Environmental Standards Statement

2 Hardman Boulevard, Manchester

113442/CCM/130424
Revision 01

Report Prepared For: 2 Hardman Boulevard Developments Ltd

Grontmij

Issue	Date	Reason for Issue	Prepared		Checked		Approved	
01	23/08/13	First Issue	CW	23/08/13	MW	23/08/13	CCM	23/08/13

Environmental Standards Statement
113442/CCM/130424
Revision 01

Grontmij
1 Bath Road
Maidenhead
Berkshire
SL6 4AQ

+44 (0)1628 623 423
building.services@grontmij.co.uk
grontmij.co.uk/buildingservices

© Grontmij 2013 This document is a Grontmij confidential document; it may not be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, photocopying, recording or otherwise disclosed in whole or in part to any third party without our express prior written consent. It should be used by you and the permitted discloses for the purpose for which it has been submitted and for no other.
Registered Office: Grontmij Limited, Grove House, Mansion Gate Drive, Leeds, LS7 4DN. Company Registration No 2888385

value beyond engineering

Contents

1. Introduction 4
2. Environmental Standards (MCC) 5
2.1 Energy Efficiency 5
2.2 Renewable Energy 5
2.3 Environmental Design 5
2.4 Water Management and Weather Resilience 5
2.5 Construction Management 5
2.6 Biodiversity 5
2.7 Waterways 5
3. BREEAM Pre-Assessment 6

1. Introduction

2 Hardman Boulevard is a ground plus eight storey building proposed at Spinningfields, the world-class office destination in Manchester City Centre. The proposals will deliver eight floors of office use, together with ground floor reception and complementary retail units and ancillary functions including a ground floor Business Centre and two levels of basement car parking and plant.

This Environmental Standards Statement is sub-divided into the following categories in accordance with Manchester City Council's "Guide to Development in Manchester – Supplementary Planning Document And Planning Guidance":-

- Energy Efficiency
- Renewable Energy
- Environmental Design
- Water Management & Weather Resilience
- Waste Management
- Construction Management
- Biodiversity
- Waterways

The MCC document also refers to the Building Research Establishment Environmental Assessment Method (BREEAM). BREEAM is a practical tool used to assess and verify the environmental sustainability performance of the building.

As with the majority of buildings that form part of the Spinningfields development, the design and construction of the building will be in accordance with the principles identified within the BREEAM

A preliminary BREEAM assessment has been undertaken and a "Very Good" rating is achievable and this is in accordance with the MCC Guide to Development in Manchester and Policy DM1 of the Manchester Core Strategy which requires new commercial developments to incorporate Sustainable Construction Techniques including through the application of BREEAM. We have also assessed whether we believe a better BREEAM rating is achievable and conclude that due to the size & nature of the project and also site constraints, it is not.

Notwithstanding this, much of the guidance and principles set down in the MCC document also form part of the BREEAM Assessment. The subjects covered by BREEAM fall into the following categories:-

- Management (Commissioning and procedural issues)
- Health and Well-Being (Indoor and external issues)
- Energy (Operational energy and CO2 emissions)
- Transport (Location, transport plans and carbon monoxide related issues)
- Water (Water consumption and water saving features)
- Materials (Re-use/recycling of materials, 'Green guide to sustainability' ratings)
- Pollution (Air and water pollution)
- Land Use (Re-use of land)
- Ecology (Ecological value of the site)

A copy of the BREEAM Pre-Assessment indicating how these proposals contribute to these categories is included in Section 3.

2. Environmental Standards (MCC)

2.1 Energy Efficiency

The concept design for the building envelope is to assist the tenant to minimise the energy usage and carbon dioxide emissions of the building as far as reasonably practical, subject to site constraints and financial viability.

The following active and passive facilities have been incorporated into the building:

- High performance glazing
- External solar shading
- Maximising daylight penetration where applicable

The energy efficiency performance of the building will be in accordance with the requirements of the Building Regulations. It is anticipated that the carbon dioxide emissions of the building will be between 5 and 10% better than Part L. Due to the nature, size and location of the development, the opportunities to incorporate low carbon technologies or on site renewable is limited.

Please refer to the energy strategy for further information regarding energy use and efficiency

2.2 Renewable Energy

The confined nature of the site, the low-rise form of the building, the comparatively low energy demand and the larger surrounding buildings precludes the incorporation of the most common forms of renewable energy.

As a consequence, the decision has been made to incorporate within the scheme methods of passive design including solar shading and high performance glazing in order to minimise energy usage and therefore carbon dioxide emissions.

