

|                                                                                     |                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Air lance testing of joint between two GP-H membrane sheets in the south and eastern learner pool surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p> |
|   | <p>Air lance testing of joint between two GP-H membrane sheets in the south and eastern learner pool surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p> |
|  | <p>Air lance testing of joint between two GP-H membrane sheets in the south and eastern learner pool surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p> |
|  | <p>Air lance testing of joint between two GP-H membrane sheets in the south and eastern learner pool surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p> |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The air lance integrity testing was undertaken by a suitably competent IDG testing engineer, using specialist equipment designed to comply with the requirements of ASTM D4437-08:2013, and the site-specific Gas Protection Measures Verification Plan.

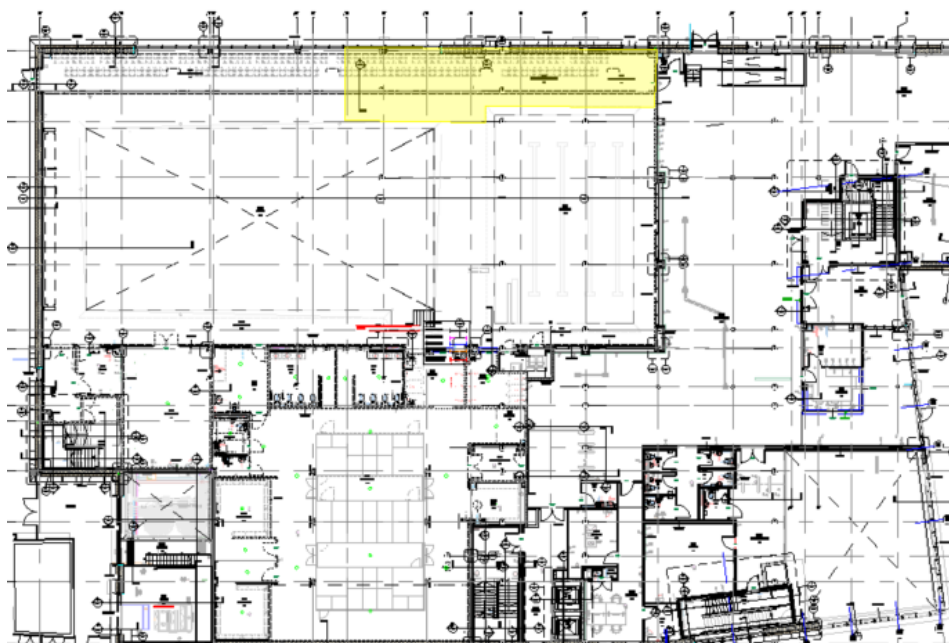
|                                                       |                                                                                                                                                                                                                                |          |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| The Gas Protection Measures for this section of work: | A) Have passed both the visual verification inspection and air lance non-destructive integrity testing of all seams and joins. The quality of installation and workmanship are satisfactory and comply with the specification. | ✓        |
|                                                       | B) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                                                                     |          |
|                                                       | C) Are not acceptable due to issues requiring remedial action as indicated above. <i>This plot should be re-inspected and verified upon completion of any required remedial works.</i>                                         |          |
| NAME                                                  | SIGNATURE                                                                                                                                                                                                                      | DATE     |
| LIAM MURPHY                                           |                                                                                                                                            | 30/07/25 |

# GAS PROTECTION MEASURES VERIFICATION VISUAL INSPECTION RECORD



|                                      |                                                                                                   |                                                          |                                                                                |
|--------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                           | Radcliffe Civic Hub                                                                               | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                          | 5238                                                                                              | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                | 14/08/25<br>02/09/25<br>11/09/25<br>24/09/25                                                      | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Verification Engineer:               | LM                                                                                                | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:           | Warm dry and sunny.                                                                               | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Area/ Plot number(s):                | Main swimming pool and Learner Pool northern surround                                             |                                                          |                                                                                |
| Gas Protection Components inspected: | Radon membrane installation and sealing to liquid membrane on concrete substructure using GR-SAM. |                                                          |                                                                                |

The box below should be used to present a sketch plan of the building/plot layout, showing locations of all key features of the gas protection system and installation (vents, joins, seals, service penetrations etc). All relative inspection details/comments should be recorded in the table below.



Main swimming pool and Learner Pool northern surround gas membrane install – Area of Installation/ Inspection for given dates highlighted Yellow

| No.                        | Item                          | Comments (see notes) |
|----------------------------|-------------------------------|----------------------|
| <b>1 - Passive Venting</b> |                               |                      |
| 1.1                        | Sub-floor void                | N/A                  |
| 1.2                        | External wall airbricks       | N/A                  |
| 1.3                        | Internal sleeper walls        | N/A                  |
| 1.4                        | External vent trenches/ ducts | N/A                  |
| <b>2 - Active Venting</b>  |                               |                      |
| 2.1                        | Active venting System details | N/A                  |

| No.                                                                                 | Item                                               | Comments (see notes)                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3 - Gas Membrane</b>                                                             |                                                    |                                                                                                                                                                                                                                                                                                                                           |
| 3.1                                                                                 | Condition of sub-grade and underside of membrane   | <i>Sand blinding placed beneath membrane - no evidence of debris or potentially intrusive materials beneath membrane.</i>                                                                                                                                                                                                                 |
| 3.2                                                                                 | Details of gas membrane product used               | <i>Juta GP Liquid Barrier<br/>Juta GP-H 0.6mm membrane<br/>Juta GR-SAM</i>                                                                                                                                                                                                                                                                |
| 3.3                                                                                 | Gas membrane condition (rips/ tears/ penetrations) | <i>Generally very good. No punctures/rips or tears identified.</i>                                                                                                                                                                                                                                                                        |
| 3.4                                                                                 | Details of joining/ lapping tape products used     | <i>Juta Titan Tape<br/>Juta GR-SAM</i>                                                                                                                                                                                                                                                                                                    |
| 3.5                                                                                 | Lapping design                                     | <i>Overlaps adequate (meet min. 100mm recommended by manufacturer).</i>                                                                                                                                                                                                                                                                   |
| 3.6                                                                                 | Laps, welds and joint seals                        | <i>Visual and mechanical point stress testing confirmed joints generally completed to a good standard and subsequently proven by air-lance testing.<br/>Main GP-H membrane sheet joints heat welded using a Twinny type welder.<br/>Liquid membrane applied to all beams. Joints between GP-H and Liquid barrier formed using GR-SAM.</i> |
| 3.7                                                                                 | Service entry seals                                | <i>All service entries completed to a good standard using GR-SAM to form seal with membrane.</i>                                                                                                                                                                                                                                          |
| <b>4 – Other comments/ considerations</b>                                           |                                                    |                                                                                                                                                                                                                                                                                                                                           |
| 4.1                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                           |
| 4.2                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                           |
| <b>5 - Photographs</b>                                                              |                                                    |                                                                                                                                                                                                                                                                                                                                           |
| Photograph                                                                          |                                                    | Description                                                                                                                                                                                                                                                                                                                               |
|  |                                                    | <i>Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded using Twinny type welder.</i> |
|  |                                                    | <i>Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded using Twinny type welder.</i> |

|                                                                                     |                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area.. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded using Twinny type welder.</p> |
|   | <p>Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area.. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded using Twinny type welder.</p> |
|  | <p>Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area. Sand blinding being placed before membrane installed to protect from punctures and uneven surfaces. GP Liquid barrier (red) applied to all substructure concrete as per design.</p>                               |
|  | <p>Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area. Juta GP-H 0.6mm membrane sheet joints heat welded using a Twinny type welder.</p>                                                                                                                                 |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The visual verification inspection was undertaken by a suitably competent IDG verification engineer, in accordance with the requirements of CIRIA C735 and the site-specific Gas Protection Measures Verification Plan.

|                                                       |                                                                                                                                                                                         |          |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| The Gas Protection Measures for this section of work: | A) Are acceptable and comply with the specification. <i>Final Certification of this section of work is subject to successful Air Lance Integrity Testing to demonstrate compliance.</i> | ✓        |
|                                                       | B) Are acceptable and comply with the specification. <i>Integrity Testing is not required for this plot.</i>                                                                            |          |
|                                                       | C) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                              |          |
|                                                       | D) Are not acceptable due to issues requiring remedial action as indicated above. <i>This plot should be re-inspected and verified upon completion of any required remedial works.</i>  |          |
| NAME                                                  | SIGNATURE                                                                                                                                                                               | DATE     |
| LIAM MURPHY                                           |                                                                                                     | 25/09/25 |

### Inspection Checklist Notes:

|     |                                                    |                                                                                                                                                                                                                                                                         |
|-----|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Sub-floor void                                     | Is a check possible? Void former? Gravel (type/ specification)? Height of void space? Is it clear?                                                                                                                                                                      |
| 1.2 | External wall airbricks                            | Numbers, size, positions as per design drawing?                                                                                                                                                                                                                         |
| 1.3 | Internal sleeper walls                             | Ventilation holes (honeycomb brickwork/ pipe crossings)? Size, spacing, location in accordance with design?                                                                                                                                                             |
| 1.4 | External vent trenches/ ducts                      | Located/ construction in accordance with design? If open-topped – gravel type, presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of superstructure?     |
| 2.1 | System details                                     | Type of air supply: mechanical, natural, combined? Location/ condition/ number of fans and vents? Location and size of inlets? Provision of air-cleaning devices? Supply and exhaust ducting? Alarm provision/ installation? Gas monitoring system in under-floor void? |
| 3.1 | Condition of sub-grade and underside of membrane   | Check that the sub-grade 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?                                                                |
| 3.2 | Details of gas membrane product used               | Manufacturer and product specification, gauge, colour, brand/name, material, batch/ roll numbers, storage arrangements (to protect from dirt/damage).                                                                                                                   |
| 3.3 | Gas membrane condition (rips/ tears/ penetrations) | Open punctures, tears, rips, stretching? Excessive footprints/ evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?                             |
| 3.4 | Details of joining/ lapping tape products used     | Product type, brand, thickness, material, width, colour? Foil backed? Double sided?                                                                                                                                                                                     |
| 3.5 | Lapping design                                     | Joints lapped and sealed in accordance with manufacturers requirements/ specification? Minimum overlap ensured? Sections taped twice (double sided and lapping)?                                                                                                        |
| 3.6 | Laps, welds and joint seals                        | Welds complete? Appropriate jointing tape used? No creases or folds in sheet edges? Adequately bonded? (confirm by air lance integrity testing as necessary in accordance with the verification plan)                                                                   |
| 3.7 | Service entry seals                                | Top hats seal arrangements fixed around service entries? Use of jubilee clips? Adequately taped to membrane at joins with double-sided and lapping tape?                                                                                                                |

# GAS PROTECTION MEASURES VERIFICATION VISUAL INSPECTION RECORD



|                                      |                                                                                                                                               |                                                          |                                                                                |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                           | Radcliffe Civic Hub                                                                                                                           | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                          | 5238                                                                                                                                          | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                | 05/02/26<br>12/02/26                                                                                                                          | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Verification Engineer:               | LM                                                                                                                                            | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:           | Cold, dry and overcast.                                                                                                                       | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Area/ Plot number(s):                | Southern elevation low level external membrane                                                                                                |                                                          |                                                                                |
| Gas Protection Components inspected: | Radon GR-SAM membrane installation on low level external faces to complete external continuity with liquid membrane on substructure concrete. |                                                          |                                                                                |

The box below should be used to present a sketch plan of the building/plot layout, showing locations of all key features of the gas protection system and installation (vents, joins, seals, service penetrations etc). All relative inspection details/comments should be recorded in the table below.



