

Gas Membrane Installation
Validation Report
Elivia Homes
2 Grange Road
Abbey Fruit Farm
Phase 2
Netley
SO31 5HZ
V2 30/04/2024

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1. INTRODUCTION

1.1 Purpose

MB Membranes are installing a gas protection membrane to the aforementioned site. MEC Environmental Ltd (MEC) has been appointed by MB 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 may be 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

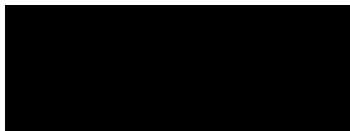
The author of this report is also a CL:AIRE accredited Specialist in Gas Protection Verification (SGPV) and holds both the NVQ Level 2 in gas membrane installation and the NVQ Level 4 in gas protection verification.

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 where 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



Date: 21/02/2024

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

Appendix 1 – Site Survey Sheets

Housebuilder Name: Elivia Homes - Abbey Fruit Farm, Phase 2			Date: 19/07/2023
Site Name: 2 Grange Road, Netley			Weather: 22 °C Fine
			Installer: MB Membranes
Postcode: SO31 5HZ		Surveyor: James Hall (NVQ 2)	
Plot Number	Building Type	Extent of Inspection	Result
12-13-14 & 17-18-19	Terrace	Full Footprint	Pass
15-16 & 20-21	Semi Detached	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 Gas Barrier			
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 today's 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
12-13-14-15-16-17-18-19-20-21	No Defects recorded at the time of our inspection.	N/A
Signed: James Hall (NVQ 2) Date: 19/07/2023		

Plot Overview Photographs



Overview of the full footprint installation to Plots 12-13-14.



Overview of the full footprint installation to Plots 15-16.



Overview of the full footprint installation to Plots 17-18-19.

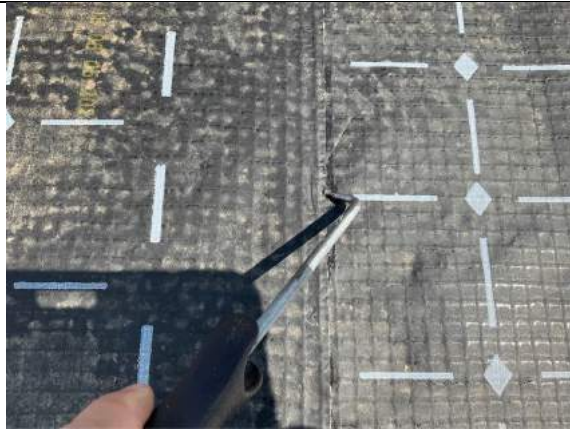


Overview of the full footprint installation to Plots 20-21.

Detailing Sample Photographs



Plot 12. Corner details sealed with SAGM.



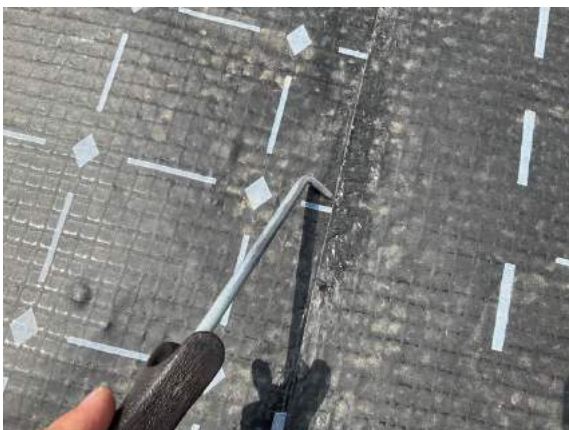
Plot 12. Pick test to welded lap joint.



Plot 13. Corner details and pipe penetration seal3d with SAGM.



Plot 13. Pick testing to sealed pipe entry.



Plot 14. Pick test along hand welded lap joint.



Plot 14. Threshold detail sealed with SAGM.



Plot 15. Pick test to sealed pipe entry.



Plot 15. Overview of a hand welded membrane lap joint.



Plot 16. Pick test to sealed corner details.



Plot 16. Corner, threshold & pipe entry sealed with SAGM.



Plot 17. Threshold detail sealed with SAGM.



Plot 17. Typical corner detail sealed with SAGM.



Plot 18. Multiple details sealed using SAGM.



Plot 18. Pick testing along hand welded lap joint.



Plot 19. Corner and threshold details sealed with SAGM.



Plot 19. Pick test to sealed pipe entry.



Plot 20. Multiple corner details sealed with SAGM.



Plot 20. Typical pipe penetration's sealed with SAGM.



Plot 21. Threshold detail sealed using SAGM.



