our ref: 37915/JO/2023/DT/jm
date: 22 September 2023

Higher Blackley Community Centre
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Revised Environmental Standards Statement

Overview

The attached and below summary substitutes the Environmental Standards Statement produced by PB Sustainability on 16th December 2020 and approved as part of the original planning application.

Sustainability Strategy

The development is for 25 No. 2 storey detached and semi-detached houses including 2 and 3 bedroom units, as such Manchester City Council's minimum carbon reduction target for a 15% reduction over 2010 Part L Building Regulations applies.

Due to the lack of a nearby existing or proposed district heating network the intention is to make use of a fabric first approach following industry best practice and guidance. As such the previous strategy using of partial use of solar panels - used on some but not all dwellings - resulting in a dwelling emission rate with high variance between the dwellings has been replaced by one whereby all dwellings receive a higher specification building fabric to reduce emissions. As such microgeneration technologies are no longer required to achieve the target.

The estimated Target Emissions Rate for the development has been calculated using SAP 2012 (Building Regulations 2013) are given in Anderson Goddard Sustainability Statement - Rev B dated 14/02/23, appended to this overview.

The SAP 2012 calculations show that across the development using the "fabric first" approach outlined will achieve an average CO_2 reduction of at least 9.66%% against Part L of Building Regulations 2013. As the 2013 regs are an improvement over 2010 of 6%, a betterment over 2013 regs of 9% to comply with the planning requirements (15% over 2010).

In-line with the previous sustainability statement the development will be built with the implementation of many measures, including the following key points:

director
richard townend BArch RIBA

associate directors
tom adams BA (Hons), MArch RIBA
ben parish BA (Hons)
daniel tomlinson BSc (Hons), MSc MCIAT

conservation
ashley davies BArch MSc RIBA SCA

principal designer
mark holmes CDM NEBOSH CMIOSH

RIBA Chartered Practice

UKAS ISO 9001 & ISO 14001 registered
cert: 14914-QMS-001 / 14914-EMS-001

ISO 19650-2:2018 (BIM Level 2) certified
cert: C 150815 BIM

gwparchitecture ltd
company registration no: 3113732

- Thermal performance of construction elements which exceeds Building Regulations in combination with renewable technologies to further reduce energy demand (i.e.,
- photo voltaic roof panels) aspiring to achieve not less than 15% reduction in CO_2 emissions compared with Building Regulations 2010.
- Internal water uses within all dwellings to be reduced to 105 litres per person per day through the provision of water saving fittings.

With regards to waste reduction and sustainable materials, off-site manufactured timber frame construction will be used to reduce waste and embodied carbon – meeting the following targets:

- Waste minimisation principles adopted both during construction and in the lifespan of the development through provision of recycling/composting facilities.
- Waste minimisation principles adopted both during construction and in the lifespan of the development through promotion of recycling/composting measures.
- Use of materials in the construction process which have a low environmental impact as determined by the BRE's Green Guide.
- Maximising the use of recycled and sustainably sources building materials.
  In our view the incorporation of the above, and other recommendations made within this report, will satisfy the relevant requirements of the Local Planning Authority.

Yours sincerely

Daniel Tomlinson
For and on behalf of GWPArchitecture Ltd
Associate Director

Anderson Goddard Ltd

Independent Energy Specialists, SAP, SBEM, EPC's, U-Value & Condensation Risk, 2D & 3D Thermal Modelling

Site	Victoria Ave, Blackley, MANCHESTER	Assessor	Paul Goddard
Client	John Southworth Builders	Accreditation	EES/05113
Date	08/02/2023	Tel	01925 733942
Ref	AG-76528-Design-Rev B	Web	www.andersongoddard.com
Drawing ref	18025 01 AC rev Y	email	Info@andersongoddard.com

Thermal Values				Thermal Mass	Kappa
Ground Floor	150mm PIR λ 0.022	0.11	W/m²K	Suspended	75
Main wall	100mm Brick, 50mm TF200 Thermo, 9mm OSB, 140mm Insulation λ 0.035, 25mm service void, VC foil Ultra, Plaster board	0.20	W/m²K	Timber frame	9
Party walls	Filled and sealed cavity	0.00	W/m²K	Block	20
Roof Cold (PIJ)	500mm mineral wool λ 0.044, 100 between 400 above Joists	0.09	W/m²K	Timber, plaster board	9
Windows	Double glazed Hard coat g-Value 0.63	1.40	W/m²K		
Doors		1.20	W/m²K		