Southern elevation low level external membrane – Area of Installation/ Inspection for given date highlighted Yellow

| No.                        | Item                          | Comments (see notes) |
|----------------------------|-------------------------------|----------------------|
| <b>1 - Passive Venting</b> |                               |                      |
| 1.1                        | Sub-floor void                | N/A                  |
| 1.2                        | External wall airbricks       | N/A                  |
| 1.3                        | Internal sleeper walls        | N/A                  |
| 1.4                        | External vent trenches/ ducts | N/A                  |
| <b>2 - Active Venting</b>  |                               |                      |
| 2.1                        | Active venting System details | N/A                  |

| No.                                                                                 | Item                                               | Comments (see notes)                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3 - Gas Membrane</b>                                                             |                                                    |                                                                                                                                                                                                                                                                              |
| 3.1                                                                                 | Condition of sub-grade and underside of membrane   | <i>Not visible - no evidence of debris or potentially intrusive materials beneath membrane.</i>                                                                                                                                                                              |
| 3.2                                                                                 | Details of gas membrane product used               | <i>Juta GP Liquid Barrier<br/>Juta GR-SAM</i>                                                                                                                                                                                                                                |
| 3.3                                                                                 | Gas membrane condition (rips/ tears/ penetrations) | <i>Generally excellent. No damage to GR-SAM recorded. All penetrations appropriately sealed.</i>                                                                                                                                                                             |
| 3.4                                                                                 | Details of joining/ lapping tape products used     | <i>Juta Titan Tape<br/>Juta GR-SAM</i>                                                                                                                                                                                                                                       |
| 3.5                                                                                 | Lapping design                                     | <i>Overlaps adequate (meet min. 100mm recommended by manufacturer).</i>                                                                                                                                                                                                      |
| 3.6                                                                                 | Laps, welds and joint seals                        | <i>Visual and mechanical point stress testing confirmed joints generally completed to a good standard.<br/>Liquid membrane applied to all beams. Joints between GR-SAM and Liquid barrier exhibited excellent adhesion.</i>                                                  |
| 3.7                                                                                 | Service entry seals                                | <i>N/A</i>                                                                                                                                                                                                                                                                   |
| <b>4 – Other comments/ considerations</b>                                           |                                                    |                                                                                                                                                                                                                                                                              |
| 4.1                                                                                 |                                                    |                                                                                                                                                                                                                                                                              |
| 4.2                                                                                 |                                                    |                                                                                                                                                                                                                                                                              |
| <b>5 - Photographs</b>                                                              |                                                    |                                                                                                                                                                                                                                                                              |
| Photograph                                                                          |                                                    | Description                                                                                                                                                                                                                                                                  |
|   |                                                    | <i>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</i> |
|  |                                                    | <i>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</i> |
|  |                                                    | <i>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</i> |

|                                                                                     |                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</p> |
|   | <p>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</p> |
|  | <p>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</p> |
|  | <p>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</p> |
|  | <p>Photograph showing the radon protection measures installed on southern elevation low-level external face, completing continuous seal between GR-SAM and liquid membrane on concrete substructure. All penetrations fully sealed around ties to external stone façade.</p> |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The visual verification inspection was undertaken by a suitably competent IDG verification engineer, in accordance with the requirements of CIRIA C735 and the site-specific Gas Protection Measures Verification Plan.

|                                                              |                                                                                                                                                                                                      |             |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>The Gas Protection Measures for this section of work:</b> | <b>A) Are acceptable and comply with the specification. <i>Final Certification of this section of work is subject to successful Air Lance Integrity Testing to demonstrate compliance.</i></b>       |             |
|                                                              | <b>B) Are acceptable and comply with the specification. <i>Integrity Testing is not required for this section of works.</i></b>                                                                      | ✓           |
|                                                              | <b>C) Are acceptable</b> but attention is drawn to issues relating to item(s) No. 3.3                                                                                                                |             |
|                                                              | <b>D) Are not acceptable</b> due to issues requiring remedial action as indicated above. <b><i>This plot should be re-inspected and verified upon completion of any required remedial works.</i></b> |             |
| <b>NAME</b>                                                  | <b>SIGNATURE</b>                                                                                                                                                                                     | <b>DATE</b> |
| LIAM MURPHY                                                  |                                                                                                                  | 17/02/26    |

### Inspection Checklist Notes:

|     |                                                    |                                                                                                                                                                                                                                                                         |
|-----|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Sub-floor void                                     | Is a check possible? Void former? Gravel (type/ specification)? Height of void space? Is it clear?                                                                                                                                                                      |
| 1.2 | External wall airbricks                            | Numbers, size, positions as per design drawing?                                                                                                                                                                                                                         |
| 1.3 | Internal sleeper walls                             | Ventilation holes (honeycomb brickwork/ pipe crossings)? Size, spacing, location in accordance with design?                                                                                                                                                             |
| 1.4 | External vent trenches/ ducts                      | Located/ construction in accordance with design? If open-topped – gravel type, presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of superstructure?     |
| 2.1 | System details                                     | Type of air supply: mechanical, natural, combined? Location/ condition/ number of fans and vents? Location and size of inlets? Provision of air-cleaning devices? Supply and exhaust ducting? Alarm provision/ installation? Gas monitoring system in under-floor void? |
| 3.1 | Condition of sub-grade and underside of membrane   | Check that the sub-grade 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?                                                                |
| 3.2 | Details of gas membrane product used               | Manufacturer and product specification, gauge, colour, brand/name, material, batch/ roll numbers, storage arrangements (to protect from dirt/damage).                                                                                                                   |
| 3.3 | Gas membrane condition (rips/ tears/ penetrations) | Open punctures, tears, rips, stretching? Excessive footprints/ evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?                             |
| 3.4 | Details of joining/ lapping tape products used     | Product type, brand, thickness, material, width, colour? Foil backed? Double sided?                                                                                                                                                                                     |
| 3.5 | Lapping design                                     | Joints lapped and sealed in accordance with manufacturers requirements/ specification? Minimum overlap ensured? Sections taped twice (double sided and lapping)?                                                                                                        |
| 3.6 | Laps, welds and joint seals                        | Welds complete? Appropriate jointing tape used? No creases or folds in sheet edges? Adequately bonded? (confirm by air lance integrity testing as necessary in accordance with the verification plan)                                                                   |
| 3.7 | Service entry seals                                | Top hats seal arrangements fixed around service entries? Use of jubilee clips? Adequately taped to membrane at joins with double-sided and lapping tape?                                                                                                                |

# GAS PROTECTION MEASURES VERIFICATION AIR LANCE INTEGRITY TESTING RECORD

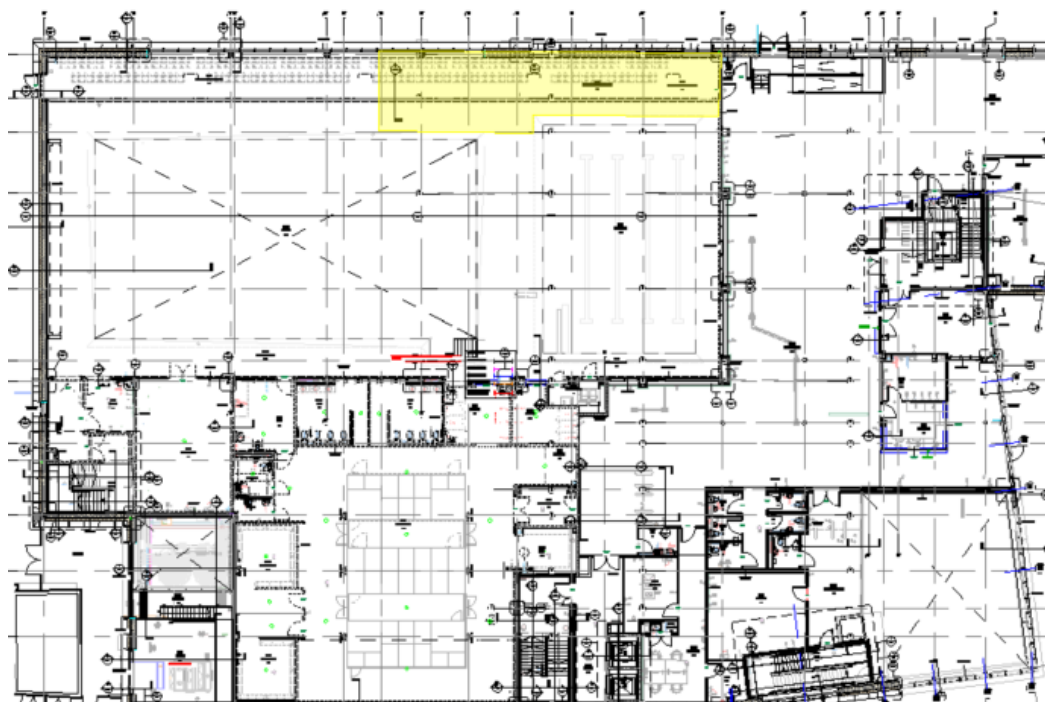


|                                      |                                                                                                   |                                                          |                                                                                |
|--------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                           | Radcliffe Civic Hub                                                                               | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                          | 5238                                                                                              | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                | 14/08/25<br>02/09/25<br>11/09/25<br>24/09/25                                                      | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Integrity Testing Engineer:          | LM                                                                                                | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:           | Warm dry and sunny.                                                                               | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Plot number(s):                      | Main swimming pool and Learner Pool northern surround                                             |                                                          |                                                                                |
| Gas Protection Components inspected: | Radon membrane installation and sealing to liquid membrane on concrete substructure using GR-SAM. |                                                          |                                                                                |

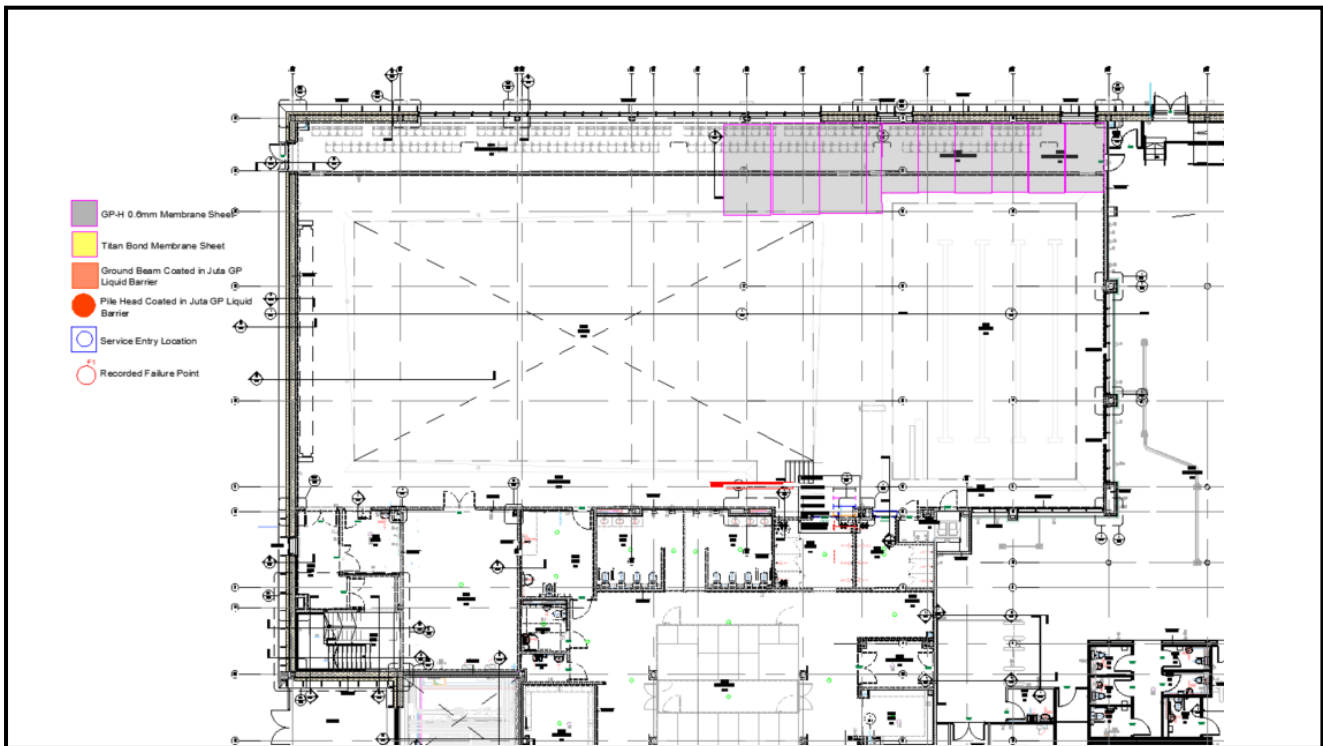
**ASTM D4437-08:2013 Air Lance Test**—Inspect all seams for unbonded areas using an air nozzle directed on the upper seam edge and surface to detect loose edges, ripples indicating unbonded areas within the seam, or other undesirable seam conditions. Check all bonded seams using a minimum 50 psi (345 kPa) (gage) air supply directed through a 3/16 in. (4.8 mm) (typical) nozzle, held not more than 2 in. (51 mm) from the seam edge and directed at the seam edge.