Plot 21. Pick testing to sealed pipe entry.

Housebuilder Name: Elivia Homes - Abbey Fruit Farm, Phase 2			Date: 19/07/2023
Site Name: 2 Grange Road, Netley			Weather: 22 °C Fine
			Installer: MB Membranes
Postcode: SO31 5HZ		Surveyor: James Hall (NVQ 2)	
Plot Number	Building Type	Extent of Inspection	Result
22 & 25-26 & 50	Detached	Full Footprint	Pass
23-24 & 51-52	Semi Detached	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 Gas Barrier			
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

22-23-24-25-26 & 50-51-52	No Defects recorded at the time of our inspection.	N/A
Signed: James Hall (NVQ 2) Date: 19/07/2023		

Plot Overview Photographs



Overview of the full footprint installation to Plot 22.



Overview of the full footprint installation to Plots 23-24.



Overview of the full footprint installation to Plot 25.



Overview of the full footprint installation to Plot 26.



Overview of the full footprint installation to Plot 50.



Overview of the full footprint installation to Plot 51-52.

Detailing Sample Photographs



Plot 22. Internal & external corner details sealed with SAGM.



Plot 22. Pick testing upon sealed pipe penetration's.



Plot 23. Pick test to hand welded membrane lap joint.



Plot 23. Threshold detail sealed with SAGM.



Plot 24. Internal wall corners sealed with SAGM.



Plot 24. Typical dual pipe penetration's sealed using SAGM.



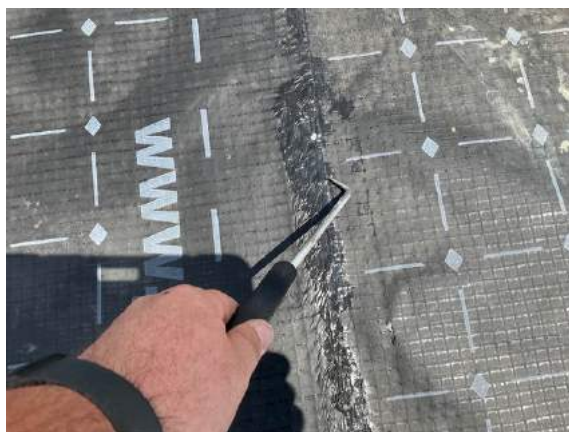
Plot 25. Multiple corner details and pipe entry sealed with SAGM.



Plot 25. Pick testing to sealed corner detail.



Plot 26. Corner details sealed with SAGM.



Plot 26. Pick testing along hand welded lap joint.



Plot 50. Multiple corner and pipe entry sealed using.



Plot 50. Pick test to sealed pipe entry's.



Plot 51. Internal & external corner details sealed with SAGM.



Plot 51. Pick test to sealed threshold detail.



Plot 52. Multiple corner details & pipe entry sealed using SAGM.



Plot 52. Pick test to internal wall corner details.

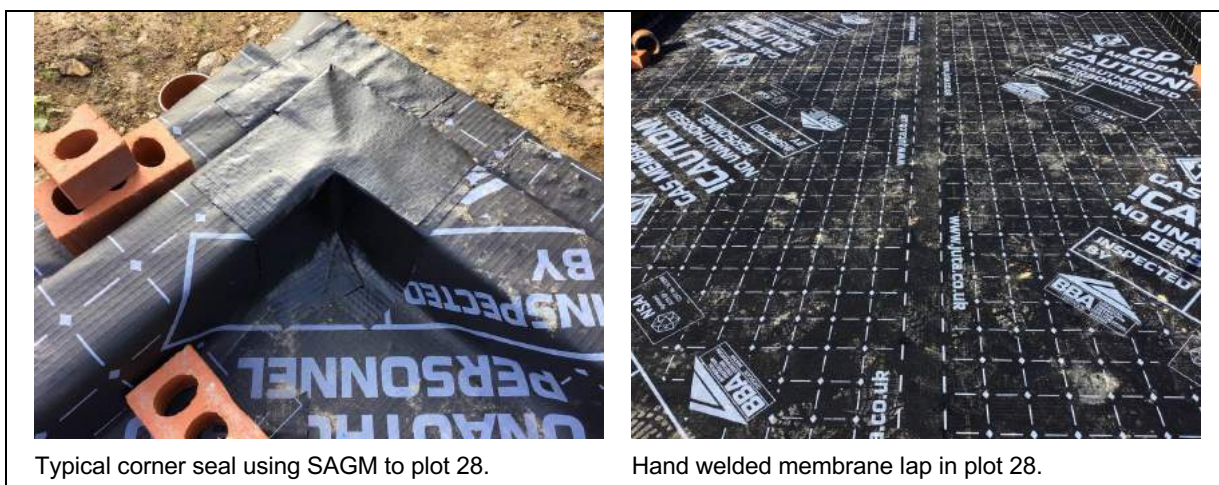
Housebuilder Name: Eliva Homes - Royale Victoria Grange.			Date: 16/08/2023
Site Name: 2 Grange Road, Netley, Southampton.			Weather: 15 °C Dry
			Installer: MB Membranes
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
28.	Detached.	Full Footprint	Pass
29 & 30.	Semi Detached.	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
28,29 & 30.	No Defects recorded at the time of our inspection.		N/A

