JNP GROUP

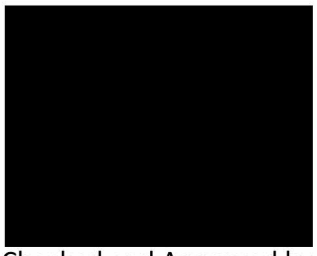
CONSULTING ENGINEERS

Validation Letter

[redacted]

DOCUMENT CONTROL SHEET

Prepared by……
Charlotte Grisby
Graduate Geo-environmental Engineer



Checked and Approved by……
Hilary Ilsley BSc (Jnt Hons) MSc CBiol MSB SQP SiLC QP
Associate Geo-environmental Scientist

FOR AND ON BEHALF OF JNP GROUP

Date: 13 December 2023

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Rev	Date	Description	Prepared	Checked	Approved
P01	13.12.2023	First Issue	CG	HI	HI

JNP GROUP
CONSULTING ENGINEERS

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Your Ref:

Our Ref: M41977-JNP-XX-XX-RP-G-0026-P01 Chkd: CG

FAO Rafal Chodkowski

Berkeley Homes ltd
Berkeley House
Mill Lane
Taplow
Maidenhead
SL6 0AG

13 December 2023

Dear Rafal

Re: Former Sunninghill Gas Works – Validation of Capping Layer for Plots 54- 63 inclusive (Block H - Apartments)

Introduction

JNP Group was instructed to validate the capping layer placed in the landscaped garden areas to Plots 54-63 inclusive (Block H - Apartments) at the below development:

Bridge Road
Sunninghill
Ascot
SL5 9TB

hereinafter referred to as 'the site'. This report is subject to the limitations presented in Appendix A.

In accordance with the approved JNP Group Options Appraisal and Remediation Strategy Report (reference M41977 RE003 Rev G, 14th October 2019) the following verification was required:

- design, depth, visual and chemical quality of the capping layer in landscaped areas;
- verification of gas membranes installed in the properties and garages.

Verification Works Undertaken

Capping Layer

In accordance with the approved Materials Management Plan for the site, the topsoil and subsoil for the capping layer was imported from another Berkeley Group operated site at Warminster.

Chemical testing certificates for the topsoil and subsoil from the Warminster site were provided to JNP Group. JNP group had reviewed the results and deemed them as acceptable for use as capping materials across the site as they complied with the imported fill criteria specified in the agreed Options Appraisal and Remediation Strategy Report (reference M41977 RE003 Rev G, dated 14 October 2019).

JNP Group attended site on 29th November 2023 to verify that the capping material present at the site was suitable and complied with the requirements of the Options Appraisal and Remediation Strategy Report (reference M41977 RE003 Rev G, dated 14 October 2019) and MMP.

One pit was excavated in the landscaping / managed garden area to the apartment block (54 and 53). The topsoil comprised brown, loam, sandy, clay to a depth of 0.3 m below ground level (bgl), which was underlain by 0.10 m of yellow gravelly sand. The geotextile was present at a depth of 0.40 m bgl.

Both the topsoil and subsoil were free of any deleterious material (e.g. wire, glass, plastics, treated wood or textiles). Photographs taken from the plots are also given in Appendix B to this letter.

In accordance with the validation plan included in the agreed Remediation Strategy Report one soil sample was taken from the topsoil at 0.2 m bgl.

The sample was scheduled for testing of asbestos, heavy metals, polycyclic aromatic hydrocarbons, aliphatic-aromatic petroleum hydrocarbons, pH and soil organic matter. The analysis was undertaken by i2, a UKAS and MCERTS accredited chemical testing laboratory.

The result confirmed there were no elevated concentrations of any of the analytes when compared to the imported fill criteria given in the Remediation Strategy.

Copies of the i2 testing certificates are included in Appendix C to this report.

Therefore, based on the above the capping materials within the landscaping area are considered acceptable and in line with the requirements of the agree Remediation Strategy requirements.

Gas Membrane

In line with the Validation Plan outlined in the agreed Options and Appraisal and Remediation Strategy Report (reference M41977 RE003 Rev G, 14 October 2019), the gas membranes installed in all properties and garages must:

- Provides 2 points of protection providing it meets with the requirement of section 7.2.4 and Table 7 of BS8485;
- Be suitable for CS2 protection and hydrocarbon resistant;
- Installed by a suitably experienced and qualified individual;
- A photographic record of the installation work will be kept by the installer;
- Be verified as appropriate by a suitably qualified third party.

The gas membranes were installed by UK Membranes and verified by MEC Environmental Limited. MEC Environmental verified that a Visqueen HC Blok Membrane had been installed within the plots and garages and that the installers had the appropriate qualifications. MEC undertook a membrane installation inspection, which was deemed as acceptable. A copy of the MEC Environmental Ltd Validation Report is included as Appendix D.

From a review of the MEC Validation Report, JNP Group concur that a suitable membrane has been used to address the required CS2 and hydrocarbon protection and has been validated in accordance with the requirements of the Options and Appraisal and Remediation Strategy Report (reference M41977 RE003 Rev G, 14 October 2019).

Conclusion

JNP Group can confirm that the capping layer placed in the gardens to Plots 54-63 inclusive (Block H - Apartments) and the gas membrane installed to these plots, has been validated appropriately and meets with the general requirements of the JNP Group Options Appraisal and Remediation Strategy Report (reference M41977 RE003 Rev G, dated 14th October 2019).

Yours sincerely,

[redacted]

Hilary Ilsley

Associate

Appendix A Limitations

Introduction

This report is confidential and has been prepared solely for the benefit of the client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from JNP Group; a charge may be levied against such approval. JNP Group accepts no responsibility or liability for the consequences of this document being used for any purpose or project other than for which it was commissioned, and: this document to any third party with whom and agreement has not been executed.

Any comments given within this report are based on the understanding that the proposed works to be undertaken will be as described in the introduction and the information referred to and provided by others and will be assumed to be correct and will not have been checked by JNP Group and JNP Group will not accept any liability or responsibility for any inaccuracy in such information.

Any deviation from the recommendations or conclusions contained in this report should be referred to JNP Group in writing for comment and JNP Group reserve the right to reconsider their recommendations and conclusions contained within. JNP Group will not accept any liability or responsibility for any changes or deviations from the recommendations noted in this report without prior consultation and our full approval.

The details contained within this report reflect the site conditions prevailing at the time of investigation. JNP Group warrants the accuracy of this report up to and including that date. Additional information, improved practice or changes in legislation may necessitate this report having to be reviewed in whole or in part after that date. If necessary, this report should be referred back to JNP Group for re-assessment and, if necessary, re-appraisal.

This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report. Whilst this report and the opinion made herein are correct to the best of JNP Group' belief, JNP Group cannot guarantee the accuracy or completeness of any information provided by third parties.

The report represents the finding and opinions of experience geotechnical and geo-environmental engineers. JNP Group does not provide legal advice and the advice of lawyers may also be required.

It should be noted that the following were not included as part of the agreed scope of works with the client: detailed ecological surveys and assessment; groundwater monitoring and sampling; geotechnical requirements etc.

JNP Group has provided advice and made recommendations based on the findings of the work undertaken, however this is subject to the approval / acceptance by the relevant Regulatory Authorities.

Objectives

The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the site. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned.

The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, JNP Group reserves the right to review such information and, if warranted, to modify the opinions accordingly. It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Remediation and Verification Reports Limitations

The risk assessment and opinions provided, inter alia, take into consideration currently available guidance relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

Where intrusive investigations have been undertaken they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature sampling, no investigation technique is capable of identifying all conditions present in all areas. The number of sampling points and the methods of sampling and testing do not preclude the existence of localised "hotspots" of contamination where concentrations may be significantly higher than those actually encountered.

If costs have been included in relation to the site remediation these must be confirmed by a qualified quantity surveyor. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed from Third Party should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, JNP Group reserves the right to review such information and, if warranted, to modify the opinions accordingly.

Whilst this report and the opinion made herein are correct to the best of JNP Groups' belief, JNP Group cannot guarantee the accuracy or completeness of any information provided by third parties.