The box below should be used to present a sketch plan of the building/plot layout and membrane, showing locations of all key joints and seal features of the gas protection system and installation which are subject to air-lance integrity testing ( joints, seals, tophats around service penetrations etc).

- Failure points in seams or joints should be marked sequentially 'F<sub>1</sub>', 'F<sub>2</sub>' etc with approximate dimensions.
- Seams and joints deemed to be satisfactory should be marked with an S. All relative testing details/comments should be recorded in the table below.



**Main swimming pool and Learner Pool northern surround gas membrane install – Area of Installation/ Inspection for given date highlighted Yellow**



| No.                                   | Item                                           | Comments (see notes)                                                                                                                                                                                                                                                                                 |
|---------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A - Air Lancing Equipment</b>      |                                                |                                                                                                                                                                                                                                                                                                      |
|                                       | Air Lance with outflow nozzle of 4.8mm         | All accessible seams, joints and service penetrations tested via air lancing in accordance with ASTM D4437-08:2013 Air Lance Test. Pressure monitored and maintained at 50-60psi at the lance throughout testing.                                                                                    |
| <b>B - Membrane, Joints and Seals</b> |                                                |                                                                                                                                                                                                                                                                                                      |
|                                       | Details of gas membrane product used           | Juta GP Liquid Barrier<br>Juta GP-H 0.6mm membrane<br>Juta GR-SAM                                                                                                                                                                                                                                    |
|                                       | Details of joining/ lapping tape products used | Juta Titan Tape<br>Juta GR-SAM                                                                                                                                                                                                                                                                       |
|                                       | Joint/ Lapping design used                     | Overlaps adequate (meet min. 100mm recommended by manufacturer).<br>Main GP-H membrane sheet joints heat welded using a Twinny type welder.<br>Titan Tape or GR-SAM used for jointing between GP-H membrane and Liquid Barrier<br>Service entries completed using GR-SAM to form seal with membrane. |
|                                       | External vent trenches/ ducts                  | N/A                                                                                                                                                                                                                                                                                                  |
|                                       |                                                |                                                                                                                                                                                                                                                                                                      |

| No.                                                                                 | Item                                                                                                                                                                                                                                                                                                                              | Comments (see notes)                                                                                                             |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>C – Air Lance Integrity Test Results</b>                                         |                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                  |
| Test No.                                                                            | Failed or Satisfactory ( F or S)                                                                                                                                                                                                                                                                                                  | Detail, comments and recommendations                                                                                             |
| Membrane to Liquid Barrier Joints                                                   | S                                                                                                                                                                                                                                                                                                                                 | All membrane to liquid barrier joints proven to be satisfactory by IDG via ASTM D4437 air lance test. No failures recorded       |
| Membrane to membrane Joints                                                         | S                                                                                                                                                                                                                                                                                                                                 | All membrane to membrane seams/join length proven to be satisfactory by IDG via ASTM D4437 air lance test. No failures recorded. |
| <b>4 - Photographs</b>                                                              |                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                  |
| Photograph                                                                          | Description                                                                                                                                                                                                                                                                                                                       |                                                                                                                                  |
|   | IDG's typical Air lance kit set up for integrity testing of the seams/ joints and tophat seals, and compliant with ASTM D4437.                                                                                                                                                                                                    |                                                                                                                                  |
|  | Photograph showing the radon protection measures installed for the main pool and learner pool northern surround area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joins heat welded using Twinny type welder. |                                                                                                                                  |
|  | Air lance testing in main pool and learner pool northern surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.                                                                                                                                                   |                                                                                                                                  |

|                                                                                     |                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p><i>Air lance testing of joint between two GP-H membrane sheets in main pool and learner pool northern surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p> |
|   | <p><i>Air lance testing of joint between two GP-H membrane sheets in main pool and learner pool northern surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p> |
|  | <p><i>Air lance testing of joint between two GP-H membrane sheets in main pool and learner pool northern surround area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p> |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The air lance integrity testing was undertaken by a suitably competent IDG testing engineer, using specialist equipment designed to comply with the requirements of ASTM D4437-08:2013, and the site-specific Gas Protection Measures Verification Plan.

|                                                       |                                                                                                                                                                                                                                |          |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| The Gas Protection Measures for this section of work: | A) Have passed both the visual verification inspection and air lance non-destructive integrity testing of all seams and joins. The quality of installation and workmanship are satisfactory and comply with the specification. | ✓        |
|                                                       | B) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                                                                     |          |
|                                                       | C) Are not acceptable due to issues requiring remedial action as indicated above. <i>This plot should be re-inspected and verified upon completion of any required remedial works.</i>                                         |          |
| NAME                                                  | SIGNATURE                                                                                                                                                                                                                      | DATE     |
| LIAM MURPHY                                           |                                                                                                                                            | 25/09/25 |

# GAS PROTECTION MEASURES VERIFICATION VISUAL INSPECTION RECORD



|                                      |                                                                                                                 |                                                          |                                                                                |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                           | Radcliffe Civic Hub                                                                                             | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                          | 5238                                                                                                            | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                | 21/08/2025<br>09/09/25                                                                                          | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Verification Engineer:               | LM                                                                                                              | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:           | Warm and dry                                                                                                    | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Area/ Plot number(s):                | Phase 3 & 4 Floor slab area                                                                                     |                                                          |                                                                                |
| Gas Protection Components inspected: | Radon membrane installation and sealing with liquid membrane on external substructure and lift pit and basement |                                                          |                                                                                |

The box below should be used to present a sketch plan of the building/plot layout, showing locations of all key features of the gas protection system and installation (vents, joins, seals, service penetrations etc). All relative inspection details/comments should be recorded in the table below.



Phase 3 & 4 Floor slab area gas membrane install – Area of Installation/ Inspection for given date highlighted Yellow

| No.                        | Item                          | Comments (see notes) |
|----------------------------|-------------------------------|----------------------|
| <b>1 - Passive Venting</b> |                               |                      |
| 1.1                        | Sub-floor void                | N/A                  |
| 1.2                        | External wall airbricks       | N/A                  |
| 1.3                        | Internal sleeper walls        | N/A                  |
| 1.4                        | External vent trenches/ ducts | N/A                  |
| <b>2 - Active Venting</b>  |                               |                      |
| 2.1                        | Active venting System details | N/A                  |

| No.                                                                                 | Item                                               | Comments (see notes)                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3 - Gas Membrane</b>                                                             |                                                    |                                                                                                                                                                                                                                                                                                                                             |
| 3.1                                                                                 | Condition of sub-grade and underside of membrane   | <i>Not visible - no evidence of debris or potentially intrusive materials beneath membrane.</i>                                                                                                                                                                                                                                             |
| 3.2                                                                                 | Details of gas membrane product used               | <i>Juta GP Liquid Barrier<br/>Juta GP-H 0.6mm membrane<br/>Juta GR-SAM</i>                                                                                                                                                                                                                                                                  |
| 3.3                                                                                 | Gas membrane condition (rips/ tears/ penetrations) | <i>Generally very good.</i>                                                                                                                                                                                                                                                                                                                 |
| 3.4                                                                                 | Details of joining/ lapping tape products used     | <i>Juta Titan Tape<br/>Juta GR-SAM</i>                                                                                                                                                                                                                                                                                                      |
| 3.5                                                                                 | Lapping design                                     | <i>Overlaps adequate (meet min. 100mm recommended by manufacturer).</i>                                                                                                                                                                                                                                                                     |
| 3.6                                                                                 | Laps, welds and joint seals                        | <i>Visual and mechanical point stress testing confirmed joints generally completed to a good standard and subsequently proven by air-lance testing.<br/>Main GP-H membrane sheet joints heat welded using a Twinny type welder.<br/>Liquid membrane applied to all beams. Joints between GP-H and Liquid barrier formed using GR-SAM.</i>   |
| 3.7                                                                                 | Service entry seals                                | <i>All service entries completed to a good standard using GR-SAM to form seal with membrane.</i>                                                                                                                                                                                                                                            |
| <b>4 – Other comments/ considerations</b>                                           |                                                    |                                                                                                                                                                                                                                                                                                                                             |
| 4.1                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                             |
| 4.2                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                             |
| <b>5 - Photographs</b>                                                              |                                                    |                                                                                                                                                                                                                                                                                                                                             |
| Photograph                                                                          |                                                    | Description                                                                                                                                                                                                                                                                                                                                 |
|  |                                                    | <i>Photograph showing the radon protection measures installed for the Phase 3 &amp; 4 floor slab area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using Titan Tape and / or GR-SAM. Membrane joints heat welded using Twinny type welder.</i> |
|  |                                                    | <i>Photograph showing the radon protection measures installed for the Phase 3 &amp; 4 floor slab area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using Titan Tape and / or GR-SAM. Membrane joints heat welded using Twinny type welder.</i> |

|                                                                                     |                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the radon protection measures installed for the Phase 3 &amp; 4 floor slab area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using Titan Tape and / or GR-SAM. Membrane joints heat welded using Twinny type welder.</p> |
|   | <p>Photograph showing the radon protection measures installed for the Phase 3 &amp; 4 floor slab area. Juta GP-H 0.6mm membrane sheet joints heat welded using a Twinny type welder.</p>                                                                                                                                                    |
|  | <p>GP Liquid barrier applied to all substructure concrete and stanchion bases as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM.</p>                                                                                                                                                                 |
|  | <p>GP Liquid barrier applied to all substructure concrete and stanchion bases as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM.</p>                                                                                                                                                                 |

|                                                                                     |                                                                                                                                 |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing detailing around service penetration in Phase 3 &amp; 4 floor slab area completed with GR-SAM.</p>        |
|   | <p>Photograph showing detailing around service penetration in Phase 3 &amp; 4 floor slab area completed with GR-SAM.</p>        |
|  | <p>Photograph showing detailing around service penetration in Phase 3 &amp; 4 floor slab area completed with GR-SAM.</p>        |
|  | <p>Photograph showing detailing and sealing to basement structure in Phase 3 &amp; 4 floor slab area completed with GR-SAM.</p> |

## REMEDIAL ACTIONS REQUIRED

N/A - all remedial actions completed

## CERTIFICATION

The visual verification inspection was undertaken by a suitably competent IDG verification engineer, in accordance with the requirements of CIRIA C735 and the site-specific Gas Protection Measures Verification Plan.