Signed: Adam McDermott (TGPV) Date: 16/08/2023		

Plot Overview Photographs



Detailing Sample Photographs

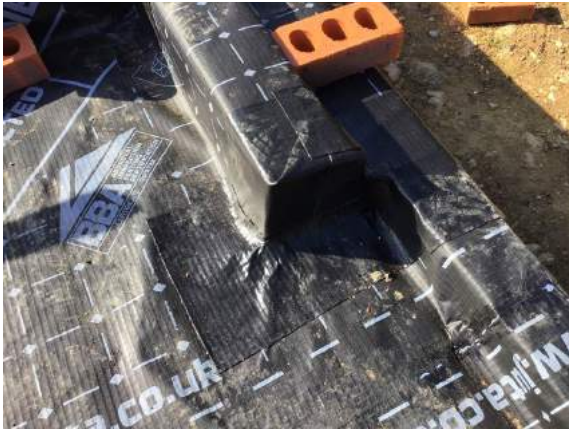




Pick testing all SAGM detailing in plot 28.



Typical double pipe penetration seal using SAGM in plot 28.



Typical door threshold seal using SAGM in plot 28.



Typical pipe penetration seal using SAGM in plot 29.



Sealed internal door threshold using SAGM in plot 29.



Sealed corner detail using SAGM in plot 29.



Typical corner seal using SAGM in plot 30.



Pick testing all hand welded membrane laps in plot 30.



Sealed door threshold detail using SAGM in plot 30.



Air brick in place under the membrane to plots 28,29 & 30.

Housebuilder Name: Elivia Homes - Abbey Fruit Farm, Phase 2			Date: 04/09/2023
Site Name: 2 Grange Road, Netley			Weather: 27 °C Fine
			Installer: MB Membranes
Postcode: SO31 5HZ		Surveyor: James Hall (NVQ 2)	
Plot Number	Building Type	Extent of Inspection	Result
27	Detached	Full Footprint	Pass
38-39-40-41	Semi Detached	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 Gas Barrier			
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
27 & 38-39-40-41	No Defects recorded at the time of our inspection.		N/A

Signed: James Hall (NVQ 2) Date: 04/09/2023		

Plot Overview Photographs



Overview of the full footprint installation to Plot 27.



Overview of the full footprint installation to Plots 38-39.



Overview of the full footprint installation to Plots 40-41.

Detailing Sample Photographs



Plot 27. Typical pipe penetration's sealed with SAGM.



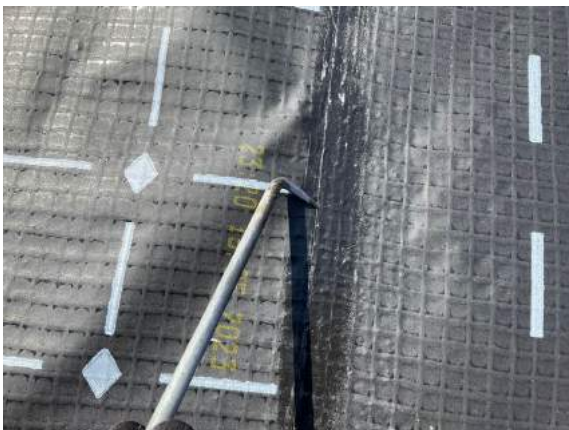
Plot 27. Typical corner detail sealed using SAGM.



Plot 27. Typical internal wall corner details sealed with SAGM.



Plot 27. Pick testing along all hand welded membrane lap joints.



Plot 38. Pick testing along hand welded membrane lap joints.



Plot 38. Typical door threshold detail sealed with SAGM.



Plot 38. Typical pipe penetration's sealed using SAGM.



Plot 38. Typical corner details sealed using SAGM.



Plot 39. Multiple details sealed using SAGM.



Plot 39. Overview of a hand welded membrane lap joint.



Plot 39. Pick testing to sealed threshold detail.



Plot 39. Pick testing to sealed pipe penetration's.