Appendix B Photographs

JNP GROUP
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Block H Landscaping area capping layer with geotextile visible

Appendix C Chemical Testing Results

Charlotte Grisby
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48 Holly Walk
Leamington Spa
CV32 4XP

e: Charlotte.Grisby@jnpgroup.co.uk

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 23-72401

Project / Site name:	Bridge Road	**Samples received on:**	30/11/2023
Your job number:	M41977	**Samples instructed on/ Analysis started on:**	30/11/2023
Your order number:	G2246	**Analysis completed by:**	08/12/2023
Report Issue Number:	1	**Report issued on:**	08/12/2023
Samples Analysed:	9 soil samples		

Signed: [redacted]

Dominika Liana
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-72401
Project / Site name: Bridge Road
Your Order No: G2246

Lab Sample Number				2896893	2896894	2896895	2896896	2896897
Sample Reference				P66R TS	P64R SS	P64F TS	BHF TS	P53F TS
Sample Number				1	2	3	4	5
Depth (m)				0.25	0.50	0.15	0.20	0.25
Date Sampled				29/11/2023	29/11/2023	29/11/2023	29/11/2023	29/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	23	13	14	15	14
Total mass of sample received	kg	0.001	NONE	0.3	0.2	0.3	0.3	0.2
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EWS	EWS	EWS	EWS	EWS

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8	8.4	8.4	8	7.9
Organic Matter (automated)	%	0.1	MCERTS	4.1	0.9	1.7	1.5	1.9

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.14	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.11	< 0.05	0.08
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.11	< 0.05	0.07
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	0.08	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.06	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80	< 0.80

Analytical Report Number: 23-72401
Project / Site name: Bridge Road
Your Order No: G2246

Lab Sample Number				2896893	2896894	2896895	2896896	2896897
Sample Reference				P66R TS	P64R SS	P64F TS	BHF TS	P53F TS
Sample Number				1	2	3	4	5
Depth (m)				0.25	0.50	0.15	0.20	0.25
Date Sampled				29/11/2023	29/11/2023	29/11/2023	29/11/2023	29/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.1	10	4.3	5.5	4.5
Barium (aqua regia extractable)	mg/kg	1	MCERTS	27	20	14	16	15
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.25	0.48	0.22	0.24	0.21
Boron (water soluble)	mg/kg	0.2	MCERTS	1.4	0.6	0.4	0.3	0.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	6.6	15	9.5	11	9.1
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	10	8.7	7.3	8.3
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	9.3	14	16	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.7	14	2.7	2.8	2.7
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	11	26	16	19	16
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	56	40	17	20	17
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-72401
Project / Site name: Bridge Road
Your Order No: G2246

Lab Sample Number				2896898	2896899	2896900	2896901
Sample Reference				P51F SS	P53R SS	P52R TS	BGR TS
Sample Number				6	7	8	9
Depth (m)				0.40	0.50	0.20	0.15
Date Sampled				29/11/2023	29/11/2023	29/11/2023	29/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	14	15	16
Total mass of sample received	kg	0.001	NONE	0.3	0.3	0.3	0.3

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	EWS	EWS	EWS	EWS

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	8.2	8.1	8
Organic Matter (automated)	%	0.1	MCERTS	0.5	0.6	1.7	2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.07
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.07
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80

Analytical Report Number: 23-72401
Project / Site name: Bridge Road
Your Order No: G2246

Lab Sample Number				2896898	2896899	2896900	2896901
Sample Reference				P51F SS	P53R SS	P52R TS	BGR TS
Sample Number				6	7	8	9
Depth (m)				0.40	0.50	0.20	0.15
Date Sampled				29/11/2023	29/11/2023	29/11/2023	29/11/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6	5.9	4.9	4
Barium (aqua regia extractable)	mg/kg	1	MCERTS	14	13	18	15
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.25	0.31	0.26	0.19
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	0.2	0.2	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	15	12	8
Copper (aqua regia extractable)	mg/kg	1	MCERTS	6	6.1	7.4	8.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	6.5	6.3	16	17
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	2.7	2.7	3.1	3.1
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	22	25	18	13
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	16	14	22	17
Monoaromatics & Oxygenates							
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.02	NONE	< 0.020	< 0.020	< 0.020	< 0.020
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.01	NONE	< 0.010	< 0.010	< 0.010	< 0.010
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.05	NONE	< 0.050	< 0.050	< 0.050	< 0.050
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-72401
Project / Site name: Bridge Road

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2896893	P66R TS	1	0.25	Brown loam and sand.
2896894	P64R SS	2	0.5	Brown clay and sand with gravel and vegetation.
2896895	P64F TS	3	0.15	Brown loam and sand with gravel and vegetation.
2896896	BHF TS	4	0.2	Brown sand with gravel and vegetation.
2896897	P53F TS	5	0.25	Brown sand with gravel and vegetation.
2896898	P51F SS	6	0.4	Brown sand with gravel.
2896899	P53R SS	7	0.5	Brown sand with gravel.
2896900	P52R TS	8	0.2	Brown sand.
2896901	BGR TS	9	0.15	Brown loam and sand with vegetation.

Analytical Report Number : 23-72401
Project / Site name: Bridge Road

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards. Refer to CoA for analyte specific accreditation.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260. Refer to CoA for analyte specific accreditation	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID. Refer to CoA for band specific accreditation.	In-house method with silica gel split/clean up.	L088/76-PL	D	MCERTS

Analytical Report Number : 23-72401
Project / Site name: Bridge Road

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Appendix D Gas Membrane Verification

MEC ENVIRONMENTAL LTD

Gas Membrane Installation

Validation Report

Berkley Homes

Cavindish Meads

Sunninghill

Ascot

Berkshire

SL5 9TB

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1. INTRODUCTION

1.1 Purpose

UK Membranes are installing a gas protection membrane to the aforementioned site. MEC Environmental Ltd (MEC) has been appointed by UK Membranes to carry out independent validation of the installation of the membrane on the site as per our terms of engagement. The frequency of independent inspections has been determined by the client, comprehensive CQA should be forwarded by the installer to cover any data gaps for areas that have not been subjected to independent inspections.

The **SOLE** purpose of the works undertaken by MEC Environmental is to provide independent inspections and a factual report as and when requested to assist the client in gaining regulatory approval with regards to the gas membrane installation. This is as per the scope of work section within our term's engagement.

1.2 Limitations

This report is limited to providing lines of evidence to the regulatory authority for the areas components inspected by MEC only in support of the discharging of the relevant planning conditions only and cannot be used or relied upon for any other purpose. No professional liability shall be extended to any other parties by MEC, the report should explicitly not be relied on by any future vendor or tenant as proof that the gas protection measures are sufficient for the site and functioning at the time of purchase or start of any tenancy. Gas protection systems are not solely reliant on the gas membrane as points are scored under BS8485 for the floor slab, membrane and venting, these components work collaboratively to provide a gas protection system. This is as per the conditions within our term's engagement.

The report has been provided on the assumption that no damage or works that may have compromised the components and integrity of the gas membrane have been made after our inspections, failure to report any such occurrences will invalidate any liability and render the report and contents invalid. This is as per the conditions within our term's engagement.

This report has been prepared in accordance with the best available practice and the relevant guidance documents listed below of which the author of the report was a contributor and member of the steering committees:

Mallett H, Wilson S, Corban M (2014) "Good practice on the testing and verification of protection systems for buildings against hazardous ground gases". CIRIA Report C735

1.3 Compliance with Regulation 7 of Building Regulations

Regulation 7 of the building regulations requires that building work shall be carried out in a workmanlike manner. Approved document 7 suggests installation can comply with the regulation if workmanship is such that, where relevant, materials are adequately mixed or prepared and applied, used or fixed so as to perform adequately the functions for which they are intended.

A reasonable standard may be demonstrated by:

Compliance with a standard and independent certification - The relevant standard for gas protection measures is BS8485:2015 +A1:2019, Table 7 of the standard requires that gas membranes are verified as per CIRIA C735.

Past experience – The installers qualifications are checked by MEC Environmental to ensure that the installation supervisor holds the NVQ Level 2 in gas membrane installations.

Integrity Testing methods. – are carried out as prescribed in CIRIA C735, unless stated elsewhere Frequency of Visits – MEC have not been employed to prepare a validation plan for this project, the frequency of visits is as per the instructions of the client, in essence MEC inspected the available membrane that could be inspected each time an inspection visit was requested. The area inspected on each visit is noted on the survey sheets in appendix 1. This report should be read in conjunction with the installers CQA report.

