BREEAM Pre-Assessment Report

Site: Camden Goods Yard- PFS Site- Juniper Building Revisions

Client: St George West London Limited West London Limited (SGWL)

Revision: 05

Date: August 2022

Revision History

Revision	Issue date	Description	Issued by	Checked by
01	18/07/22	First Issue	WOB	EW
02	19/07/22	Report Updates	WOB	EW
03	21/07/22	Updated Site Plans	WOB	EW
04	17/08/22	Floor area update	WOB	EW
05	22/08/22	Planning Issue	WOB	EW

Calculations contained within this report have been produced based on information supplied by the client and the design team. Any alterations to the technical specification on which this report is based, will invalidate its findings.

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1. EXECUTIVE SUMMARY

Energist UK has been appointed by St George West London Limited to carry out the BREEAM Assessments at Camden Goods Yard- Petrol Filling Station (PFS) site also known as the Juniper Building. A Shell Only BREEAM 2014 New Construction Assessment will be completed for the retail uses and a Shell and Core BREEAM 2014 New Construction Assessment will be completed for the office uses. This is in order to achieve a BREEAM rating of 'Excellent', to satisfy planning conditions set out by the Local Planning Authority; London Borough of Camden.

This report is included under the minor material amendment for the PFS site as a site specific update to the June 2017 BREEAM Pre-Assessment completed by BBS for the detailed planning application for the wider site. The June 2017 report was part of the extant permissions documentation for the Site. The BREEAM assessment for the wider Camden Goods Yard Site is unaffected by this revision document and a separate strategy is in place to achieve Excellent for this.

This report details the Pre-Assessment stage performance of the aforementioned development as measured against the BRE Environmental Assessment Method, BREEAM 2014 New Construction (SD5076 Issue 5.0). The site has been registered with Building Research Establishment, BREEAM UK registration type: New Construction 2014, (BREEAM-0093-8712) and (BREEAM-0093-8704).

The Pre-Assessment report demonstrates that the development has the potential to achieve a score of at least 70%, which equates to an 'Excellent' BREEAM rating. This allows the development to reach the minimum requirements as stated by London Borough of Camden.

The score is subject to complying with all the detailed requirements during the formal assessment stage and providing documentation in line with BREEAM criteria.

Overall Building Performance

Building name	Juniper Building Offices
Indicative BREEAM rating	Excellent
Indicative Total Score	77.8%

Overall Building Performance

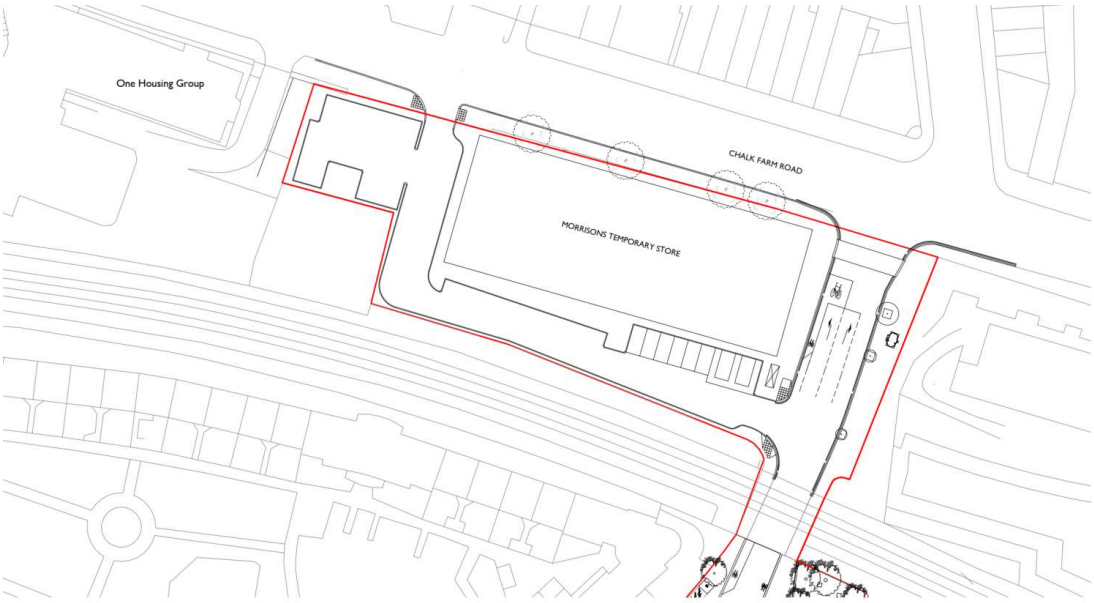
Building name	Juniper Building Retail
Indicative BREEAM rating	Excellent
Indicative Total Score	72.2%