Plot 40. Overview of a hand welded membrane lap joint.



Plot 40. Multiple details corner and pipe entry sealed with SAGM.



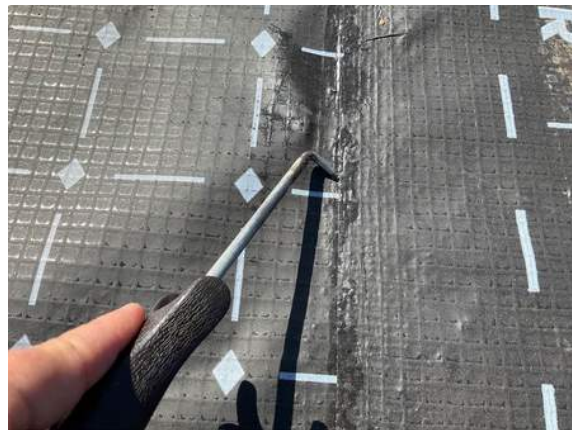
Plot 40. Pick testing to sealed pipe penetration's.



Plot 40. Typical corner detail sealed using SAGM.



Plot 41. Typical door threshold detail sealed with SAGM.



Plot 41. Pick testing along hand welded lap joints.



Plot 41. Pick testing upon sealed corner detail.



Plot 41. Typical pipe penetration sealed with SAGM.

Housebuilder Name: Eliva Homes - Royale Victoria Grange.		Date: 30/10/2023	
Site Name: 2 Grange Road, Netley, Southampton.		Weather: 10 °C Showers	
		Installer: MB Membranes	
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
31 & 36.	Detached.	Full Footprint	Pass
77 & 78.	Semi Detached.	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
31,36,77 & 78.	No Defects recorded at the time of our inspection.		N/A

Signed: Adam McDermott (TGPV) Date: 30/10/2023		

Plot Overview Photographs



Overview of plot 31.

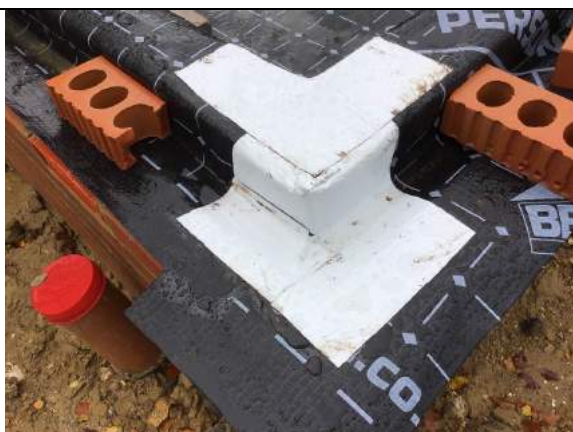


Overview of plot 36.

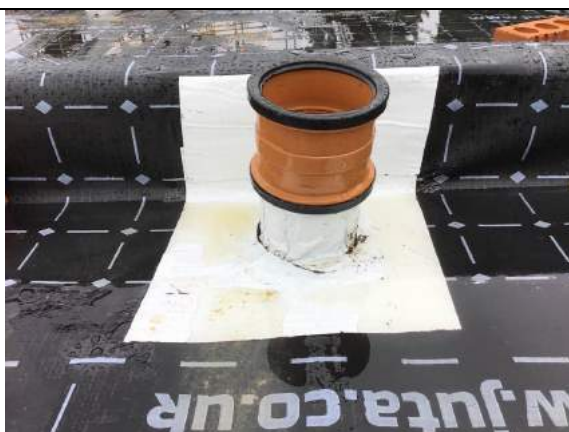


Overview of semi detached plots 77 & 78.

Detailing Sample Photographs



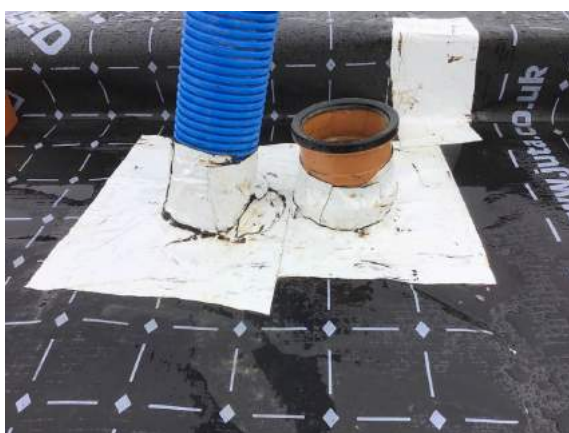
Typical corner seal using SAGM in plot 31.