1.4 Method of Inspection (Per Visit)

All seams and non-seam areas of the available gas membrane were inspected/tested by the Validation Surveyor for identification of defects, protruding and penetrating objects, lack of subgrade support, overheating, holes, blisters, undispersed raw materials, scratches and gouges, and any sign of contamination by foreign matter.

Any portion of the gas membrane exhibiting a flaw or failing a visual inspection/testing was repaired. Several procedures exist for the repair of these areas. The final decision as to the appropriate repair procedure was agreed upon between the Validation Consultant and the Installer at the time of the repair and is noted in the survey sheets.

Major repairs are visually inspected/tested, repairs passing the inspection/testing were considered acceptable. In some cases minor repairs maybe carried out under contractor CQA and photographic evidence supplied to the verifier for inclusion in the report.

1.5 MEC Staff Competency

All site inspections have been carried out by suitably qualified staff as defined in CIRIA C735, the qualification held by all MEC inspection surveyors is either the NVQ Level 4 in gas protection verification or the NVQ Level 2 in gas membrane installation

The author of this report is also a CL:AIRE accredited Specialist in Gas Protection Verification (SGPV) and holds both the NVQ Level 2 in gas membrane installation and the NVQ Level 4 in gas protection verification.

1.6 Conclusion

During our inspections to the areas denoted in Appendix 1 (Site Surveys Sheets) we witnessed the installer carrying out the installation in a workmanlike manner, the materials were adequately prepared and applied, used and fixed so as to perform adequately the functions for which they are intended as per Regulation 7 of the building regulations. In instances were 100% of the installation has not been independently inspected/tested then this report should be read in conjunction with the gas membrane installers CQA records.

The installers all hold the NVQ Level 2 “Gas membrane Installations” qualification and as such are classed as a qualified and experienced installer. MEC Environmental have checked the CSCS Trade Cards of the installers, which confirms the holder has attained the qualification.

Signed [redacted] Date: 31/08/2023

Michael Corban S.G.P.V.
Director
MEC Environmental Ltd

Appendix 1 – Site Survey Sheets

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 4,5,6 & 7.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB.	**Weather: 13 ºC Dry**	**Terrace**	☒
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 28/02/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☒ Infill Only ☐ Other ☐

If other, please describe Full line out to attached garage in plot 4.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: Plot 4 = 9no & Plots 5,6 & 7 = 5no per plot.		
Materials used:	Membrane Name: Visqueen HC Blok gas membrane.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒ / Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

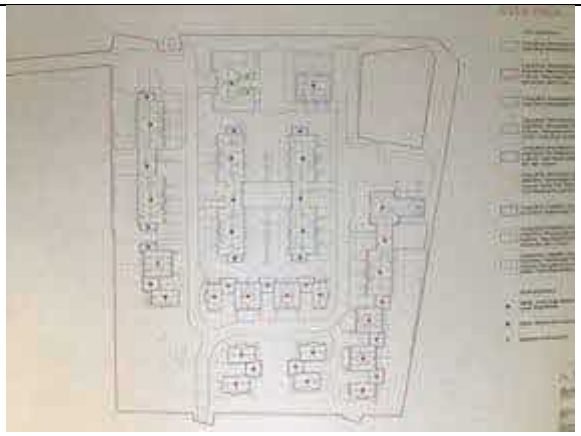
Surveyors Comments

N/A. Note: 2no pipe penetrations per plot have been sealed during our inspection the remaining pipe penetrations will be done on the infill.

Result of Inspection The Plots/Area has passed inspection

Signed: **Adam Mcdermott** Date: **28/02/2022**

Photographs 28/02/2022



Site plan.

Plot 4 overview of installed membrane to the garage.

Plot 4 overview of installed membrane to the perimeters and party walls.

Plot 4 pick testing all weld laps.

Plot 4 seal using SAGM to the front of the garage.

Plot 5 overview of installed membrane to the perimeter and party walls.

Plot 5 pick testing all SAGM detailing.

Plot 5 typical corner and pipe penetration seal using SAGM.

Plot 6 overview of installed membrane.

Plot 6 air brick in place.

Plot 6 typical door threshold seal using SAGM.

Plot 7 overview of installed membrane.

Plot 7 typical bay window corner seals using SAGM.

Plot 7 typical door seal using SAGM.

Air lancing all weld laps and SAGM detailing.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plot 1.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☒
		Semi-Detached	☐
Postcode: SL5 9TB.	**Weather: 16 ºC Dry**	**Terrace**	☐
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 26/05/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: 10no.		
Materials used:	Membrane Name: Visqueen HC Blok gas membrane.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒	Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

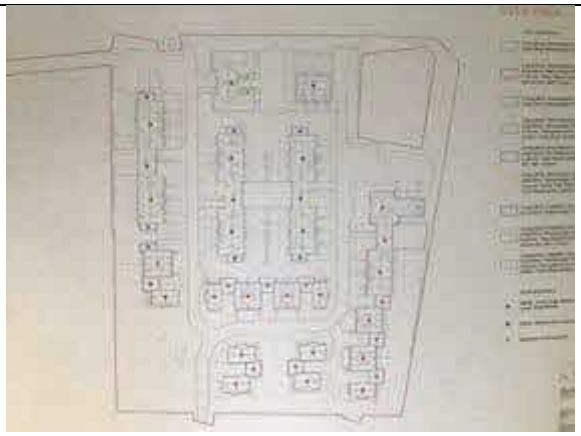
Surveyors Comments

Prior to our inspection 5no patch repairs were made by the installers due to damage caused by follow on trades and repaired using SAGM.

Result of Inspection The Plots/Area has passed inspection

Signed: **Adam Mcdermott** Date: **26/05/2022**

Photographs 26/05/2022



Site plan.

Overview of installed membrane.

Air lancing all welded membrane laps.

Typical pipe penetration seal using SAGM.

Pick testing all SAGM detailing.

Door threshold seal using SAGM.

Patch repair using SAGM to damaged perimeter membrane.

Retro fit detail using SAGM to the internal block work wall.

Air brick in place at the time of our inspection.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 73 & 74.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☒
Postcode: SL5 9TB.	**Weather: 16 ºC Dry**	**Terrace**	☐
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 26/05/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☒ Infill Only ☐ Other ☐

If other, please describe Internal walls and integral garage perimeter walls.

Item	**Comments**			
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐	
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐			
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐			
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐			
	Number of Vents: 10no per plot.			
Materials used:	Membrane Name: Visqueen HC Blok gas membrane.			
	Self-Adhesive Membrane ☒	Preformed Tophats ☐		
	Double Sided Butyl Tape ☐	Preformed Corners ☐		
	Others Please List: N/A.			
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒	Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test	
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)		

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

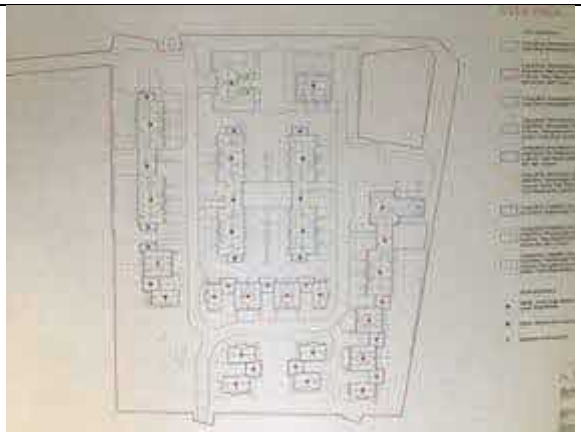
Surveyors Comments

N/A.

Result of Inspection The Plots/Area has passed inspection

Signed: **Adam Mcdermott** Date: **26/05/2022**

Photographs 26/05/2022



Site plan.

Overview of installed perimeter membrane to plots 73 & 74.

Plot 73 typical door threshold seal using SAGM.

Plot 73 air brick in place.

Plot 73 typical corner seal using SAGM.

Plot 74 pick testing all SAGM detailing.

Plot 74 typical double pipe penetration seal using SAGM.