2.3 Environmental Design

See previous commentary regarding BREEAM and the BREEAM Pre-Assessment in Section 3, which indicates how the proposals could achieve a BREEAM rating of “Very Good”.

2.4 Water Management and Weather Resilience

The site is currently an area of grass and as such the construction of a building upon the site will necessitate a surface water drainage system. However, as part of the wider Spinningfields development, separate surface water drains have been installed to avoid burdening the local sewer system with surface water.

2.5 Construction Management

The works will be carried out in accordance with the Considerate Constructors Scheme and, where possible, the following measures will be implemented:

- Minimise the use of primary resources and materials;
- Use prefabricated and standardised modulation components;
- Minimising packaging through negotiation with suppliers;
- Implementation of 'Just In Time' resource/material delivery systems to minimise storage and procurement of resources and materials in appropriate sizes and quantities;
- Minimise the generation of waste (through reuse or recycling) and ensuring appropriate handling, storage and disposal of waste; and,
- Source building materials from sustainable sources and locally procured or recycled materials.

The principal contractor will be required to monitor and record levels of resource/material usage and levels of waste generated as well as waste management routes adopted.

The developer will include specific requirements relating to compliance with good practice site management and construction principles in the tender documents.'

2.6 Biodiversity

The site was cleared and used for cranes and portakabins for the construction of 2 Hardman Street which was completed in 2007. The site was subsequently grassed and planted with a low beech hedge. Due to the city centre site and the relatively recent planting, it is anticipated that the site will have a very low ecological value.

Nevertheless, an ecologist will be appointed to review the site and surrounding public realm areas to make appropriate recommendations for enhancement, as would normally be the case as part of a BREEAM assessment.

