GeoShield Verification Report 17

PROJECT REFERENCE:	GEO102862 R017
PROJECT:	Persimmon Homes Site
PROJECT ADDRESS:	150-158 High Road

Weston, Spalding

PE12 6WA

SPECIFICATION:	Verified in accordance CIRIA 735.

Design in accordance with BS8485 2015 + 2019 for Methane and Carbon Dioxide.

Substrate prepared in-accordance with manufactures instructions

Visqueen Standard Gas Barrier

Visqueen GRSAM

Visqueen Preformed Top Hats.

GEOSHIELD Verification Report

VERIFICATION OFFICER: Michael Dodd

VERIFICATION COMPANY: GeoShield Limited

Icon Business Park, 4100 Park Approach

Thorpe Park, LEEDS

West Yorkshire

LS15 8GB

CONTACT NUMBER: 07555 214679

EMAIL ADDRESS: mdodd@geoshield.co.uk

ORDER NUMBER:

PER VISIT: YES: ☐ NO: ☐ PROJECT: YES: ☑ NO: ☐

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CLIENT DETAILS

CLIENT CONTACT:	Andy Collins
CONTACTS ROLE:	Prestige Air Director
MOBILE PHONE:	07780 223 116
EMAIL ADDRESS:	Andy@prestigeair.com

CLIENT CONTACT:	
CONTACTS ROLE:	
MOBILE PHONE:	
EMAIL ADDRESS	
NOTES:	
NOTES:	
NOTES:	

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APPLICATOR'S DETAILS

APPLICATOR NAME:	Darryl
COMPANY:	Prestige Air
APPLICATOR TEL:	
APPLICATOR EMAIL:	

APPLICATOR NAME:	
COMPANY:	
APPLICATOR TEL:	
APPLICATOR EMAIL:	

NOTES: The installers from Prestige Air are competent & experienced installers in the installation of ground gas and waterproofing systems. At least 1 person holds the NVQ level 2 qualifications in the installation of gas membranes.

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AREA SURVEYED:

Plots 88, 107 & 108 - Full Line Out

SITE CONDITIONS:

WEATHER:

Overcast

TEMPERATURE:

9c

RELATIVE HUMIDITY:

N/A

MEMBRANE TEMPERATURE:

N/A

TIME: 13:15 to 14:30

DATE: 25.01.2024

REPORT NUMBER: 017

ACCOMPANIED BY:

Unaccompanied

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Verification Layout



The image above shows the proposed overall site layout for the project.

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Verification Layout



The image above shows a closer view of Plots 88, 107 & 108 where the verification inspection took place on site today.

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OVERVIEW



The photograph above displays an overview of the area where today's verification inspection took place on site.
Plot 88

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OVERVIEW



An alternate overview photograph of where the verification inspection took place on site today.
Plot 107

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OVERVIEW



An alternate overview photograph of where the verification inspection took place on site today.
Plot 108

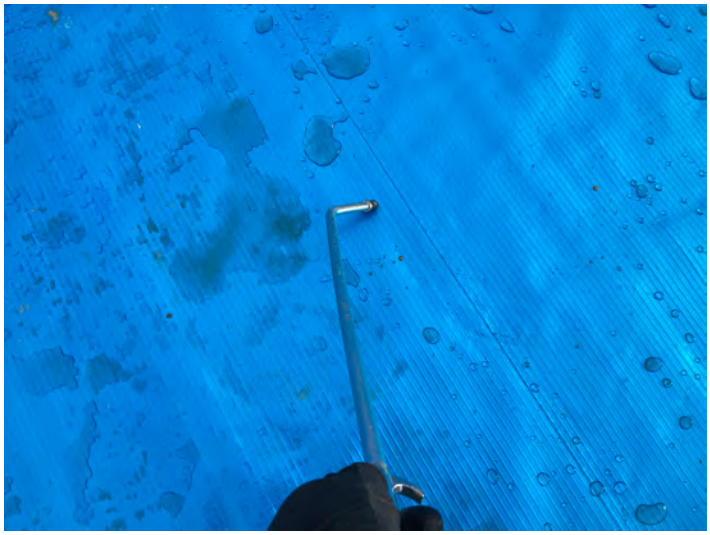
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VERIFICATION ITEM ONE