Plot 74 hand welded membrane laps over the cavity wall.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 2 & 3.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☒
Postcode: SL5 9TB.	**Weather: 14 ºC Dry**	**Terrace**	☐
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 07/06/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: 8no per plot.		
Materials used:	Membrane Name: Visqueen HC Blok gas membrane.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒	Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

Prior to our inspection patch repairs were made by the installers due to damage caused by follow on trades and repaired using SAGM to plots:

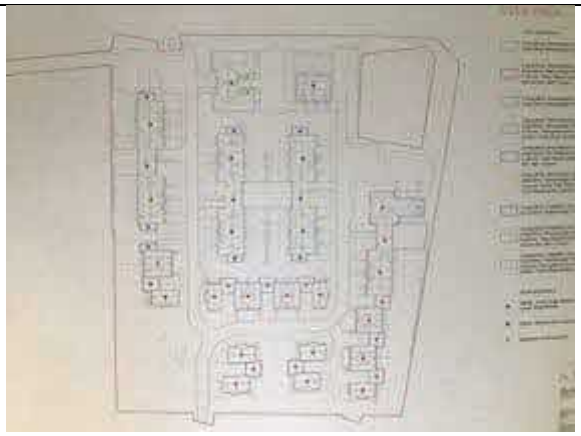
Plot 2 = 4no.

Plot 3 = 3no.

Result of Inspection The Plots/Area has passed inspection

Signed: **Adam Mcdermott** Date: **07/06/2022**

Photographs 07/06/2022



Site plan.

Plot 2 overview of installed membrane.

Plot 2 typical pipe penetration seal using SAGM.

Plot 2 typical door threshold seal using SAGM.

Plot 2 air lancing all weld laps and SAGM detailing.

Plot 3 overview of installed membrane.

Plot 3 typical double pipe penetration seal using SAGM.

Plot 3 retro fit detail over the damaged membrane that is under the internal block work wall.

Plot 3 pick testing all SAGM detailing.

Air brick in place at the time of our inspection.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 75 & 76.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☒
		Semi-Detached	☐
Postcode: SL5 9TB.	**Weather: 24 ºC Dry.**	**Terrace**	☐
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 25/07/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: 12no per plot.		
Materials used:	Membrane Name: Visqueen HC Blok gas barrier.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒ / Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

During our inspection the damaged membrane around the perimeter which was caused by follow on trades was repaired using SAGM to plots:

Plot 75 = 17no.
Plot 76 = 12no.

Result of Inspection The Plots/Area has passed inspection but the above information is drawn to the contractors attention

Signed: **Adam Mcdermott** Date: **25/07/2022**

Photographs 25/07/2022

Plot 75 overview of installed membrane.

Plot 75 typical double pipe penetration seal using SAGM.

Plot 75 repaired damaged membrane using SAGM.

Plot 75 air lancing all weld laps and SAGM detailing.

Plot 76 air brick in place at the time of our inspection.

Plot 76 pick testing all SAGM detailing.

Plot 76 picture framing detail using SAGM to internal block work wall.

Plot 76 overview of installed membrane.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 4 & 5.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB.	**Weather: 32 ºC Dry.**	**Terrace**	☒
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 12/08/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: 5no per plot.		
Materials used:	Membrane Name: Visqueen HC Blok gas barrier.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒	Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☐ N/A

Surveyors Comments

During our inspection the damaged membrane around the perimeter which was caused by follow on trades was repaired using SAGM to plots:

Plot 4 = 11no.
Plot 5 = 12no.

Result of Inspection The Plots/Area has passed inspection but the above information is drawn to the contractors attention

Signed: **Adam Mcdermott** Date: **12/08/2022**

Photographs 12/08/2022

Plot 4 overview of installed membrane.

Plot 4 typical pipe penetration seal using SAGM.

Plot 4 hand welded membrane lap.

Plot 4 patch repair using SAGM.

Plot 5 overview of installed membrane.

Plot 5 typical double pipe penetration seal using SAGM.

Plot 5 air lancing all SAGM detailing and welded membrane laps.

Plot 5 air brick in place at the time of our inspection.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 6 & 7.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB.	**Weather: 24 ºC Dry.**	**Terrace**	☒
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 19/08/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**			
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐	
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐			
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐			
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐			
	Number of Vents: 5no per plot.			
Materials used:	Membrane Name: Visqueen HC Blok gas barrier.			
	Self-Adhesive Membrane ☒	Preformed Tophats ☐		
	Double Sided Butyl Tape ☐	Preformed Corners ☐		
	Others Please List: N/A.			
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒	Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test	
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)		

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

During our inspection the damaged membrane around the perimeter which was caused by follow on trades was repaired using SAGM to plots:

Plot 6 = 12no.
Plot 7 = 10no.

Result of Inspection The Plots/Area has passed inspection but the above information is drawn to the contractors attention

Signed: **Adam Mcdermott** Date: **19/08/2022**

Photographs 19/08/2022

Plot 7 overview of installed membrane.

Plot 7 typical double pipe penetration seal using SAGM.

Plot 7 patch repair using SAGM.

Plot 7 air lancing all welded membrane laps.

Plot 6 overview of installed membrane.

Plot 6 repaired door threshold detail using SAGM.

Plot 6 typical pipe penetration seal using SAGM.

Plot 6 pick testing all SAGM detailing.

5no air bricks per plot were in place at the time of our inspection.

Housebuilder Name: Berkeley Homes		**Plot Number: 8 FOG, 9 Terrace**	
Site Name: Sunninghill Square, Cavindish meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB	**Weather: 22 ºC Fine**	**Terrace**	☒
Installer: UK Membranes		**Apartment Block**	☐
Surveyor: Keith Barsby		**Detached Garage**	☐
Date: 02/09/2022		**Flat Over Garage**	☒

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe

Item	**Comments**			
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐	
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐			
	The venting has passed inspection and is installed as per the design ☐ The venting has failed inspection, see notes in defects section ☐			
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐			
	Number of Vents: Plot 8=0no, Plot 9=7no			
Materials used:	Membrane Name: Visqueen HC Blok			
	Self-Adhesive Membrane ☒	Preformed Tophats ☐		
	Double Sided Butyl Tape ☐	Preformed Corners ☐		
	Others Please List: N/A			
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒	Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test	
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)		

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

Patch repairs made using SAGM to damage caused by follow on trades around the previously installed perimeter: Plot 8=12no, Plot 9=2no.

Result of Inspection The Plots/Area has passed inspection

Signed: **Keith Barsby** Date: **02/09/2022**

Photographs 02/09/2022

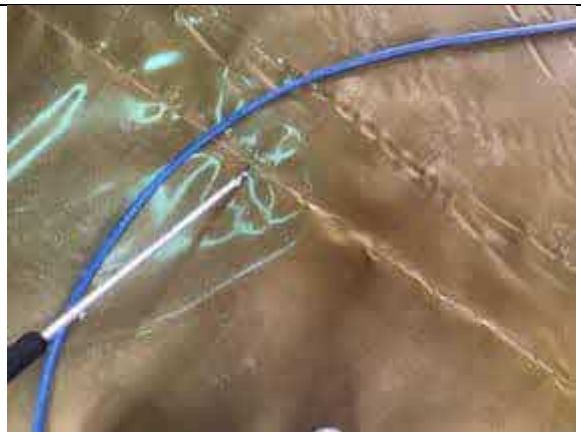
Plot 8 overview

Plot 8 hand welded joint being air lanced

Plot 8 corner detail and pipe penetration sealed using SAGM

Plot 9 overview

Plot 9 pipe penetrations sealed using SAGM



Plot 9 hand welded joint being air lanced

Housebuilder Name: Berkeley Homes		**Plot Number: 10-11-12**	
Site Name: Cavendish meads. Sunninghill, Ascot. Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB	**Weather: 17 ºC Dry**	**Terrace**	☒
Installer: UK Membranes		**Apartment Block**	☐
Surveyor: Ross Edwards		**Detached Garage**	☐
Date: 09/09/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☒

If other, please describe

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☐	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: Plots 10-11-12 = 16no		
Materials used:	Membrane Name: Visqueen HC Bloc		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒ / Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☐ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

Membrane has been installed across the footprint and welded to the perimeter membrane, all detailing sealed using SAGM

Result of Inspection The Plots/Area has passed inspection

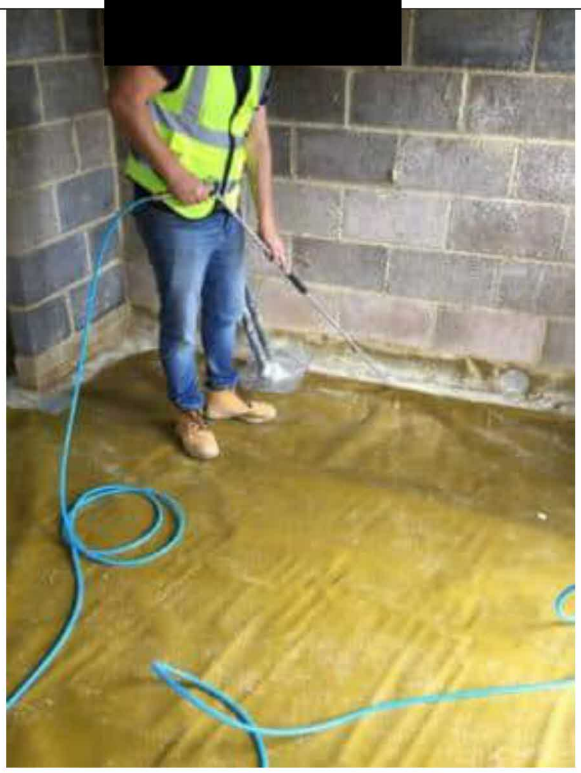
Signed: **Ross Edwards** Date: **09/09/2022**

Photographs 09/09/2022

Overview to Plot 12 infill lined out using Visqueen HC Bloc.