2.7 Waterways

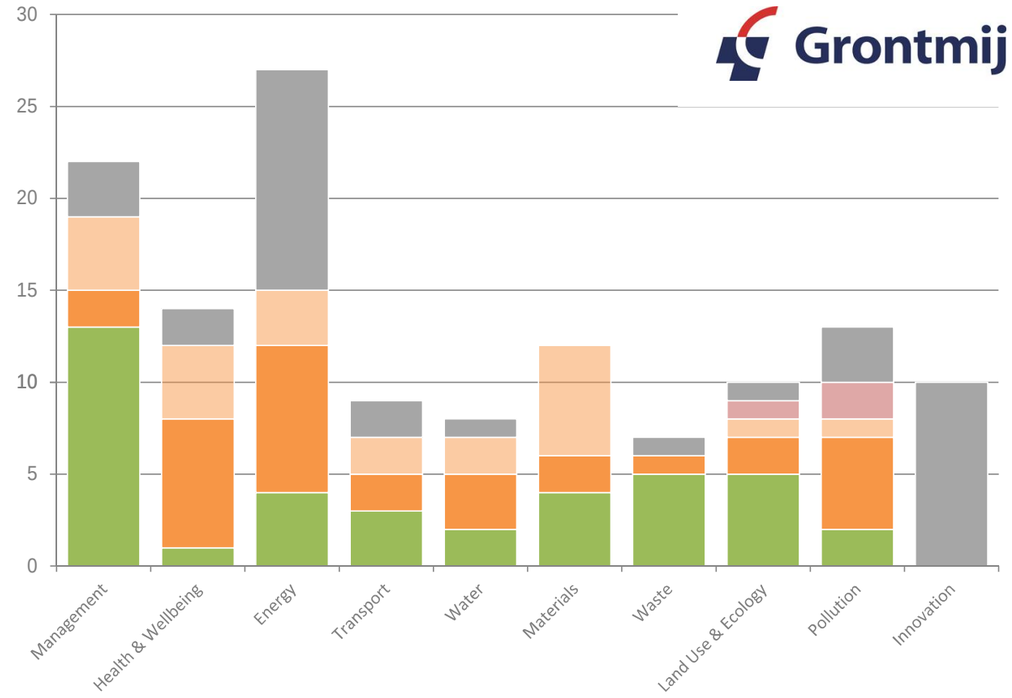
Not applicable to this project

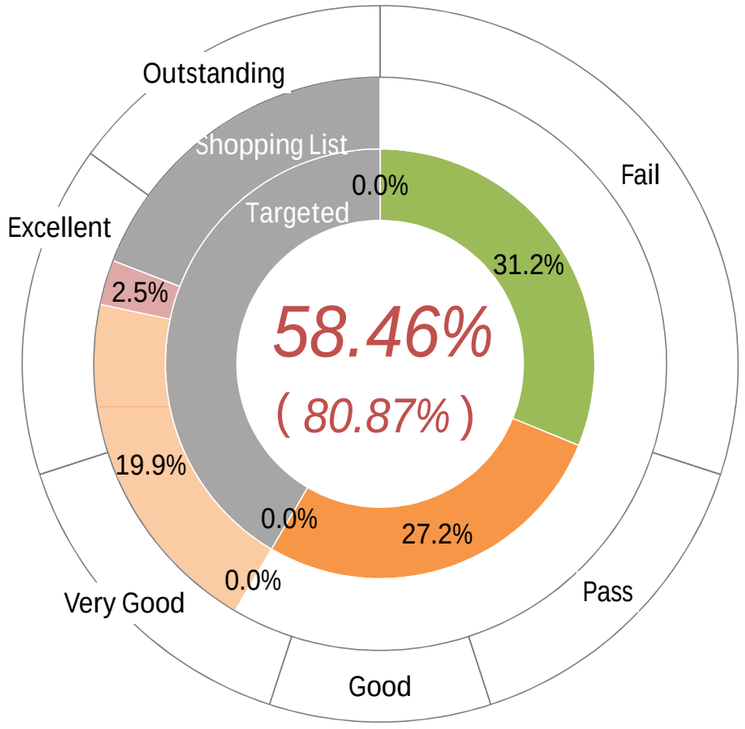
3. BREEAM Pre-Assessment

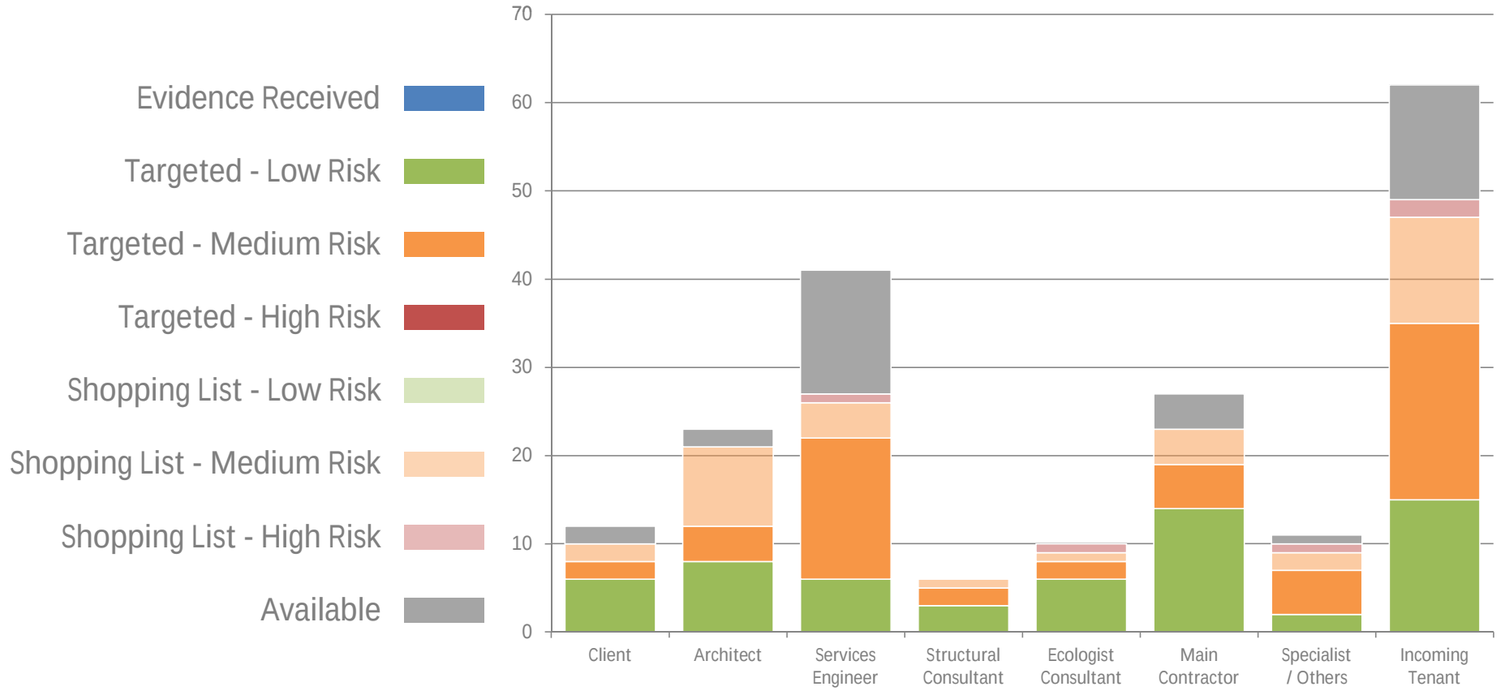
Score Summary

Project Name: 2 Hardman Boulevard
BREEAM Scheme: Office
Development Type: Shell & Core
Stage: Preliminary Assessment
Target Rating: Very Good

