



GeoEnginSeer

FREELANCE DILETTANTE GEOLOGIST

K H Kellen Home
St. Benedict's Church
Bennett Street
Manchester, M12 5ND

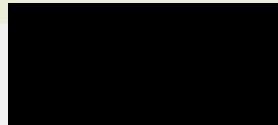
Verification Completion Report for Ground Gas Protection Systems

Date / Time:	06.09.2024
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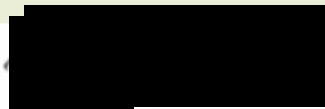
Project Title	Bennett Street, Manchester
GES Report Number	1838
Date	06.09.24
Client	Kellen Homes / E3P
Weather	20°C cloudy calm wind 2 kmph
Development Type	Residential
Foundation Type	Block and Beam
Plot Numbers	Plots 115-116
GES Job Ref:	1526
Visit By	Dwayne Dixon

Report By**Checked/Approved By**

Signature



Signature



Name: Mairead Morony

Name: Ben Crowther

Company Contact Details

Kellen Homes
 1st Floor, 103 Dalton Avenue,
 Birchwood Park, Warrington WA3 6YF



KELLEN
HOMES

1. GAS MEMBRANE

1.1 Condition Of Subgrade and Underside Of Gas Membrane

Check that the subgrade does not contain rough/uneven surfaces, is appropriately clean and that there are no hard/sharp objects. That protective sand blinding or geotextile (if specified) is present and meets the design criteria.

Subgrade looked to have been cleared appropriately.

1.2 Gas Membrane Type

Manufacturer and product specification, gauge, colour, brand/name, material batch/roll numbers.

Juta Titan Flex Membrane (Black)

1.3 Laps, Welds and Joint Seals

Joints lapped and sealed in accordance with manufacturers requirements/specification. Minimum overlap insured? Welds complete? Appropriate joining/double sided tape used?

Joints were a combination of hand and machine welds.

1.4 Service Entries Seals

How many pipe penetrations? Top hats seal arrangements fixed around service entries? Use of jubilee clips? Etc.

The pipe penetrations were sealed with white Detailing Strip

2. VENTILATION SYSTEMS

2.1 Subfloor Void

Is a check possible? Void former? Gravel (type/specification)? Height of void space? Is it clear?

Measurements made down the side of existing and future plots block work revealed a whole 2x 225mm of Block and measurements beside articulated vents in place revealed a subfloor void depth of 450mm of subfloor void.

2.2 External Wall Airbricks

How many? Size? Positioning? Spacing? Etc.

Air bricks (9"x3") were spaced around the plots.

2.3 Active Venting

Type of air supply: mechanical, natural, combined? Location/condition/number of fans/vents? Location and size of inlets? Provision of air cleaning devices and air heaters? Supply and exhaust duct work? Alarm provision/installation? Gas monitoring system in under-floor void?

NA

2.4 Testing Of Air Flow

Is the air flowing sufficiently through ventilation? Anemometer reading? Smoke test? Tracer gas?

0.0km/h – Low wind on site and not 'wing' suction effect was detected.

3. INSPECTION AND INTEGRITY DETAILS

On the 6th September 2024 Inspection and integrity test carried out at Bennett Street, Manchester on Plots 115 and 116.

Juta Titan Flex Membrane had been installed on the site and white Detailing Strip was used to detail corners, doorways and pipes.

The corner details were neat and well sealed. I measured and pick tested all corners.

The pipe penetrations / service entries were sealed in situ with white Detailing Strip. All of which were neat and well sealed. I pick tested all pipe penetrations.