|                                                              |                                                                                                                                                                                                      |             |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>The Gas Protection Measures for this section of work:</b> | <b>A) Are acceptable and comply with the specification. <i>Final Certification of this section of work is subject to successful Air Lance Integrity Testing to demonstrate compliance.</i></b>       | <b>✓</b>    |
|                                                              | <b>B) Are acceptable and comply with the specification. <i>Integrity Testing is not required for this plot.</i></b>                                                                                  |             |
|                                                              | <b>C) Are acceptable</b> but attention is drawn to issues relating to item(s) No.                                                                                                                    |             |
|                                                              | <b>D) Are not acceptable</b> due to issues requiring remedial action as indicated above. <b><i>This plot should be re-inspected and verified upon completion of any required remedial works.</i></b> |             |
| <b>NAME</b>                                                  | <b>SIGNATURE</b>                                                                                                                                                                                     | <b>DATE</b> |
| LIAM MURPHY                                                  |                                                                                                                  | 25/09/25    |

### Inspection Checklist Notes:

|     |                                                    |                                                                                                                                                                                                                                                                         |
|-----|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Sub-floor void                                     | Is a check possible? Void former? Gravel (type/ specification)? Height of void space? Is it clear?                                                                                                                                                                      |
| 1.2 | External wall airbricks                            | Numbers, size, positions as per design drawing?                                                                                                                                                                                                                         |
| 1.3 | Internal sleeper walls                             | Ventilation holes (honeycomb brickwork/ pipe crossings)? Size, spacing, location in accordance with design?                                                                                                                                                             |
| 1.4 | External vent trenches/ ducts                      | Located/ construction in accordance with design? If open-topped – gravel type, presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of superstructure?     |
| 2.1 | System details                                     | Type of air supply: mechanical, natural, combined? Location/ condition/ number of fans and vents? Location and size of inlets? Provision of air-cleaning devices? Supply and exhaust ducting? Alarm provision/ installation? Gas monitoring system in under-floor void? |
| 3.1 | Condition of sub-grade and underside of membrane   | Check that the sub-grade 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?                                                                |
| 3.2 | Details of gas membrane product used               | Manufacturer and product specification, gauge, colour, brand/name, material, batch/ roll numbers, storage arrangements (to protect from dirt/damage).                                                                                                                   |
| 3.3 | Gas membrane condition (rips/ tears/ penetrations) | Open punctures, tears, rips, stretching? Excessive footprints/ evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?                             |
| 3.4 | Details of joining/ lapping tape products used     | Product type, brand, thickness, material, width, colour? Foil backed? Double sided?                                                                                                                                                                                     |
| 3.5 | Lapping design                                     | Joints lapped and sealed in accordance with manufacturers requirements/ specification? Minimum overlap ensured? Sections taped twice (double sided and lapping)?                                                                                                        |
| 3.6 | Laps, welds and joint seals                        | Welds complete? Appropriate jointing tape used? No creases or folds in sheet edges? Adequately bonded? (confirm by air lance integrity testing as necessary in accordance with the verification plan)                                                                   |
| 3.7 | Service entry seals                                | Top hats seal arrangements fixed around service entries? Use of jubilee clips? Adequately taped to membrane at joins with double-sided and lapping tape?                                                                                                                |

# GAS PROTECTION MEASURES VERIFICATION AIR LANCE INTEGRITY TESTING RECORD



|                                      |                                                                                                                 |                                                          |                                                                                |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                           | Radcliffe Civic Hub                                                                                             | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                          | 5238                                                                                                            | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                | 21/08/2025<br>09/09/25                                                                                          | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Integrity Testing Engineer:          | LM                                                                                                              | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:           | Warm and dry                                                                                                    | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Plot number(s):                      | Phase 3 & 4 Floor slab area                                                                                     |                                                          |                                                                                |
| Gas Protection Components inspected: | Radon membrane installation and sealing with liquid membrane on external substructure and lift pit and basement |                                                          |                                                                                |

**ASTM D4437-08:2013 Air Lance Test**—Inspect all seams for unbonded areas using an air nozzle directed on the upper seam edge and surface to detect loose edges, ripples indicating unbonded areas within the seam, or other undesirable seam conditions. Check all bonded seams using a minimum 50 psi (345 kPa) (gage) air supply directed through a 3/16 in. (4.8 mm) (typical) nozzle, held not more than 2 in. (51 mm) from the seam edge and directed at the seam edge.

The box below should be used to present a sketch plan of the building/plot layout and membrane, showing locations of all key joints and seal features of the gas protection system and installation which are subject to air-lance integrity testing ( joints, seals, tophats around service penetrations etc).

- Failure points in seams or joints should be marked sequentially 'F<sub>1</sub>', 'F<sub>2</sub>' etc with approximate dimensions.
- Seams and joints deemed to be satisfactory should be marked with an S. All relative testing details/comments should be recorded in the table below.



Phase 3 & 4 Floor slab area gas membrane install – Area of Installation/ Inspection for given date highlighted Yellow



| No.                                         | Item                                           | Comments (see notes)                                                                                                                                                                                                                                                                                            |
|---------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A - Air Lancing Equipment</b>            |                                                |                                                                                                                                                                                                                                                                                                                 |
|                                             | Air Lance with outflow nozzle of 4.8mm         | All accessible seams, joints and service penetrations tested via air lancing in accordance with ASTM D4437-08:2013 Air Lance Test. Pressure monitored and maintained at 50-60psi at the lance throughout testing.                                                                                               |
| <b>B - Membrane, Joints and Seals</b>       |                                                |                                                                                                                                                                                                                                                                                                                 |
|                                             | Details of gas membrane product used           | Juta GP Liquid Barrier<br>Juta GP-H 0.6mm membrane<br>Juta GR-SAM                                                                                                                                                                                                                                               |
|                                             | Details of joining/ lapping tape products used | Juta Titan Tape<br>Juta GR-SAM                                                                                                                                                                                                                                                                                  |
|                                             | Joint/ Lapping design used                     | Overlaps adequate (meet min. 100mm recommended by manufacturer).<br>Main Titan bond membrane sheet joints heat welded using a Twinny type welder.<br>Titan Tape or GR-SAM used for joining between Titan Bond membrane and Liquid Barrier<br>Service entries completed using GR-SAM to form seal with membrane. |
|                                             | External vent trenches/ ducts                  | N/A                                                                                                                                                                                                                                                                                                             |
| No.                                         | Item                                           | Comments (see notes)                                                                                                                                                                                                                                                                                            |
| <b>C – Air Lance Integrity Test Results</b> |                                                |                                                                                                                                                                                                                                                                                                                 |
| Test No.                                    | Failed or Satisfactory ( F or S)               | Detail, comments and recommendations                                                                                                                                                                                                                                                                            |
| Membrane to Liquid Barrier Joints           | S                                              | All membrane to liquid barrier joints proven to be satisfactory by IDG via ASTM D4437 air lance test.                                                                                                                                                                                                           |
| Membrane to membrane Joints                 | S                                              | All membrane to membrane seams/join length proven to be satisfactory by IDG via ASTM D4437 air lance test.                                                                                                                                                                                                      |
|                                             |                                                |                                                                                                                                                                                                                                                                                                                 |

#### 4 - Photographs

| Photograph                                                                          | Description                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>IDG's typical Air lance kit set up for integrity testing of the seams/ joins and tophat seals, and compliant with ASTM D4437.</p>                                                                                                                                                                                                       |
|   | <p>Photograph showing the radon protection measures installed for the Phase 3 &amp; 4 floor slab area. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using Titan Tape and / or GR-SAM. Membrane joins heat welded using Twinny type welder.</p> |
|  | <p>Air lance testing of Phase 3 &amp; 4 floor slab area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p>                                                                                                                                                                       |
|  | <p>Air lance testing of heat-welded joint between two GP-H membrane sheets in Phase 3 &amp; 4 floor slab area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p>                                                                                                                 |

|                                                                                     |                                                                                                                                                                                                                                                |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p><i>Air lance testing of joints between GP-H membrane, GR-SAM and Liquid Barrier at stanchion base interface, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p>                |
|   | <p><i>Air lance testing of joints between GP-H membrane, GR-SAM and Liquid Barrier at stanchion base interface, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p>                |
|  | <p><i>Air lance testing of joints between GP-H membrane, and GR-SAM at service penetration on Phase 3 &amp; 4 floor slab area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p> |
|  | <p><i>Air lance testing of joints between GP-H membrane, and GR-SAM at service penetration on Phase 3 &amp; 4 floor slab area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i></p> |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The air lance integrity testing was undertaken by a suitably competent IDG testing engineer, using specialist equipment designed to comply with the requirements of ASTM D4437-08:2013, and the site-specific Gas Protection Measures Verification Plan.

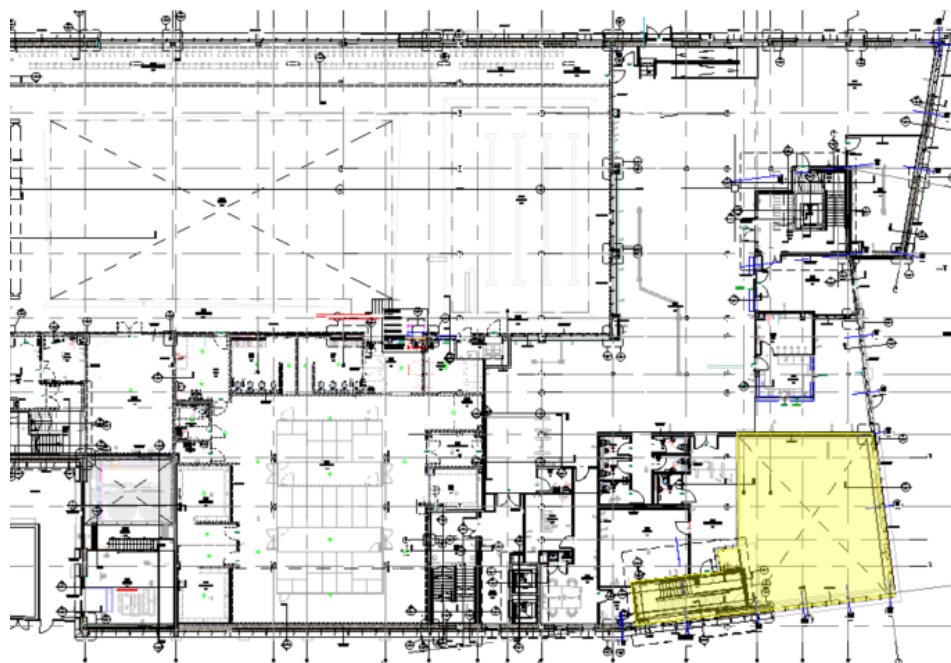
|                                                       |                                                                                                                                                                                                                                |          |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| The Gas Protection Measures for this section of work: | A) Have passed both the visual verification inspection and air lance non-destructive integrity testing of all seams and joins. The quality of installation and workmanship are satisfactory and comply with the specification. | ✓        |
|                                                       | B) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                                                                     |          |
|                                                       | C) Are not acceptable due to issues requiring remedial action as indicated above. <i>This plot should be re-inspected and verified upon completion of any required remedial works.</i>                                         |          |
| NAME                                                  | SIGNATURE                                                                                                                                                                                                                      | DATE     |
| LIAM MURPHY                                           |                                                                                                                                            | 25/09/25 |

# GAS PROTECTION MEASURES VERIFICATION VISUAL INSPECTION RECORD



|                                         |                                                                                                                |                                                          |                                                                                |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                              | Radcliffe Civic Hub                                                                                            | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                             | 5238                                                                                                           | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                   | 11/09/25<br>24/09/25                                                                                           | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Verification Engineer:                  | LM                                                                                                             | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:              | Mild/warm overcast with<br>heavy showers                                                                       | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Area/ Plot number(s):                   | Basement 2                                                                                                     |                                                          |                                                                                |
| Gas Protection<br>Components inspected: | Titan bond radon membrane installation to basement floor and walls to tie in with<br>Ground Level substructure |                                                          |                                                                                |

The box below should be used to present a sketch plan of the building/plot layout, showing locations of all key features of the gas protection system and installation (vents, joins, seals, service penetrations etc). All relative inspection details/comments should be recorded in the table below.