Heating, Ventilation, LZC etc.				Comments
Air permeability		4.00	m³	
Thermal Bridging	TRADA Calculated Ψ values and 2D thermal models	variable	Y-Value	
LE lights	Minimum 80lm/watt	100	%	
Heating	Vaillant ecoFIT sustain 830		%	
Emitter	Radiators			
Controls	Programmer, Room thermostats and TRV's			
Compensator	Delayed Start thermostat			
Domestic Hot Water (DHW)	From Main System			
Showers	< 8 Litres /min			
Ventilation	Part F, System 3, decentralised Mechanical Extract Ventilation (dMEV)			
Secondary heating	None			
Photovoltaic	None			
Appendix G (FGHRS / WWHRS)	None			
Appendix Q (other Tech)	None			
Overheating	Assumed, Windows can be fully opened and cross Ventilation is possible in all other cases a minimum ACR of 4			

Property details					AD.L1a 2013 Criterion 1 & CfSH input data										Block Compliance					M & E		Low or Zero Carbon Technologies (LZC)							
Plot N°	House Type	Front Orient	Side	Det	GIFA	DER	TER	DER / TER %	DER =< TER	DFEE	TFEE	DFEE / TFEE %	DFEE =< TFEE	SAP Rating	Band	DER x TFA	TER x TFA	DFEE x TFA	TFEE x TFA	Heating	Ventilation	Orientation	Roof Angle	Min PV Kw Peak	No Panels	Panel size watts	* ASR	Actual PV Peak	* Yield PA
1	35A-1	North		Det	85.18	17.61	19.46	9.50%	PASS	47.94	59.08	18.85%	PASS	83	B	1500.02	1657.60	4083.53	5032.43	Vaillant	Combi	-	-	-	-	-	-	-	-
2	35A-1	West		Det	85.18	18.00	19.91	9.59%	PASS	49.90	61.78	19.22%	PASS	83	B	1533.24	1695.93	4250.48	5262.42	Vaillant	Combi	-	-	-	-	-	-	-	-
3	24A-1	West	North	End	69.46	17.86	19.74	9.52%	PASS	46.57	56.65	17.79%	PASS	83	B	1240.56	1371.14	3234.75	3934.91	Vaillant	Combi	-	-	-	-	-	-	-	-
4	24A-1	West		Mid	69.46	16.30	18.28	10.83%	PASS	40.03	48.88	18.10%	PASS	84	B	1132.20	1269.73	2780.48	3395.20	Vaillant	Combi	-	-	-	-	-	-	-	-
5	24A-1	West	South	End	69.46	17.74	19.60	9.48%	PASS	46.14	55.96	17.54%	PASS	83	B	1232.22	1361.42	3204.88	3886.98	Vaillant	Combi	-	-	-	-	-	-	-	-
6	35A-1	East	South	Semi	86.58	16.58	18.47	10.23%	PASS	44.31	54.61	18.86%	PASS	84	B	1435.50	1599.13	3836.36	4728.13	Vaillant	Combi	-	-	-	-	-	-	-	-
7	35A-1	East	North	Semi	86.58	16.68	18.59	10.27%	PASS	44.68	55.19	19.04%	PASS	84	B	1444.15	1609.52	3868.39	4778.35	Vaillant	Combi	-	-	-	-	-	-	-	-
8	35A-1	North		Det	85.18	17.61	19.46	9.50%	PASS	47.94	59.08	18.85%	PASS	83	B	1500.02	1657.60	4083.53	5032.43	Vaillant	Combi	-	-	-	-	-	-	-	-
9	24A-1	North	East	Semi	69.46	17.45	19.27	9.44%	PASS	44.42	53.75	17.35%	PASS	84	B	1212.08	1338.49	3085.41	3733.48	Vaillant	Combi	-	-	-	-	-	-	-	-
10	24A-1	North	West	Semi	69.46	17.45	19.27	9.44%	PASS	44.42	53.75	17.35%	PASS	84	B	1212.08	1338.49	3085.41	3733.48	Vaillant	Combi	-	-	-	-	-	-	-	-
11	35C	West	North	Det	93.56	18.50	20.48	9.66%	PASS	53.09	67.19	20.98%	PASS	83	B	1730.86	1916.11	4967.10	6286.30	Vaillant	Combi	-	-	-	-	-	-	-	-
12	35C	West	South	Det	93.56	17.19	18.87	8.90%	PASS	48.19	59.04	18.37%	PASS	84	B	1608.30	1765.48	4508.66	5523.78	Vaillant	Combi	-	-	-	-	-	-	-	-
13	35A-1	West	North	Semi	86.58	16.68	18.59	10.27%	PASS	44.68	55.19	19.04%	PASS	84	B	1444.15	1609.52	3868.39	4778.35	Vaillant	Combi	-	-	-	-	-	-	-	-
14	35A-1	West	South	Semi	86.58	16.62	18.55	10.40%	PASS	43.97	54.56	19.40%	PASS	84	B	1438.96	1606.06	3806.92	4723.80	Vaillant	Combi	-	-	-	-	-	-	-	-
15	24A-1	NW	NE	Semi	69.46	17.65	19.50	9.48%	PASS	45.53	55.23	17.56%	PASS	83	B	1225.97	1354.47	3162.51	3836.28	Vaillant	Combi	-	-	-	-	-	-	-	-
16	24A-1	NW	SW	Semi	69.46	17.57	19.41	9.47%	PASS	45.23	54.75	17.38%	PASS	84	B	1220.41	1348.22	3141.68	3802.94	Vaillant	Combi	-	-	-	-	-	-	-	-
17	35A-1	NW		Det	85.18	17.79	19.67	9.55%	PASS	48.90	60.38	19.01%	PASS	83	B	1515.35	1675.49	4165.30	5143.17	Vaillant	Combi	-	-	-	-	-	-	-	-
18	24A-1	NW	NE	Semi	69.46	17.65	19.50	9.48%	PASS	45.53	55.23	17.56%	PASS	83	B	1225.97	1354.47	3162.51	3836.28	Vaillant	Combi	-	-	-	-	-	-	-	-
19	24A-1	NW	SW	Semi	69.46	17.57	19.41	9.47%	PASS	45.23	54.75	17.38%	PASS	84	B	1220.41	1348.22	3141.68	3802.94	Vaillant	Combi	-	-	-	-	-	-	-	-
20	24A-1	NW	NE	Semi	69.46	17.65	19.50	9.48%	PASS	45.53	55.23	17.56%	PASS	83	B	1225.97	1354.47	3162.51	3836.28	Vaillant	Combi	-	-	-	-	-	-	-	-
21	24A-1	NW	SW	Semi	69.46	17.57	19.41	9.47%	PASS	45.23	54.75	17.38%	PASS	84	B	1220.41	1348.22	3141.68	3802.94	Vaillant	Combi	-	-	-	-	-	-	-	-