LOCATION/GRID LINE: Plots 88, 107 & 108 inclusive (Full Line Out)

Visqueen Gas Barrier Installation-Lap Joints





NOTES:

The Visqueen Gas Barrier had been installed upon an insulated block & beam which provided a suitable soft but protective and low risk substrate against potential punctures. The Visqueen Gas Barrier sections had been welded together ensuring the minimum lap of 100mm was maintained throughout. The images show

NOTES:

the Air Lance Integrity Test being undertaken along the edges of the Visqueen Gas Barrier. The left image shows the Lance being directed along the edge of the lap joints crossing the cavity and the right image shows testing along a typical lap joint. There were no signs of any capillary leaks throughout.

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VERIFICATION ITEM ONE



The overview image shows the Air Lance Integrity being undertaken along one of the various Visqueen Gas Barrier pre-formed tophat lap joints. The test involved directing compressed air set at 50psi along the edges of each and every available lap joint at no more than 51mm away. There were no mis-welded lap joints identified.

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VERIFICATION ITEM TWO

LOCATION/GRID LINE: Plots 88, 107 & 108 inclusive (Full Line Out)

Pipe Penetration Detailing





NOTES:

The pipe penetrations were all sealed combining a Visqueen Gas Barrier tophats and strips of Visqueen GRSAM. The initial inspection noted that Visqueen GRSAM had been fully bonded to the both the tophat and the pipe itself. The left image shows the Mechanical Point Stress Test being undertaken along the edge of the

NOTES:

Visqueen GRSAM whereas the right image shows the Air Lance Integrity Test being undertaken along the lap joint with the Visqueen Gas Barrier. Both types of testing revealed no issues with the installation where all pipe penetrations were fully sealed.

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VERIFICATION ITEM TWO



The overview image shows the various pipe penetrations which were all subjected to both a visual and physical inspection. It was evident that heat was used to activate the bitumen backing and combined with pressure enabled a secure bond with both the pipe penetration and the Visqueen Gas Barrier identifying no issues.

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VERIFICATION ITEM THREE

LOCATION/GRID LINE: Plots 88, 107 & 108 inclusive (Full Line Out)

Internal/External Corner Detailing





NOTES:

The various internal and external corners had all been initially formed using sections of Visqueen Gas Barrier. These corners were then reinforced and sealed using strips of Visqueen GRSAM. The initial inspection included checking generally for any loose Visquee GRSAM where it was noted that all aspects of installation

NOTES:

had been subjected to both heat and pressure so as to activate the bitumen backing improving the bond with the Visqueen Gas Barrier. The bond was confirmed via the Mechanical Point Stress Test as seen in the images.

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VERIFICATION ITEM THREE



The overview image shows various internal and external corners which had been subjected to verification. The visual and physical testing identified no issues and all corners proved to have been securely bonded with the Visqueen Gas Barrier. There also was very little creasing and no capillary leak risks identified.

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REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
23/07/2022	001	No faults or defects identified during today's verification inspection.	✔
03/08/2022	002	Two punctures to plot 12 - remediated during verification visit.	✔
		One small mis-weld to lap joint at plot 9 - remediated during	✔
		verification visit.	✔
02/09/2022	003	No faults or defects identified	✔
21/09/2022	004	No faults or defects identified during today's verification inspection.	✔
04/10/2022	005	Several holes identified. Remediated on-site.	✔
26/10/2922	006	No faults identified during this verification visit.	✔
01/11/2022	007	No faults identified during this verification visit.	✔
12/12/2022	008	One fault located to a welded lap, this was remediated on site.	✔
07/02/2023	009	X3 faults identified. Remediated on-site.	✔
24/04/2023	010	Two punctures/damage identified and remediated during the	✔
		verification visit.	✔
		Two mis-welded Lap Joints identified but remediated during the	✔
		verification visit.	✔