Basement 2 Titan bond radon membrane installation to basement floor and walls – Area of Installation/ Inspection for given date highlighted Yellow

| No.                        | Item                          | Comments (see notes) |
|----------------------------|-------------------------------|----------------------|
| <b>1 - Passive Venting</b> |                               |                      |
| 1.1                        | Sub-floor void                | N/A                  |
| 1.2                        | External wall airbricks       | N/A                  |
| 1.3                        | Internal sleeper walls        | N/A                  |
| 1.4                        | External vent trenches/ ducts | N/A                  |
| <b>2 - Active Venting</b>  |                               |                      |
| 2.1                        | Active venting System details | N/A                  |

| No.                                                                                 | Item                                               | Comments (see notes)                                                                                                                  |
|-------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b>3 - Gas Membrane</b>                                                             |                                                    |                                                                                                                                       |
| 3.1                                                                                 | Condition of sub-grade and underside of membrane   | N/A                                                                                                                                   |
| 3.2                                                                                 | Details of gas membrane product used               | Juta GP Liquid Barrier<br>Juta GP-TitanFlex<br>Juta TitanBond<br>Juta GR-SAM                                                          |
| 3.3                                                                                 | Gas membrane condition (rips/ tears/ penetrations) | Generally very good. No punctures/rips or tears identified.                                                                           |
| 3.4                                                                                 | Details of joining/ lapping tape products used     | Juta Titan Tape<br>Juta GR-SAM                                                                                                        |
| 3.5                                                                                 | Lapping design                                     | Overlaps adequate (meet min. 100mm recommended by manufacturer).                                                                      |
| 3.6                                                                                 | Laps, welds and joint seals                        | Joints generally completed to a good standard. and proven by air-lance testing.<br>Main Titan bond membrane sheet joints heat welded. |
| 3.7                                                                                 | Service entry seals                                | N/A                                                                                                                                   |
| <b>4 – Other comments/ considerations</b>                                           |                                                    |                                                                                                                                       |
| 4.1                                                                                 |                                                    |                                                                                                                                       |
| 4.2                                                                                 |                                                    |                                                                                                                                       |
| <b>5 - Photographs</b>                                                              |                                                    |                                                                                                                                       |
| Photograph                                                                          |                                                    | Description                                                                                                                           |
|   |                                                    | Photograph showing overview of membrane installed in floor of Basement 2 area.                                                        |
|  |                                                    | Photograph showing the GP Liquid barrier (red) applied to all substructure concrete of Basement 2.                                    |

|                                                                                     |                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the Titan bond membrane installed with heat-welded joints across the base of Basement 2 area. Membrane joined to substructure GP Liquid barrier (red) using GR-SAM.</p> |
|   | <p>Photograph showing the Titan bond membrane installed with heat-welded joints across the base of Basement 2 area. Membrane joined to substructure GP Liquid barrier (red) using GR-SAM.</p> |
|  | <p>Photograph showing the Titan bond membrane installed with heat-welded joints across the base of Basement 2 area. Membrane joined to substructure GP Liquid barrier (red) using GR-SAM.</p> |
|  | <p>Photograph showing overview of membrane installed on vertical faces of Basement 2 area walls after the floor slab has been poured.</p>                                                     |

|                                                                                     |                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the Titan bond membrane installed with heat-welded joints up the vertical faces of Basement 2 area walls. Membrane joined to residual overlap of previously installed membrane beneath ground floor substructure.</p> |
|   | <p>Photograph showing the Titan bond membrane installed with heat-welded joints up the vertical faces of Basement 2 area walls. Membrane joined to residual overlap of previously installed membrane beneath ground floor substructure.</p> |
|  | <p>Photograph showing the Titan bond membrane installed with heat-welded joints up the vertical faces of Basement 2 area walls. Membrane joined to residual overlap of previously installed membrane beneath ground floor substructure.</p> |
|  |                                                                                                                                                                                                                                             |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The visual verification inspection was undertaken by a suitably competent IDG verification engineer, in accordance with the requirements of CIRIA C735 and the site-specific Gas Protection Measures Verification Plan.

|                                                              |                                                                                                                                                                                                   |          |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>The Gas Protection Measures for this section of work:</b> | A) Are acceptable and comply with the specification. <i>Final Certification of this section of work is subject to successful Air Lance Integrity Testing to demonstrate compliance.</i>           |          |
|                                                              | B) Are acceptable and comply with the specification. <i>Air Lance Integrity Testing is not required for this section of work.</i>                                                                 | ✓        |
|                                                              | C) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                                        |          |
|                                                              | D) Are not acceptable due to issues requiring remedial action as indicated above. <i>This section of work should be re-inspected and verified upon completion of any required remedial works.</i> |          |
| NAME                                                         | SIGNATURE                                                                                                                                                                                         | DATE     |
| LIAM MURPHY                                                  |                                                                                                               | 25/09/25 |

### Inspection Checklist Notes:

|     |                                                    |                                                                                                                                                                                                                                                                         |
|-----|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Sub-floor void                                     | Is a check possible? Void former? Gravel (type/ specification)? Height of void space? Is it clear?                                                                                                                                                                      |
| 1.2 | External wall airbricks                            | Numbers, size, positions as per design drawing?                                                                                                                                                                                                                         |
| 1.3 | Internal sleeper walls                             | Ventilation holes (honeycomb brickwork/ pipe crossings)? Size, spacing, location in accordance with design?                                                                                                                                                             |
| 1.4 | External vent trenches/ ducts                      | Located/ construction in accordance with design? If open-topped – gravel type, presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of superstructure?     |
| 2.1 | System details                                     | Type of air supply: mechanical, natural, combined? Location/ condition/ number of fans and vents? Location and size of inlets? Provision of air-cleaning devices? Supply and exhaust ducting? Alarm provision/ installation? Gas monitoring system in under-floor void? |
| 3.1 | Condition of sub-grade and underside of membrane   | Check that the sub-grade 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?                                                                |
| 3.2 | Details of gas membrane product used               | Manufacturer and product specification, gauge, colour, brand/name, material, batch/ roll numbers, storage arrangements (to protect from dirt/damage).                                                                                                                   |
| 3.3 | Gas membrane condition (rips/ tears/ penetrations) | Open punctures, tears, rips, stretching? Excessive footprints/ evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?                             |
| 3.4 | Details of joining/ lapping tape products used     | Product type, brand, thickness, material, width, colour? Foil backed? Double sided?                                                                                                                                                                                     |
| 3.5 | Lapping design                                     | Joints lapped and sealed in accordance with manufacturers requirements/ specification? Minimum overlap ensured? Sections taped twice (double sided and lapping)?                                                                                                        |
| 3.6 | Laps, welds and joint seals                        | Welds complete? Appropriate jointing tape used? No creases or folds in sheet edges? Adequately bonded? (confirm by air lance integrity testing as necessary in accordance with the verification plan)                                                                   |
| 3.7 | Service entry seals                                | Top hats seal arrangements fixed around service entries? Use of jubilee clips? Adequately taped to membrane at joins with double-sided and lapping tape?                                                                                                                |

# GAS PROTECTION MEASURES VERIFICATION AIR LANCE INTEGRITY TESTING RECORD



|                                         |                                                                                                                |                                                          |                                                                                |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                              | Radcliffe Civic Hub                                                                                            | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                             | 5238                                                                                                           | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                   | 11/09/25<br>24/09/25                                                                                           | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Integrity Testing Engineer:             | LM                                                                                                             | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:              | Mild/warm overcast with<br>heavy showers                                                                       | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Plot number(s):                         | Basement 2                                                                                                     |                                                          |                                                                                |
| Gas Protection<br>Components inspected: | Titan bond radon membrane installation to basement floor and walls to tie in with<br>Ground Level substructure |                                                          |                                                                                |

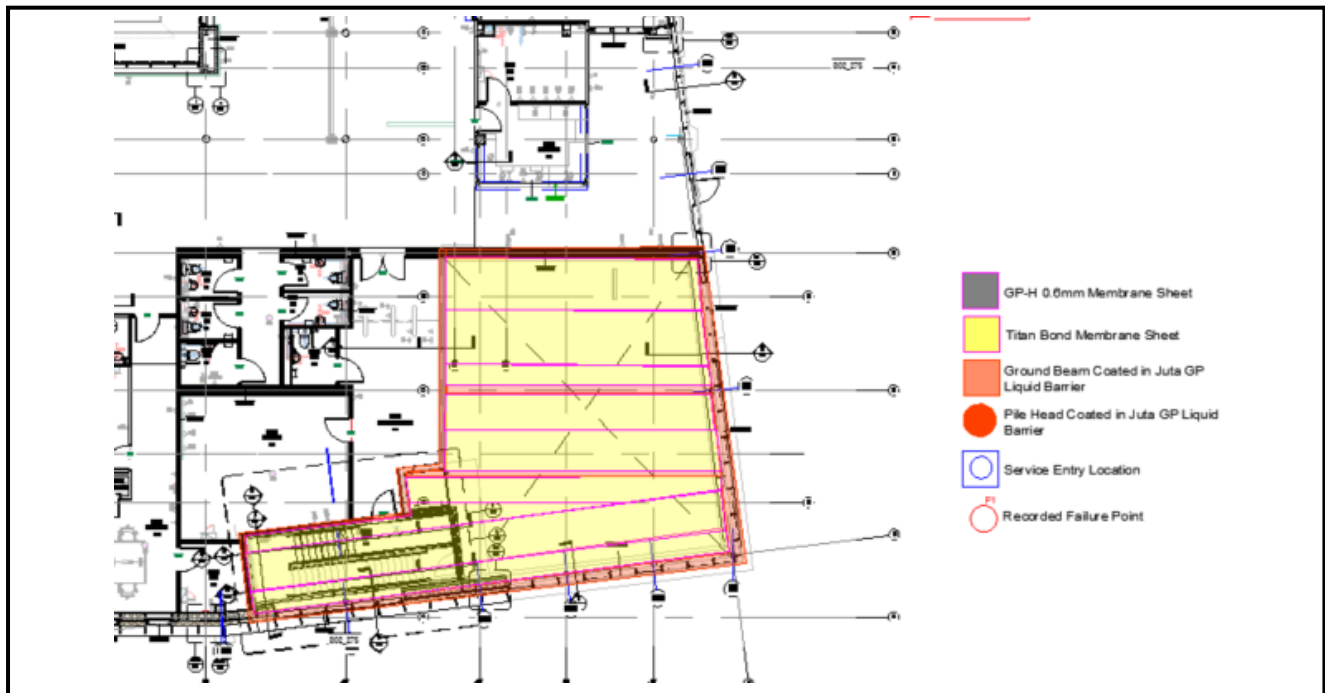
**ASTM D4437-08:2013 Air Lance Test**—Inspect all seams for unbonded areas using an air nozzle directed on the upper seam edge and surface to detect loose edges, ripples indicating unbonded areas within the seam, or other undesirable seam conditions. Check all bonded seams using a minimum 50 psi (345 kPa) (gage) air supply directed through a  $\frac{3}{16}$  in. (4.8 mm) (typical) nozzle, held not more than 2 in. (51 mm) from the seam edge and directed at the seam edge.

The box below should be used to present a sketch plan of the building/plot layout and membrane, showing locations of all key joints and seal features of the gas protection system and installation which are subject to air-lance integrity testing ( joints, seals, tophats around service penetrations etc).

- Failure points in seams or joints should be marked sequentially 'F<sub>1</sub>', 'F<sub>2</sub>' etc with approximate dimensions.
- Seams and joints deemed to be satisfactory should be marked with an S. All relative testing details/comments should be recorded in the table below.