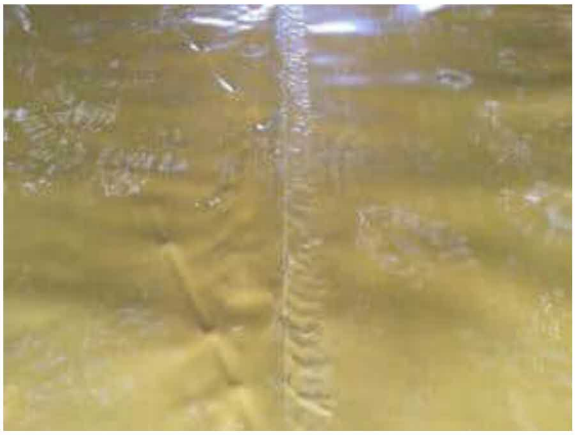
Two typical pipe details sealed with SAGM to Plot 12.

Pick testing along the hand welded lap joint.



Lance testing to the perimeter hand welded lap joints.

Plot 11 infill overview.



Overview looking down the hand welded lap joint.

Pipe details within Plot 11 sealed with SAGM.

Overview to the air lance test in process to Plot 11.

Plot 10 overview.

Overview to the perimeter membrane welded to the infill membrane.

SAGM patches applied prior to inspection to the perimeter membrane within Plot 10.

Air lance testing to Plot 10 lap joints.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 33 & 34.**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB	**Weather: 16 ºC Dry.**	**Terrace**	☒
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 23/09/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: 4no per plot.		
Materials used:	Membrane Name: Visqueen HC Blok gas barrier.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒ / Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

Prior to our inspection patch repairs were made by the installers to the damaged perimeter membrane caused by follow on trades and repaired using SAGM to plots:

Plot 33 = 18no.
Plot 34 = 17no.

Result of Inspection The Plots/Area has passed inspection but the above information is drawn to the contractors attention

Signed: **Adam Mcdermott** Date: **23/09/2022**

Photographs 23/09/2022

Plot 33 overview of installed Visqueen HC Blok Gas Barrier as an infill.

Plot 33 typical pipe penetration seal using SAGM.

Plot 33 hand welded membrane lap.

Plot 34 overview of installed Visqueen HC Blok Gas Barrier.

Plot 34 patch repair using SAGM to damaged perimeter membrane.

Plot 34 air lancing all welded membrane laps.

Air brick in place at the time of our inspection.

Housebuilder Name: Berkeley Homes.		**Plot Number: Plots 32 & 35**	
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.		**Detached House**	☐
		Semi-Detached	☐
Postcode: SL5 9TB	**Weather: 12 ºC Dry.**	**Terrace**	☒
Installer: UK Membranes.		**Apartment Block**	☐
Surveyor: Adam Mcdermott		**Detached Garage**	☐
Date: 28/09/2022		**Flat Over Garage**	☐

Full Footprint ☐ Perimeter Only ☐ Infill Only ☒ Other ☐

If other, please describe N/A.

Item	**Comments**		
Sub-floor void	Inspected by MEC ☐	Not Inspected by MEC contractor advised ☒	N/A ☐
	Beam & Block min 150mm ☒ Strips of 25mm Geocomposite ☐ Full Cover of 25mm Geocomposite ☐		
	The venting has passed inspection and is installed as per the design ☒ The venting has failed inspection, see notes in defects section ☐		
Ventilation Inlets and Outlets	(Inlet/Outlet Type) Air Bricks ☒ Ventboxes ☐ Not in Place at Time of Inspection ☐		
	Number of Vents: 4no per plot.		
Materials used:	Membrane Name: Visqueen HC Blok gas barrier.		
	Self-Adhesive Membrane ☒	Preformed Tophats ☐	
	Double Sided Butyl Tape ☐	Preformed Corners ☐	
	Others Please List: N/A.		
Type of Joint	Tape Joint ☐	Auto Weld ☐	Hand Weld ☒ / Extrusion Weld ☐
Testing/Inspection	☒ Visual Inspection	☒ Air Lance (ASTM D4437)	☐ Tracer Gas Test
	☒ Probe Test (ASTM D4437)	☐ Dielectric Test (NACE RP0188-99)	

Laps, welds and detailing	Have all joints passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all pipes passed testing prior to surveyor leaving site?	☒ Yes	☐ No	☐ N/A
	Have all corners passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

	Have all acoustic details passed testing prior to surveyor leaving site?	☐ Yes	☐ No	☒ N/A

Surveyors Comments

Prior to our inspection patch repairs were made by the installers to the damaged perimeter membrane caused by follow on trades and repaired using SAGM to plots:

Plot 32 = 7no.
Plot 35 = 12no.

NOTE: the attached garage to plot 35 was incomplete at the time of our inspection due to scaffolding being in place.

Result of Inspection The Plots/Area has passed inspection but the above information is drawn to the contractors attention

Signed: **Adam Mcdermott** Date: **28/09/2022**

Photographs 28/09/2022

Plot 35 overview of installed Visqueen HC Blok Gas Barrier as an infill.

Plot 35 typical double pipe penetration seal using SAGM.

Plot 35 pick testing all SAGM detailing.

Plot 35 hand welded membrane laps.

Plot 35 attached garage incomplete at the time of our inspection.

Plot 32 overview of installed Visqueen HC Blok Gas membrane.

Plot 32 air lancing all welded membrane laps.

Plot 32 air brick in place at the time of our inspection.

Plot 32 patch repair to damaged membrane caused by follow on trades and repaired using SAGM.

Housebuilder Name: Berkeley Homes - Sunninghill Square			**Date: 07/10/2022**
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.			**Weather: 16 ºC Fine**
			Installer: UK Membranes
Postcode: SL5 9TB	**Surveyor: James Hall (NVQ 2)**		

Plot Number	Building Type	Extent of Inspection	Result
29 & 30	Terrace	Infill	Pass
63 (FOG Unit)	FOG Unit	Full Footprint	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen Ultimate HC Blok

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like, The surveyor carried out Probe testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work

	is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like	
Plot Number	**(Section 3, Defects List)**	**Action Required**
29-30 & 63 FOG Unit	No Defects recorded at the time of our inspection	N/A

Signed: **James Hall (NVQ 2)** Date: **07/10/2022**

Plot Overview Photographs

Plot 29 - Overview of Visqueen Ultimate HC Blok Gas Barrier infill installation.

Plot 30 - Overview of Visqueen Ultimate HC Blok Gas Barrier infill installation.

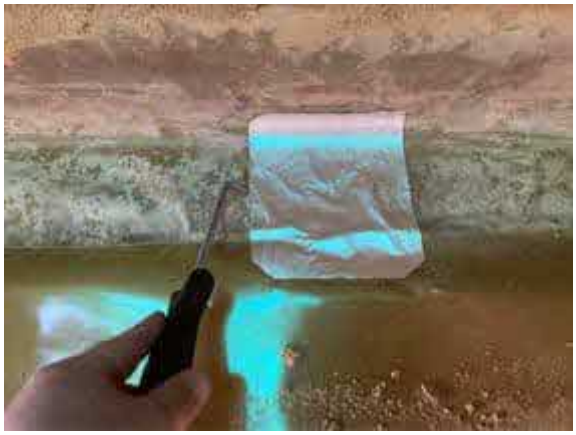
Plot 63 FOG Unit - Overview of Installation of Visqueen Ultimate HC Blok.