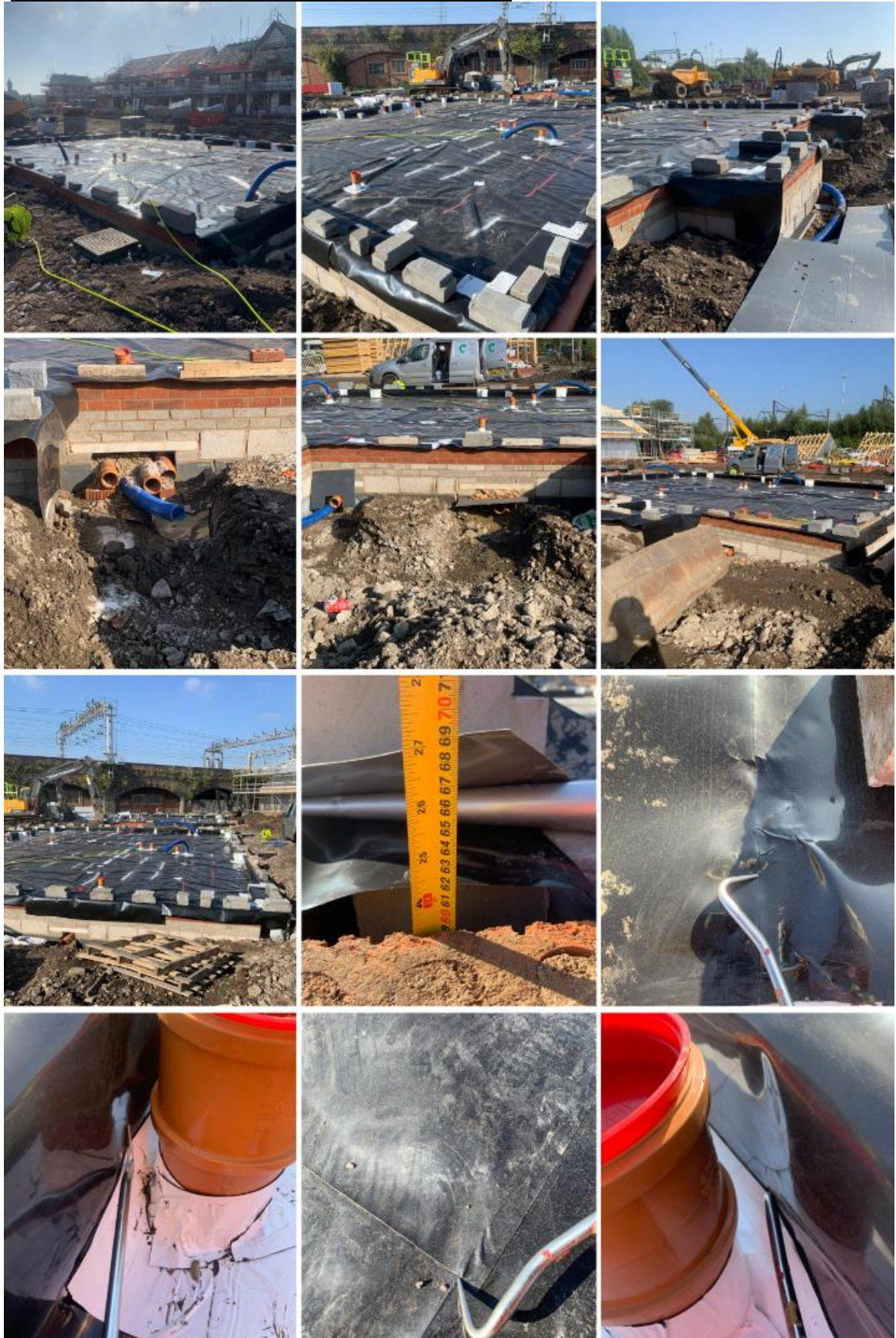
The gas membrane joins were fixed together with a combination of hand and machine welds

A few minor faults were found, these were required and passed inspection.

