant Property Investment LLP)
- Ref 256 is a site specific supplementary transport assessment by Vectos. As this was required for planning purposes these transport assessments involve the developer and appropriate authorities.

Criterion 2

- The site specific travel assessment (Ref 253) covers the following:
 - Travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities (Section 2, pages 5 to 11)
 - Predicted travel patterns and transport impact of future building or site users (see ref 256)
 - Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. (Section 2, pages 5 to 11)
 - Reporting of the number and type of existing accessible amenities, see Table 7.1 below, within 500m of the site. (see ref 256)
 - Disabled access accounting for varying levels and types of disability, including visual impairment. (see ref 256)
 - Calculation of the existing public transport Accessibility Index (AI), see Methodology on the facing page. (see ref 256)
 - Current facilities for cyclists (Section 2, pages 5 to 11)
- Ref 256 is a site specific supplementary transport assessment by Vectos. It covers the following:
 - Travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities (Section 3, pages 4 to 5)
 - Predicted travel patterns and transport impact of future building or site users (Appendix G) (Also found in the document - Transport Assessment Addendum Re Bus Services)
 - Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors. (Found in SUPPLEMENTARY_TRANSPORT_ASSESSMENT_3-1501464)
 - Reporting of the number and type of existing accessible amenities, see Table 7.1 below, within 500m of the site. (Section 4.11, page 7)
 - Disabled access accounting for varying levels and types of disability, including visual impairment. (Section 4.14, page 8)
 - Calculation of the existing public transport Accessibility Index (AI), see Methodology on the facing page. (Appendix A, page 36 of the PDF)
 - Current facilities for cyclists (Section 4.20, page 8)

Criterion 3

- Ref 253 is a site specific transport assessment and travel plan by Vectos. This transport assessment and travel plan was required to be submitted to the local council upon completion. As such changes needed to achieve BREEAM standards cannot be added until the local council has reviewed it. Despite this the following is found within the current version of the document:
 - Negotiation with local bus, train or tram services (Section 4.4, page 14)
 - Notice boards (Section 5.2, page 16)
 - Provisions for walkers and cyclists (sections 5.5 and 5.6, pages 16 and 17)
 - Car sharing (Sections 5.7, 5.8, and 5.9, page 17)
- Ref 255 is a supplement to the travel plan above (ref 253), also created by Vectos in collaboration with the local council and the developer for planning purposes. It contains the following:
 - Negotiation with local bus, train or tram services (Section 2.3 to 2.37, pages 10 and 11)
 - Notice boards (Section 4.7, page 15) (Section 5.2, page 16)
 - Provisions for cyclists (Section 5.5 to 5.6, pages 16 and 17)
 - Cycle storage (Section 5.5 to 5.6, pages 16 and 17)
 - Car sharing (Section 5.7 to 5.9, page 17)
 - Pedestrian and cycle friendly (Sections 2.15, and 2.16, pages 6 and 7) (Also figures 2.2, 2.3, and 2.4, pages 8, 9, and 10)
 - Lighting and landscaping (Sections 2.17 to 2.19, page 7)
 - Consultations with local authorities (the entire travel plan is in collaboration with the local authority and required for planning purposes)

Criterion 4

- **NEED LETTER BUILDING OCCUPIER WAS TRAVEL PLAN**

Criterion 5

- Ref 186 is a letter from the principal contractor, TSL. The letter confirms that the travel plan will be implemented and supported by the building's management in operation.

Other

- Ref 33 is a compliance letter from the principal contractor, TSL. The letter confirms that a site-specific transport assessment has been undertaken at the feasibility stage (or equivalent) and this will be used to develop a travel plan. The plan will identify measures to improve sustainable modes of transport and movement of people and goods during the building's operation. The developer has confirmed that this will be provided to the future occupier. (pages 11 and 12)

Ref 33 demonstrates compliance with this issue.

Ref 186 demonstrates compliance with this issue.

Ref 253 demonstrates compliance with this issue.

Ref 255 demonstrates compliance with this issue.

Ref 256 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 33	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Tra 01, 07_09_2021.pdf	
Ref 186	Bradley Pearce, Steven Russell, DPO1 Havant - Tra 01 Confirmation of Occupier - 18.11.21, Tra 01, 18_11_2021.pdf	
Ref 253	Bradley Pearce, Steven Russell, R02-YA-Travel Plan 220125 Final Draft, Tra 01, 17_09_2021.pdf	
Ref 255	Vetos, Steven Russell, TRAVEL_PLAN-1465090, Tra 01, 08_02_2021.pdf	
Ref 256	Vectos, Recipient Unknown, 32 New Lane Transport Assessment, Tra 01, 01_02_2021.zip	

Tra 02: Sustainable transport measures

Credits Achieved:	6 out of 10
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Mandatory Requirements:	None
Aim:	To maximise the potential for local public, private and active transport through provision of sustainable transport measures and incentive mechanisms that are appropriate to the site.

Validation Statement

Criterion 1

- Ref 128 is a drawing from the architect showing:
 - Assessment option 8** - Locker, changing facilities, and Showers (two)
 - Assessment option 7** - Cycle storage plans and locations (40 spaces)
 - Assessment option 5** - Car sharing spaces (5%)
 - Assessment option 4** - EV charging stations (10%)
- Ref 257 is a travel assessment by Vectos. It confirms the Accessibility Index of the site is 7.96 (Section 4.1, page 9). It also confirms existing amenities in the area (Table 4.3, page 8 and 9).
 - Assessment option 9** - More than 3 existing amenities are within the required distance from the site:
 - Gym (260m from site)
 - Outdoor space (350m from site)
 - School (350m from site)
 - Co-op Food (400m from site)
 - Access to cash (450m from site)
- Ref 261 is a specification document from the building occupier. It confirms the building **occupancy rate of 200 people** (see table "X 4F-Double Sided dd: 27-11-2020")
 - with a occupancy rate of 200, a minimum of **20 cycle spaces and 2 showers** are required.

Criterion 2

- Ref 257 is a travel assessment by Vectos. It confirms the Accessibility Index of the site is 7.96 (Section 4.1, page 9). With 6 Accessibility Options and an AI of less than 25 points. **6 credits can be awarded for TRA 02.**

Other

- Ref 34 is a compliance letter from the principal contractor, TSL. The letter confirms that the following sustainable transport measures have been targeted/achieved:
 - The developer has confirmed the establishment of a car sharing group to encourage building users to car share. This will be advertised and priority spaces for at least 5% of the total carparking capacity of the development are to be provided close to the development's entrance (**Assessment option 5**)
 - Internal pedestrian/cycle routes will provide safe and convenient crossing facilities.
 - All staff will be informed of travel boards which will include maps of local walking and cycle routes and information (**Assessment option 3**)
 - High quality cycle parking will be provided at convenient and visible locations within the site and uptake will be monitored (**Assessment option 7**)
 - The TPC will raise awareness of the health benefits of walking and cycling.
 - Changing facilities are proposed within the centre for all staff to use. Lockers are also proposed for the safe storage of personal items whilst at work, therefore they can also be used for cycling equipment. (**Assessment option 8**)
 - Lockers of an appropriate size to store cyclist equipment will be provided. The number of lockers will be at least equal to the number of cycle racks and be located in the/adjacent to the changing facilities. (**Assessment option 8**)(page 12)

Ref 34 demonstrates compliance with this issue.

Ref 128 demonstrates compliance with this issue.

Ref 257 demonstrates compliance with this issue.

Ref 261 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 34	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Tra 02, 07_09_2021.pdf	
Ref 128	SMR Architects, TSL Ltd., DPO1-SMR-01-ZZ-DR-A-3501-S4-P1 SUSTAINABLE TRANSPORT MEASURES, Tra 02, 01_10_2021.pdf	
Ref 257	Vectos, Recipient Unknown, 32 New Lane Transport Assessment, Tra 02, 01_02_2021.zip	
Ref 261	, Steven Russell, 2W-4F-DS_UK, Tra 02, 05_01_2022.pdf	

Water

Credits Achieved:	7 out of 9
% Achieved:	77.78%
Weighting:	7.00%
Weighted Score:	5.44%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Wat 01: Water consumption	5	3	60.00%	2.33%
Wat 02: Water monitoring	1	1	100.00%	0.78%
Wat 03: Water leak detection > 1. Leak detection system	1	1	100.00%	0.78%
Wat 03: Water leak detection > 2. Flow control devices	1	1	100.00%	0.78%
Wat 04: Water efficient equipment	1	1	100.00%	0.78%
Total Score				5.44%

Wat 01: Water consumption

Credits Achieved:	3 out of 5			
Mandatory Requirements:	Good	Very Good	Excellent	Outstanding
	1 credit	1 credit	1 credit	2 credits
Aim:	To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.			
Are all the components specified and installed by the tenant not the developer?	No			

Validation Statement

Criterion 1 & 3

- Ref 183 is a design drawing from the architect showing the number and location of water fittings. It shows:
 - GROUND FLOOR:
 - TAPS: 17
 - TOILETS: 18
 - URINALS: 3
 - FIRST FLOOR:
 - TAPS: 16
 - TOILETS: 18
 - URINALS: 4
 - WUDUS: 2
- Ref 35 is a compliance letter from the principal contractor, TSL. The letter confirms that the project is aiming to achieve a Excellent rating. To achieve this, the project will demonstrate an improvement over baseline water consumption of >40% (page 12 and 13)
- Ref 251 is a mechanical tender specification document.
 - Appendix E (page 185 of the PDF) confirms "The sanitaryware specification for the development to achieve at least a 40% improvement (over the BREEAM baseline). Below is an example specification that would achieve this:
 - WC's: 3.75 litres effective flush volume (6/3 or 4.5/3 dual flush)
 - Urinals: 1.5 litres/bowl/hour (multiple) 2 litres/bowl/hour (single)
 - Shower: 6 litres/minute
 - Hand basin taps: 5 litres/minute"
 - Kitchen: 6 litres/minute
 - Domestic dishwasher: 12 litres/cycle
- Ref 260 is a PDF showing the output of the Wat 01 Calculator tool. Using the information above a percentage improvement of 42.19% was found. **This confirms 3 credits can be awarded for Wat 01**

Criterion 3

- Not relevant

Criterion 4

- Not relevant

Ref 35 demonstrates compliance with this issue.

Ref 183 demonstrates compliance with this issue.

Ref 251 demonstrates compliance with this issue.

Ref 260 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 35	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wat 01, 07_09_2021.pdf	
Ref 183	Derry Waters, TSL, DPO1-SMR-00-ZZ-DR-A-8500-S2-P1, Wat 01, 15_11_2021.pdf	
Ref 251	John Griffiths, Havant Propert Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Wat 01, 05_10_2021.pdf	
Ref 260	Steven Russell, Steven Russell, 2414 Havant BREEAM WAT 01 calc tool, Wat 01, 04_01_2022.pdf	

Wat 02: Water monitoring

Credits Achieved:	1 out of 1			
	Water meter on the mains water supply to each building? Yes			
Mandatory Requirements:	Good	Very Good	Excellent	Outstanding
	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Aim:	To reduce the consumption of potable water in new buildings through the effective management and monitoring of water consumption.			

Validation Statement

Criterion 1

- Ref 139 is a tender specification. Page 186 outlines the relevant BREEAM requirements for this project in regards to Wat 02.
 - "A pulsed mains water meter will be installed and connected to the BMS". (page 186)

Criterion 2

- Ref 139 is a tender specification. Page 186 outlines the relevant BREEAM requirements for this project in regards to Wat 02.
 - "Pulsed sub-meters, connected to the associated BMS, will be installed to all water-consuming plant and building areas which are likely to consume over 10% of the buildings total water demand". (page 186)

Criterion 3

- Ref 139 is a tender specification. Page 186 outlines the relevant BREEAM requirements for this project in regards to Wat 02.
 - "With regards sub-meters, the only major water consuming plant and areas in the building comprises the locker room (containing showers and WCs), and the only minor plant and areas comprise the kitchen facilities in the breakrooms. Therefore it is considered that there is no additional benefit from installing sub-meters as the consumption from the major demand area will mask the minor demand area". (page 186)

Criterion 4

- Not relevant

Criterion 5

- Not relevant

Criterion 6

- Not relevant

Other

- Ref 36 is a compliance letter from the principal contractor, TSL. The letter confirms that a pulsed water meter on the mains water supply to each building will be provided and (where applicable) water consuming plant or building areas consuming 10% or more of the buildings total water demand will be fitted with pulsed sub meters. There is no existing BMS connection as the building is a new development. However, we confirm that the system has the capacity to connect to a future BMS when one becomes operational. (page 13)
- Ref 140, ref 141, ref 142 are water layout drawings to be viewed in conjunction with ref 139

Ref 36 demonstrates compliance with this issue.

Ref 139 demonstrates compliance with this issue.

Ref 140 demonstrates compliance with this issue.

Ref 141 demonstrates compliance with this issue.