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REMEDIATION LOG

Date	Nr	Remediation Description	Y/N
17/05/2023	011	No faults were identified during the verification process.	✔
15/09/2023	012	Seven miswelded lap joints identified and remediated on-site	✔
05/10/2023	013	No faults or defects identified during this visit.	✔
17/10/2023	014	A total of nine miswelded lap joints were identified, all were	✔
		successfully remediated on site.	✔
29/11/2023	015	There were no issues identified during the verification process	✔
12/12/2023	016	One small misweld identified which was remediated on site.	✔
25/01/2024	017	There were no issues identified during the verification process	✔

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GAS MEMBRANE TESTING

VISUAL:	YES	✔	NO		SMOKE TEST:	YES		NO	✔
COMPRESSED AIR:	YES	✔	NO	✔	DILECTIC	YES		NO	✔
DESTRUCTIVE:	YES		NO	✔	OTHER:	YES	✔	NO	

Testing checklist attached: YES ✔ NO

Gridline/Plot Sign off

Gridline/Plot Sign off	Full line outs to Plots: 2-3-4-5-6.	✔
Gridline/Plot Sign off	Plots 7,8,9,10,11,12 &13	✔
Gridline/Plot Sign off	Full line outs to Plots: 14,15,16 and 17.	✔
Gridline/Plot Sign off	Full line outs to Plots: 18-19-20-21-22-23.	✔
Gridline/Plot Sign off	Full line out to Plot 24	✔
Gridline/Plot Sign off	Plot 24 integral garage	✔
Gridline/Plot Sign off	Plots 25, 26, 27, 28 & 29.	✔
Gridline/Plot Sign off	Plots 30 &. 31	✔
Gridline/Plot Sign off	Plots 48, 49, 50, 51, 52 & 53.	✔
Gridline/Plot Sign off	Full line outs to Plots: 32,33,42,43,44 & 45.	✔
Gridline/Plot Sign off	Plots: 34,35,36,37,38 & 39 full line outs	✔
Gridline/Plot Sign off	Plots: 40, 41, 46 & 47 full line outs	✔

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GAS MEMBRANE TESTING

VISUAL /PICK & PROBE:	✔	SMOKE TEST:	
AIR LANCING:	✔	DILECTIC:	
DESTRUCTIVE:		OTHER:	
INERT GAS TEST:		SPECIFY:	

Testing checklist attached: YES ✔ NO

Gridline/Plot Sign off

Gridline/Plot Sign off	Plots 125, 126, 127, 128, 129 & 130 Full Line Out	✔
Gridline/Plot Sign off	Plots 89, 90, 91, 92, 99, 100, 101 & 102 Full Line Out	✔
Gridline/Plot Sign off	Plots 103, 104, 105 & 106 Full Line Out	✔
Gridline/Plot Sign off	Plots - 95,96,97 & 98 Full Line Out	✔
Gridline/Plot Sign off	Plots 93 & 94 Full Line Out	✔
Gridline/Plot Sign off	Plots 88, 107 & 108 Full Line Out	✔
Gridline/Plot Sign off		
Gridline/Plot Sign off		
Gridline/Plot Sign off		
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Gridline/Plot Sign off		

GeoShield Verification Report

VERIFICATION SUMMARY

This was the seventeenth site visit where three housing plots were fully lined out using the Visqueen Gas Barrier where the following verification was completed as follows:-

>. Air Lance Integrity Test to all welded Visqueen Gas Barrier lap joints where no issues were identified throughout.

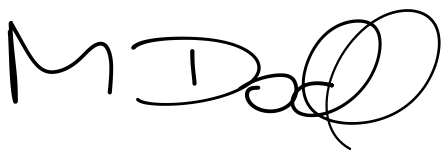
>. Mechanical Point Stress Test to all detailing to pipe penetrations - no issues were identified throughout.

>. Mechanical Point Stress Test to the various detailed corners - no issues were identified throughout.

>. Visual inspection noted these were no signs of any punctures and/or damage this report.

This was passed and verified in accordance with CIRIA 735 and installed to BS8485:2015+2019.

GEOSHIELD SIGNATURE:



DATE: 25-Jan-2024