(For Planning Department Use-Figure 1.1: Showing performance of development)

2. INTRODUCTION

The Application Site is the whole Camden Goods Yard Site, this BREEAM Pre-Assessment however is for the Petrol Filling Station parcel of the Site which is currently undergoing a minor material amendment application. The PFS Site is currently in use as a temporary Morrisons store. It is located adjacent to the railway line and fronts onto Chalk Farm Road in Camden. The relevant part of the Camden Goods Yard red line boundary is shown in Figure 2.1 below.

The Site lies within the London Borough of Camden; who require a BREEAM rating of 'Excellent'. The Site is located in a predominantly residential setting to the north and the south but with significant National Rail infrastructure to the East and West of the site.



(For Planning Department Use-Figure 2.1: Application site)

The proposed amendments to the consented Juniper Building include the removal of the petrol filling station provision, reconfiguration of the ground floor to incorporate an electric vehicle (EV) charging station (4 bays), additional office and retail space, servicing and refuse space, widening of the building westward by c. 6 metres resulting in additional office floorspace (approximately 2,207 sqm (GIA) across all levels), internal reconfiguration of the Corner Building commercial uses by converting the retail floorspace on level 2 to office

floorspace, retaining retail on Levels 3 and 4 including the Winter Garden above".

The plan for the Proposed Development under the minor material amendment application is shown in Figure 2.2 below.

(For Planning Department Use-Figure 2.2: Proposed site)

A BREEAM Pre-Assessment was originally completed by BBS in June 2017 for the detailed planning application for the wider site. This report covered office and retail uses but was a generic document and not specific to the PFS Site Proposed Development. As such this report provides a site specific BREEAM Pre-Assessment strategy to achieve the required rating of BREEAM Excellent in full compliance with planning policy requirements. The June 2017 report was part of the extant permissions documentation for the Site. The BREEAM assessment for the wider Camden Goods Yard Site is unaffected by this revision document and a separate strategy is in place to achieve Excellent for this.

3. METHODOLOGIES

The Building Research Establishment Environmental Assessment Method ('BREEAM' hereafter) is an environmental assessment method for rating and certifying the performance of new construction projects. It is a national standard for use in the design and construction of all new developments with a view to encouraging continuous improvement in sustainable building techniques.

The BREEAM Scheme is designed to evolve with increasingly tightening Building Regulations, and the development of technology and innovations, with the most recent version of BREEAM placing a greater emphasis on overall life cycle efficiencies and stakeholder participation.

The BREEAM Scheme covers nine categories of sustainable design (each of which contains a number of environmental issues), comprising:

- Management;
- Health & Wellbeing;
- Energy;
- Transport;
- Water;
- Materials;
- Waste;
- Land Use and Ecology; and
- Pollution.

A further 'Innovation' section is provided to award developments that exceed the levels set out in the standard criteria, where exemplary performance levels are achieved. Each issue is a source of environmental impact which can be assessed against a performance target and awarded one or more credits. In addition to meeting minimum standards (which vary according to the BREEAM rating sought), achievement of the requirements in each design category scores a number of percentage points. The overall total percentage 'score' then determines the BREEAM Rating achieved by the assessed development.

Scoring system

Credits are available for each category meeting the specified levels of performance. The number of credits available in each category does not

necessarily reflect the relative importance of the issues being assessed, and will vary depending on the developments' Scheme type. Before the final score is calculated, each of the scores in the nine categories is multiplied by an 'Issue Weighting Factor' before the final score is calculated.

The BREEAM Rating is awarded on the basis of achieving both a set of mandatory minimum standards and a score level as set out above. The minimum standards vary depending on the rating required.