Ref 142 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 36	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wat 02, 07_09_2021.pdf	
Ref 139	Kelly Taylor, Havant Propert Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Wat 02, 01_07_2021.pdf	
Ref 140	John Griffiths, TSL Ltd., 10290-EXT-100 External Services Layout, Wat 02, 01_07_2021.pdf	
Ref 141	John Griffiths, Havant Propert Investments LLP, 10290-M-150 Warehouse Mechanical Services Layout, Wat 02, 01_07_2021.pdf	
Ref 142	John Griffiths, Havant Propert Investments LLP, 10290-M-120-121 Office Ground & First Floor BCWS & HWS Layouts, Wat 02, 01_07_2021.pdf	

Wat 03: Water leak detection > 1. Leak detection system

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.

Validation Statement

Criterion 1

- Ref 37 is a compliance letter from the principal contractor, TSL. The letter confirms that a leak detection system capable of detecting major leaks on the water supply and between the building and the water supply, will be installed within the development and covers the mains water supply serving the building. (page 13)
- Ref 147 is a mechanical tender specification document.
 - Appendix E (page 186 of the PDF) confirms "A water leak detection system will be installed which will be able to detect leaks within the building, as well as between the building and its mains water meter"
 - Section 1.14.1 "Major Water Leak Detection" confirms "The Contractor shall provide leak detection systems to detect any leaks within the incoming mains cold water service between the Local Water Company meter to the building service entry point (2 including gatehouse) and internal services. This shall comprise a Pulse type meter at the point of

connection the Local Authority Main and the entry point of the building. This should also comprise a 2-zone control unit combining both external and internal monitoring in one cabinet. This shall allow the end user to monitor their water usage based on an estimated average consumption which shall be entered into the detection equipment. Should the usage at any time record higher than expected flow rates, the system will go into alarm to advise the situation to the end user. The system shall be as Aqualeak Detection Ltd Tel: 01342 843088 or equal" (page 170 of the PDF)

- Ref 146 is a mechanical drawing showing the mains water leak detection meter connecting to the building.

Criterion 2

- Ref 37 is a compliance letter from the principal contractor, TSL. The letter confirms that a leak detection system capable of detecting major leaks on the water supply and between the building and the water supply, will be installed within the development and covers the mains water supply serving the building. (page 13)
- Ref 147 is a mechanical tender specification document.
 - Appendix E (page 186 of the PDF) confirms "The leak detection system will be connected to the BMS and will be:
 - A permanent automated water leak detection system that alerts the building occupants to the leak OR an inbuilt automated diagnostic procedure for detecting leaks (**Criterion 2a**)
 - Activated when the flow of water passing through the water meter or data logger is at a flow rate above a pre-set maximum for a pre-set period of time. This usually involves installing a system which detects higher than normal flow rates at meters or sub-meters. It does not necessarily require a system that directly detects water leakage along part or the whole length of the water supply system (**Criterion 2b**)
 - Able to identify different flow and therefore leakage rates, e.g. continuous, high or low level, over set time periods (**Criterion 2c**)
 - Programmable to suit the owner's or occupier's water consumption criteria (**Criterion 2d**)
 - Where applicable, designed to avoid false alarms caused by normal operation of large water consuming plant such as chillers (**Criterion 2e**)
- Ref 147 is a mechanical tender specification document.
 - Section 1.14.1 "Major Water Leak Detection" confirms "The Contractor shall provide leak detection systems to detect any leaks within the incoming mains cold water service between the Local Water Company meter to the building service entry point (2 including gatehouse) and internal services. This shall comprise a Pulse type meter at the point of connection the Local Authority Main and the entry point of the building. This should also comprise a 2-zone control unit combining both external and internal monitoring in one cabinet. This shall allow the end user to monitor their water usage based on an estimated average consumption which shall be entered into the detection equipment. Should the usage at any time record higher than expected flow rates, the system will go into alarm to advise the situation to the end user. The system shall be as Aqualeak Detection Ltd Tel: 01342 843088 or equal" (page 170 of the PDF)

Ref 37 demonstrates compliance with this issue.

Ref 146 demonstrates compliance with this issue.

Ref 147 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 37	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wat 03, 07_09_2021.pdf	
Ref 146	John Griffiths, Havant Proport Investments LLP, 10290-M-150 Warehouse Mechanical Services Layout, Wat 03, 01_07_2021.pdf	
Ref 147	John Griffiths, Havant Proport Investments LLP, 10290-MEC-01 Mechanical	

	Tender Specification 01, Wat 03, 05_10_2021.pdf	
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Wat 03: Water leak detection > 2. Flow control devices

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To reduce the consumption of potable water in new buildings through minimising wastage due to water leaks.

Validation Statement

Criterion 3

- Ref 149 is a drawing showing flow control devices for WC areas
- Ref 150 is a mechanical tender specification document.
 - Appendix E (page 186 of the PDF) confirms "One of the following flow control devices will be installed to each WC area/facility:
 - A time controller;
 - A programmed time controller;
 - A volume controller;
 - A presence detector and controller
 - A central control unit.
- Ref 74 is a compliance letter from the principal contractor, TSL. The letter confirms Solenoid valves will be installed on the water supply to each toilet area in the building and the flow of water through that supply will be controlled by a link to either an Infrared movement detector within each toilet facility OR Sensors or switches placed at (or on) entry doors to each facility (page 13)

Ref 74 demonstrates compliance with this issue.

Ref 149 demonstrates compliance with this issue.

Ref 150 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 74	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wat 03, 07_09_2021.pdf	
Ref 149	John Griffiths, Havant Proptert Investments LLP, 10290-M-120-121 Office Ground & First Floor BCWS & HWS Layouts, Wat 03, 01_07_2021.pdf	
Ref 150	John Griffiths, Havant Proptert Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Wat 03, 05_10_2021.pdf	

Wat 04: Water efficient equipment

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To reduce water consumption for uses not assessed under Wat 01 by encouraging specification of water efficient equipment.

Validation Statement

Criterion 1

- Ref 38 is a compliance letter from the principal contractor, TSL. The letter confirms that there are no vehicle wash systems or other unregulated water demands that could be realistically mitigated within the scope of the project. They confirm that the landscaping relies solely on precipitation and hence there is no requirement for watering. (page 13)

Criterion 2

- not relevant

Ref 38 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 38	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wat 04, 07_09_2021.pdf	

Materials

Credits Achieved:	7 out of 14
% Achieved:	50.00%
Weighting:	17.50%
Weighted Score:	8.75%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 1. Superstructure	6	1	16.67%	1.25%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 2. Substructure	1	0	0.00%	0.00%
Mat 02: Environmental impacts from construction products - Environmental Product Declarations (EPD)	1	0	0.00%	0.00%
Mat 03: Responsible sourcing of construction products > 1. Pre-requisite - Legal and sustainable timber	0	0	0.00%	0.00%
Mat 03: Responsible sourcing of construction products > 2. Enabling sustainable procurement	1	1	100.00%	1.25%
Mat 03: Responsible sourcing of construction products > 3. Measuring responsible sourcing	3	3	100.00%	3.75%
Mat 05: Designing for durability and resilience	1	1	100.00%	1.25%
Mat 06: Material efficiency	1	1	100.00%	1.25%
Total Score			8.75%	

Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 1. Superstructure

Credits Achieved:	1 out of 6
Mandatory Requirements:	None
Aim:	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Validation Statement

Criterion 1, 3, & 4

- not relevant, no LCA completed during RIBA Stage 2 - Concept Design

Criterion 2

- Ref 262 is a PDF showing the reporting tool for Mat 01. Technical LCA files were uploaded to BREEAM Projects prior to RIBA Stage 4 allow for the award of 1 credit for this section. See BREEAM Projects.
- Ref 39 is a compliance letter from the principal contractor, TSL. The letter confirms that an LCA will be resubmitted at the end of the Technical Design stage (page 13 and 14)

Criterion 5

- Ref 262 is a PDF showing the reporting tool for Mat 01. Technical LCA with 3 superstructure options appraisals, using the OneClick LCA software.

Ref 39 demonstrates compliance with this issue.

Ref 262 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 39	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 01, 07_09_2021.pdf	

Ref 262	Steven Russell, Steven Russell, 2414 Havant Mat0102_ResultsSubmissionTool_V2.2, Mat 01, 09_01_2022.pdf	
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Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 2. Substructure

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Validation Statement

THIS CREDIT IS NOW GONE SINCE WE DIDN'T DO A LCA AN RIBA STAGE 2 - CONCEPT DESIGN

Ref 75 is a compliance letter from the principal contractor, TSL. The letter confirms that the LCA will include an options appraisal for 2-4 significantly different superstructure design options, for at least 6 significantly different substructure or hard landscaping design options. This should be integrated with the design process of the building, and differences in design resulting from this appraisal should be recorded and submitted to the BRE.

Ref 75 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 75	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 01, 07_09_2021.pdf	

Mat 02: Environmental impacts from construction products - Environmental Product Declarations (EPD)

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage availability of robust and comparable data on the impacts of construction products through the provision of EPD.

Validation Statement

Criterion 1

- Ref 40 is a compliance letter from the principal contractor, TSL. The letter confirms that they will specify and install construction products with EPD that achieve a total EPD points score of at least 20. In support of this they provide the Mat 02 specification table separately. (page 14)
- EPD CERTIFICATES**
- TEMPLATE**

Criterion 2

- CALC TOOL**

Ref 40 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 40	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 02, 07_09_2021.pdf	

Mat 03: Responsible sourcing of construction products > 1. Pre-requisite - Legal and sustainable timber

Credits Achieved:	All timber and timber based products are 'Legally harvested and traded timber'? Yes
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Mandatory Requirements:	Pass	Good	Very Good	Excellent	Outstanding
	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
Aim:	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.				

Validation Statement

Criterion 1

- Ref 41 is a compliance letter from the principal contractor, TSL. The letter confirms that all *construction* timber and timber-based products used on the project will be 'Legally harvested and traded timber', in line with the UK government's definition of legally sourced timber. This is outlined in the Central Point of Expertise on Timber (CPET) 5th Edition report on the UK Government Timber Procurement Policy (www.gov.uk/government/uploads). (page 14)

Ref 41 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 41	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 03, 07_09_2021.pdf	

Mat 03: Responsible sourcing of construction products > 2. Enabling sustainable procurement

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Validation Statement

Criterion 2

- Ref 107 is a copy of the sustainable procurement plan from the principal contractor, TSL. It covers the following:
 - Criterion 2a** - page 1
 - this plan is standard for all TSL projects
 - Criterion 2b** - page 1
 - Consider the impact on natural resources when choosing goods and materials.
 - Give preference to suppliers demonstrating leadership in the ethical stewardship of their supply chain when procuring dimensional stone (Dimensional stone is natural stone or rock manufactured into a specific shape or size)
 - Encourage our supply chain to implement or to be working towards a UKAS accredited third- party certified Environmental Management System
 - Consider specifications during the design and construction process to reduce life cycle impacts.
 - Criterion 2c** - page 3
 - "We support local economic regeneration through our procurement activities"
 - Criterion 2d** - page 3
 - Selecting materials, where applicable, which meet the criteria for being responsibly sourced from one of the responsible sourcing schemes recognized by BREEAM.
 - These schemes being BES 6001/ISO 14001/FSC/PEFC
 - All timber and timber-based products used on the project is Legally harvested and traded timber.
 - Disseminating this policy to our supply chain partners, where appropriate.
 - Adhere to the Health and Safety Policy and co-operate on all matters of health and safety.
 - Criterion 2e** - page 2

- Act with integrity in all our business activities
 - At all times be open, transparent, and fair in our communications and dealings with our business partners and will fulfil the payment terms and contract agreed conditions.
 - Identify risks and opportunities against a broad range of social, environmental and economic issues in consideration of BS8902:2009.
- Ref 42 is a compliance letter from the principal contractor, TSL. The letter confirms that all materials sourced for the project will be procured in accordance with TSL's sustainable procurement plan which covers the following as a minimum:
 - Risks and opportunities identified against a broad range of social, environmental and economic issues. BS ISO 20400:2017 will be used as a guide to identify these issues.
 - Aims, objectives and targets to guide sustainable procurement activities.
 - The strategic assessment of sustainably sourced materials available locally. We operate a policy to procure materials locally where possible.
 - Procedures to check and verify that the sustainable procurement plan is being implemented/adhered to. These will include setting out measurement criteria, methodology and performance indicators to assess progress and demonstrate success. (page 14)

Ref 42 demonstrates compliance with this issue.

Ref 107 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 42	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 03, 07_09_2021.pdf	
Ref 107	Bradley, Steven Russell, Havant - Mat 03 - Sustainable Procurement Plan, Mat 03, 16_09_2021.pdf	

Mat 03: Responsible sourcing of construction products > 3. Measuring responsible sourcing

Credits Achieved:	3 out of 3
Mandatory Requirements:	None
Aim:	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Validation Statement

Criterion 3

- Ref 270 is the responsible sourcing schedule that has been compiled for this development by TSL which shows the specifications, quantities and responsible sourcing certification of the materials that are used in this development
- The following are responsible sourcing certificates for the materials and products specified in Ref 270
 - Ref 263 - British Gypsum
 - Ref 264 - Knauf
 - Ref 265 - Floorform
 - Ref 266 - Tektak
 - Ref 267 - Kingspan
 - Ref 268 - Taranto
 - Ref 269 - Hennigans
- Ref 271 is a completed Mat 03 calculator tool. It shows that 30.32% of the materials sourced for this development are responsibly sourced, meaning that 3 credits can be awarded for this section

Other

- Ref 76 is a compliance letter from the principal contractor, TSL. The letter confirms that they will target a minimum of the following to ensure at least one credit is achieved:
 - At least 10% of the available responsible sourcing points will be achieved for the superstructure

- In addition to the above, they will also aim to achieve the following (where possible) to improve the number of credits awarded:
 - At least 20% of the available responsible sourcing points will be achieved for the internal finishes, substructure and hard landscaping will be targeted. (page 14)

Ref 76 demonstrates compliance with this issue.