Detailing Sample Photographs

Plot 29 - Successfully hand welded membrane lap joint.

Plot 29 - Air lance integrity test upon a hand welded membrane lap joint.

Plot 29 - Pipe penetration's sealed using SAGM.



Plot 29 - Pick test upon a successful patch repair using SAGM.

Plot 30 - Air lance test conducted upon all membrane lap joints.

Plot 30 - Hand welded membrane lap joint.

Plot 30 - Patch repairs using SAGM.

Plot 30 - Typical pipe penetration's sealed using SAGM.

Plot 63 FOG Unit - Corner detailing sealed using SAGM.

Plot 63 FOG Unit - Typical threshold detail sealed using SAGM.

Plot 63 FOG Unit - Pick test upon a successfully hand welded lap joint.

Plot 63 FOG Unit - Typical pipe penetration sealed using SAGM.

Housebuilder Name: Berkeley Homes.			**Date: 14/10/2022**
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.			**Weather: 13 ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.	**Surveyor: Adam McDermott (TGPV)**		
Plot Number	**Building Type**	**Extent of Inspection**	**Result**
Plots 27 & 28.	Terrace.	Infill	Pass

(Section 1, Materials and Method of Seal)
Gas Membrane Name: Visqueen HC Blok gas membrane.
Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection
Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal
Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.
Others Please List: N/A

(Section 2, Testing and Inspection Method)	
Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
Plots 27 & 28.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **14/10/2022**

Plot Overview Photographs

Overview of installed membrane to plot 27.

Overview of installed membrane to plot 28.

Detailing Sample Photographs

Plot 27 air lancing all weld laps.

Plot 27 typical double pipe penetration seal using SAGM.

Plot 27 patch repair using SAGM to damage caused by follow on trades.

Plot 28 typical pipe penetration seal using SAGM.

Plot 28 retro fit detail using SAGM.

Plot 28 pick testing all SAGM detailing.

Housebuilder Name: Berkeley Homes / Sunninghill Square.			**Date: 14/11/2022**
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.			**Weather: 14ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	
Plot Number	**Building Type**	**Extent of Inspection**	**Result**
Apartment Block C, Plots 13-26.	Terrace.	Infill	Areas that had been completed have passed, however the area the full area was incomplete (see section 3 for details)

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok gas membrane.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection	
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like	
Plot Number	**(Section 3, Defects List)**	**Action Required**
Apartment Block C, Plots 13-26.	Although the gas membrane has been installed to a good standard across the main living areas of apartment block C, the installers were unable to complete the main lobby area, 2no cycle store areas and 1no bin store due to these areas not being ready, therefore a re inspection will be required by MEC Environmental once complete.	The defect is classed as major and therefore a Re-inspection is required once remedial work has been completed
Signed: **Adam McDermott (TGPV)** Date: **14/11/2022**		

Plot Overview Photographs

Overview of installed membrane to apartment block C.

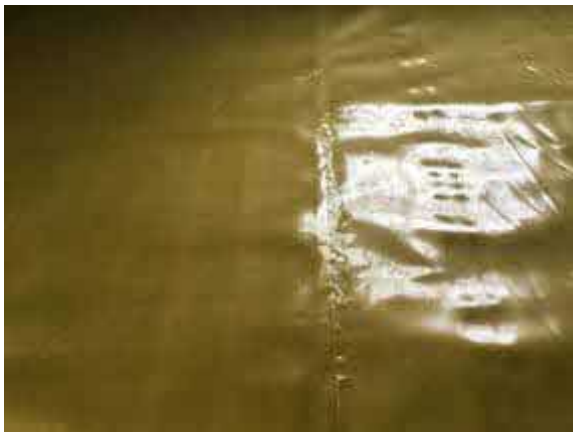
Overview of installed membrane to apartment block C.

Detailing Sample Photographs

Air lancing all welded membrane laps.

Typical pipe penetration seal using SAGM.

Pick testing all SAGM detailing.



Hand welded membrane lap.

Repaired damaged to the door threshold due to follow on trades using SAGM.

Sealed corner detail using SAGM.

Incomplete stair lobby.

Incomplete cycle store.

Incomplete bin store.

Housebuilder Name: Berkeley Homes/Sunninghill Square.			**Date: 19/12/2022**
Site Name: Cavindish Meads, Sunninghill, Ascot, Berkshire.			**Weather: 10ºC Showers**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	
Plot Number	**Building Type**	**Extent of Inspection**	**Result**
36 & 41.	Detached.	Infill	Pass
37,38 & 39.	Semi detached.	Infill	Pass

(Section 1, Materials and Method of Seal)
Gas Membrane Name: Visqueen HC Blok gas membrane.
Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection
Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal
Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.
Others Please List: N/A.

(Section 2, Testing and Inspection Method)	
Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	**(Section 3, Defects List)**	**Action Required**

36,37,38,39 & 41.	No Defects recorded at the time of our inspection. “The membrane inspected should be permanently covered before 23rd December. Site must provide photographic evidence of the membrane works concreted immediately after completion. The outcome of the report may be affected if this is not provided." NOTE: plot 40 was incomplete due to being used as storage, also the garages to all plots were incomplete due to scaffolding being in place at the time of install/inspection.	N/A
Signed: **Adam McDermott (TGPV)** Date: **19/12/2022**		

Plot Overview Photographs

Overview of plot 36.

Overview of plot 37.

Overview of plot 38.

Overview of plot 39.

Overview of plot 41.

Detailing Sample Photographs

Patch repairs using SAGM to plot 36.

Overview of installed membrane to plot 36.

Typical pipe penetration seal using SAGM to plot 36.

Air lancing all welded membrane laps to plot 37.

Overview of installed membrane to plot 37.

Typical pipe penetration seal using SAGM to plot 37.

Pick testing all SAGM detailing to plot 38.

Hand welded membrane lap in plot 38.

Overview of installed membrane to plot 38.

Overview of installed membrane to plot 39.

Typical pipe penetration seal using SAGM to plot 39.

Repaired damaged perimeter membrane using SAGM to plot 39.

Overview of installed membrane to plot 41.

Air brick in place to plot 41.

Typical pipe penetration seal to plot 41.

Scaffolding in place in all garages.

Plot 40 was incomplete at the time of our inspection due to being used as storage.

Housebuilder Name: Berkeley Homes - (Sunninghill Square)			**Date: 23/01/2023**
Site Name: Sunninghill, Ascot, Berkshire			**Weather: 0ºC Fine**
			Installer: UK Membranes
Postcode: SL5 9TB		**Surveyor: James Hall (NVQ 2)**	

Plot Number	Building Type	Extent of Inspection	Result
73-74	Detached	Infill	Pass
40	Semi Detached	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required

40 & 73-74	No Defects recorded at the time of our inspection.	N/A

Signed: **James Hall (NVQ 2)** Date: **23/01/2023**

Plot Overview Photographs

Plot 73 Overview where Visqueen HC Blok was installed.

Plot 74 Overview where installation took place.

Plot 40 overview of where the installation took place.

Detailing Sample Photographs

Plot 73. Visqueen HC Blok infill installation.

Plot 73. Hand welded membrane lap joint.

Plot 73. Typical pipe penetration sealed using SAGM.

Plot 73. Air lance integrity test conducted upon all hand welded membrane lap joints.

Plot 74. Overview of installation of Visqueen HC Blok gas barrier.

Plot 74. Hand welded membrane lap joint.

Plot 74. Pick test upon hand welded membrane lap joint.

Plot 74. Air lance integrity test conducted upon sealed pipe penetration.

Plot 40. Hand welded membrane lap joint.

Plot 40. Air lance integrity conducted upon all welded membrane lap joints.

Plot 40. Typical pipe penetration sealed using SAGM.

Plot 40. Overview of installation of Visqueen HC Blok gas barrier.