**Basement 2 Titan bond radon membrane installation to basement floor and walls – Area of Installation/ Inspection for given date highlighted Yellow**



| No.                                            | Item                             | Comments (see notes)                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A - Air Lancing Equipment</b>               |                                  |                                                                                                                                                                                                                                                                                                                               |
| Air Lance with outflow nozzle of 4.8mm         |                                  | All accessible seams, joints and service penetrations tested via air lancing in accordance with ASTM D4437-08:2013 Air Lance Test. Pressure monitored and maintained at 50-60psi at the lance throughout testing.                                                                                                             |
| <b>B - Membrane, Joints and Seals</b>          |                                  |                                                                                                                                                                                                                                                                                                                               |
| Details of gas membrane product used           |                                  | Juta GP Liquid Barrier<br>Juta GP-TitanFlex<br>Juta TitanBond<br>Juta GR-SAM                                                                                                                                                                                                                                                  |
| Details of joining/ lapping tape products used |                                  | Juta Titan Tape<br>Juta GR-SAM                                                                                                                                                                                                                                                                                                |
| Joint/ Lapping design used                     |                                  | Overlaps adequate (meet min. 100mm recommended by manufacturer).<br>Main Titan bond membrane sheet joints heat welded using a Twinny type welder and heat gun.<br>Titan Tape or GR-SAM used for jointing between Titan Bond membrane and Liquid Barrier<br>Service entries completed using GR-SAM to form seal with membrane. |
| External vent trenches/ ducts                  |                                  | N/A                                                                                                                                                                                                                                                                                                                           |
| No.                                            | Item                             | Comments (see notes)                                                                                                                                                                                                                                                                                                          |
| <b>C – Air Lance Integrity Test Results</b>    |                                  |                                                                                                                                                                                                                                                                                                                               |
| Test No.                                       | Failed or Satisfactory ( F or S) | Detail, comments and recommendations                                                                                                                                                                                                                                                                                          |
| Membrane to Liquid Barrier Joints              | S                                | All membrane to liquid barrier joints proven to be satisfactory by IDG via ASTM D4437 air lance test.                                                                                                                                                                                                                         |
| Membrane to membrane Joints                    | S                                | All membrane to membrane seams/join length proven to be satisfactory by IDG via ASTM D4437 air lance test.                                                                                                                                                                                                                    |
|                                                |                                  |                                                                                                                                                                                                                                                                                                                               |

| 4 - Photographs                                                                     |                                                                                                                                                            |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Photograph                                                                          | Description                                                                                                                                                |
|    | <i>IDG's typical Air lance kit set up for integrity testing of the seams/ joins and tophat seals, and compliant with ASTM D4437.</i>                       |
|   | <i>Photograph showing overview of membrane installed in floor of Basement 2 area.</i>                                                                      |
|  | <i>Photograph showing overview of membrane installed on vertical faces of Basement 2 area walls after the floor slab has been poured.</i>                  |
|  | <i>Air lance testing of Basement 2 floor area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</i> |

|                                                                                     |                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Air lance testing of heat-welded joint between two titan bond membrane sheets in Basement 2 floor slab area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p>            |
|   | <p>Air lance testing of joint between titan bond membrane and GR-Liquid barrier in Basement 2 floor slab area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p>             |
|  | <p>Air lance testing of heat-welded joint between two titan bond membrane sheets on vertical wall face in Basement 2 area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p> |
|  | <p>Air lance testing of heat-welded joint between two titan bond membrane sheets on vertical wall face in Basement 2 area, with pressure gauge showing maintained pressure above minimum of 50psi advocated by ASTM D4437-08:2013.</p> |
|                                                                                     |                                                                                                                                                                                                                                        |

## REMEDIAL ACTIONS REQUIRED

N/A

## CERTIFICATION

The air lance integrity testing was undertaken by a suitably competent IDG testing engineer, using specialist equipment designed to comply with the requirements of ASTM D4437-08:2013, and the site-specific Gas Protection Measures Verification Plan.

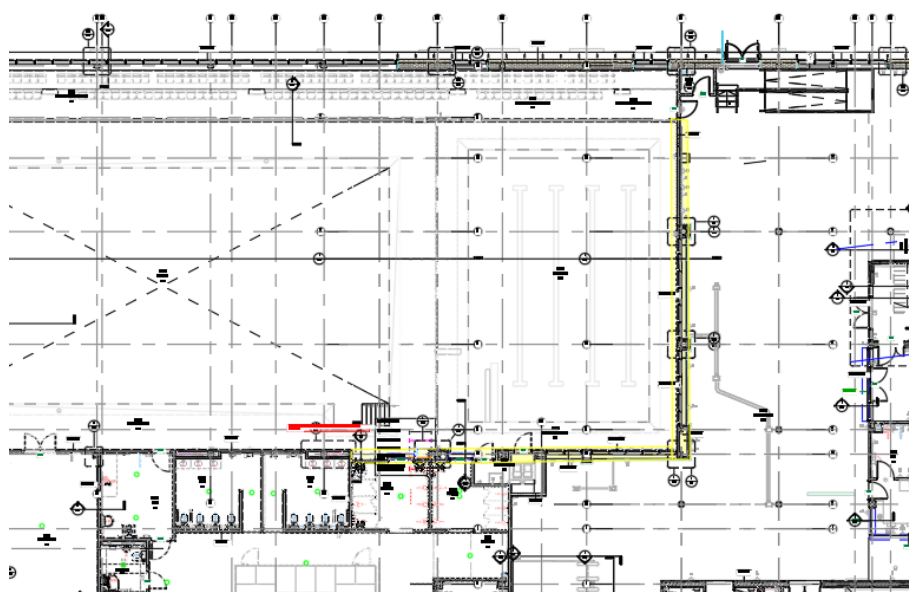
|                                                       |                                                                                                                                                                                                                                |          |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| The Gas Protection Measures for this section of work: | A) Have passed both the visual verification inspection and air lance non-destructive integrity testing of all seams and joins. The quality of installation and workmanship are satisfactory and comply with the specification. | ✓        |
|                                                       | B) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                                                                     |          |
|                                                       | C) Are not acceptable due to issues requiring remedial action as indicated above. <i>This plot should be re-inspected and verified upon completion of any required remedial works.</i>                                         |          |
| NAME                                                  | SIGNATURE                                                                                                                                                                                                                      | DATE     |
| LIAM MURPHY                                           |                                                                                                                                            | 25/09/25 |

# GAS PROTECTION MEASURES VERIFICATION VISUAL INSPECTION RECORD



|                                      |                                                                                                                                                             |                                                          |                                                                                |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------|
| Site Name:                           | Radcliffe Civic Hub                                                                                                                                         | Gas Characteristic Situation:                            | Basic Radon Only                                                               |
| Job Number:                          | 5238                                                                                                                                                        | Type of development:<br>(Residential/ commercial/ other) | Commercial                                                                     |
| Date:                                | 22/10/25<br>03/11/25                                                                                                                                        | Building Description:                                    | Multi-Use Civic Hub<br>Including Basement<br>Plant Rooms And<br>Swimming Pools |
| Verification Engineer:               | LM                                                                                                                                                          | Foundation Type:<br>(suspended floor/ raft/ other)       | Pile And Beam                                                                  |
| Weather during inspection:           | Mild, dry and overcast                                                                                                                                      | Gas Protection Type:<br>(passive/ active)                | Passive Radon                                                                  |
| Area/ Plot number(s):                | Learner Pool eastern and southern surround tie-in to main floor slab                                                                                        |                                                          |                                                                                |
| Gas Protection Components inspected: | Radon membrane installation on vertical faces and sealing to liquid membrane on concrete substructure to tie in with main floor slab membrane using GR-SAM. |                                                          |                                                                                |

The box below should be used to present a sketch plan of the building/plot layout, showing locations of all key features of the gas protection system and installation (vents, joins, seals, service penetrations etc). All relative inspection details/comments should be recorded in the table below.



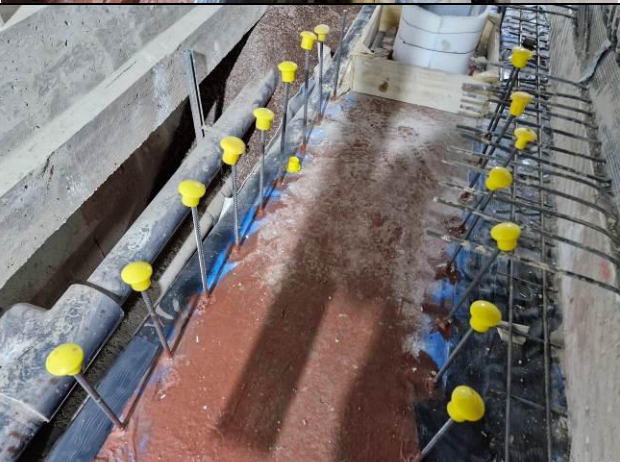
Learner Pool eastern and southern surround tie-in to main floor slab – Area of Installation/ Inspection for given dates highlighted Yellow

| No.                        | Item                          | Comments (see notes) |
|----------------------------|-------------------------------|----------------------|
| <b>1 - Passive Venting</b> |                               |                      |
| 1.1                        | Sub-floor void                | N/A                  |
| 1.2                        | External wall airbricks       | N/A                  |
| 1.3                        | Internal sleeper walls        | N/A                  |
| 1.4                        | External vent trenches/ ducts | N/A                  |
| <b>2 - Active Venting</b>  |                               |                      |
| 2.1                        | Active venting System details | N/A                  |

| No.                                                                                 | Item                                               | Comments (see notes)                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3 - Gas Membrane</b>                                                             |                                                    |                                                                                                                                                                                                                                                                                                                                                       |
| 3.1                                                                                 | Condition of sub-grade and underside of membrane   | Vertical membrane sheets against bare concrete – concrete surface contains occasional imperfections but no sharp protrusions noted.                                                                                                                                                                                                                   |
| 3.2                                                                                 | Details of gas membrane product used               | Juta GP Liquid Barrier<br>Juta GP-H 0.6mm membrane<br>Juta GR-SAM                                                                                                                                                                                                                                                                                     |
| 3.3                                                                                 | Gas membrane condition (rips/ tears/ penetrations) | Newly installed membrane generally very good. No punctures/rips or tears identified.<br>Old membrane previous installed around sub-structure contained a number of punctures through wear occurred during the build process. All identified and repaired under supervision of validation engineer.                                                    |
| 3.4                                                                                 | Details of joining/ lapping tape products used     | Juta Titan Tape<br>Juta GR-SAM                                                                                                                                                                                                                                                                                                                        |
| 3.5                                                                                 | Lapping design                                     | Overlaps adequate (meet min. 100mm recommended by manufacturer).                                                                                                                                                                                                                                                                                      |
| 3.6                                                                                 | Laps, welds and joint seals                        | Visual and mechanical point stress testing confirmed joints generally completed to a good standard. Air-lance testing not feasible due to restricted access and working space.<br>Main GP-H membrane sheet joints heat welded.<br>Liquid membrane applied to all beams. Joints between GP-H and Liquid barrier formed using GR-SAM.                   |
| 3.7                                                                                 | Service entry seals                                | All service entries completed to a good standard using GR-SAM to form seal with membrane.                                                                                                                                                                                                                                                             |
| <b>4 – Other comments/ considerations</b>                                           |                                                    |                                                                                                                                                                                                                                                                                                                                                       |
| 4.1                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                                       |
| 4.2                                                                                 |                                                    |                                                                                                                                                                                                                                                                                                                                                       |
| <b>5 - Photographs</b>                                                              |                                                    |                                                                                                                                                                                                                                                                                                                                                       |
| Photograph                                                                          |                                                    | Description                                                                                                                                                                                                                                                                                                                                           |
|  |                                                    | Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joins heat welded. |
|  |                                                    | Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joins heat welded. |

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded.</p>                                   |
|   | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded.</p>                                   |
|  | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |
|  | <p>Example of puncture damage to previously installed membrane tail requiring repair.</p>                                                                                                                                                                                                                                                                                                       |

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Repair patches being installed to remedy puncture damage under supervision of the verification engineer.</p>                                                                                                                                                                                                                                                                                 |
|   | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |
|  | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |
|  | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |

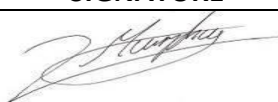
|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |
|   | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |
|  | <p>Photograph showing the radon protection measures installed for the learner pool eastern and southern surround area vertical faces being tied into main floor slab. GP Liquid barrier (red) applied to all substructure concrete as per design. Juta GP-H 0.6mm membrane (black) bonded to GP Liquid barrier using GR-SAM. Membrane joints heat welded. GR-SAM detailing around services.</p> |
|  | <p>Fleece protection layer being installed post-verification to protect membrane during backfilling of the service runs.</p>                                                                                                                                                                                                                                                                    |

## REMEDIAL ACTIONS REQUIRED

N/A – All remedial actions relating to minor punctures repaired and checked by validation engineer.