Ref 263 demonstrates compliance with this issue.

Ref 264 demonstrates compliance with this issue.

Ref 265 demonstrates compliance with this issue.

Ref 266 demonstrates compliance with this issue.

Ref 267 demonstrates compliance with this issue.

Ref 268 demonstrates compliance with this issue.

Ref 269 demonstrates compliance with this issue.

Ref 270 demonstrates compliance with this issue.

Ref 271 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 76	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 03, 07_09_2021.pdf	
Ref 263	Bradley Pearce, Steven Russell, British Gypsum - BES 6001, Mat 03, 10_01_2022.pdf	
Ref 264	Bradley Pearce, Steven Russell, Knauf - BES 6001, Mat 03, 10_01_2022.pdf	
Ref 265	Bradley Pearce, Steven Russell, Floorform - ISO 14001, Mat 03, 10_01_2022.pdf	
Ref 266	Bradley Pearce, Steven Russell, Tektauk - ISO 14001, Mat 03, 10_01_2022.pdf	
Ref 267	Bradley Pearce, Steven Russell, Kingspan - BES 6001, Mat 03, 10_01_2022.pdf	
Ref 268	Bradley Pearce, Steven Russell, Taranto - ISO 14001, Mat 03, 10_01_2022.pdf	
Ref 269	Bradley Pearce, Steven Russell, Hennigans - ISO 14001, Mat 03, 10_01_2022.pdf	
Ref 270	Bradley Pearce, Steven Russell, Havant - Mat 03 Table - 10.12.21, Mat 03, 10_01_2022.pdf	
Ref 271	Steven Russell, Steven Russell, 2414 Havant BREEAM-UK-NC-2018-Mat03-Calculator-v2.4 (1), Mat 03, 10_01_2022.xlsx	

Mat 05: Designing for durability and resilience

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and landscape.

Validation Statement

Criterion 1

- Ref 178 is a designing for durability document from the architect. Table 1 (page 1) shows the considerations in Protecting Vulnerable Parts of the Building from Damage. These include:
 - Effects of high pedestrian traffic
 - Internal vehicular/trolley movement
 - Vehicular collision where vehicular parking and manoeuvring occurs
 - Potential malicious damage to building materials and finishes

Criterion 2a

- Ref 178 is a designing for durability document from the architect. Table 2 (bottom of page 2) shows the considerations in Protecting Exposed Parts of the Building from Material Degradation. These include the relevant standards used in-line with table 9.14

Criterion 3

- Ref 259 is a maintenance access strategy from SMR Architects. It confirms the roof and façade areas are designed to be accessible (Section 3, page 3)

Criterion 4

- Ref 178 is a designing for durability document from the architect. Table 2 (bottom of page 2) in the Water/moisture row and Precipitation row shows the roof and façade have been designed to prevent water damage, ingress and detrimental ponding.

Other

- Ref 182 is a design drawing from the architect showing the external protection measures such as kerbs, bollards, and lining.
- Ref 180 and Ref 181 are design drawings from the architect showing internal protection measures such as bollards, railings, and column protections.
- Ref 179 is a design drawing from the architect showing internal protection measures of the plant area, such as bollards, railings, and column protections.
- Ref 43 is a compliance letter from the principal contractor, TSL. The letter confirms that protection measures are to be incorporated into the building's design and construction with the aim of reducing damage to the building's fabric or materials in case of accidental or malicious damage occurring. (page 14 and 15). The letter also confirms that key exposed building elements have been designed to limit long and short-term degradation due to environmental factors. (page 15)

Ref 43 demonstrates compliance with this issue.

Ref 178 demonstrates compliance with this issue.

Ref 179 demonstrates compliance with this issue.

Ref 180 demonstrates compliance with this issue.

Ref 181 demonstrates compliance with this issue.

Ref 182 demonstrates compliance with this issue.

Ref 259 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 43	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 05, 07_09_2021.pdf	
Ref 178	Derry Waters, Steven Russell, Mat 05 Designing for Durability, Mat 05, 15_11_2021.pdf	
Ref 179	Derry Waters, Steven Russell, DPO1-SMR-02-ZZ-DR-A-3116-S4-P3 MEZZANINE & PLANT DECK PROTECTION PLAN, Mat 05, 06_08_2021.pdf	
Ref 180	Derry Waters, Steven Russell, DPO1-SMR-02-GF-DR-A-3115-S4-P4 WAREHOUSE PROTECTION PLAN 2 OF 2, Mat 05, 06_08_2021.pdf	
Ref 181	Derry Waters, Steven Russell, DPO1-SMR-02-GF-DR-A-3114-S4-P4 WAREHOUSE PROTECTION PLAN 1 OF 2, Mat 05, 06_08_2021.pdf	
Ref 182	Derry Waters, Steven Russell, DPO1-SMR-01-ZZ-DR-A-3005-S4-P4 SITE WITH EXTERNAL PROTECTION, KERBS AND LINING, Mat 05, 06_08_2021.pdf	
Ref 259	SMR Architects, Steven Russell, 32 New Lane, Havant Maintenance Access Strategy C1, Mat 05, 04_01_2022.pdf	

Mat 06: Material efficiency

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To avoid unnecessary materials use arising from over specification without compromising structural stability, durability or the service life of the building.

Validation Statement

Criterion 1

- Ref 216 is a Material Efficiency report from the principal contractor, TSL. These have been considered in reference to "BS 8895 Designing for material efficiency in buildings projects" and WRAP's "Designing out Waste: A design team guide for Buildings". Each stage of the project was considered:
 - Criterion 1a** - Preparation and Brief (page 5)
 - Criterion 1b** - Concept Design (page 7)
 - Criterion 1c** - Developed Design (page 12)
 - Criterion 1d** - Technical Design (page 14)
 - Criterion 1e** - Construction (page 16)

Criterion 2

- Ref 216 is a Material Efficiency report from the principal contractor, TSL. Appendix A (page 17) confirms this document will be continually updated at Developed Design (**Criterion 2a**), Technical Design (**Criterion 2b**), and Construction (**Criterion 2c**) stages

Criterion 3

- Ref 44 is a compliance letter from the principal contractor, TSL. The letter confirms that opportunities will be identified, and appropriate measures investigated to optimise the use of materials in building design, procurement, construction, maintenance and end life. The identified measures will be implemented as appropriate. (page 15)

Ref 44 demonstrates compliance with this issue.

Ref 216 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 44	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Mat 06, 07_09_2021.pdf	
Ref 216	Bradley Pearce, Steven Russell, Havant - Mat 06 Material Efficiency Rev 3, Mat 06, 07_12_2021.pdf	

Waste

Credits Achieved:	8 out of 10
% Achieved:	80.00%
Weighting:	7.00%
Weighted Score:	5.60%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Wst 01: Construction waste management > 1. Pre-demolition audit	1	1	100.00%	0.70%
Wst 01: Construction waste management > 2. Construction resource efficiency	3	2	66.67%	1.40%
Wst 01: Construction waste management > 4. Diversion of resources from landfill	1	1	100.00%	0.70%
Wst 02: Use of recycled and sustainably sourced aggregates	1	0	0.00%	0.00%
Wst 03: Operational waste	1	1	100.00%	0.70%
Wst 05: Adaptation to climate change	1	1	100.00%	0.70%
Wst 06: Design for disassembly and adaptability > 1. Recommendations	1	1	100.00%	0.70%
Wst 06: Design for disassembly and adaptability > 2. Implementation	1	1	100.00%	0.70%
Total Score				5.60%

Wst 01: Construction waste management > 1. Pre-demolition audit

Credits Achieved:	1 out of 1
Mandatory Requirements:	Outstanding
	1 credit *
	* Credits can be achieved under any part of Wst 01 - Construction waste management to meet the minimum requirements.
Aim:	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.

Validation Statement

Criterion 1

- Ref 84 is a pre-demolition audit by Collins Demolition Ltd. The audit covers the scope found in the BREEM manual (see pages 14 and 15).
 - Identification and quantification of the key materials where present on the project (page 14)
 - Construction & Demolition Waste: 300 tonnes
 - Metals: 1350 tonnes
 - Hardcore: 15,500 tonnes
 - Total Arisings Forecast: 17,150 tonnes / 27,547m²
 - Potential applications and any related issues for the reuse and recycling of the key materials in accordance with the waste hierarchy (page 9 and 11)
 - "Known Structural Hazards", "Structures to be preserved" & "Hazardous conditions"
 - Opportunities for reuse and recycling within the same development (page 14)
 - "Hardcore arisings generated from the demolition phase of works are capable of being processed into recycled aggregate for use on site. The use of the materials can be implemented in the earthworks phase of the project"
 - Identification of local reprocessors or recyclers for recycling of materials (page 14)
 - "L&S Waste Management Limited" & "EUROPEAN METAL RECYCLING USA HOLDINGS LTD"
 - Identification of overall recycling targets where appropriate (page 14)
 - Target: 90% of waste taken off site recycled
 - Potential: 98% of waste taken off site recycled
 - Identification of reuse targets where appropriate (page 14)
 - Target: 80% of demolition arisings to be used on site
 - Potential 90% of demolition arisings to be used on site
 - Identification of overall landfill diversion rate for all key materials. (page 14)

- Target: 90% diversion of all materials from landfill
- Potential: 95% diversion of all materials from landfill

Criterion 2

- Ref 204 is a SWMP by the principal contractor TSL Projects Ltd. Section 2.1 (page 6) references the pre-demolition audit.

Criterion 3

- Ref 204 is a SWMP by the principal contractor TSL Projects Ltd. Section 8 (page 23) provides information on how the SWMP will be monitored to ensure it is implemented correctly. Section 7 (page 20) commits to collecting and measuring waste regularly and identifying actions needed should issues occur in relation to the waste goal targets:
 - "Measurements will be collated on a monthly basis and the table 7.1 below will be completed with actions identified of issues to be addressed".

Other

- Ref 45 is a compliance letter from the principal contractor, TSL. The letter confirms that a pre demolition audit of any existing buildings considered for demolition will be completed at Concept Design stage. This must guide the design process, and include:
 - Identification and quantification of key materials
 - Potential applications/issues for recycling of existing key materials
 - Opportunities for reuse/recycling
 - Identification of local recycling/reprocessing units
 - Identification of reuse targets
 - Identification of landfill diversion rates
- Actual waste arisings and management routes should be compared with those specified within the audit.

Ref 45 demonstrates compliance with this issue.

Ref 84 demonstrates compliance with this issue.

Ref 204 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 45	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 01, 07_09_2021.pdf	
Ref 84	Collins Earthworks Ltd., TSL Ltd., Havnant - Wst 01 - Pre Demolition Survey, Wst 01, 25_06_2021.pdf	
Ref 204	Bradley Pearce, Steven Russell, 529 Havant - Wst 01 - Site Waste Management Plan, Wst 01, 29_11_2021.pdf	

Wst 01: Construction waste management > 2. Construction resource efficiency

Credits Achieved:	2 out of 3
	Outstanding
Mandatory Requirements:	1 credit *
	* Credits can be achieved under any part of Wst 01 - Construction waste management to meet the minimum requirements.
Aim:	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.

Validation Statement

Criterion 4

- Ref 203 is a SWMP from the principal contractor, TSL Projects Ltd.
 - **Criterion 4a**
 - Section 2 Predicted types and quantities of waste (page 6 and 7)
 - **Criterion 4b:**

- Section 3 Waste Management Options (page 8 and 9)
- Section 4 Waste management contractors and legal compliance (page 13)

Criterion 5

- Ref 203 is a SWMP from the principal contractor, TSL Projects Ltd. Section 3.2 SWMP Targets (page 12) sets out a target of 6m3 per 100m2 of gross internal floor area. Allowing for 2 credits to be awarded in accordance with Table 10.1 of the BREEAM manual.

Other

- Ref 46 is a compliance letter from the principal contractor, TSL. The letter confirms that the design team are committed to producing a resource management plan (RMP) for the development. (page 15 and 16)

Ref 46 demonstrates compliance with this issue.

Ref 203 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 46	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 01, 07_09_2021.pdf	
Ref 203	Bradley Pearce, Steven Russell, 529 Havant - Wst 01 - Site Waste Management Plan, Wst 01, 29_11_2021.pdf	

Wst 01: Construction waste management > 4. Diversion of resources from landfill

Credits Achieved:	1 out of 1
Mandatory Requirements:	Outstanding
	1 credit *
	* Credits can be achieved under any part of Wst 01 - Construction waste management to meet the minimum requirements.
Aim:	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.