	Currently	Projected (Low Risk)	Projected (Medium Risk)	Projected (High Risk)
Targeted Credits	0.00% Fail	31.21% Pass	58.46% Very Good	58.46% Very Good
Shopping List		58.46% Very Good	78.33% Excellent	80.87% Excellent







Credit Summary

Project Name: 2 Hardman Boulevard
BREEAM Scheme: NC 2011 (Non-Domestic): Office (Shell & Core)
Stage: Preliminary Assessment
Target Rating: Very Good

Projected Score: 58.46%
Projected Rating: Very Good
Potential Score, incl. Shopping List: 80.87%
Potential Rating, incl. Shopping List: Excellent

Section	Code	Issue Name	Credit Name	Evidence Type	Credits Available	Targeted (Colour Denotes Risk)	Evidence Received	Shopping List (Colour Denotes Risk)	Action by							
									Client	Architect	Services Engineer	Structural Consultant	Ecologist Consultant	Main Contractor	Specialist / Others	Incoming Tenant
Management	Man 01	Sustainable Procurement	Project Brief and Design	- Meeting Minutes - Training Schedule	4	2	No	0	✓					✓		
			Construction & Handover	- Clause in Building Spec - Commissioning schedule	2	2	No	0	✓					✓		✓
			Aftercare	- Appointment Letter	2	1	No	1	✓					✓		✓
	Man 02	Responsible Construction Practices	Responsible Construction Practices	- Clause in Building Spec OR - Letter of Commitment	2	2	No	0						✓		
	Man 03	Construction Site Impacts	Energy Consumption	- Clause in Building Spec OR - Letter of Commitment	1	1	No	0						✓		
			Water Consumption	- Clause in Building Spec OR - Letter of Commitment	1	1	No	0						✓		
			Transport of Construction Materials & Waste	- Clause in Building Spec OR - Letter of Commitment	1	1	No	0						✓		
			Timber Procurement	- Clause in Building Spec OR - Letter of Commitment	1	1	No	0						✓		
			Construction Site Management	- Clause in Building Spec OR - Letter of Commitment	1	1	No	0						✓		
	Man 04	Stakeholder Participation	Consultation	List of Stakeholders - Consultation Plan & Minutes	1	1	No	0	✓							
			Inclusive & Accessible Design	- Access Statement & Drawings OR Building Spec	1	1	No	0	✓							
			Building User Information	- Clause in Building Spec OR - Letter of Commitment	1	1	No	0	✓							✓
			Post Occupancy Evaluation & Information Dissemination	- Letter of Commitment	1	0	No	1	✓							
	Man 05	Life Cycle Cost & Service Life Planning	Life Cycle Cost & Service Life Planning	- Life Cycle Cost Report	3	0	n/a	2							✓	
Health & Wellbeing	Hea 01	Visual Comfort	Pre-requisite	- Clause in Building Spec OR - Drawings	0	0	No	0			✓					
			Daylighting	- Daylight calculations - Drawings	1	0	No	0								
			Glare Control & View Out	- Clause in Building Spec OR - Drawings	1	0	No	1								
			Internal & External Lighting	- Clause in Building Spec AND - Drawings OR - Letter of Commitment	1	0	No	1			✓					✓
	Hea 02	Indoor Air Quality	Minimising Sources of Air Pollution	- Air Quality Plan AND - Clause in Building Spec OR - Drawings. - Letter of Commitment - Manufacturer's literature	3	1	No	1			✓					
			Potential for Natural Ventilation	- Clause in Building Spec - Software Modelling Results.	1	0	No	1		✓						
			~~Laboratory Fume Cupboard and Containment Areas~~	~~n/a~~	~~0~~	~~0~~	~~n/a~~	~~0~~								
	Hea 03	Thermal Comfort	Thermal Comfort	- Clause in Building Spec - Software Modelling Results - Thermal Comfort Strategy	2	2	No	0			✓					✓
	Hea 04	Water Quality	Water Quality	- Clause in Building Spec	1	1	No	0			✓					✓
	Hea 05	Acoustic Performance	Pre-requisite	- Professional Report - Letter of Apppointment	0	0	No	0							✓	
			Acoustic Performance Standards		2	2	No	0							✓	
	Hea 06	Safety & Security	Safe Access	- Drawings AND - Clause in Building Spec	1	1	No	0							✓	
			Security of Site & Building	- ALO correspondence - Drawings	1	1	No	0							✓	