Minimum standards

Before the development can start to be awarded points under BREEAM 2014 it must achieve the minimum standards for BREEAM Excellent in the following highlighted categories:

Minimum standards for each rating level					
	Pass	Good	Very Good	Excellent	Outstanding
MAN 03: Responsible construction practices	None	None	None	One credit (considerate construction)	Two Credits (considerate construction)
MAN 04: Commissioning and handover	None	None	None	Criterion 10 (Building User Guide)	Criterion 10 (Building User Guide)
MAN 05: Aftercare	None	None	None	One credit (Seasonal commissioning)	One credit (Seasonal commissioning)
ENE 01: Reduction of energy use and carbon emissions	None	None	None	Five credits	Eight credits
ENE 02: Energy monitoring	None	None	One credit (First sub-metering credit)	One credit (First sub-metering credit)	One credit (First sub-metering credit)
WAT 01: Water consumption	None	One credit	One credit	One credit	Two credits
WAT 02: Water monitoring	None	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
MAT 03: Responsible sourcing of materials	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only	Criterion 1 only
WST 01: Construction waste management	None	None	None	None	One credit

WST 03: Operation waste	None	None	None	One credit	One credit
LE 03: Minimising impact on existing site ecology	None	None	One credit	One credit	One credit

(For Planning Department Use-Figure 3.1: Table showing minimum standards required for each level of the BREEAM assessment)

BREEAM assessment- a two stage process

The BREEAM scheme allows for a building to be assessed at the design stage and post-construction stage before the formal BREEAM Certification (and Rating) is awarded; this will ensure that the completed development meets sustainability performance as designed. During the certification assessment, which will lead to a formal BREEAM rating and certificate, the assessment stages are as follows:

The initial Design Stage certification – at this stage an Interim Certificate is issued, based on a provisional rating. A Post-Construction check is required to verify the rating in the 'as constructed' state before a Final BREEAM Certificate can be issued.

The Design Stage assessment and Post-Construction check must be carried out by a licensed assessor, who registers the assessment with the BRE.

This report forms the Pre-Assessment which is the initial stage of the Design Stage Certification process. Energist UK has verified with BRE that the development will be assessed under the BREEAM 2014 New Construction Scheme, and has been registered with BRE by Energist UK accordingly.

Approach and Methodology

In order to gain an understanding of the achievable BREEAM rating for the Proposed Development, Energist UK were appointed by the developers, St George West London Limited, to undertake a BREEAM Pre-Assessment.

The purpose of this Pre-Assessment report is to identify the strengths and weaknesses of the proposals in relation to the BREEAM criteria, and to identify appropriate opportunities to achieve the aspired 'Excellent' rating.

The Pre-Assessment is intended to identify how the development will score when the current designs are formally assessed under the BREEAM Scheme.

This BREEAM Pre-Assessment was conducted under the New Construction 2014 scheme with manual version SD5076: 5.0 – 2014. It was a Shell and Core assessment for office and Shell Only assessment for Retail.

BREEAM rating	**% score**
Outstanding	≥ 85
Excellent	≥ 70
Very good	≥ 55
Good	≥ 45
Pass	≥ 30
Unclassified	< 30

(For Planning Department Use-Figure 3.2: Table showing BREEAM rating and score)

RIBA Stages 1&2 (Pre-planning requirements)

BREEAM assessments cover all RIBA stages, including Preparation and Brief (Stage 1) and Concept Design (Stage 2). These pre-planning stages have a number of highly weighted credits requiring action prior to stage completion. It is important that these are credits are addressed so as to avoid unnecessary costly credits at later stages. The table below lists all of the credits either requiring action or completion at RIBA Stages 1 and 2. This table is for reference of all pre-planning credits only; not all credits will necessarily be targeted.

Issue	Name	RIBA Stage 1	RIBA Stage 2
Man01	Appointment of BREEAM AP		
Mat06	Complete a Material Efficiency Analysis		
Wst05	Complete a climate Change Adaption Strategy Appraisal		
Le01-Le05	Appointment of Suitably Qualified Ecologist		
Le02	Completed Ecology Report		
Wst06	Complete a Functional Adaptability Study		
Man01	Completed schedule of consultant responsibilities for each project stage		
Man01	Complete public consultation exercises		
Man01	Completed BREEAM Pre-assessment with targets		
Man02	Completed Elemental Life Cycle Cost Exercise		
Hea06	Completion of Security Needs Assessment		
Ene04	Completion of Passive Design Analysis		
Ene04	Completion of LZC Feasibility Study		
Tra01	Completed Transport Assessment and Travel Plan		

(For Planning Department Use-Figure 3.3: Table showing time dependent credits within the BREEAM assessment)

4. DEVELOPMENT SUMMARY AND RATINGS

Targeted Credits

During the Pre-Assessment the viability of credits were assessed with the aim of achieving BREEAM rating Excellent. The table below shows in "Targeted credits" how many credits are likely to be achieved with design in its current form. The column "Max credits" are the number of credits that are available for this particular development.