Validation Statement

Criterion 6

- Ref 215 is a SWMP from the principal contractor, TSL Projects Ltd. Section 3.3 SWMP Target confirms the diversion from landfill benchmarks (page 12). Exemplary level credit can be awarded as they exceed the volume criteria in Table 10.2 of the BREEAM manual.
 - Non-demolition = 97%
 - Demolition = 90%
 - Excavation = 98%

Criterion 7

- Ref 215 is a SWMP from the principal contractor, TSL Projects Ltd. Section 4.4 Waste Contractor details and Duty of Care compliance sheet (page 15 and 16) provide information on the separate key waste groups and which contractor is responsible for each.

Other

- Ref 85 is a compliance letter from the principal contractor, TSL. The letter confirms that the RMP should also specify the following requirements have been met:
 - At least 80% (by weight) or 70% (by volume) of non-hazardous non-demolition waste; and
 - At least 90% (by weight) or 80% (by volume) of non-hazardous demolition waste; and
 - Reused on site
 - Reused on other sites
 - Salvaged / reclaimed for reuse
 - Returned to the supplier via a 'take-back' scheme
 - Recovered from site by an approved waste management contractor and recycled

- They confirm that the RMP will include the above information and that the document will be updated regularly in line with current legislation.

Ref 85 demonstrates compliance with this issue.

Ref 215 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 85	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 01, 07_09_2021.pdf	
Ref 215	Bradley Pearce, Steven Russell, 529 Havant - Wst 01 - Site Waste Management Plan Rev 2, Wst 01, 06_12_2021.pdf	

Wst 02: Use of recycled and sustainably sourced aggregates

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Wst 03: Operational waste

Credits Achieved:	1 out of 1
Mandatory Requirements:	Excellent Outstanding
	1 credit 1 credit
Aim:	To encourage the recycling of operational waste through the provision of dedicated storage facilities and space.

Validation Statement

Criterion 1

- Ref 184 is a design drawing from the architect showing a dedicated space for the segregation and storage of operational recyclable waste generated.
- Ref 47 is a compliance letter from the principal contractor, TSL. The letter confirms that the provision of a dedicated space for the segregation and storage of operational recyclable waste volumes generated by the development's occupant(s) and activities. It will be:
 - Clearly labelled to assist with segregation, storage and collection of recyclable waste streams
 - Accessible to building occupants or facilities operators for the deposit of materials and collections by waste management contractors
 - Of a capacity appropriate to the building types, size, number of units (where relevant) and predicted volumes of waste that will arise from daily/weekly operational activities and occupancy rates.
- Note: As this is a shell and core development, a marked-up area will be provided but it will be the tenant responsibility to provide labelled waste storage skips.
- The following will be used as a guide for minimum space storage provision:
 - At least 2m² per 1,000m² of net floor area for buildings <5,000m²
 - A minimum of 10m² for buildings ≥5,000m²
 - An additional 2m² per 1,000m² of net floor area where catering is provided (with an additional minimum of 10m² for buildings ≥10,000m²). (page 16 and 17)

Criterion 2

- Ref 47 is a compliance letter from the principal contractor, TSL. The letter confirms that given the likely volumes and types of operational waste that the development will produce, there is no requirement to provide a static waste compactor, baler or a vessel for composting. (page 16 and 17)

Ref 47 demonstrates compliance with this issue.

Ref 184 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 47	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 03, 07_09_2021.pdf	
Ref 184	Derry Waters, TSL, DPO1-SMR-00-ZZ-DR-A-8500-S2-P1, Wst 03, 15_11_2021.pdf	

Wst 05: Adaptation to climate change

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.

Validation Statement

Criterion 1

- Ref 93 is a Climate Adaptation report by Yonder Consulting, conducted before the end of Concept Design Stage. The report includes the following
 - Hazard identification (page 10)
 - Hazard assessment (page 10)
 - Risk estimation (page 13)
 - Risk evaluation (page 13)
 - Risk management. (page 15)

Criterion 2

- Ref 93 is a Climate Adaptation report by Yonder Consulting, conducted before the end of Concept Design Stage. The table starting on page 15 provides design mitigation measures based on the climate change adaptation assessment.

Criterion 3

- Ref 92 is an update to the Climate Adaptation report, also completed by Yonder Consulting.

Other

- Ref 198, Ref 199, Ref 200, Ref 201, and Ref 202 are marked up design drawings from SMR Architects showing how the recommendations of the Climate Adaptation report have been incorporated. These include:
 - Fire risk adaptations
 - Outside canopies for shading
 - Solar panels
 - External elevation blinds for shading
 - Landscaping and planting using drought resistant plants
 - Sustainable transport (bikes, EV charging spaces)
- Ref 48 is a compliance letter from the principal contractor, TSL. The letter confirms that a Climate Change Adaptation Strategy will be undertaken by the end of Concept Design (RIBA Stage 2), or equivalent, to determine structural and fabric resilience to evaluate the impact of climate change on the building over its projected life cycle. The risk assessment will review expected extreme weather conditions and provide measures to mitigate them. The assessment will include the following stages:
 - Hazard identification
 - Hazard assessment

- Risk estimation
- Risk evaluation
- Risk management.
- The strategy will identify solutions to help mitigate the identified impacts and an update will be provided during Technical Design (or equivalent) showing how these will be implemented (where cost effective and practical). Any omissions will be justified. (page 17)

Ref 48 demonstrates compliance with this issue.

Ref 92 demonstrates compliance with this issue.

Ref 93 demonstrates compliance with this issue.

Ref 198 demonstrates compliance with this issue.

Ref 199 demonstrates compliance with this issue.

Ref 200 demonstrates compliance with this issue.

Ref 201 demonstrates compliance with this issue.

Ref 202 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 48	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 05, 07_09_2021.pdf	
Ref 92	Yonder Consulting, TSL Ltd., 2414-YON-XX-XX-RP-Z-2102-02, Wst 05, 22_09_2021.pdf	
Ref 93	Yonder Consulting, TSL Ltd., 2414-YON-XX-XX-RP-Z-2102-01, Wst 05, 22_09_2021.pdf	
Ref 198	Derry Waters, Steven Russell, DPO1-SMR-03-ZZ-DR-A-3206-S4-P2 VAN DECK FIRE STRATEGY PLAN - LEVELS 0 & 1, Wst 05, 17_08_2021.pdf	
Ref 199	Derry Waters, Steven Russell, DPO1-SMR-02-GF-DR-A-3113-S4-P5 PROPOSED MEZZANINE & PLANT DECK FIRE STRATEGY PLAN, Wst 05, 17_08_2021.pdf	
Ref 200	Derry Waters, Steven Russell, DPO1-SMR-00-ZZ-DR-A-8101-S2-P1, Wst 05, 17_08_2021.pdf	
Ref 201	Derry Waters, Steven Russell, DPO1-SMR-02-GF-DR-A-3112-S4-P5 PROPOSED WAREHOUSE FIRE STRATEGY PLAN, Wst 05, 17_08_2021.pdf	
Ref 202	Derry Waters, Steven Russell, DPO1-SMR-03-ZZ-DR-A-3207-S4-P2 VAN DECK FIRE STRATEGY PLAN - LEVELS 2 & 3, Wst 05, 17_08_2021.pdf	

Wst 06: Design for disassembly and adaptability > 1. Recommendations

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

Validation Statement

Criterion 1

- Ref 129 is a functional adaptation strategy report from SMR Architects for this project. During RIBA Stage 2 the client and design team collaborated in order to provide recommendations for measures to be incorporated, in the proposed development, to facilitate future adaptation (in different scenarios)

Criterion 2

- Ref 129 is a functional adaptation strategy report from SMR Architects for this project. Recommendations/solutions are presented in the table.

Other

- Ref 130 is a collection of drawings from SMR Architects that correspond with Ref 129 the functional adaptation strategy report. Showing how the measures are to be implemented.
- Ref 49 is a compliance letter from the principal contractor, TSL. The letter confirms that a study will be undertaken to explore the ease of disassembly and the functional adaptation potential of different design scenarios by the end of Concept Design (or equivalent). This will provide solutions that aim to enable and facilitate disassembly and functional adaptation. (page 17)

Ref 49 demonstrates compliance with this issue.

Ref 129 demonstrates compliance with this issue.

Ref 130 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 49	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 06, 07_09_2021.pdf	
Ref 129	SMR Architects, TSL Ltd., Functional Adaptation Strategy Study P1, Wst 06, 05_10_2021.pdf	
Ref 130	SMR Architects, TSL Ltd., DPO1-SMR-03-ZZ-DR-A-3201-S4-P3 PROPOSED VAN PARKING DECK PLAN - LEVELS 2 & 3, Wst 06, 05_10_2021.zip	

Wst 06: Design for disassembly and adaptability > 2. Implementation

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To avoid unnecessary materials use, cost and disruption arising from the need for future adaptation works as a result of changing functional demands and to maximise the ability to reclaim and reuse materials at final demolition in line with the principles of a circular economy.

Validation Statement

Criterion 3

- Criterion 1 and 2 are achieved

Criterion 4

- Ref 207 is a Functional Adaptation Strategy Study from SMR Architects, updated for Technical Design Stage.
 - **Criterion 4a** - the 3rd column of the table
 - **Criterion 4b** - the 4th column of the table

Criterion 5

- Ref 206 is a Building Adaptability and Disassembly Guide from the architects. The guide covers the following:
 - Accessibility
 - "There is a large plant room located on the second floor mezzanine. This is oversized for current purposes in order to accommodate different future servicing, in addition to providing a good working space for maintenance. In addition to this, the extent of the large C-shaped first floor mezzanine offices provides room for possible future expansion if required" (section 3, page 3)
 - Durability
 - "The building materials used within the construction of the warehouse and adjacent multi-storey van storage structure have been selected for durability. The design life of the building has been assumed at 20 years in line with the clients requirements" (section 8, page 4)
 - Exposed and reversible connections
 - "Due to this steel frame design, cladding panels also can be replaced without impacting structural integrity, allowing for full modification of the façade if required. Joints are bolted rather than welded in order to give greater flexibility for changing services in the future" (section 3, page 3)

- Layer independence
 - "Suspended ceilings have been utilised throughout the office areas. These are generally a lay-in grid with ceiling tiles, however moisture resistant plasterboard has been used to wet rooms. Both types allow a greater level of flexibility for changing services in the future without having to disassemble existing partitions" (section 6, page 4)
- Avoidance of unnecessary toxic treatments and finishes
 - "As part of the end users specification requirements, any materials or substances generally known to be or suspected of being deleterious are prohibited from use as part of the construction. This includes but is not limited to any substances which have been referred to by the BRE as being hazardous to H&S or the durability of the development" (section 9, page 4)
- Standardisation can accommodate reuse and upgrading
 - "Modular plant has been implemented on this scheme in order to allow individual sections to be removed or repaired as required. The plant deck provided for this is generously sized in order to allow a good working space for maintenance (section 5, page 4)

Other

- Ref 50 is a compliance letter from the principal contractor, TSL. The letter confirms that an update will be provided during Technical Design (or equivalent) showing how these will be implemented (where cost effective and practical). Any omissions will be justified. This update will also include changes to the recommendations or solutions during Technical Design. A building adaptability and disassembly guide, detailing functional adaptability/disassembly characteristic will be produced, and provided to the building tenants. (page 17)

Ref 50 demonstrates compliance with this issue.

Ref 206 demonstrates compliance with this issue.

Ref 207 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 50	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Wst 06, 07_09_2021.pdf	
Ref 206	Derry Waters, Steven Russell, Building Adaptability & Disassembly Guide P2, Wst 06, 25_11_2021.pdf	
Ref 207	Derry Waters, Steven Russell, Functional Adaptation Strategy Study P2, Wst 06, 25_11_2021.pdf	

Land Use and Ecology

Credits Achieved:	13 out of 13
% Achieved:	100.00%
Weighting:	15.00%
Weighted Score:	15.00%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
LE 01: Site selection > 1. Previously occupied land	1	1	100.00%	1.15%
LE 01: Site selection > 2. Contaminated land	1	1	100.00%	1.15%
LE 02: Ecological risks and opportunities > 1. Statutory obligations	0	0	0.00%	0.00%
LE 02: Ecological risks and opportunities > 2. Survey and evaluation	1	1	100.00%	1.15%
LE 02: Ecological risks and opportunities > 3. Determining ecological outcomes	1	1	100.00%	1.15%
LE 03: Managing impacts on ecology > 1. Ecological risks and opportunities	0	0	0.00%	0.00%
LE 03: Managing impacts on ecology > 2. Planning and measures on-site	1	1	100.00%	1.15%
LE 03: Managing impacts on ecology > 3. Managing negative impacts of the project	2	2	100.00%	2.31%
LE 04: Ecological change and enhancement > 1. Managing negative impacts on ecology	0	0	0.00%	0.00%
LE 04: Ecological change and enhancement > 2. Change and enhancement of ecology	3	3	100.00%	3.46%
LE 04: Ecological change and enhancement > 3. Ecological enhancement	1	1	100.00%	1.15%
LE 05: Long term ecological management and maintenance > 1. Statutory obligations, planning and site implementation	0	0	0.00%	0.00%
LE 05: Long term ecological management and maintenance > 2. Management and maintenance throughout the project	1	1	100.00%	1.15%
LE 05: Long term ecological management and maintenance > 3. Landscape and ecology management plan	1	1	100.00%	1.15%
Total Score				15.00%

LE 01: Site selection > 1. Previously occupied land

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.