Section	Code	Issue Name	Credit Name	Evidence Type	Credits Available	Targeted (Colour Denotes Risk)	Evidence Received	Shopping List (Colour Denotes Risk)	Client	Architect	Services Engineer	Structural Consultant	Ecologist Consultant	Main Contractor	Specialist / Others	Incoming Tenant
Energy	Ene 01	Reduction of Emissions	Reduction of Emissions	- BRUKL output document	15	6	No	0			✓					✓
	Ene 02	Energy Monitoring	Energy Monitoring	- Clause in Building Spec - Drawings	2	2	No	0			✓					✓
	Ene03	External Lighting	External Lighting	- Clause in Building Spec - Drawings	1	1	No	0							✓	✓
	Ene 04	Low & Zero Carbon Technologies	Feasibility Study OR Renewable Energy Supply Contract	- Feasibility Study Report	1	1	No	0			✓					✓
			Low or Zero Carbon Technology Specification & Installation	- Report - Calculations	3	0	n/a	1								
			~~Free Cooling~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Ene 05	Energy Efficient Cold Storage	~~Energy Efficient Cold Storage~~	~~n/a~~	~~0~~	~~0~~	~~n/a~~	~~0~~								
	Ene 06	Energy Efficient Transportation Systems	Energy Efficient Transportation Systems	- Transportation Report - Letter of Commitment OR - Clause in Building Spec	2	2	No	0			✓					✓
	Ene 07	Energy Efficient Laboratory Systems	~~Energy Efficient Laboratory Systems~~	~~n/a~~	~~0~~	~~0~~	~~n/a~~	~~0~~								
	Ene 08	Energy Efficient Equipment	Energy Efficient Equipment	- Clause in Building Spec - Manufacturer's details - Drawings	2	0	No	2								✓
	Ene 09	Drying Space	~~Drying Space~~	~~n/a~~	~~0~~	~~0~~	~~n/a~~	~~0~~								
Transport	Tra 01	Public Transport Accessibility	Accessibility Index / Dedicated Bus Service	- Timetables & - Scaled map - transport nodes.	3	1	No	1		✓						
	Tra 02	Proximity to Emenities	Proximity to Emenities	- Marked up scaled map - Location & type of amenities	1	1	No	0		✓						
	Tra 03	Cyclist Facilities	Cyclist Facilities	- Clause in Building Spec - Drawings	2	1	No	1		✓						✓
	Tra 04	Maximum Car Parking Capacity	Maximum Car Parking Capacity	- Clause in Building Spec	2	1	No	0								
	Tra 05	Travel Plan	Travel Plan	- Copy of the Travel Plan - Letter of Commitment and/or - Drawings	1	1	No	0							✓	✓
Water	Wat 01	Water Consumption	Water Consumption	- Sanitaryware spec OR - Letter of Committment	5	2	No	2		✓	✓					✓
	Wat 02	Water Monitoring	Water Monitoring	- Clause in Building Spec OR - Drawings	1	1	No	0			✓					✓
	Wat 03	Water Leak Detection & Prevention	Water Leak Detection & Prevention	- Clause in Building Spec OR - Drawings - Manfacturers details	2	2	No	0			✓					✓
	Wat 04	Water Efficient Equipment	~~Water Efficient Equipment~~	~~n/a~~	~~0~~	~~0~~	~~n/a~~	~~0~~			~~✓~~					
Materials	Mat 01	Life Cycle Impacts	Life Cycle Impacts	- Material Specification - Area of materials - Green Guide Rating	5	3	No	2		✓						✓
	Mat 02	Hard Landscaping & Boundary Protection	Hard Landscaping & Boundary Protection	- Material Specification - Area of materials - Green Guide Rating	1	0	No	1		✓						
	Mat 03	Responsible Sourcing of Materials	Responsible Sourcing of Materials	- Material Specification - Volume of materials - EMS certificates	3	1	No	2						✓		✓
	Mat 04	Insulation	Pre-requisite	All new insulation:-	0	0	No	0						✓		
			Embodied Impact	- Manufacturer product details - Volume of Insulation	1	1	No	0		✓		✓		✓		
			Responsible Sourcing of Materials	- EMS certificates	1	0	No	1		✓				✓		✓
	Mat 05	Designing for Robustness	Designing for Robustness	- Clause in Building Spec OR - Drawings	1	1	No	0		✓						✓