The Minimum Standards that are required for BREEAM rating 'Excellent' have been targeted in the table below.

Reference	Credit title	Max credits	Targeted credits	Comments
Management				
MAN 01	Project brief and design	4	4	Project delivery stakeholders have met to define roles and responsibilities for each RIBA stage. Third party consultation is being undertaken. A BREEAM AP will be appointed to set performance targets at Concept Design Stage and for Developed and Technical Design.
MAN 02	Life cycle cost and service life planning	4	4	A suitably qualified person will be appointed to carry out a Elemental Life

				Cycle Cost Assessment at Concept Design Stage and a Component Level Life Cycle Cost Assessment at Technical Design Stage. Capital cost will be reported in £/m2.
MAN 03	Responsible construction practices	6	4	It is mandatory that all timber will be 'Legally harvested and traded timber'. 2 credits plus exemplary level criteria are targeted for a CCS score of 40+ with 7 in each section. 2 credits are targeted for monitoring electricity and water usage during construction and recording material and waste transport mileage.
MAN 04	Commissioning and handover	4	3	Office Shell and Core Only: A commissioning and testing schedule will be developed by the M&E contractor. A Specialist Commissioning Manager will be appointed for the project. A framework Building User Guide and training schedule will be developed and passed on to the fit out contractor.

Health and Wellbeing				
HEA 01	Visual comfort	3	2	External lighting levels, zoning and controls will be designed and installed in accordance with industry best practice guidelines. Occupants of the building will have an appropriate level of view out through the external façade.
HEA 02	Indoor air quality	2	0	Credits not targeted, openable windows are not proposed.
HEA 04	Thermal comfort	2	2	Thermal modelling will be completed including adaptability for a climate change scenario.
HEA 05	Acoustic performance	1	1	Acoustic testing of indoor ambient noise levels to meet BREEAM requirements.
HEA 06	Security and safety	2	2	Safe access will be designed for pedestrians and cyclists accessing the building. A Suitably Qualified Security Specialist (SQSS) has carried out an evidence based Security Needs Assessment (prior to RIBA Stage 2) and provided recommendations, which the project team will implement on the development.

Energy				
ENE 01	Reduction for energy use and carbon emissions	12	Office- 9 Retail- 5	It is assumed at this stage that 5 credits will be met for the minimum standard for Excellent. The retail assessment will be shell only therefore this section is based on heating and cooling demand of the building fabric only. The office is targeting 9 credits based on improvements to primary energy CO_2 emissions reduction from renewable technologies.
ENE 02	Energy monitoring	2	2	Energy metering will be as per BREEAM requirements and high energy load/ tenancy areas will be sub-metered.
ENE 03	External lighting	1	1	The average initial luminous efficacy of the external light fittings within the construction zone will not be less than 60 luminaire lumens per circuit watt. And the external lighting circuit will include a daylight sensor and a timeclock.
ENE 04	Low carbon design	3	2	A passive Design Analysis will be completed to determine the energy efficient passive measures that can be included in the building and the energy reduction from these.

				A feasibility study will be carried out to establish the most appropriate local low or zero carbon (LZC) energy source for the building.
ENE 06	Energy efficient transportation systems	3	3	Office Only: An energy demand analysis will be completed to determine the most efficient lift arrangement. At least 3 energy efficient features will be installed in the lifts.
Transport				
TRA 01	Public transport accessibility	5/3	Office- 3 Retail-5	Maximum credits are assumed for high public transport accessibility.
TRA 02	Proximity to amenities	1	1	The building is within 500m of BREEAM compliant amenities.
TRA 03	Cyclist facilities	2	2	Compliant cycle storage and cyclist facilities will be installed.
TRA 04	Maximum car parking capacity	2	2	Office only: Commercial car parking will be limited on site to ensure a higher reliance on public transport.
TRA 05	Travel plan	1	1	A Travel Plan will be developed based on the site Transport Assessment.