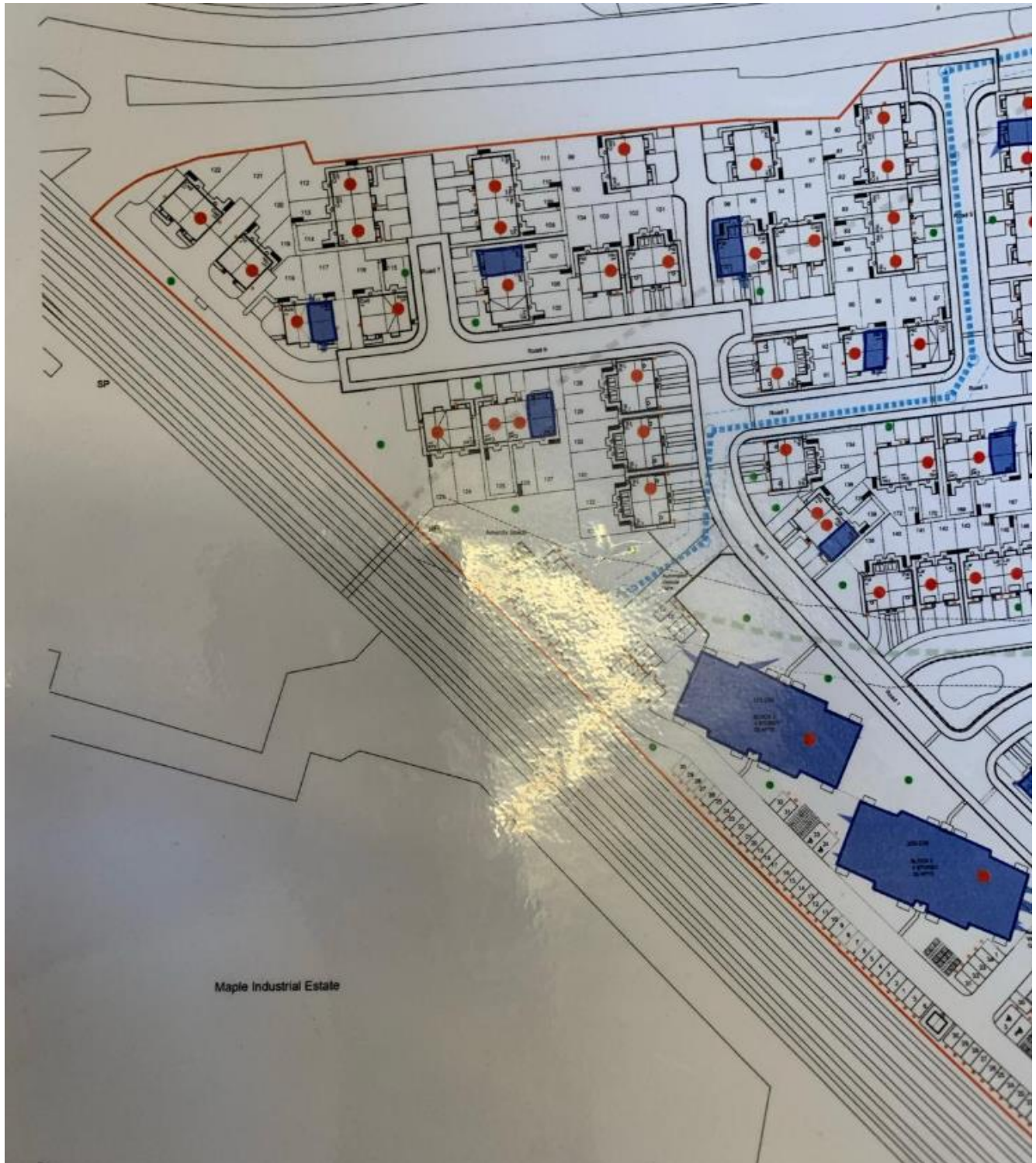
Overall, the membranes have been installed to a very high standard.

(Please see photos.)

4. PHOTOGRAPHIC RECORDS



Overview:



5. CONCLUSION OF SITE VISIT

5.1 Details Of Installers

Are the installers suitably qualified / trained? Names of installers / company details?

Professional Remedial Services Ltd, Unit 8, Edge Lane Street,
Parkside Industrial Estate, Royton Oldham OL2 6DS



5.2 Pass / Fail?

Are the measures inspected acceptable / NOT acceptable? Do they comply with the specifications? Is attention required to specific issues?

PASS

5.3 Additional notes

Remedial actions to be taken? Re-visit to be arranged?

NA

If you have any questions regarding the above, please do not hesitate to contact me. Evidence of sealing of any conduits (in blue) passing service pipes thought is highly recommended.

Yours sincerely

Ben Crowther B.Sc, M.Sc, PGCE, FGS, CIEH, PCA-QT, SGPV
For and on behalf of GeoEnginSeer Ltd.

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6.0 Limitations and Challenges of Verification Reporting

This report is based on the information that has been made available to us from the client, contractor and architect regarding the site. The conclusions drawn in the report are considered correct although any subsequent additional information or actions may allow refinement of the conclusions. It should be noted that: The report has been prepared under the express instructions and solely for the use of the Client.

The findings of this report represent the professional opinion of experienced Ground Gas System Surveyors. GeoEnginSeer Ltd does not provide legal advice and the advice of lawyers may also be required.

All work carried out in preparing this report has utilised and is based upon understanding of current relevant UK standards and codes, technology, and legislation. (BS8485:2015+A1:2019 & CIRIA 735).

Changes in this legislation and guidance may occur at any time in the future and cause any conclusions to become inappropriate or incorrect.

The report is limited to the boundaries identified by the Client on this site and confirmed within this document.

Should additional services be introduced, or service conduits are not sealed or have services provided through them at a later date that are not sealed to the conduit and or gas protection system, a retrospective fit may be required.

If a site is left open for prolonged periods following verification or works are conducted that may damage the integrity of the installation by follow on trades repairs may be needed, the standards observed in a positive verification report may be compromised. Intellectual rights to this document may be rescinded.