Housebuilder Name: Berkeley Homes - (Sunninghill Square)			**Date: 09/03/2023**
Site Name: Sunninghill, Ascot, Berkshire			**Weather: 3ºC Cloudy**
			Installer: UK Membranes
Postcode: SL5 9TB		**Surveyor: James Hall (NVQ 2)**	

Plot Number	Building Type	Extent of Inspection	Result
72	Detached	Infill	Pass
70	Semi Detached	Infill	Pass
30 & 32 & 35	Garages to FOG Unit & Single Garage	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required

30 & 32 & 35 + 70 & 72	No Defects recorded at the time of our inspection.	N/A

Signed: **James Hall (NVQ 2)** Date: **09/03/2023**

Plot Overview Photographs

Overview of FOG Unit Garages Plots 30 & 32.

Overview of plot 35 Garage.

Overview of plot 70.

Overview of Plot 72.

Detailing Sample Photographs

Overview of Visqueen HC Blok infill installation to Plot 30 FOG Unit Garage.

Plot 30 garage. Overview of a hand welded membrane lap joint.

Plot 30 garage. Air lance integrity test upon welded lap joint.

Overview of Visqueen HC Blok infill installation to Plot 32 FOG Unit Garage.

Plot 32 garage. Pick testing along hand welded lap joint.

Plot 32 garage. Typical pipe penetration sealed using SAGM.

Overview of Visqueen HC Blok infill installation to Plot 35 Garage.

Plot 35 garage. Overview of a hand welded membrane lap joint.

Plot 35 garage. Corner detailing sealed using SAGM.

Overview of Visqueen HC Blok infill installation to Plot 72.

Plot 72. Air lance integrity test conducted upon hand welded lap joint.

Plot 72. Air lance integrity test upon sealed pipe penetration.

Plot 72. Typical pipe penetration sealed with SAGM.

Plot 72. Overview of a hand welded membrane lap joint.

Overview of Visqueen HC Blok infill installation to Plot 70.

Plot 70. Overview of a hand welded membrane lap joint.

Plot 70. Typical pipe penetration's sealed using SAGM.

Plot 70. Air lance integrity testing along hand welded lap joint.

Plot 70. Pick test conducted upon sealed pipe penetration.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 22/03/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 14ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	

Plot Number	Building Type	Extent of Inspection	Result
71	Semi Detached.	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
71.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **22/03/2023**

Plot Overview Photographs

Overview of plot 71.

Detailing Sample Photographs

Overview of the installed Visqueen HC Blok to plot 71.

Typical pipe penetration seal using SAGM.

Sealed door threshold using SAGM.

Air lancing all hand welded membrane laps.

Patch repairs to damaged perimeter membrane using SAGM.

Pick testing all SAGM detailing.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 13/04/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 7ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB		**Surveyor: Adam McDermott (TGPV)**	
Plot Number	**Building Type**	**Extent of Inspection**	**Result**
42,43,44 & 45	Terrace	Infill	Pass

(Section 1, Materials and Method of Seal)
Gas Membrane Name: Visqueen HC Blok.
Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection
Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal
Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of welding with a hot air automatic welding machine, the width of the welded joint is a minimum of 30mm.
Others Please List: N/A.

(Section 2, Testing and Inspection Method)	
Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like, The surveyor carried out Probe testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work

	is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like	
Plot Number	**(Section 3, Defects List)**	**Action Required**
42,43,44 & 45.	No Defects recorded at the time of our inspection.	N/A

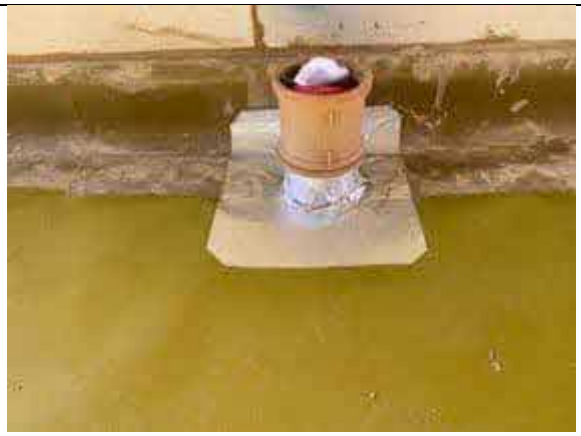
Signed: **Adam McDermott (TGPV)** Date: **13/04/2023**

Plot Overview Photographs

Overview of plots 42-45.

Detailing Sample Photographs

Plot 42 pick testing all SAGM detailing.



Plot 42 typical pipe penetration seal using SAGM.

Plot 42 overview of installed membrane.

Plot 43 typical double pipe penetration seal using SAGM.

Plot 43 overview of installed membrane.

Plot 43 air lancing all hand welded membrane laps.

Plot 44 air brick in place at the time of our inspection.

Plot 44 overview of installed membrane.

Plot 44 typical double pipe penetration seal using SAGM.

Plot 45 overview of installed membrane.

Plot 45 typical pipe penetration seal using SAGM.

Plot 45 sealed door threshold detail using SAGM.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 11/05/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 12ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	

Plot Number	Building Type	Extent of Inspection	Result
47,48,49 & 50.	Terrace.	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

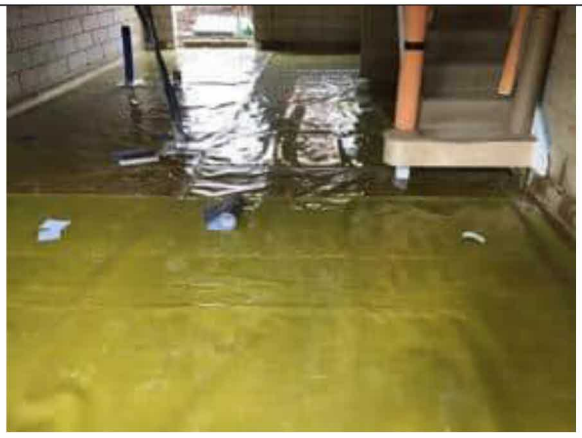
Plot Number	(Section 3, Defects List)	Action Required
47,48,49 & 50.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **11/05/2023**

Plot Overview Photographs

Overview of plots 47,48,49 & 50.

Detailing Sample Photographs



Overview of installed membrane to plot 47.

Typical pipe penetration seal using SAGM to plot 47.

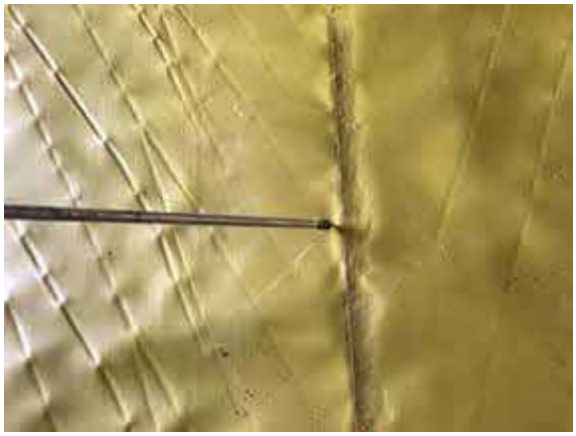
Typical door threshold seal using SAGM to plot 47.

Overview of installed membrane to plot 48.

Typical double pipe penetration seal using SAGM to plot 48.

Hand welded membrane lap to plot 48.

Overview of installed membrane to plot 49.

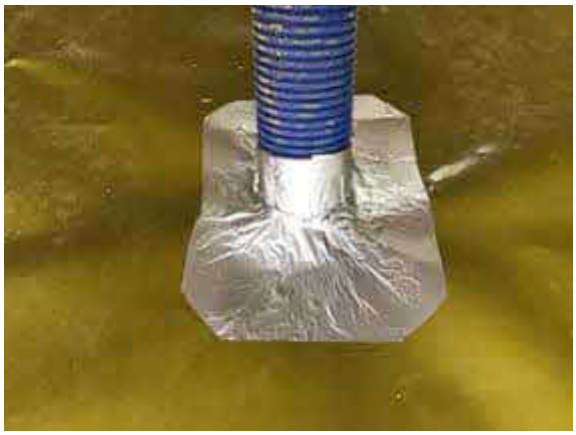


Air lancing all hand welded membrane laps in plot 49.

Air brick in place at the time of our inspection to plot 49.

Overview of installed membrane to plot 50.

Pick testing all SAGM detailing in plot 50.



Typical pipe penetration seal using SAGM to plot 50.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 15/05/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 14ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	

Plot Number	Building Type	Extent of Inspection	Result
66 & 67.	Terrace.	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
66 & 67.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **15/05/2023**

Plot Overview Photographs

Overview of plots 66 & 67.