## CERTIFICATION

The visual verification inspection was undertaken by a suitably competent IDG verification engineer, in accordance with the requirements of CIRIA C735 and the site-specific Gas Protection Measures Verification Plan.

|                                                              |                                                                                                                                                                                         |             |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>The Gas Protection Measures for this section of work:</b> | A) Are acceptable and comply with the specification. <i>Final Certification of this section of work is subject to successful Air Lance Integrity Testing to demonstrate compliance.</i> |             |
|                                                              | B) Are acceptable and comply with the specification. <i>Integrity Testing is not required for this section of work</i>                                                                  | ✓           |
|                                                              | C) Are acceptable but attention is drawn to issues relating to item(s) No.                                                                                                              |             |
|                                                              | D) Are not acceptable due to issues requiring remedial action as indicated above. <i>This plot should be re-inspected and verified upon completion of any required remedial works.</i>  |             |
| <b>NAME</b>                                                  | <b>SIGNATURE</b>                                                                                                                                                                        | <b>DATE</b> |
| LIAM MURPHY                                                  |                                                                                                     | 07/11/25    |

### Inspection Checklist Notes:

|     |                                                    |                                                                                                                                                                                                                                                                         |
|-----|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.1 | Sub-floor void                                     | Is a check possible? Void former? Gravel (type/ specification)? Height of void space? Is it clear?                                                                                                                                                                      |
| 1.2 | External wall airbricks                            | Numbers, size, positions as per design drawing?                                                                                                                                                                                                                         |
| 1.3 | Internal sleeper walls                             | Ventilation holes (honeycomb brickwork/ pipe crossings)? Size, spacing, location in accordance with design?                                                                                                                                                             |
| 1.4 | External vent trenches/ ducts                      | Located/ construction in accordance with design? If open-topped – gravel type, presence of fines? If pipe or other vent, check position and construction for functionality and absence of blockages. Ability of void former to withstand bearing of superstructure?     |
| 2.1 | System details                                     | Type of air supply: mechanical, natural, combined? Location/ condition/ number of fans and vents? Location and size of inlets? Provision of air-cleaning devices? Supply and exhaust ducting? Alarm provision/ installation? Gas monitoring system in under-floor void? |
| 3.1 | Condition of sub-grade and underside of membrane   | Check that the sub-grade 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?                                                                |
| 3.2 | Details of gas membrane product used               | Manufacturer and product specification, gauge, colour, brand/name, material, batch/ roll numbers, storage arrangements (to protect from dirt/damage).                                                                                                                   |
| 3.3 | Gas membrane condition (rips/ tears/ penetrations) | Open punctures, tears, rips, stretching? Excessive footprints/ evidence of traffic? Presence of debris? Repairs? Signs of weakness such as raised or sunken indentations? Protection plan in place to restrict access to lain gas membrane?                             |
| 3.4 | Details of joining/ lapping tape products used     | Product type, brand, thickness, material, width, colour? Foil backed? Double sided?                                                                                                                                                                                     |
| 3.5 | Lapping design                                     | Joints lapped and sealed in accordance with manufacturers requirements/ specification? Minimum overlap ensured? Sections taped twice (double sided and lapping)?                                                                                                        |
| 3.6 | Laps, welds and joint seals                        | Welds complete? Appropriate jointing tape used? No creases or folds in sheet edges? Adequately bonded? (confirm by air lance integrity testing as necessary in accordance with the verification plan)                                                                   |
| 3.7 | Service entry seals                                | Top hats seal arrangements fixed around service entries? Use of jubilee clips? Adequately taped to membrane at joins with double-sided and lapping tape?                                                                                                                |

## Appendix D

# BH0045 - Gas and Waterproofing Membrane Checksheet

Phase 2 Slab - Ground floor slab GL10-11/J-N

|                          |                                |
|--------------------------|--------------------------------|
| Form Reference           | <a href="#">F520200.23</a>     |
| Owned By                 | Yaser Safary (Constructicon @) |
| Date                     | 11/08/2025 08:14:13            |
| Status                   | Complete                       |
| Project Name             | BH0045 - Radcliffe Hub         |
| Project Reference        | BH0045                         |
| Client Project Reference | na                             |
| Location                 | BH0045 - Radcliffe Hub         |

|               |                        |
|---------------|------------------------|
| Form Location | BH0045 - Radcliffe Hub |
|---------------|------------------------|

## Inspection Detail

|                                 |                                              |
|---------------------------------|----------------------------------------------|
| Contractor undertaking the work | Constructicon @                              |
| Exact Location of inspection    | Phase 2 Slab - Ground floor slab GL10-11/J-N |
| Drawing ref.                    | RADHUB-PHA-V4-B1-DR-Y-0101 Membrane GA       |

| Document Name                                                        | Type                                   | Created By                      | Date                |
|----------------------------------------------------------------------|----------------------------------------|---------------------------------|---------------------|
| <a href="#">RADHUB-PHA-V4-B1-DR-Y-0101 Membrane GA - Rev C01.pdf</a> | Pdf                                    | Shaun Farrell (Constructicon @) | 07/01/2026 09:15:28 |
| Specification Clause                                                 | RADHUB-PHA-V4-B1-DR-Y-0101 Membrane GA |                                 |                     |
| NCRs                                                                 | N/A                                    |                                 |                     |

**Note:** The appropriate information **MUST** be attached to this Check sheet prior to being used. Appropriate information could include, detail drawing, pages from the specification, a list of tolerances, etc.  
Documents can be attached using the paperclip icon and can be attached to either the form or individual questions as appropriate.

## 1. Location inspected and surface suitable for application?

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building Check and Adequate | Yes |
| Client/Other Check and adequate   |     |

## 2. Primer (cab flex)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | N/A |
| VINCI Building check and adeqaute | N/A |
| Client/Other check and adequate   |     |

### 3. Liquid applied products

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

### 4. Material placed as per specification – laps, number of layers, bonding, protection layer, Fillets ?

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

#### Images



[11/08/2025 08:20:23](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

### 5. Adhesion or another required test acceptable

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

### 6. Is third party verification required as per the Contract

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other                      |     |

### 7. Check all joints/laps between membrane are 100mm (check spec and drawing if different) minimum overlap

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

#### Images



[11/08/2025 08:20:55](#)



[11/08/2025 08:21:21](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

#### 8. Check membrane around the perimeter of the block is 90deg (internal/external corners) (check spec and drawing for specifics)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

#### 9. Check all joints around all service openings, piles and thresholds are correctly sealed

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

#### Images



[11/08/2025 08:22:02](#)



[11/08/2025 08:22:15](#)



[11/08/2025 08:22:36](#)



[11/08/2025 08:22:50](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

#### 10. Radon sumps installed and pipe joints taped, pea gravel surround

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | N/A |
| VINCI Building check and Adequate | N/A |
| Client/Other check and Adequate   |     |

#### 11. Land drains installed

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | N/A |
| VINCI Building check and Adequate |     |
| Client/Other check and Adequate   |     |

#### 12. Any damages/tears/punctures repaired

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | N/A |
| VINCI Building check and Adequate |     |
| Client/Other check and Adequate   |     |

#### 13. Final check of general condition of membrane

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |

Client/Other check and Adequate

## HOLD POINT

DO NOT CONTINUE UNTIL VINCI BUILDING HAVE CHECKED THE ABOVE

Do any tasks need to be raised as a result of this inspection?

No

### Final Sign Off

I can confirm all checks assigned above to Client have been completed

Theo Coleman (VINCI Building -  
North West & Retail)

21/05/2026 13:52:00

I can confirm all checks assigned above to Subcontractor have been completed

Shaun Farrell (Constructicon @)

07/01/2026 11:20:10

I can confirm all checks assigned above to VINCI Building have been completed

When all items have been checked, VINCI Building are to close the form.

Inspection by VINCI Building of the works shall not relieve the sub-contractor of any of their contractual duties or responsibilities, should the works subsequently prove defective.

## INSPECTION NOTES AND GUIDANCE

Insert guidance here

# BH0045 - Gas and Waterproofing Membrane Checksheet

Basement 2 Slab &amp; Liner Wall

|                          |                                 |
|--------------------------|---------------------------------|
| Form Reference           | <a href="#">F1.5749997</a>      |
| Owned By                 | Shaun Farrell (Constructicon @) |
| Date                     | 07/01/2026 11:34:45             |
| Status                   | Complete                        |
| Project Name             | BH0045 - Radcliffe Hub          |
| Project Reference        | BH0045                          |
| Client Project Reference | na                              |
| Location                 | BH0045 - Radcliffe Hub          |

|               |                        |
|---------------|------------------------|
| Form Location | BH0045 - Radcliffe Hub |
|---------------|------------------------|

| Inspection Detail               |                              |
|---------------------------------|------------------------------|
| Contractor undertaking the work | Constructicon @              |
| Exact Location of inspection    | Basement 2 Slab & Liner Wall |

| Document Name                                              | Type                                                                                                                       | Created By                      | Date                |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------|
| <a href="#">SEL - Basement 2 Slab &amp; Liner Wall.PDF</a> | Pdf                                                                                                                        | Shaun Farrell (Constructicon @) | 08/01/2026 14:53:50 |
| Drawing ref.                                               | * RADHUB-PHA-V4-B1-DR-Y-0003 Clip and Climb Retaining Wall - Rev C03<br>* RADHUB-PHA-V4-B1-DR-Y-0101 Membrane GA - Rev C01 |                                 |                     |

| Document Name                                                                          | Type                                                                                                                       | Created By                      | Date                |
|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------|
| <a href="#">RADHUB-PHA-V4-B1-DR-Y-0003 Clip and Climb Retaining Wall - Rev C03.pdf</a> | Pdf                                                                                                                        | Shaun Farrell (Constructicon @) | 08/01/2026 14:53:23 |
| <a href="#">RADHUB-PHA-V4-B1-DR-Y-0101 Membrane GA - Rev C01.pdf</a>                   | Pdf                                                                                                                        | Shaun Farrell (Constructicon @) | 08/01/2026 14:53:27 |
| Specification Clause                                                                   | * RADHUB-PHA-V4-B1-DR-Y-0003 Clip and Climb Retaining Wall - Rev C03<br>* RADHUB-PHA-V4-B1-DR-Y-0101 Membrane GA - Rev C01 |                                 |                     |
| NCRs                                                                                   | N/A                                                                                                                        |                                 |                     |

**Note:** The appropriate information **MUST** be attached to this Check sheet prior to being used. Appropriate information could include, detail drawing, pages from the specification, a list of tolerances, etc.  
Documents can be attached using the paperclip icon and can be attached to either the form or individual questions as appropriate.

| 1. Location inspected and surface suitable for application? |     |
|-------------------------------------------------------------|-----|
| Sub-contractor check and Adequate                           | Yes |