22	35A-1	East		Det	85.18	17.91	19.80	9.54%	PASS	49.53	61.18	19.04%	PASS	83	B	1525.57	1686.56	4218.97	5211.31	Vaillant	Combi	-	-	-	-	-	-	-	-
23	35A-1	North		Det	85.18	17.61	19.46	9.50%	PASS	47.94	59.08	18.85%	PASS	83	B	1500.02	1657.60	4083.53	5032.43	Vaillant	Combi	-	-	-	-	-	-	-	-
24	24A-1	North	East	Semi	69.46	17.45	19.27	9.44%	PASS	44.42	53.75	17.35%	PASS	84	B	1212.08	1338.49	3085.41	3733.48	Vaillant	Combi	-	-	-	-	-	-	-	-
25	24A-1	North	West	Semi	69.46	17.45	19.27	9.44%	PASS	44.42	53.75	17.35%	PASS	84	B	1212.08	1338.49	3085.41	3733.48	Vaillant	Combi	-	-	-	-	-	-	-	-
Average Improvement					1947.50	17.44	19.31	9.66%	PASS	46.32	56.79	18.43%	PASS			33968.57	37600.95	90215.51	110601.55			-	-	-	-	-	-	-	-

Rev	Date	Description
B	14/02/2023	Specification amended

SAP Ratings - Please note that SAP rating have been calculated using SAP2012 methodology, SAP methodology is expected to be updated sometime after June 2022 to SAP 10.3, if the post construction assessment occurs after this change then this will have an affect the final SAP rating which will be downgraded