Water				
WAT 01	Water consumption	5	3	Office only: 3 credits are targeted for the installation of water efficient sanitaryware.
WAT 02	Water monitoring	1	1	A compliant water meter with a pulsed output will be installed to each unit to ensure compliance and gain one credit.
WAT 03	Water leak detection	2	2	Water leak detection system will be installed to the building. Office only: Toilets blocks will include flow control devices to shut off water supply when there is nobody using them.
WAT 04	Water efficient equipment	1	1	It is assumed that this credit will be gained through planting that relies solely on precipitation during all seasons of the year or irrigation from rainwater harvesting.
Materials				
MAT 01	Life cycle impacts	6	3	It is assumed at this stage that 3 credits will be achieved for comparison to the BRE Green Guide.
MAT 02	Hard landscaping and boundary protection	1	1	It is assumed at this stage that at least 80% of all hard landscaping and

				boundary protection will be A or A+ rated.
MAT 03	Responsible sourcing of materials	4	3	A Sustainable Procurement Plan will be used by the design team to guide specification towards sustainable construction products. Materials will be responsibly sourced, with a view to achieving at least 2 credits for product certification..
MAT 04	Insulation	1	1	Insulation will be specified to achieve an insulation index of at least 2.5.
MAT 05	Designing for durability and resilience	1	1	The design will incorporate suitable durability and protection measures and solutions to prevent damage to the vulnerable parts of the building from damage and exposed parts from material degradation.
MAT 06	Material efficiency	1	0	Credit is not targeted
Waste				
WST 01	Construction waste management	4	4	A Resource Management Plan (RMP) will be developed and this will aim for a construction waste resource efficiency benchmark of 3.4m3 or 3.2 tonnes/100m2.

				At least 70% by volume (or 80% by tonnage) of non-demolition waste and 80% by volume (or 90% by tonnage) of demolition waste will be diverted from landfill to be reused or recycled.
WST 02	Recycled aggregates	1	0	Credit not currently targeted.
WST 03	Operational waste	1	1	Dedicated external space to cater for the segregation and storage of operational recyclable waste volumes generated by the assessed building its occupants and activities will be designed for the development.
WST 05	Adaptation to climate change	1	1	A Climate Change Adaption Study will be completed for the development.
WST 06	Functional adaptability	1	1	A Functional Adaptation Appraisal will be completed to explore the ease of disassembly and the functional adaptation potential of different design scenarios at concept design. Provide an update during technical design which explains how the recommendations or solutions proposed by Concept Design have been implemented where practical and cost effective.

Land use and ecology				
LE 01	Site selection	2	1	The proposed building is being built on brown field land and it is assumed that 75% is previously developed. The second credit is not possible as there was no contamination found in the ground.
LE 02	Ecological value of site and protection of ecological features	2	2	A suitably qualified Ecologist has been employed to survey and evaluate the ecological baseline of the site and the capability of enhancement. It is assumed at this stage that the land is of low ecological value.
LE 03	Minimising impact on existing site ecology	2	2	The development results in no loss of ecological value.
LE 04	Enhancing site ecology	2	2	Based upon the ecological surveys undertaken, it is currently expected that an enhancement in ecological value can be made.
LE 05	Long term impact on biodiversity	2	2	Based upon the ecological survey work undertaken and the landscaping proposals, a Landscape and Ecology Management Plan will be developed in covering the first five years after project completion.

				At least 4 additional measures will be taken on site to protect ecology.
Pollution				
POL 01	Impact of refrigerants	3	1	Office only: Credits targeted for low DELCO of the refrigerant containing system.
POL 02	NO_x emissions	3	0	No credits are achievable as the scheme is proposed to be fully electric and the 2014 scheme assumes high NOx emissions from grid electricity.
POL 03	Surface water run-off	5	3	Site specific floor risk assessment confirms the development is situated in an area of medium surface water flood risk. Drainage measures to be specified, the peak rate of run-off from the site to the watercourses shows an improvement for the developed site compared with the pre-developed site. SuDS techniques have been specified; the post-development run-off volume is no greater than prior to site's development.
POL 04	Reduction of night time light pollution	1	1	The external lighting strategy will be designed to meet BREEAM requirements.