Typical pipe penetration seal using SAGM in plot 31.



Hand welded membrane lap in plot 31.



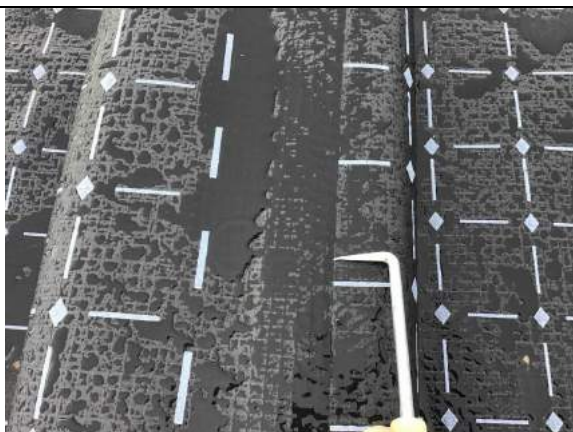
Typical double pipe penetration seal using SAGM in plot 36.



Typical door threshold seal using SAGM in plot 36.



Typical internal door threshold seal using SAGM in plot 36.



Pick testing all hand welded membrane laps in plot 77.



Typical pipe penetration and corner seal using SAGM in plot 77.



Typical corner seal using SAGM in plot 77.



Pick testing all SAGM in plot 78.



Typical corner seal using SAGM in plot 78.



Typical hand welded membrane lap in plot 78.



Air bricks were in place under the membrane to plots 31,36,77 & 78 at the time of our inspection.

Housebuilder Name: Elivia Homes - (Abbey Fruit Farm, Phase 2)			Date: 06/12/2023
Site Name: 2 Grange Road, Netley			Weather: 5 °C Dry
			Installer: MB Membranes
Postcode: SO31 5HZ		Surveyor: James Hall (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
34	Detached	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 Gas Barrier			
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

34	No Defects recorded at the time of our inspection.	N/A
Plots 32 and 36	Plots 32 & 35 that were completed week commencing 04-12-2023, the plots have been insulated and screeded prior to our visit and therefore could not be inspected. We therefore can't comment on the installation of the installation of the gas barrier, If independent verification is required the a retrospective tracer gas test could be carried out once the building is weatherproof.	These plots have not been verified by MEC Environmental
Signed: James Hall (TGPV) Date: 06/12/2023		

Plot Overview Photographs



Overview of the installation of Juta GP1 Gas Barrier to Plot 34.



Overview of Plot 32 installed this week, but screeded prior to our visit.



Overview of Plot 35 installed this week, but screeded prior to our visit.

Detailing Sample Photographs



Plot 34. Overview along a hand welded membrane lap joint.



Plot 34. Typical corner details sealed using SAGM.



Plot 34. Typical pipe penetration's sealed with SAGM.



Plot 34. Multiple corner and pipe entry details sealed using SAGM.



Plot 34. Typical door threshold detail sealed with SAGM.



Plot 34. Pick testing upon sealed pipe penetration's.



Plot 34. Pick & Probe testing along all hand welded lap joints.



Plot 34. Pick & Probe testing upon sealed corner details.



Plot 34. Pick testing upon sealed door threshold details.

Housebuilder Name: Eliva Homes - Netley Grange.			Date: 11/12/2023
Site Name: Abbey fruit farm, 2 Grange Road, Netley, Southampton.			Weather: 12 °C Dry
			Installer: MB Membranes
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
33.	Detached.	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
33.	No Defects recorded at the time of our inspection.		N/A

Signed: Adam McDermott (TGPV) Date: 11/12/2023		

Plot Overview Photographs

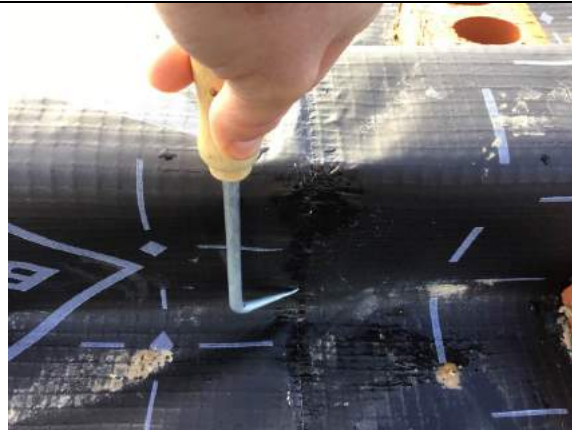


Detailing Sample Photographs





Typical hand welded membrane lap.



Pick testing hand welded membrane lap to the perimeter up stand.