Detailing Sample Photographs

Overview of installed membrane to plot 66.

Sealed pipe penetrations using SAGM to plot 66.

Air lancing all hand welded membrane laps to plot 66.

Pick testing all SAGM detailing to plot 67.

Sealed double pipe penetrations using SAGM to plot 67.

Patch repairs to damaged perimeter membrane using SAGM to plot 67.

Overview of installed membrane to plot 67.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 25/05/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 12ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	

Plot Number	Building Type	Extent of Inspection	Result
64 & 65.	Terrace.	Infill	Pass
13-26.	Apartment Block C.	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
64 & 65	N/A.	N/A

Signed: **Adam McDermott (TGPV)** Date: **25/05/2023**		

Plot Overview Photographs

Overview of Apartment Block C.

Overview of plot 64.

Overview of plot 65.

Detailing Sample Photographs

Sealed door threshold detail using SAGM to plot 64.

Hand welded membrane lap to plot 64.

Air lancing all hand welded membrane laps to plot 64.

Typical double pipe penetration seal using SAGM to plot 64.

Pick testing all SAGM detailing to plot 64.

Air brick in place at the time of our inspection to plot 65.

Overview of installed membrane to plot 65.

Hand welded membrane lap to plot 65.

Typical pipe penetration seal using SAGM to plot 65.

Re sealed door threshold detail using SAGM to plot 65.

Over of installed membrane to apartment block c entrance lobby.

Sealed pipe penetrations in riser cupboard to apartment block c.

Retro fit detail using SAGM to the base of the concrete stairs in apartment block b.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 25/05/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 12ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	

Plot Number	Building Type	Extent of Inspection	Result
36.	Detached.	Garage Footprint	Pass
37,38 & 39	Semi Detached.	Garage Footprint	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
36,37,38 & 39.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **25/05/2023**		

Plot Overview Photographs

Overview of plot 36.

Overview of plot 37.

Overview of plot 38.

Overview of plot 39.

Detailing Sample Photographs

Overview of installed membrane to the garage area in plot 36.

Hand welded membrane lap to plot 36.

Overview of installed membrane to garage area in plot 37.

Pick testing all SAGM patches to damaged perimeter membrane to plot 37.

Overview of installed membrane to garage area to plot 38.

Overview of installed membrane to garage area to plot 39.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 09/06/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 22 ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.		**Surveyor: Adam McDermott (TGPV)**	

Plot Number	Building Type	Extent of Inspection	Result
40 & 41.	Linked Detached.	Garage Footprint	Pass
54-62.	Apartment Block H.	Infill	Pass
46.	Flat over garage.	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok gas membrane.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
40,41,46 & 54-62.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **09/06/2023**

Plot Overview Photographs

Overview of plot 40.

Overview of plot 41.

Overview of flat over garage plot 46.

Overview of Apartment Block H. Plots 54-62.

Detailing Sample Photographs

Overview of installed membrane to the garage, as an infill to plot 40.

Hand welded membrane lap in garage plot 40.

Patch repair using SAGM to damaged perimeter membrane in plot 41 garage.

Overview of installed membrane to the garage in plot 41.

Overview of installed membrane to the entrance area in flat over garage plot 46.

Typical pipe penetration seal using SAGM to plot 46.

Overview of installed Visqueen HC Blok gas membrane, that has been installed as an infill to Apartment block H.

Air lancing all hand welded membrane laps in apartment block H.

Pick testing all SAGM detailing in apartment block H.

Typical pipe penetration seal using SAGM in apartment block H.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 03/07/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 18 ºC Dry**
			Installer: UK Membranes
Postcode: SL5 9TB.	**Surveyor: Adam McDermott (TGPV)**		

Plot Number	Building Type	Extent of Inspection	Result
69,70,71,72,73 & 74.	Linked Detached.	Garage Footprint	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok gas membrane.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Air Lance testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required

69,70,71,72,73 & 74.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **03/07/2023**

Plot Overview Photographs

Overview of plot 69.

Overview of plot 70.

Overview of plot 71.

Overview of plot 72.

Overview of plot 73.

Overview of plot 74.

Detailing Sample Photographs

Overview of installed membrane to the garage, as an infill to plot 69.

Overview of installed membrane to the garage, as an infill to plot 70.

Overview of installed membrane to the garage, as an infill to plot 71.

Overview of installed membrane to the garage, as an infill to plot 72.

Overview of installed membrane to the garage, as an infill to plot 73.

Overview of installed membrane to the garage, as an infill to plot 74.

Air lancing all hand welded membrane laps.

Pick testing all SAGM detailing.

Patch repairs using SAGM to damaged membrane.

Sealed front of garage using SAGM.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 08/08/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 18 ºC Showers**
			Installer: UK Membranes
Postcode: SL5 9TB.	**Surveyor: Adam McDermott (TGPV)**		

Plot Number	Building Type	Extent of Inspection	Result
45	Terrace.	Garage Footprint	Pass
51,52 & 53.	Terrace.	Infill	Pass

(Section 1, Materials and Method of Seal)

Gas Membrane Name: Visqueen HC Blok gas membrane.

Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection

Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735

Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal

Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.

Others Please List: N/A.

(Section 2, Testing and Inspection Method)

Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Probe testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	(Section 3, Defects List)	Action Required
45,51,52 & 53.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **08/08/2023**		

Plot Overview Photographs

Overview of plot 45.

Overview of plots 51-53.

Detailing Sample Photographs

Overview of installed membrane to garage area in plot 45.

Sealed pipe penetration using SAGM to the rear of the garage plot 45.

Hand welded membrane lap in plot 51.

Pick testing all hand welded membrane laps in plot 51.

Pick testing all SAGM detailing in plot 52.

Typical pipe penetration seal using SAGM in plot 52.

Sealed double pipe penetration using SAGM to plot 53.

Air brick in place at the time of our inspection to plots 51-53.

Housebuilder Name: Berkeley Homes - Sunninghill Square.			**Date: 31/08/2023**
Site Name: Sunninghill, Ascot, Berkshire.			**Weather: 16 ºC Cloudy**
			Installer: UK Membranes
Postcode: SL5 9TB.	**Surveyor: Adam McDermott (TGPV)**		
Plot Number	**Building Type**	**Extent of Inspection**	**Result**
63 & 64 / 67 & 68.	Linked Detached.	Garage Footprint	Pass

(Section 1, Materials and Method of Seal)
Gas Membrane Name: Visqueen HC Blok gas membrane.
Corner Seal Method: Corners have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Service Entry Seal Method: The external of the pipe/ducts have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Annulus to Water Pipe Duct: The alkathene water pipe has either not been sealed or is not in place at the time of our inspection, this will require sealing to an approved method, this is outside the remit of the result of todays inspection
Door Threshold Seal Method: Door Thresholds have been sealed using strips of self-adhesive gas membrane, this is an approved and recognised method in CIRIA C735
Cavity Vent Seal Method: The cavity vents sit below the membrane that seals the cavity and do not require a specialist seal
Material Jointing Method: The membrane has been overlapped sufficiently to achieve a sound joint, the joint is clean and dry and has been joined by means of hand welding with a hot air gun and neoprene roller, the width of the welded joint is a minimum of 30mm.
Others Please List: N/A.

(Section 2, Testing and Inspection Method)	
Leak/Hole Detection	MEC Environmental Ltd carried out a thorough Visual Inspection to the available area at the time of our inspection
Joint Testing	The surveyor carried out Probe testing as per the method prescribed in ASTM D4437 to all detailing work, detailing work is defined as any part of the installation that includes a joint in the membrane, this includes but is not limited to pipes/ducts, stanchions, wind posts, braces, field seams, masonry abutments, tanking, door thresholds and the like

Plot Number	**(Section 3, Defects List)**	**Action Required**

63,64,67 & 68.	No Defects recorded at the time of our inspection.	N/A

Signed: **Adam McDermott (TGPV)** Date: **31/08/2023**

Plot Overview Photographs

Overview of plots 63 & 64.

Overview of plot 67.

Overview of plot 68.

Detailing Sample Photographs

Overview of installed membrane in garage plot 63.

Overview of installed membrane in garage plot 64.

Overview of installed membrane in garage plot 67.

Overview of installed membrane in garage plot 68.

Pick testing all hand welded membrane laps.

Typical hand welded membrane lap.

Patch repairs using SAGM to damaged perimeter membrane.

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