POL 05	Reduction of noise pollution	1	1	Office only: Noise levels from plant will be cause a difference no greater than +5dB during the day, and +3dB at night.
	Innovation	10	1	1 credits targeted for Man03 CCS score.
TOTAL credits				

(For Planning Department Use-Figure 4.1: Table showing the targeted credits of the development)

5. CONCLUSIONS

Energist UK has carried out a Pre-Assessment to determine the viable BREEAM rating that can be achieved by the proposed development at Camden Goods Yard- Juniper Building.

The Pre-Assessment determined that the development attains the minimum standard credits required at BREEAM rating 'Excellent' and has the potential to achieve an overall score of 77.8% for Offices and 72.2% for Retail. This meets the required level set by the London Borough of Camden.

Office

BREEAM Section	Credits available	Credits achieved	% of credits achieved	Section weighting (fully fitted) %	Section score (%)
Management	18	15	83.33	11.00	9.16
Health and wellbeing	10	7	70.00	10.50	7.35
Energy	21	17	80.95	15.00	12.14
Transport	9	9	100.00	10.00	10.00
Water	9	7	77.78	7.50	5.83
Materials	13	9	69.23	14.50	10.03
Waste	9	7	77.78	9.50	7.38
Land use and Ecology	10	9	90.00	11.00	9.90
Pollution	13	6	46.15	11.00	5.07
Innovation	10	1	10.00	-	1.00
Final BREEAM Score					**77.8%**
BREEAM rating					**Excellent**

(For Planning Department Use-Figure 5.1: Calculations for score)

Retail

BREEAM Section	Credits available	Credits achieved	% of credits achieved	Section weighting (fully fitted) %	Section score (%)
Management	15	10	66.67	12.50	8.33
Health and wellbeing	8	5	62.50	10.00	6.25
Energy	16	7	43.75	14.50	6.34
Transport	9	7	77.78	11.50	8.94
Water	3	3	100.00	4.00	4.00
Materials	13	9	69.23	17.50	12.11
Waste	8	7	87.5	11.00	9.62
Land use and Ecology	10	9	90.00	13.00	11.70
Pollution	6	4	66.67	6.00	4.00
Innovation	10	1	10.00	-	1.00
Final BREEAM Score					**72.2%**
BREEAM rating					**Excellent**

(For Planning Department Use-Figure 5.2: Calculations for score)

6. NEXT STEPS

Design Stage Assessment

The first stage of the BREEAM assessment is carried out on the detailed design. It is possible to undertake the design stage assessment during the period up to the issue of tender documents.
However, the evidence base is required to demonstrate that each credit can be awarded; therefore to gain the most number of credits it is advisable to undertake the design stage assessment once the required information is available. For example, details of all the sanitary fittings are required to be specified to calculate the score for the water consumption efficiency under BREEAM.

When the Assessor is satisfied with the performance under the BREEAM for the design stage assessment a report will be submitted to BRE to receive an 'Interim' BREEAM certification. This report will contain some documentary evidence together with an 'audit trail' for all specification, clauses, drawings, letters and reports.

Post Construction Stage Assessment

This can be carried out on the completed development. As part of this process, the Assessor will collate evidence (either documentary, photographic, or site survey evidence) to demonstrate that the development has been built in accordance with the details given at the Design Stage. This assessment is called a Post Completion Review Assessment (PCR).

If changes have been made to the design following the design stage assessment (during the construction phase), that affects the BREEAM score, the Assessor will re-calculate the Final score. This may be different to the Interim score. When the Assessor is satisfied with the performance under the BREEAM Scheme, they will submit a report to BRE to receive a Final BREEAM Certification for the development

Ongoing Consultation

Although this report provides recommendations, specific requirements of BREEAM can easily be misinterpreted or excluded at design stage, particularly in relation to the numerous standards with which the client must demonstrate compliance (such as CIBSE / ILE standards etc.) and the requirement to consult with various specialists (such as LZC / renewables' consultants, ecologists, acousticians etc.). It is therefore recommended that the relevant, competent

third parties are engaged throughout all design stages in order to ensure the development proceeds in a manner that complies with the relevant requirements.