Typical double pipe penetration seal using SAGM.



Sealed internal door threshold using SAGM.



Air brick in place under the membrane at the time of our inspection.

Housebuilder Name: Eliva Homes - Netley Grange.			Date: 05/01/2024
Site Name: Abbey fruit farm, 2 Grange Road, Netley, Southampton.			Weather: 8 °C Dry
			Installer: MB Membranes
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
59.	Detached.	Full Footprint	Pass
62 - 66.	Apartments	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
59 & 62-66.	No Defects recorded at the time of our inspection.		N/A

Signed: Adam McDermott (TGPV) Date: 05/01/2024		

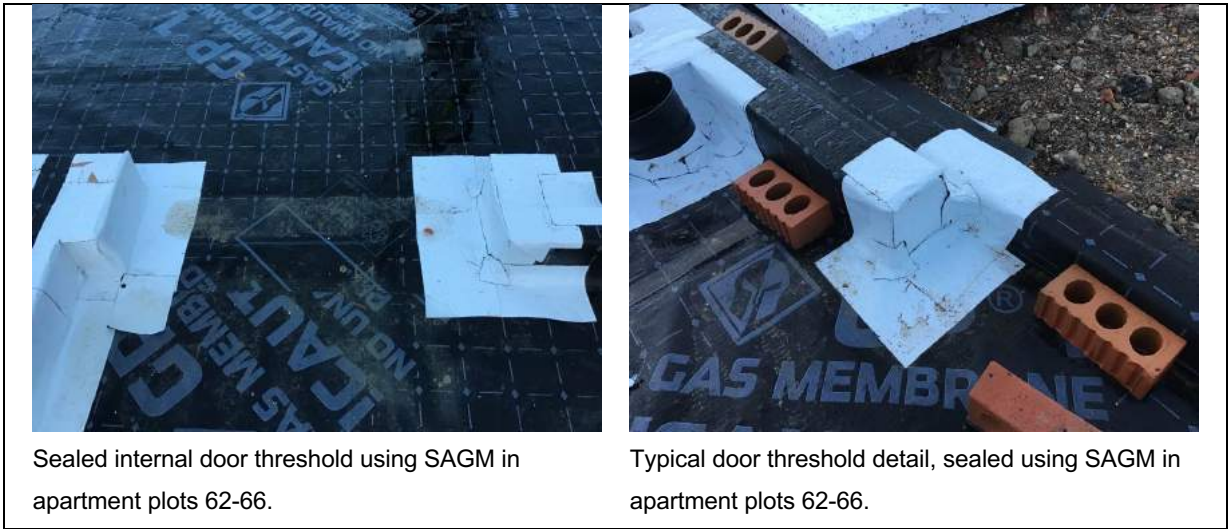
Plot Overview Photographs



Overview of detached plot 59.

Overview of Apartment, Plots 62-66.

Detailing Sample Photographs

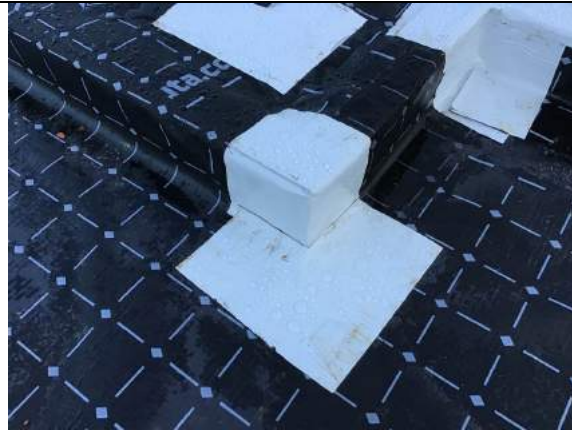


Sealed internal door threshold using SAGM in apartment plots 62-66.

Typical door threshold detail, sealed using SAGM in apartment plots 62-66.



Pick testing all hand welded membrane laps in apartment plots 62-66.



Typical corner seal using SAGM in apartment plots 62-66.



Sealed pipe penetration using SAGM in apartment plots 62-66.



Typical double pipe penetration seal using SAGM in plot 59.



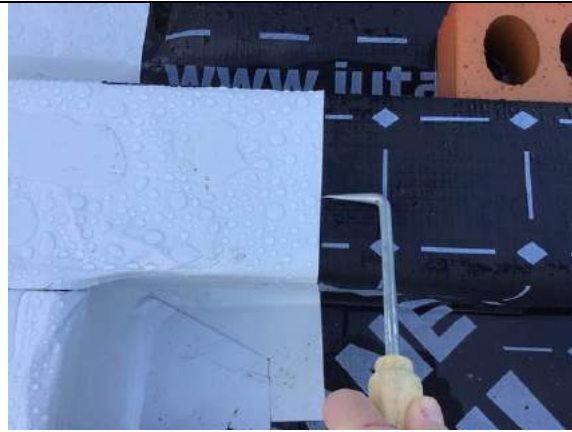
Typical door threshold detail, sealed using SAGM in plot 59.