Section	Code	Issue Name	Credit Name	Evidence Type	Credits Available	Targeted (Colour Denotes Risk)	Evidence Received	Shopping List (Colour Denotes Risk)	Client	Architect	Services Engineer	Structural Consultant	Ecologist Consultant	Main Contractor	Specialist / Others	Incoming Tenant
Waste	Wst 01	Construction Waste Management	Construction Resource Efficiency	- Compliant SWMP - Clause in Building Spec OR - Letter of commitment	3	2	No	0						✓		
			Diversion of Resources from Landfill	As above	1	1	No	0						✓		
	Wst 02	Recycled Aggregates	Recycled Aggregates	- Clause in Building Spec - Calculations	1	1	No	0					✓			
	Wst 03	Operational Waste	Operational Waste	- Clause in Building Spec - Minutes or Letter of confirmation	1	1	No	0		✓						✓
	Wst 04	Speculative Floor & Ceiling Finishes	Speculative Floor & Ceiling Finishes	- Clause in Building Spec OR	1	1	No	0								
Land Use & Ecology	LE 01	Site Selection	Previously Developed Land	- Drawings & Areas	1	1	No	0		✓			✓			
			~~Contaminated Land~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	LE 02	Ecological Value of Site & Protection of Ecological Features	Ecological Value of Site & Protection of Ecological Features	- Signed copy of checklist - Ecologist's Report	1	0	No	1					✓			
	LE 03	Mitigating Ecological Impact	Mitigating Ecological Impact	- Ecologist's Report	2	2	No	0					✓			
	LE 04	Enhancing Site Ecology	Enhancing Site Ecology	- Ecologist's Report - Letter of Confirmation	3	2	No	1					✓			
	LE 05	Long Term Impact on Biodiversity	Pre-requisite	- Ecologist's Report - 5 year management Plan	0	0	No	0	✓				✓			
			Additional Criteria	- Letter AND/OR - Clause in Building Spec	2	2	No	0					✓	✓		
Pollution	Pol 01	Impact of Refrigerants	Impact of Refrigerants	- Clause in Building Spec OR - Drawings	3	1	No	0			✓					✓
	Pol 02	Nox Emissions	Nox Emissions	- Clause in Building Spec - Manufacturer Product details	3	1	No	1			✓					✓
	Pol 03	Surface Water Run Off	Flood Risk	- Flood Risk Assessment - Drawings	2	2	No	0				✓				
			Surface Water Run Off	- Drawings Or Calculations	2	1	No	1				✓				
			Minimising Water Course Pollution	- Calculations - Drawings - Letter of Confirmation	1	1	No	0				✓				
	Pol 04	Reduction of Night Time Light Pollution	Reduction of Night Time Light Pollution	- Clause in Building Spec OR - Drawings	1	0	No	1							✓	✓
	Pol 05	Noise Attenuation	Noise Attenuation	- Acousticians Report	1	1	No	0							✓	✓
Innovation	Inn 01	Man 01:	~~Sustainable Procurement~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 02	Man 02:	~~Responsible Construction Practices~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~						~~✓~~		
	Inn 03	Hea 01:	~~Visual Comfort~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 04	Ene 01:	~~Reduction of CO2 Emissions~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 05	Ene 04:	~~Low or Zero Carbon Technologies~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 06	Ene 05:	~~Cold Storage~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 07	Wat 01:	~~Water Consumption~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 08	Mat 01:	~~Life Cycle Impacts~~	~~n/a~~	~~2~~	~~0~~	~~n/a~~	~~0~~								
	Inn 09	Mat 03:	~~Responsible Sourcing of Materials~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 10	Wst 01:	~~Construciton Site Waste Management~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								
	Inn 11	Wst 02:	~~Recycled Aggregates~~	~~n/a~~	~~1~~	~~0~~	~~n/a~~	~~0~~								

Grontmij

1 Bath Road

Maidenhead

Berkshire

SL6 4AQ

+44 (0)1628 623 423

building.services@grontmij.co.uk

grontmij.co.uk/buildingservices

planning, connecting, respecting **the future**