Validation Statement

Criterion 1

- Ref 51 is a compliance letter confirming at least 75% of the proposed development is on previously occupied land.
- Ref 88 is an existing site plan, and Ref 89 is a proposed site plan. These confirm the project will be constructed on at least 75% previously occupied land.

Ref 51 demonstrates compliance with this issue.

Ref 88 demonstrates compliance with this issue.

Ref 89 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 51	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance	

	Letter_SC_TSL, LE 01, 07_09_2021.pdf	
Ref 88	SMR Architects, TSL Ltd., 7379-SMR-00-ZZ-DR-A-2002-S4-P3 EXISTING SITE PLAN, LE 01, 06_08_2021.pdf	
Ref 89	SMR Architects, TSL Ltd., DPO1-SMR-01-ZZ-DR-A-3001-S4-P5 PROPOSED SITE PLAN, LE 01, 29_06_2021.pdf	

LE 01: Site selection > 2. Contaminated land

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To encourage the use of previously occupied or contaminated land and avoid land which has not been previously disturbed.

Validation Statement

Criterion 2

- Ref 91 and ref 90 is an Outline Remedial Strategy & Implementation Plan. It states that "A previous Phase I Desk Study and Phase 2 Site Investigations have identified localised soil contamination, and some low-level impacts to shallow groundwater from chlorinated solvents". (page 2). This confirms the site is affected by contamination. The report contains the data gathered, showing the degree of contamination (found in the appendices). The sources and types of contaminants, along with how to remediate them are found in section 3, page 9.

Criterion 3

- Ref 118 is a letter of commitment from the principal contractor that the remediation strategy will be implemented, in line with the report.

Other

- Ref 52 is a compliance letter confirming that a contaminated land professional will undertake a site investigation, risk assessment, and appraisal, to investigate if the development land is affected by contamination.

Ref 52 demonstrates compliance with this issue.

Ref 90 demonstrates compliance with this issue.

Ref 91 demonstrates compliance with this issue.

Ref 118 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 52	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 01, 07_09_2021.pdf	
Ref 90	EPS, ATG Services, Part 2 of 2 - UK20.5052D Outline Remedial Strategy & Implementation Plan - Pfizer, Havant (Issue 2), LE 01, 07_05_2021.pdf	
Ref 91	EPS, ATG Services, Part 1 of 2 - UK20.5052D Outline Remedial Strategy & Implementation Plan - Pfizer, Havant (Issue 2), LE 01, 07_05_2021.pdf	
Ref 118	TSL, Yonder, Havant - TSL Commitment to Implement Remedial Strategy, LE 01, 30_09_2021.pdf	

LE 02: Ecological risks and opportunities > 1. Statutory obligations

Credits Achieved:	Pre-Requisite met: Yes
Mandatory Requirements:	None
Aim:	To determine the existing ecological value associated with the site, including surrounding areas, and the risks and opportunities for ecological protection and enhancement as part of the project.

Validation Statement

Criterion 1

- Ref 53 is a compliance letter that confirm that compliance is monitored against all UK/EU/International legislation regarding to the ecology of the site (page 17)
- Ref 94 is an ecology report. Section 2 (page 4) confirms the compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.
- Ref 217 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology. Section C2 (page 17) confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.

Ref 53 demonstrates compliance with this issue.

Ref 94 demonstrates compliance with this issue.

Ref 217 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 53	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 02, 07_09_2021.pdf	
Ref 94	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 02, 08_02_2021.pdf	
Ref 217	George Sayer, Steven Russell, LLD2177-GN40, LE 02, 08_12_2021.pdf	

LE 02: Ecological risks and opportunities > 2. Survey and evaluation

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To determine the existing ecological value associated with the site, including surrounding areas, and the risks and opportunities for ecological protection and enhancement as part of the project.

Validation Statement

Criterion 2

- not relevant

Criterion 3

- (Ref 95) George Sayer is the Suitably Qualified Ecologist who carried out the assessment (Section 1.3, page 2). The report was produced on the 8th of February 2021, many months before site-works started and enough time to influence design and strategic planning decisions. This ecology report also served as a planning decision requirement.
- Ref 218 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section B2 confirms the ecologist's qualifications (page 4)
 - Section C2 (point 2) confirms the ecologist was appointed at a suitable time (page 17)

Criterion 4a

- (Ref 95) Section 4, page 10, the current and potential ecological value and condition of the site and related areas within the Zone of Influence are outlined. Including history of the site, statutory and non-statutory protected sites, habitat types, fauna.
- Ref 218 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (point 3) confirms the survey and evaluation determines the site's ecological baseline (page 17)

Criterion 4b

- (Ref 95) Section 5, page 20, the potential impacts caused by the proposed development are outlined.

Criterion 4c

- (Ref 95) Section 5, on page 20, and section 6 on page 25, outlines enhancement and recommendations. These include:

2. The post-development landscape scheme will replace areas of amenity grassland, trees, hedges and shrubs with like-for-like habitats.(section 5.2.3)
3. All light spill upon surrounding scattered trees, treelines and hedges will be avoided. (section 5.3.2)
4. Any suitable vegetation should be removed outside the nesting season (section 5.4.2)
5. Other enhancements and included in section 6.1

Criterion 5

- Ref 54 letter (page 17) confirms that a suitably qualified Ecologist will be employed prior to Concept Design Stage to carry out a survey and evaluation of the site and that Data and recommendations from the survey shall be shared with the design team.
- Ref 109 is a meeting minutes document showing the design team discussed with the Ecologist the ecologists report and recommendations before site works
- Ref 218 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (point 4) confirms data was shared with the project team early on (page 18)

Other

- Ref 96, ref 97, ref 98, ref 99, and ref 100 are additional ecological survey documents including tree surveys, and drawings showing tree types, locations and which should not be removed.

Ref 54 demonstrates compliance with this issue.

Ref 95 demonstrates compliance with this issue.

Ref 96 demonstrates compliance with this issue.

Ref 97 demonstrates compliance with this issue.

Ref 98 demonstrates compliance with this issue.

Ref 99 demonstrates compliance with this issue.

Ref 100 demonstrates compliance with this issue.

Ref 109 demonstrates compliance with this issue.

Ref 218 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 54	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 02, 07_09_2021.pdf	
Ref 95	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 02, 08_02_2021.pdf	
Ref 96	LLD2177-ARB-SCH-001-02, LE 02, Undated.pdf	
Ref 97	Lizard, TSL Ltd., LLD2177-ARB-REP-001-02, LE 02, 21_09_2021.pdf	
Ref 98	Lizard, TSL Ltd., LLD2177-ARB-DWG-001-03, LE 02, 21_09_2021.pdf	
Ref 99	Lizard, TSL Ltd., LLD2177-ARB-DWG-002-04, LE 02, 21_09_2021.pdf	
Ref 100	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 02, 21_09_2021.pdf	
Ref 109	Bradley, Steven, Havant LE02 ecological outcomes, LE 02, 28_09_2021.pdf	
Ref 218	George Sayer, Steven Russell, LLD2177-GN40, LE 02, 08_12_2021.pdf	

LE 02: Ecological risks and opportunities > 3. Determining ecological outcomes

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To determine the existing ecological value associated with the site, including surrounding areas, and the risks and opportunities for ecological protection and enhancement as part of the project.

Validation Statement

Criterion 6

- This Ecologist's report (ref 101) and accompanying documents (ref 102, ref 103, ref 104, ref 105, ref 106) shows compliance with Criteria 3 and 4.
- Ref 219 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (point 5) confirms Criterion 3-5 have been achieved (page 18)

Criterion 7

- Ref 108 is a meeting minutes report document from the project team, including the ecologist, client, architects, and the contractor. The ecologist's recommendations were discussed, with Section 1 providing a list of Optimal Ecological Outcomes for the project (**Criterion 7a**). Section 2 provides a list of measures agreed by the relevant stakeholders to achieve the ecological outcomes, these were discussed with the mitigation hierarchy or action in mind (**Criterion 7b**)
- Ref 219 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (point 6) confirms the project team met to identify the optimal ecological outcomes for the site. (page 18)
 - Section C2 (point 7) confirms this was done early on. (page 19)
 - Section C2 (point 8) confirms this was done in line with the mitigation hierarchy of action. (page 19)

Other

- Ref 86 letter (page 18) confirms liaising and collaboration with the project team took place by concept design stage

Ref 86 demonstrates compliance with this issue.

Ref 101 demonstrates compliance with this issue.

Ref 102 demonstrates compliance with this issue.

Ref 103 demonstrates compliance with this issue.

Ref 104 demonstrates compliance with this issue.

Ref 105 demonstrates compliance with this issue.

Ref 106 demonstrates compliance with this issue.

Ref 108 demonstrates compliance with this issue.

Ref 219 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 86	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 02, 07_09_2021.pdf	
Ref 101	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 02, 08_02_2021.pdf	
Ref 102	LLD2177-ARB-SCH-001-02, LE 02, Undated.pdf	
Ref 103	Lizard, TSL Ltd., LLD2177-ARB-REP-001-02, LE 02, 21_09_2021.pdf	
Ref 104	Lizard, TSL Ltd., LLD2177-ARB-DWG-001-03, LE 02, 21_09_2021.pdf	
Ref 105	Lizard, TSL Ltd., LLD2177-ARB-DWG-002-04, LE 02, 21_09_2021.pdf	
Ref 106	LLD2177-ECO-REP-001-02, LE 02, Undated.pdf	
Ref 108	Bradley, Steven, Havant LE02 ecological outcomes, LE 02, 28_09_2021.pdf	
Ref 219	George Sayer, Steven Russell, LLD2177-GN40, LE 02, 08_12_2021.pdf	

LE 03: Managing impacts on ecology > 1. Ecological risks and opportunities

Credits Achieved:	Pre-Requisite met: Yes
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Mandatory Requirements:	None
Aim:	To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Validation Statement

Criterion 1

- LE 02 Comprehensive route (route 2) taken and completed
- Ref 113 is the Ecology report outlining the recommendations
- Ref 220 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 - Managing Negative Impacts on Ecology (page 21) confirms the pre-requisite has been met.
- Ref 232 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.

Ref 55 demonstrates compliance with this issue.

Ref 113 demonstrates compliance with this issue.

Ref 220 demonstrates compliance with this issue.

Ref 232 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 55	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 03, 07_09_2021.pdf	
Ref 113	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 03, 08_02_2021.pdf	
Ref 220	George Sayer, Steven Russell, LLD2177-GN40, LE 03, 08_12_2021.pdf	
Ref 232	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 03, 08_12_2021.xlsx	

LE 03: Managing impacts on ecology > 2. Planning and measures on-site

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Validation Statement

Criterion 2

- Ref 111 is the ecology report that outlines the recommendations. Ref 114, ref 115, ref 116, and ref 117 are additional reports from the ecologist and drawings showing locations of trees to be protected
- Ref 110 is a meeting minutes report document from the project team, including the ecologist, client, architects, and the contractor. The ecologist's recommendations were discussed, with section 3 discussing further planning in line with the methodology section of the BREEAM manual.

Criterion 3

- Ref 110 is a meeting minutes report document from the project team, including the ecologist, client, architects, and the contractor. The ecologist's recommendations were discussed, with section 3 discussing further planning, providing actionable tasks for individuals and took into consideration resources and dates.

Criterion 4

- Ref 110 is a meeting minutes report document from the project team, including the ecologist, client, architects, and the contractor. The ecologist's recommendations were discussed and plans made before

site works for monitoring to continue throughout and named Charlie O'Sullivan from TSL as the person tasked with ensuring this.

- Ref 56 is a compliance letter confirming that the design team made efforts to avoid and manage negative ecological impacts on-site – during site preparation and construction - before the Concept Design stage. (page 18)

Other

- Ref 155 Construction programme
- Ref 156 Responsibilities
- Ref 221 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 corroborates the evidence above
- Ref 237 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.

Ref 56 demonstrates compliance with this issue.

Ref 110 demonstrates compliance with this issue.

Ref 111 demonstrates compliance with this issue.

Ref 114 demonstrates compliance with this issue.

Ref 115 demonstrates compliance with this issue.

Ref 116 demonstrates compliance with this issue.

Ref 117 demonstrates compliance with this issue.

Ref 155 demonstrates compliance with this issue.

Ref 156 demonstrates compliance with this issue.

Ref 221 demonstrates compliance with this issue.