Typical corner seal using SAGM in plot 59.



Air brick in place under the membrane at the time of our inspection.



Pick testing all SAGM detailing in plot 59.

Housebuilder Name: Eliva Homes - Netley Grange.			Date: 15/01/2024
Site Name: Abbey fruit farm, 2 Grange Road, Netley, Southampton.			Weather: 1 °C Dry
			Installer: MB Membranes
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
56,57 & 58.	Terrace.	Full Footprint	Pass
60 & 61	Semi Detached.	Full Footprint	Pass
69	Detached.	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
56,57,58,60,61 & 69.	No Defects recorded at the time of our inspection.		N/A

Signed: Adam McDermott (TGPV) Date: 15/01/2024		

Plot Overview Photographs

	
Overview of Terrace plots 56,57 & 58.	Overview of semi detached plots 60 & 61.
	
Overview of detached plot 69.	

Detailing Sample Photographs



Typical corner seal using SAGM in plot 56.



Sealed internal door threshold seal using SAGM in plot 56.



Pick testing all SAGM detailing in plot 57.



Typical door threshold seal using SAGM in plot 57.



Typical double pipe penetration seal using SAGM in plot 58.



All membrane laps have been hand welded using a hot air gun and rolled using a neoprene roller in plot 58.



Air brick in place at the time of our inspection under the membrane to plot 60.



Typical pipe penetration seal using SAGM in plot 60.



Pick testing all hand welded membrane laps in plot 61.



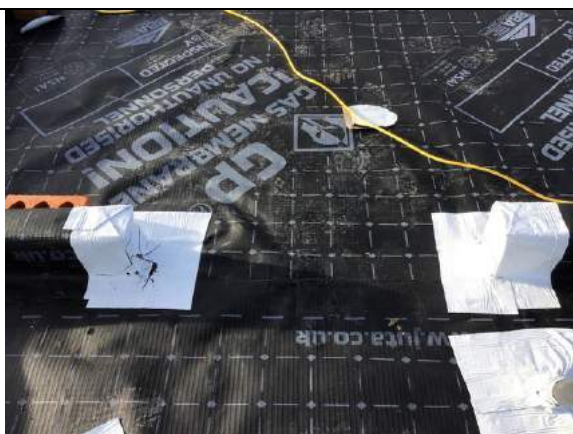
Typical corner seal using SAGM in plot 61.



Typical corner seal using SAGM in plot 69.



Typical double pipe penetration seal using SAGM in plot 69.



Sealed internal door threshold using SAGM in plot 69.



Hand welded membrane lap in plot 69.

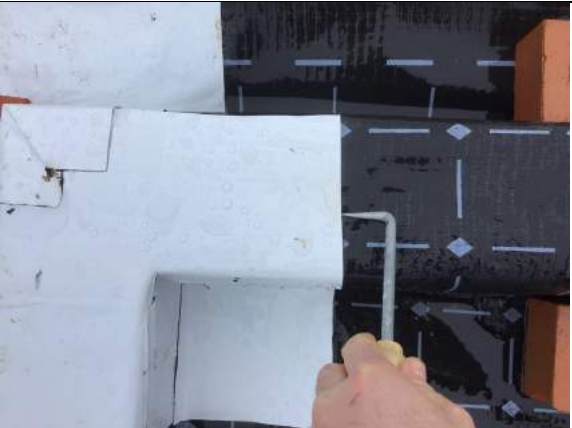
Housebuilder Name: Eliva Homes - Netley Grange.			Date: 14/02/2024
Site Name: Abbey fruit farm, 2 Grange Road, Netley, Southampton.			Weather: 9 °C Showers
			Installer: MB Membranes
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
67 & 68.	Semi Detached.	Full Footprint	Pass
73 - 76.	Apartment.	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
67 & 68 & 73 - 76.	No Defects recorded at the time of our inspection.		N/A

Signed: Adam McDermott (TGPV) Date: 14/02/2024		

Plot Overview Photographs

 Overview of Semi detached plots 67 & 68.	 Overview of Apartment plots 73-76.
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Detailing Sample Photographs

 Typical double pipe penetration seal using SAGM in plots 73-76.	 Pick testing all SAGM detailing in plots 73-76.
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Typical corner seal using SAGM in plots 73-76.



Air brick under the membrane at the time of our inspection to plots 73-76.



All membrane laps have been hand welded using a hot air gun and rolled using a neoprene roller in plots 73-76.



Typical door threshold seal using SAGM in plot 67.



Typical pipe penetration seal using SAGM in plot 67.



Pick testing all SAGM detailing in plot 67.



Typical double pipe penetration seal using SAGM in plot 68.



All membrane laps have been hand welded using a hot air gun and rolled using a neoprene roller in plot 68.

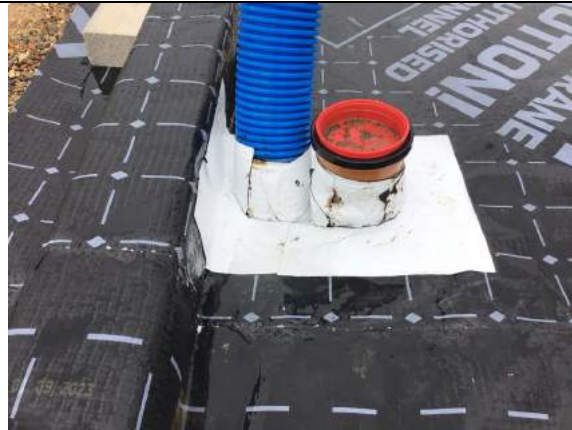


Sealed internal door threshold using SAGM in plot 68.

Housebuilder Name: Eliva Homes - Netley Grange.			Date: 21/02/2024
Site Name: Abbey fruit farm, 2 Grange Road, Netley, Southampton.			Weather: 10 °C Heavy Rain
			Installer: MB Membranes
Postcode: SO31 5HZ.		Surveyor: Adam McDermott (TGPV)	
Plot Number	Building Type	Extent of Inspection	Result
70,71 & 72	Terrace.	Full Footprint	Pass
79,80 & 81.	Terrace.	Full Footprint	Pass
83 & 84.	Semi Detached.	Full Footprint	Pass
(Section 1, Materials and Method of Seal)			
Gas Membrane Name: Juta GP1 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
70,71,72,79,80,81,83 & 84.	No Defects recorded at the time of our inspection.		N/A



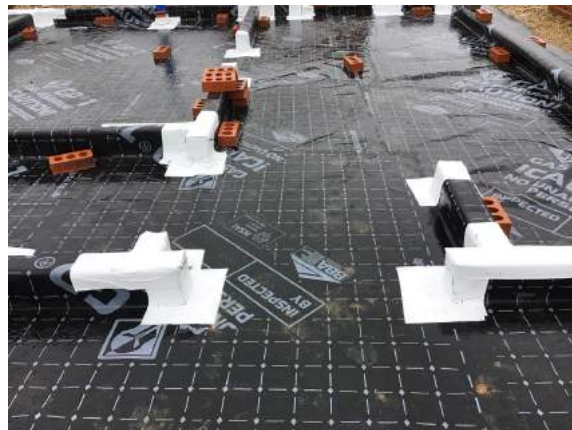
Typical corner seal using SAGM in plot 70.



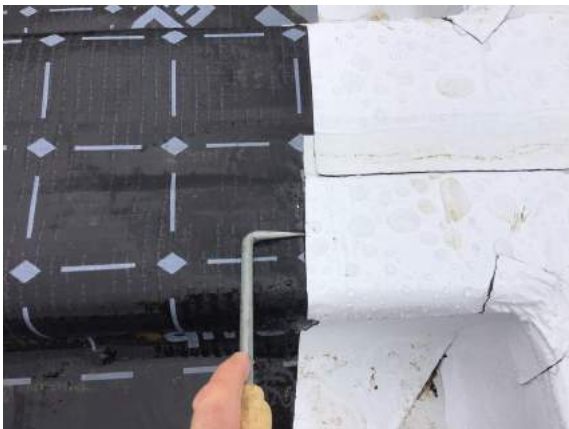
Typical double pipe penetration seal using SAGM in plot 71.



All membrane laps have been hand welded using a hot air gun and rolled using a neoprene roller in plot 72.



Typical internal door threshold seal using SAGM in plot 79.



Pick testing all SAGM detailing in plot 80.



Sealed door threshold detail using SAGM in plot 81.



Typical corner seal using SAGM in plot 83.



All membrane laps have been hand welded using a hot air gun and rolled using a neoprene roller in plot 83.



Sealed door threshold detail using SAGM in plot 84.



Typical double pipe penetration seal using SAGM in plot 84.



Air brick in place under the membrane to all inspected plots during our visit.