Ref 237 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 56	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 03, 07_09_2021.pdf	
Ref 110	Bradley, Steven, Havant LE02 ecological outcomes, LE 03, 28_09_2021.pdf	
Ref 111	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 03, 08_02_2021.pdf	
Ref 114	LLD2177-ARB-SCH-001-02, LE 03, Undated.pdf	
Ref 115	Lizard, TSL Ltd., LLD2177-ARB-REP-001-02, LE 03, 21_09_2021.pdf	
Ref 116	Lizard, TSL Ltd., LLD2177-ARB-DWG-001-03, LE 03, 21_09_2021.pdf	
Ref 117	Lizard, TSL Ltd., LLD2177-ARB-DWG-002-04, LE 03, 21_09_2021.pdf	
Ref 155	Bradley Pearce, Steven Russell, DPO1 Havant Construction Programme 09-07-21, LE 03, 11_10_2021.pdf	
Ref 156	Bradley Pearce, Steven Russell, IES Responsibilities Template 30.07.2021, LE 03, 11_10_2021.pdf	
Ref 221	George Sayer, Steven Russell, LLD2177-GN40, LE 03, 08_12_2021.pdf	
Ref 237	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 03, 08_12_2021.xlsx	

LE 03: Managing impacts on ecology > 3. Managing negative impacts of the project

Credits Achieved:	2 out of 2
Mandatory Requirements:	None
Aim:	To avoid, or limit as far as possible, negative ecological impacts associated with the site and surrounding areas resulting from the project.

Validation Statement

Criterion 7

- Criteria 2-4 has been achieved.

Criterion 8a

- Ref 222 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 - Managing negative impacts of the site / project (page 23) confirms no overall loss of ecological value has occurred.
- Ref 87 is a compliance letter from the principal contractor that confirms they will manage and mitigate negative impacts from site preparation and construction in line with the SQE's recommendations, so there will be no overall loss of ecological value. (page 18)
- Ref 112 is an ecology report from Lizard Landscape Design and Ecology. This is the report referenced in the GN40 (ref 222) by the SQE as evidence of no overall loss.
- Ref 236 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.

Ref 87 demonstrates compliance with this issue.

Ref 112 demonstrates compliance with this issue.

Ref 222 demonstrates compliance with this issue.

Ref 236 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 87	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 03, 07_09_2021.pdf	
Ref 112	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 03, 08_02_2021.pdf	
Ref 222	George Sayer, Steven Russell, LLD2177-GN40, LE 03, 08_12_2021.pdf	
Ref 236	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 03, 08_12_2021.xlsx	

LE 04: Ecological change and enhancement > 1. Managing negative impacts on ecology

Credits Achieved:	LE 03 has been achieved? Yes
Mandatory Requirements:	None
Aim:	To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Validation Statement

Criterion 1

- Criterion 8 in LE 03 has been achieved

Criterion 2

- Ref 223 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 Assessment issue: Change and Enhancement of Ecological Value Assessment Issue (point 3) (page 25) confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.
- Ref 132 is the ecology report from Lizard Landscape Design and Ecology and is referenced in the GN40 document (ref 223) as evidence of compliance.

Other

- Ref 157 is a construction programme from the principal contractor confirming when mitigations will take place
- Ref 158 is a responsibilities document confirming who is involved in mitigation efforts
- Ref 233 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.

Ref 57 demonstrates compliance with this issue.

Ref 132 demonstrates compliance with this issue.

Ref 157 demonstrates compliance with this issue.

Ref 158 demonstrates compliance with this issue.

Ref 223 demonstrates compliance with this issue.

Ref 233 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 57	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 04, 07_09_2021.pdf	
Ref 132	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 04, 08_02_2021.pdf	
Ref 157	Bradley Pearce, Steven Russell, DPO1 Havant Construction Programme 09-07-21, LE 04, 11_10_2021.pdf	
Ref 158	Bradley Pearce, Steven Russell, IES Responsibilities Template 30.07.2021, LE 04, 11_10_2021.pdf	
Ref 223	George Sayer, Steven Russell, LLD2177-GN40, LE 04, 08_12_2021.pdf	
Ref 233	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 04, 08_12_2021.xlsx	

LE 04: Ecological change and enhancement > 2. Change and enhancement of ecology

Credits Achieved:	3 out of 3
Mandatory Requirements:	None
Aim:	To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Validation Statement

Criterion 6

- Ref 224 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 Assessment issue: Change and Enhancement of Ecological Value Assessment Issue (point 3) (page 25) confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.
- Ref 230 is the ecology report from Lizard Landscape Design and Ecology and is referenced in the GN40 document (ref 224) as evidence of compliance.
- Ref 247 is a landscape drawing from Lizard Landscape Design and Ecology. It confirms the change and enhancement of ecology recommendations for the proposed project, in line with Ref 224 and Ref 230.
- Ref 58 is a compliance letter from the principal contractor, TSL. It confirms the ecological value will be calculated using the "Full methodology" as outlined in the BREEAM manual. (page 19)
- Ref 234 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.
 - Pre Development Linear (Foliage) Biodiversity Units = 1170
 - Linear (Foliage) Units Lost = 40
 - Linear (Foliage) Units created and/or Enhanced = 307
 - Total Post Development Linear (Foliage) Biodiversity Units = 1437
 - Biodiversity Unit Score = 122%

- According to the calculator tool 110% and above gives

Ref 58 demonstrates compliance with this issue.

Ref 224 demonstrates compliance with this issue.

Ref 230 demonstrates compliance with this issue.

Ref 234 demonstrates compliance with this issue.

Ref 247 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 58	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 04, 07_09_2021.pdf	
Ref 224	George Sayer, Steven Russell, LLD2177-GN40, LE 04, 08_12_2021.pdf	
Ref 230	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 04, 08_02_2021.pdf	
Ref 234	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 04, 08_12_2021.xlsx	
Ref 247	Lizard, TSL Ltd., LLD2177-ARB-DWG-001-03, LE 04, 21_09_2021.pdf	

LE 04: Ecological change and enhancement > 3. Ecological enhancement

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To enhance ecological value of the area associated with the site in support of local, regional and national priorities.

Validation Statement

Criterion 4a

- Ref 229 is a document confirming the outcome of the meeting with the project team and SQE in collaboration with representative stakeholders and data collated as part of the 'Determining ecological outcomes' in LE 02.
- Ref 225 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Page 26 confirms On site enhancement was pursued (**Criterion 4a**) but both were considered (**Criterion 4b**)
- Ref 231 is the ecology report from Lizard Landscape Design and Ecology and is referenced in the GN40 document (ref 225) as evidence of compliance.
- Ref 59 is a compliance letter from the principal contractor, TSL. It confirms that they will implement measures that enhance ecological value based on the inputs from the project team and the SQE (page 19)

Criterion 5

- Ref 225 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Page 26 confirms data collected are analysed is provided to the local environmental records centres
- Ref 59 is a compliance letter from the principal contractor, TSL. It confirms that data will be passed onto the relevant record centres (page 19)

Other

- Ref 235 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.
- Ref 248 is a landscape drawing from Lizard Landscape Design and Ecology. It confirms the change and enhancement of ecology recommendations for the proposed project, in line with Ref 225 and Ref 231.

Ref 59 demonstrates compliance with this issue.

Ref 225 demonstrates compliance with this issue.

Ref 229 demonstrates compliance with this issue.

Ref 231 demonstrates compliance with this issue.

Ref 235 demonstrates compliance with this issue.

Ref 248 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 59	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 04, 07_09_2021.pdf	
Ref 225	George Sayer, Steven Russell, LLD2177-GN40, LE 04, 08_12_2021.pdf	
Ref 229	Bradley, Steven, Havant LE02 ecological outcomes, LE 04, 28_09_2021.pdf	
Ref 231	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 04, 08_02_2021.pdf	
Ref 235	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 04, 08_12_2021.xlsx	
Ref 248	Lizard, TSL Ltd., LLD2177-ARB-DWG-001-03, LE 04, 21_09_2021.pdf	

LE 05: Long term ecological management and maintenance > 1. Statutory obligations, planning and site implementation

Credits Achieved:	Statutory obligations met? Yes
Mandatory Requirements:	None
Aim:	To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.

Validation Statement

Criterion 1

- Ref 187 is a letter from the principal contractor confirming that compliance is monitored against all relevant EU and UK legislation relating to the ecology of the site
- Ref 226 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (page 28) confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.

Criterion 2b

- Comprehensive route (Route 2) - Criterion 8 in LE 03 has been achieved, and at least one credit under LE04 for 'Change and Enhancement of Ecology' has been awarded.

Ref 60 demonstrates compliance with this issue.

Ref 187 demonstrates compliance with this issue.

Ref 226 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 60	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 05, 07_09_2021.pdf	
Ref 187	Bradley Pearce, Steven Russell, DPO1 Havant - LE 05 Long Term Ecological Management and Maintenance - 18.11.21, LE 05, 18_11_2021.pdf	
Ref 226	George Sayer, Steven Russell, LLD2177-GN40, LE 05, 08_12_2021.pdf	

LE 05: Long term ecological management and maintenance > 2. Management and maintenance throughout the project

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.

Validation Statement

Criterion 3

- Ref 227 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (pages 28 and 29) confirms measures have been implemented to manage and maintain ecology throughout the project. These were based on input from the project team and other relevant stakeholders (see LE 02)
- Ref 249 is a meeting minutes report document from the project team, including the ecologist, client, architects, and the contractor. The ecologist's recommendations were discussed and practical measures were made in collaboration with the project team and other relevant stakeholders
- Ref 245 is a landscape and ecological management plan from the SQE. Section 1.4 confirms measures are in place to monitor and review the effectiveness of the mitigation and enhancement measures.
 - "Maintenance prescriptions have been formulated to maximise the value of the site, ensure healthy plant growth, keep areas free of litter / weeds and ensure the species on-site remain free of pest, disease or other defects. It is anticipated that the initial landscape contractor as appointed by the contractor will be responsible for any defects identified within 12 months of implementation. After this 12-month period all management as detailed within this report will be undertaken by a suitable management company or contractor as appointed by the site owners and managers" (page 1)

Criterion 4

- Ref 227 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (page 29) confirms a section on Ecology and Biodiversity has been included as part of the tenant or building owner information supplied, to inform the owner or occupant of local ecological features, value and biodiversity on or near the site.
- Ref 245 is a landscape and ecological management plan from the SQE. Section 5 (page 7) provides a management plan for the long-term viability of the ecology on site.

Ref 61 demonstrates compliance with this issue.

Ref 227 demonstrates compliance with this issue.

Ref 245 demonstrates compliance with this issue.

Ref 249 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 61	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 05, 07_09_2021.pdf	
Ref 227	George Sayer, Steven Russell, LLD2177-GN40, LE 05, 08_12_2021.pdf	
Ref 245	George Sayer, Steven Russell, LLD2177-ECO-REP-002-00-LEMP, LE 05, 08_12_2021.pdf	
Ref 249	Bradley, Steven, Havant LE02 ecological outcomes, LE 05, 28_09_2021.pdf	

LE 05: Long term ecological management and maintenance > 3. Landscape and ecology management plan

Credits Achieved:	1 out of 1
Mandatory Requirements:	None

Aim:	To secure ongoing monitoring, management and maintenance of the site and its habitats and ecological features, to ensure intended outcomes are realised for the long term.
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Validation Statement

Criterion 5

- Ref 228 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 (page 29) confirms the Landscape and ecology management plan (ref 246) was developed in accordance with BS 42020:2013(206) and covers at least 5 years after completion. Furthermore, **Criterion 5a to 5e** were all deemed appropriate for this development.
- Ref 246 is a landscape and ecological management plan from the SQE.
 - **Criterion 5a** - Section 5 (page 7) provides a management plan for the long-term viability of the ecology on site.
 - Example: "Existing mature trees are to be inspected annually, or following periods of high winds, for signs of poor health or defects; remedial action will be taken where required. All work is to be undertaken by a suitably qualified tree surgeon" (Section 5.9.5 (page 14))
 - **Criterion 5b** - Section 3 (page 3) Ecological Value at handover & Section 5 (page 7) how this expected to change over time
 - **Criterion 5c** - Section 4 (page 4) Provides specific aims and objectives of the landscape management plan. This includes aims such as creating habitats that are visually appealing while providing ecosystem services and enhance ecological value; including for pollinators, and native and threatened species, for example:
 - "create areas of varied native shrubs, ideal for nesting birds, small mammals and invertebrates whilst also being visually attractive"" (Section 4.2.4 (page 4))
 - "create new and reinforce existing wildlife corridors along the boundaries of the site with new native tree planting, and to create visual features elsewhere in the site with ornamental tree planting" (Section 4.2.5 (page 4))
 - **Criterion 5d** - Section 5 (page 7) provides a management plan for the long-term viability of the ecology on site.
 - Section 5.9.1 to Section 5.9.11 (pages 13 to 15) outlines long-term management prescriptions. Example:
 - "Rectification of Defects - 5.9.1 The condition of the amenity lawn overall should be inspected and monitored on an annual basis over the management period. Should bare patches of grass develop during this time, the area is to be cultivated to 150mm and then seeded with amenity grass seed; to be cross-sown in two directions at right angles to each other (half the seed being used in each direction) at the rate of 35 gm per square metre and the ground lightly raked over on a still, dry day when the top 25 mm of soil is dry. Within the 30 year management period following monitoring due to condition it may be decided that the lawn should be re- seeded / re-turfed in its entirety" (page 13)
 - **Criterion 5e** - Section 5 (page 7) provides a management plan & Section 6 (page 16) provides an implementation schedule to give the plan specific timeframes
 - Example: "Every 5 years the species diversity of the wildflower meadow should be assessed and monitored during May / June by an ecologist" (Section 5.9.11 (page 15))

Criterion 6

- Ref 246 is a landscape and ecological management plan from the SQE. Section 1.4 confirms the landscape and ecological management plan will be updated to support the maintenance of the ecological value of the site.
 - "Maintenance prescriptions have been formulated to maximise the value of the site, ensure healthy plant growth, keep areas free of litter / weeds and ensure the species on-site remain free of pest, disease or other defects. It is anticipated that the initial landscape contractor as appointed by the contractor will be responsible for any defects identified within 12 months of implementation. After this 12-month period all management as

detailed within this report will be undertaken by a suitable management company or contractor as appointed by the site owners and managers" (page 1)

Ref 62 demonstrates compliance with this issue.

Ref 228 demonstrates compliance with this issue.

Ref 246 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 62	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, LE 05, 07_09_2021.pdf	
Ref 228	George Sayer, Steven Russell, LLD2177-GN40, LE 05, 08_12_2021.pdf	
Ref 246	George Sayer, Steven Russell, LLD2177-ECO-REP-002-00-LEMP, LE 05, 08_12_2021.pdf	

Pollution

Credits Achieved:	8 out of 12
% Achieved:	66.67%
Weighting:	9.00%
Weighted Score:	6.00%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Pol 01: Impact of refrigerants > 2. Refrigerant use : Pre-requisite	0	0	0.00%	0.00%
Pol 01: Impact of refrigerants > 2. Refrigerant use : Impact of refrigerant	2	1	50.00%	0.75%
Pol 01: Impact of refrigerants > 2. Refrigerant use : Leak detection	1	0	0.00%	0.00%
Pol 02: Local air quality	2	0	0.00%	0.00%
Pol 03: Flood and surface water management > 1. Pre-requisite	0	0	0.00%	0.00%
Pol 03: Flood and surface water management > 2. Flood resilience	2	2	100.00%	1.50%
Pol 03: Flood and surface water management > 3. Surface water run-off : Pre-requisite	0	0	0.00%	0.00%
Pol 03: Flood and surface water management > 3. Surface water run-off : Rate	1	1	100.00%	0.75%
Pol 03: Flood and surface water management > 3. Surface water run-off : Volume	1	1	100.00%	0.75%
Pol 03: Flood and surface water management > 5. Minimising watercourse pollution	1	1	100.00%	0.75%
Pol 04: Reduction of night time light pollution	1	1	100.00%	0.75%
Pol 05: Reduction of noise pollution	1	1	100.00%	0.75%
Total Score			6.00%	

Pol 01: Impact of refrigerants > 2. Refrigerant use : Pre-requisite

Credits Achieved:	Pre-Requisite met: Yes
Mandatory Requirements:	None
Aim:	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.

Validation Statement

Criterion 2

- Ref 188 is a mechanical tender specification document. It confirms all systems with electric compressors comply with the requirements of BS EN 378:2016 (parts 2 and 3). (page 186)
- Ref 63 is a compliance letter from the principal contractor, TSL. The letter confirms that all systems (with electric compressors) will comply with the requirements of BS EN 378:2016 (parts 2 and 3) and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice will be followed. Systems using refrigerants will have a Direct Effect Life Cycle CO₂ Equivalent Emissions (DELCE) of ≤1000kgCO₂e/kW cooling/heating capacity. We will provide calculations confirming this. (page 19)

Ref 63 demonstrates compliance with this issue.

Ref 188 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 63	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 01, 07_09_2021.pdf	
Ref 188	John Griffiths, Havant Propert Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Pol 01, 05_10_2021.pdf	

Pol 01: Impact of refrigerants > 2. Refrigerant use : Impact of refrigerant

Credits Achieved:	1 out of 2
Mandatory Requirements:	None
Aim:	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.

Validation Statement

Criterion 3 & 4

- not relevant

Criterion 5

- Ref 152 is a mechanical specification document for the project. It confirms that all systems using refrigerants (when combined) will have a direct effect life cycle CO2 equivalent emissions (DELCO) of $\leq 1000\text{kgCO}_2\text{ eq/kW}$ cooling and heating capacity (page 187)
- Ref 77 is a compliance letter from the principal contractor, TSL. The letter confirms that all systems (with electric compressors) will comply with the requirements of BS EN 378:2016 (parts 2 and 3) and where refrigeration systems containing ammonia are installed, the Institute of Refrigeration Ammonia Refrigeration Systems Code of Practice will be followed. Systems using refrigerants will have a Direct Effect Life Cycle CO2 Equivalent Emissions (DELCO) of $\leq 1000\text{kgCO}_2\text{e/kW}$ cooling/heating capacity. We will provide calculations confirming this. (page 19)
- Ref 252 is a copy of the completed Pol 01 Calculator tool. It confirms 1 credit can be awarded.

Ref 77 demonstrates compliance with this issue.

Ref 152 demonstrates compliance with this issue.

Ref 252 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 77	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 01, 07_09_2021.pdf	
Ref 152	John Griffiths, Havant Proptert Investments LLP, 10290-MEC-01 Mechanical Tender Specification 01, Pol 01, 05_10_2021.pdf	
Ref 252	Steven Russell, Steven Russell, Havant BREEAM_2013_Pol01_calculator_v3.0 Havant, Pol 01, 19_12_2021.pdf	

Pol 01: Impact of refrigerants > 2. Refrigerant use : Leak detection

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce the level of greenhouse gas emissions arising from the leakage of refrigerants from building systems.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Pol 02: Local air quality

Credits Achieved:	0 out of 2
Mandatory Requirements:	None
Aim:	To contribute to a reduction in local air pollution through the use of low emission combustion appliances in the building.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Pol 03: Flood and surface water management > 1. Pre-requisite

Credits Achieved:	Has an appropriate consultant demonstrated and confirmed the development's compliance with all sought credits? Yes
Mandatory Requirements:	None
Aim:	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.

Validation Statement

Criterion 1

- Ref 126, and Ref 127 are reports from Pinnacle for flood risk and drainage, confirming appropriate consultants were used.
- Ref 64 is a compliance letter from the principal contractor, TSL. The letter confirms that a site-specific flood risk assessment (FRA) will be undertaken (by a suitably qualified consultant) to confirm the level of flood risk the site is exposed to. This will consider all sources of flooding. Where the development is identified as being at risk from flooding, one of the following will be implemented:
 - The ground level of the building and access to both the building and the site, will be designed(or zoned) so they are at least 600mm above the design flood level of the flood zone in which the assessed development is located;
 - or
 - The final design of the building and the wider site will reflect the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2017. (page 19 and 20)

Ref 64 demonstrates compliance with this issue.

Ref 126 demonstrates compliance with this issue.

Ref 127 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 64	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 03, 07_09_2021.pdf	
Ref 126	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-01_5.0, Pol 03, Undated.pdf	
Ref 127	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-02 Drainage Strategy(11), Pol 03, 22_09_2021.pdf	

Pol 03: Flood and surface water management > 2. Flood resilience

Credits Achieved:	2 out of 2
Mandatory Requirements:	None
Aim:	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.

Validation Statement

Criterion 2

- Ref 121 is a flood risk assessment. Section 4.1 (page 12) confirms "the site is located within a Flood Zone 1 'Low Probability' area and therefore lies outside an area at risk of fluvial/tidal flooding". The assessment took all sources of flooding into consideration, as outlined in Section 4 (starting on page 12).

Criterion 3

- Not relevant

Criterion 4

- not relevant

Other

- Ref 65 is a compliance letter from the principal contractor, TSL. The letter confirms that a site-specific flood risk assessment (FRA) will be undertaken (by a suitably qualified consultant) to confirm the level of flood risk the site is exposed to. This will consider all sources of flooding. Where the development is identified as being at risk from flooding, one of the following will be implemented:
 - The ground level of the building and access to both the building and the site, will be designed(or zoned) so they are at least 600mm above the design flood level of the flood zone in which the assessed development is located;
 - or
 - The final design of the building and the wider site will reflect the recommendations made by an appropriate consultant in accordance with the hierarchy approach outlined in section 5 of BS 8533:2017. (page 19 and 20)

Ref 65 demonstrates compliance with this issue.

Ref 121 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 65	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 03, 07_09_2021.pdf	
Ref 121	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-01_5.0, Pol 03, 16_07_2021.pdf	

Pol 03: Flood and surface water management > 3. Surface water run-off : Pre-requisite

Credits Achieved:	Surface water run-off prerequisite met? Yes
Mandatory Requirements:	None
Aim:	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.

Validation Statement

Criterion 5

- Ref 122 is a drainage strategy report based on the flood risk assessment, both from Pinnacle.
 - Section 1 (starting page 3) outlines the site specific requirements and natural or man-made environment of and surrounding the site.
 - Section 2 (starting page 5) also outlines the existing drainage for the site.
 - Section 3 (starting page 6) outlines the bespoke drainage strategy for the proposed development, including justification of where water is allowed to leave the site, taking into consideration the infrastructure of the surrounding area. Priority levels were followed, for example, due to most of the site being impermeable car parking, priority recommendation was given to infiltration into the ground, rather than discharged into the sewer system by using permeable block paving for car parking spaces (see conclusion section)
- Ref 66 is a compliance letter from the principal contractor, TSL. The letter confirms that an appropriate consultant has been appointed to undertake the required calculations to provide that post construction surface water runoff rates and volumes are no greater than the pre-developed site and provide the information as detailed in the BRE's Guidance Note 38. The proposed drainage solution will be bespoke to the site.
 - Calculations will also confirm that flooding will not occur in the event of a local drainage system failure, AND:
 - Post development run off volume will be no greater than the volume prior to the development
 - Any additional volume of run off will be prevented from leaving the site through the use of SUDS

- Relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS will be in place for Completion.
Calculations will include an allowance for climate change.

Ref 66 demonstrates compliance with this issue.

Ref 122 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 66	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 03, 07_09_2021.pdf	
Ref 122	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-02 Drainage Strategy(11), Pol 03, 22_09_2021.pdf	

Pol 03: Flood and surface water management > 3. Surface water run-off : Rate

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-site and off-site, watercourse pollution and other environmental damage.

Validation Statement

Criterion 6

- Ref 123 is a drainage strategy from Pinnacle.
 - "The brownfield runoff rate calculated using the Modified Rational Method was 361.80l/s. As part of our proposal, a rate of 395l/s (over 50% betterment) has been proposed to discharge into the existing network" (page 13)

Criterion 7

- This is not a greenfield site, so this is not relevant

Criterion 8

- Ref 78 is a compliance letter from the principal contractor, TSL. The letter confirms that relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS will be in place for Completion.

Criterion 9

- Ref 123 is a drainage strategy from Pinnacle. All calculations include allowances for climate change, as see throughout the report.

Ref 78 demonstrates compliance with this issue.

Ref 123 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 78	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 03, 07_09_2021.pdf	
Ref 123	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-02 Drainage Strategy(11), Pol 03, 22_09_2021.pdf	

Pol 03: Flood and surface water management > 3. Surface water run-off : Volume

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on-

site and off-site, watercourse pollution and other environmental damage.
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Validation Statement

Criterion 10

- not relevant

Criterion 11

- Ref 124 is a drainage strategy from Pinnacle.
 - Section 3.4 - "The attenuation volume required for the proposed development has been modelled in MicroDrainage (see Appendix H). Based on calculations designed to meet the storage demand for all events up to and including a 1 in 100 years + climate change event (20%), a total cellular attenuation storage capacity of 1046.15m3 (excluding storage capacity from high-capacity slot drainage channels and permeable paving) will be required for the total site" (page 9). The drainage design measures are specified so that the post-development run-off does not exceed the predevelopment run-off.

Criterion 12

- Ref 124 is a drainage strategy from Pinnacle.
 - Section 3.4 - "Due to the nature of the development, most of the site is impermeably surfaced and opportunities for SuDS features are limited. Car parking bays are to be permeable block paving. The surface water runoff from van parking areas, loading docks and the access road will pass through high-capacity slot drainage channels, gullies and filtered through the petrol interceptor before they enter the designated cellular storage tanks" (page 9)

Criterion 13

- Not relevant

Criterion 14

- Not Relevant

Criterion 15

- Ref 79 is a compliance letter from the principal contractor, TSL. The letter confirms that relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS will be in place for Completion.

Criterion 16

- Ref 124 is a drainage strategy from Pinnacle. All calculations throughout the report take into consideration climate change

Ref 79 demonstrates compliance with this issue.

Ref 124 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 79	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 03, 07_09_2021.pdf	
Ref 124	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-02 Drainage Strategy(11), Pol 03, 22_09_2021.pdf	

Pol 03: Flood and surface water management > 5. Minimising watercourse pollution

Credits Achieved:	1 out of 1
Mandatory Requirements:	None

Aim:	To avoid, reduce and delay the discharge of rainfall to public sewers and watercourses, thereby minimising the risk and impact of localised flooding on and off-site, watercourse pollution and other environmental damage.
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Validation Statement

Criterion 17

- Ref 80 is a compliance letter from the principal contractor, TSL. The letter confirms that the appropriate consultant will be required to confirm that there will be no discharge from the developed site for rainfall up to 5mm or give valid reasons why this cannot be achieved.
- Ref 159 is an addendum from Pinnacle Consulting Engineers confirming no discharge from the developed site for rainfall up to 5mm

Criterion 18

- Ref 125 is a drainage strategy from Pinnacle. Section 3.4 states that "Due to the nature of the development, most of the site is impermeably surfaced and options for SuDS features are limited. Car parking bays are to be permeable block paving" (page 9)

Criterion 19

- Ref 125 is a drainage strategy from Pinnacle. Section 3.4 states that "the surface water runoff from van parking areas, loading docks and the access road will pass through high-capacity slot drainage channels, gullies and filtered through the petrol interceptor before they enter the designated cellular storage tanks. Petrol interceptor will prevent potential contaminants that are present in the form of hydrocarbons from oil spillages from reaching into the underground storage tanks. Flows will then be restricted to prescribed discharge rates by using flow control devices (hydrobrakes) before discharging into the two outfall points within New Lane" (page 9)

Criterion 20

- not relevant

Criterion 21

- Ref 125 is a drainage strategy from Pinnacle. Section 3.2 outlines the planning permission criteria required for this development. This includes the requirement that the solutions be bespoke and take into consideration the local environment and infrastructure. (page 7 and 8)

Criterion 22

- Ref 80 is a compliance letter from the principal contractor, TSL. The letter confirms that guides of the drainage plan will be provided to the building occupier. (page 20)

Criterion 23

- Ref 80 is a compliance letter from the principal contractor, TSL. The letter confirms that relevant maintenance agreements for the ownership, long term operation and maintenance of all specified SuDS will be in place for Completion. (page 20)

Criterion 24

- Ref 80 is a compliance letter from the principal contractor, TSL. The letter confirms that all external storage and delivery areas will be designed in accordance with best practice guidelines. (page 20)

Other

- Ref 80 is a compliance letter from the principal contractor, TSL. The letter confirms that the appropriate consultant will be required to confirm that there will be no discharge from the developed site for rainfall up to 5mm or give valid reasons why this cannot be achieved. Surface water drainage systems will have separators included, to prevent substances such as petrol and oil from draining into the land. He/She will also be required to provide appropriate advice on which pollution prevention systems (in accordance with

Pollution Prevention Guides 3 & 13 and the SuDS manual) are applicable to this site. Guides of the drainage plan will be provided to the building occupier.

Ref 80 demonstrates compliance with this issue.

Ref 125 demonstrates compliance with this issue.

Ref 159 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 80	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 03, 07_09_2021.pdf	
Ref 125	Pinnacle Consulting Engineers, TSL Ltd., C200810-PIN-XX-XX-RP-C-02 Drainage Strategy(11), Pol 03, 22_09_2021.pdf	
Ref 159	Richard Pearson, Steven Russell, Havant Drainage Strategy Addendum, Pol 03, 18_10_2021.pdf	

Pol 04: Reduction of night time light pollution

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To ensure that external lighting is concentrated in the appropriate areas and that upward lighting is minimised, thereby reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.

Validation Statement

Criterion 1

- Not relevant

Criterion 2

- Ref 67 is a compliance letter from the principal contractor, TSL. The letter confirms that the external lighting strategy will be designed and installed in compliance with Table 2 (and its accompanying notes) of the ILP Guidance notes for the reduction of obtrusive light, 2011.

Criterion 3

- Ref 67 is a compliance letter from the principal contractor, TSL. The letter confirms that all external lighting (except for safety and security lighting) will be automatically switched off between 23:00 hr and 07:00 hr. (page 20)

Criterion 4

- Ref 67 is a compliance letter from the principal contractor, TSL. The letter confirms that all safety/security lighting provided that will be used between 23:00 hr and 07:00 hr, will comply with the lower levels of lighting recommended during these hours in Table 2 of the ILP's Guidance notes, for example by using an automatic switch to reduce the lighting levels at 23:00 hr or earlier. (page 20)

Criterion 5

- Ref 67 is a compliance letter from the principal contractor, TSL. The letter confirms that illuminated advertisements have not been specified. (page 20)

Other

- Ref 148 is a Lux plot and Luminaire Schedule showing the external lighting design

Ref 67 demonstrates compliance with this issue.

Ref 148 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 67	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 04, 07_09_2021.pdf	
Ref 148	John Griffiths, Havant Proptert Investments LLP, 10290-PL-100C External Lighting Lux Level Plot, Pol 04, 01_02_2021.pdf	

Pol 05: Reduction of noise pollution

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To reduce the likelihood of noise arising from fixed installations on the new development affecting nearby noise-sensitive buildings.

Validation Statement

Criterion 1

- not relevant

Criterion 2

- The noise assessment (ref 5) is compliant with BS 4142:2014 (page 4). Table 3.3 and Figure 3.1 (pages 8 and 9) show the location of the noise receptors, with confirmation that these represent the worst case scenario. Table 4.3 (page 13) shows the results of the background noise levels.

Criterion 3

- Ref 5 is a noise assessment for the proposed development. Prepared by Lewis Kelter AMIOA, and approved by Nigel Mann MIOA, both are suitably qualified.

Criterion 4

- The noise assessment (ref 5) confirms the noise from the proposed development will be at "least 10dB below the existing background noise level during the worst-case night-time period at the closest sensitive receptor locations" (page 18).

Criterion 5

- not relevant

Ref 5 demonstrates compliance with this issue.

Ref 68 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 5	Tetra Tech, Havant Proptert Investments LLP, A118298 New Lane Havant NOISE 22jan21, Pol 05, 21_01_2021.pdf	
Ref 68	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Pol 05, 07_09_2021.pdf	

Innovation

Credits Achieved:	2 out of 10
% Achieved:	20.00%
Weighting:	10.00%
Weighted Score:	2.00%

Criteria	Credits Available	Credits Achieved	% Achieved	Weighted Score
Inn 01: Innovation	10	0	0.00%	0.00%
Man 03: Responsible construction practices > 1. Responsible construction management	1	1	100.00%	1.00%
Hea 01: Visual comfort > 1. Daylighting	1	0	0.00%	0.00%
Hea 06: Security	1	0	0.00%	0.00%
Ene 01: Reduction of energy use and carbon emissions > 1. Energy performance	3	0	0.00%	0.00%
Ene 01: Reduction of energy use and carbon emissions > 2. Prediction of operational energy consumption : Post-occupancy stage	2	0	0.00%	0.00%
Wat 01: Water consumption	1	0	0.00%	0.00%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 1. Core building services options appraisal during Concept Design	1	0	0.00%	0.00%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 2. LCA and LCC alignment	1	0	0.00%	0.00%
Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 3. Third party verification	1	0	0.00%	0.00%
Mat 03: Responsible sourcing of construction products	1	0	0.00%	0.00%
Wst 01: Construction waste management > 1. Construction resource efficiency	1	0	0.00%	0.00%
Wst 02: Use of recycled and sustainably sourced aggregates	1	0	0.00%	0.00%
Wst 05: Adaptation to climate change	1	0	0.00%	0.00%
LE 02: Ecological risks and opportunities	1	0	0.00%	0.00%
LE 04: Ecological change and enhancement	1	1	100.00%	1.00%
Total Score			2.00%	

Inn 01: Innovation

Credits Achieved:	0 out of 10
Mandatory Requirements:	None
Aim:	To support innovation within the construction industry through the recognition of sustainability-related benefits which are not rewarded by standard BREEAM issues.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Man 03: Responsible construction practices > 1. Responsible construction management

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To recognise and encourage construction sites which are managed in an environmentally and socially considerate, responsible and accountable manner.

Validation Statement

Criterion 8 & 9

- Ref 254 is a compliance letter from the principal contractor, TSL. The letter confirms that they will achieve the following mandatory responsible construction management items:
 1. Vehicle Movement
 2. Pollution Management:
 3. Tidiness:
 4. Health and Wellbeing
 5. Training, Awareness and Feedback
 6. Monitoring & Reporting
- The letter also confirms that they will achieve at least all 9 required items as well as the rest required for the exemplary criteria of the following:
 7. Vehicle Movement
 8. Pollution
 9. Health and Wellbeing
 10. Security Processes
 11. Training, Awareness and Feedback
 12. Monitoring and Reporting
- Finally, they also aim to achieve a CCS score of 40+ with at least 7 in each section (page 4 and 5)

Ref 254 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 254	Bradley Pearce, Steven Russell, 529-Havant BREEAM DS Compliance Letter_SC_TSL, Man 03, 07_09_2021.pdf	

Hea 01: Visual comfort > 1. Daylighting

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage best practice in visual performance and comfort by ensuring daylighting, artificial lighting and occupant controls are considered.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Hea 06: Security

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage the planning and implementation of effective measures that provide an appropriate level of security to the building and site.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Ene 01: Reduction of energy use and carbon emissions > 1. Energy performance

Credits Achieved:	0 out of 3
Mandatory Requirements:	None
Aim:	To minimise operational energy demand, primary energy consumption and CO2 emissions.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Ene 01: Reduction of energy use and carbon emissions > 2. Prediction of operational energy consumption : Post-occupancy stage

Credits Achieved:	0 out of 2
Mandatory Requirements:	None
Aim:	To minimise operational energy demand, primary energy consumption and CO2 emissions.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Wat 01: Water consumption

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce the consumption of potable water for sanitary use in new buildings through the use of water efficient components and water recycling systems.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 1. Core building services options appraisal during Concept Design

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 2. LCA and LCC alignment

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Mat 01: Environmental impacts from construction products - Building life cycle assessment (LCA) > 3. Third party verification

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce the burden on the environment from construction products by recognising and encouraging measures to optimise construction product consumption efficiency and the selection of products with a low environmental impact (including embodied carbon), over the life cycle of the building.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Mat 03: Responsible sourcing of construction products

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To facilitate the selection of products that involve lower levels of negative environmental, economic and social impact across their supply chain including extraction, processing and manufacture.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Wst 01: Construction waste management > 1. Construction resource efficiency

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To reduce construction waste by encouraging reuse, recovery and best practice waste management practices to minimise waste going to landfill.

Validation Statement

0 credits achieved out of 1 available.

Schedule of Evidence

No documents have been provided.

Wst 02: Use of recycled and sustainably sourced aggregates

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To encourage the use of more sustainably sourced aggregates, encourage reuse where appropriate and avoid waste and pollution arising from disposal of demolition and other forms of waste.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

Wst 05: Adaptation to climate change

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To minimise the future need of carrying out works to adapt the building to take account of more extreme weather changes resulting from climate change and changing weather patterns.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

LE 02: Ecological risks and opportunities

Credits Achieved:	0 out of 1
Mandatory Requirements:	None
Aim:	To determine the ecological baseline and zone of influence of the site and identify risks and opportunities for achieving optimum outcomes.

Validation Statement

Not targeted.

Schedule of Evidence

No documents have been provided.

LE 04: Ecological change and enhancement

Credits Achieved:	1 out of 1
Mandatory Requirements:	None
Aim:	To enhance the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.

Validation Statement

Criterion 6

- Ref 243 is a GN40 document completed by George Sayer, the senior ecologist from Lizard Landscape Design and Ecology.
 - Section C2 Assessment issue: Change and Enhancement of Ecological Value Assessment Issue (point 3) (page 25) confirms compliance is monitored against all relevant UK, EU or international legislation relating to the ecology of the site.
- Ref 242 is the ecology report from Lizard Landscape Design and Ecology and is referenced in the GN40 document (ref 224) as evidence of compliance.
- Ref 241 is the change in ecological value calculator completed by the SQE. It confirms no loss in ecological value will occur. With the post-development having a higher Biodiversity Unit Score than pre-development.
 - Pre Development Linear (Foliage) Biodiversity Units = 1170
 - Linear (Foliage) Units Lost = 40
 - Linear (Foliage) Units created and/or Enhanced = 307
 - Total Post Development Linear (Foliage) Biodiversity Units = 1437
 - Biodiversity Unit Score = 122%
 - According to the calculator tool 110% and above gives

Ref 241 demonstrates compliance with this issue.

Ref 242 demonstrates compliance with this issue.

Ref 243 demonstrates compliance with this issue.

Schedule of Evidence

Reference	File Name	Compliance Refs
Ref 241	George Sayer, Steven Russell, LLD2177 - BREEAM-CEEQUAL-HQM-Change-in-Ecological-Value-Calculator-v3.3, LE 04, 08_12_2021.xlsx	
Ref 242	Lizard, TSL Ltd., LLD2177-ECO-REP-001-02, LE 04, 08_02_2021.pdf	
Ref 243	George Sayer, Steven Russell, LLD2177-GN40, LE 04, 08_12_2021.pdf	