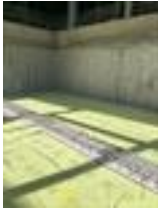
## Images



[08/01/2026 14:50:05](#)



[08/01/2026 14:50:18](#)



[08/01/2026 14:50:18](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building Check and Adequate | Yes |
| Client/Other Check and adequate   |     |

## 2. Primer (cab flex)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | N/A |
| VINCI Building check and adequate |     |
| Client/Other check and adequate   |     |

## 3. Liquid applied products

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

## Images



[08/01/2026 14:50:40](#)



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[08/01/2026 14:50:41](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

## 4. Material placed as per specification – laps, number of layers, bonding, protection layer, Fillets ?

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

## Images



[08/01/2026 14:50:58](#)



[08/01/2026 14:50:59](#)



[08/01/2026 14:50:59](#)



[08/01/2026 14:51:13](#)



[08/01/2026 14:51:13](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

## 5. Adhesion or another required test acceptable

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

## 6. Is third party verification required as per the Contract

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other                      |     |

## 7. Check all joints/laps between membrane are 100mm (check spec and drawing if different) minimum overlap

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

## Images



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[08/01/2026 14:51:55](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

## 8. Check membrane around the perimeter of the block is 90deg (internal/external corners) (check spec and drawing for specifics)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

## Images



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[08/01/2026 14:52:22](#)



[08/01/2026 14:52:23](#)

|                                                                                                   |     |
|---------------------------------------------------------------------------------------------------|-----|
| VINCI Building check and Adequate                                                                 | Yes |
| Client/Other check and Adequate                                                                   |     |
| <b>9. Check all joints around all service openings, piles and thresholds are correctly sealed</b> |     |
| Sub-contractor check and Adequate                                                                 | Yes |
| VINCI Building check and Adequate                                                                 | Yes |
| Client/Other check and Adequate                                                                   |     |
| <b>10. Radon sumps installed and pipe joints taped, pea gravel surround</b>                       |     |
| Sub-contractor check and Adequate                                                                 | N/A |
| VINCI Building check and Adequate                                                                 |     |
| Client/Other check and Adequate                                                                   |     |
| <b>11. Land drains installed</b>                                                                  |     |
| Sub-contractor check and Adequate                                                                 | N/A |
| VINCI Building check and Adequate                                                                 |     |
| Client/Other check and Adequate                                                                   |     |
| <b>12. Any damages/tears/punctures repaired</b>                                                   |     |
| Sub-contractor check and Adequate                                                                 | N/A |
| VINCI Building check and Adequate                                                                 |     |
| Client/Other check and Adequate                                                                   |     |
| <b>13. Final check of general condition of membrane</b>                                           |     |
| Sub-contractor check and Adequate                                                                 | Yes |
| VINCI Building check and Adequate                                                                 | Yes |
| Client/Other check and Adequate                                                                   |     |

## **HOLD POINT**

**DO NOT CONTINUE UNTIL VINCI BUILDING HAVE CHECKED THE ABOVE**

|                                                                |    |
|----------------------------------------------------------------|----|
| Do any tasks need to be raised as a result of this inspection? | No |
|----------------------------------------------------------------|----|

### Final Sign Off

|                                                                       |  |
|-----------------------------------------------------------------------|--|
| I can confirm all checks assigned above to Client have been completed |  |
|-----------------------------------------------------------------------|--|

Theo Coleman (VINCI Building -  
North West & Retail)  
21/05/2026 16:27:04

|                                                                              |  |
|------------------------------------------------------------------------------|--|
| I can confirm all checks assigned above to Subcontractor have been completed |  |
|------------------------------------------------------------------------------|--|

Shaun Farrell (Constructicon @)  
08/01/2026 14:53:57

|                                                                               |  |
|-------------------------------------------------------------------------------|--|
| I can confirm all checks assigned above to VINCI Building have been completed |  |
|-------------------------------------------------------------------------------|--|

When all items have been checked, VINCI Building are to close the form.

Inspection by VINCI Building of the works shall not relieve the sub-contractor of any of their contractual duties or responsibilities, should the works subsequently prove defective.

# INSPECTION NOTES AND GUIDANCE

Insert guidance here

# BH0045 - Gas and Waterproofing Membrane Checksheet

Basement 2 - Capping Beam GL R14 - XY

|                          |                                 |
|--------------------------|---------------------------------|
| Form Reference           | <a href="#">F1.4732353</a>      |
| Owned By                 | Shaun Farrell (Constructicon @) |
| Date                     | 07/05/2025 06:38:36             |
| Status                   | Closed                          |
| Project Name             | BH0045 - Radcliffe Hub          |
| Project Reference        | BH0045                          |
| Client Project Reference | na                              |
| Location                 | BH0045 - Radcliffe Hub          |

|               |                        |
|---------------|------------------------|
| Form Location | BH0045 - Radcliffe Hub |
|---------------|------------------------|

| Inspection Detail               |                                       |
|---------------------------------|---------------------------------------|
| Contractor undertaking the work | Constructicon @                       |
| Exact Location of inspection    | Basement 2 - Capping Beam GL R14 - XY |

| Document Name                                                   | Type                                                     | Created By                      | Date                |
|-----------------------------------------------------------------|----------------------------------------------------------|---------------------------------|---------------------|
| <a href="#">SEL - Basement 2 - Capping Beam GL R14 - XY.PDF</a> | Pdf                                                      | Shaun Farrell (Constructicon @) | 18/06/2025 09:25:45 |
| Drawing ref.                                                    | RADHUB-PHA-V4-B1-DR-Y-0003<br>RADHUB-PHA-V4-B1-DR-Y-0012 |                                 |                     |

| Document Name                                                                          | Type                                                     | Created By                      | Date                |
|----------------------------------------------------------------------------------------|----------------------------------------------------------|---------------------------------|---------------------|
| <a href="#">RADHUB-PHA-V4-B1-DR-Y-0003 Clip and Climb Retaining Wall - Rev C03.pdf</a> | Pdf                                                      | Shaun Farrell (Constructicon @) | 18/06/2025 09:24:50 |
| <a href="#">RADHUB-PHA-V4-B1-DR-Y-0012 Pile Head Detail - Rev C01.pdf</a>              | Pdf                                                      | Shaun Farrell (Constructicon @) | 18/06/2025 09:24:54 |
| Specification Clause                                                                   | RADHUB-PHA-V4-B1-DR-Y-0003<br>RADHUB-PHA-V4-B1-DR-Y-0012 |                                 |                     |
| NCRs                                                                                   | N/A                                                      |                                 |                     |

**Note:** The appropriate information **MUST** be attached to this Check sheet prior to being used. Appropriate information could include, detail drawing, pages from the specification, a list of tolerances, etc.

Documents can be attached using the paperclip icon and can be attached to either the form or individual questions as appropriate.

| 1. Location inspected and surface suitable for application? |     |
|-------------------------------------------------------------|-----|
| Sub-contractor check and Adequate                           | Yes |

### Images



[18/06/2025 09:26:37](#)



[18/06/2025 09:26:50](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building Check and Adequate | Yes |
| Client/Other Check and adequate   |     |

### 2. Primer (cab flex)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

### Images



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|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adeqaute | Yes |
| Client/Other check and adequate   |     |

### 3. Liquid applied products

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

### Images



[18/06/2025 09:29:19](#)



[18/06/2025 09:29:51](#)



[18/06/2025 09:30:53](#)



[18/06/2025 09:31:40](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

#### 4. Material placed as per specification – laps, number of layers, bonding, protection layer, Fillets ?

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

#### Images



[18/06/2025 09:33:01](#)



[18/06/2025 09:33:12](#)



[18/06/2025 09:33:25](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

#### 5. Adhesion or another required test acceptable

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

#### 6. Is third party verification required as per the Contract

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other                      |     |

#### 7. Check all joints/laps between membrane are 100mm (check spec and drawing if different) minimum overlap

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

#### Images



[18/06/2025 09:34:17](#)



[18/06/2025 09:34:30](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

#### 8. Check membrane around the perimeter of the block is 90deg (internal/external corners) (check spec and drawing for specifics)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

## Images



[18/06/2025 09:36:07](#)



[18/06/2025 09:36:11](#)



[18/06/2025 09:36:21](#)

|                                                                                            |     |
|--------------------------------------------------------------------------------------------|-----|
| VINCI Building check and Adequate                                                          | Yes |
| Client/Other check and Adequate                                                            |     |
| 9. Check all joints around all service openings, piles and thresholds are correctly sealed |     |
| Sub-contractor check and Adequate                                                          | Yes |
| VINCI Building check and Adequate                                                          | Yes |
| Client/Other check and Adequate                                                            |     |
| 10. Radon sumps installed and pipe joints taped, pea gravel surround                       |     |
| Sub-contractor check and Adequate                                                          | N/A |
| VINCI Building check and Adequate                                                          | N/A |
| Client/Other check and Adequate                                                            |     |
| 11. Land drains installed                                                                  |     |
| Sub-contractor check and Adequate                                                          | N/A |
| VINCI Building check and Adequate                                                          |     |
| Client/Other check and Adequate                                                            |     |
| 12. Any damages/tears/punctures repaired                                                   |     |
| Sub-contractor check and Adequate                                                          | N/A |
| VINCI Building check and Adequate                                                          |     |
| Client/Other check and Adequate                                                            |     |
| 13. Final check of general condition of membrane                                           |     |
| Sub-contractor check and Adequate                                                          | Yes |
| VINCI Building check and Adequate                                                          | Yes |
| Client/Other check and Adequate                                                            |     |

**HOLD POINT**

**DO NOT CONTINUE UNTIL VINCI BUILDING HAVE CHECKED THE ABOVE**

|                                                                |    |
|----------------------------------------------------------------|----|
| Do any tasks need to be raised as a result of this inspection? | No |
|----------------------------------------------------------------|----|

### Final Sign Off

|                                                                       |  |
|-----------------------------------------------------------------------|--|
| I can confirm all checks assigned above to Client have been completed |  |
|-----------------------------------------------------------------------|--|

Theo Coleman (VINCI Building -  
North West & Retail)  
20/05/2026 17:03:35

|                                                                              |  |
|------------------------------------------------------------------------------|--|
| I can confirm all checks assigned above to Subcontractor have been completed |  |
|------------------------------------------------------------------------------|--|

Shaun Farrell (Constructicon @)  
18/06/2025 09:41:47

|                                                                               |  |
|-------------------------------------------------------------------------------|--|
| I can confirm all checks assigned above to VINCI Building have been completed |  |
|-------------------------------------------------------------------------------|--|

When all items have been checked, VINCI Building are to close the form.

Inspection by VINCI Building of the works shall not relieve the sub-contractor of any of their contractual duties or responsibilities, should the works subsequently prove defective.

# INSPECTION NOTES AND GUIDANCE

Insert guidance here

# BH0045 - Gas and Waterproofing Membrane Checksheet

Double Lift Pit Base Grid Line 12-13/P-R

|                          |                                 |
|--------------------------|---------------------------------|
| Form Reference           | <a href="#">F1.3864823</a>      |
| Owned By                 | Shaun Farrell (Constructicon @) |
| Date                     | 26/09/2024 07:19:38             |
| Status                   | Closed                          |
| Project Name             | BH0045 - Radcliffe Hub          |
| Project Reference        | BH0045                          |
| Client Project Reference | na                              |
| Location                 | BH0045 - Radcliffe Hub          |

|               |                        |
|---------------|------------------------|
| Form Location | BH0045 - Radcliffe Hub |
|---------------|------------------------|

| Inspection Detail               |                                          |
|---------------------------------|------------------------------------------|
| Contractor undertaking the work | Constructicon @                          |
| Exact Location of inspection    | Double Lift Pit Base Grid Line 12-13/P-R |
| Drawing ref.                    | SK_PHA.0005 (Lift Pit Detail)            |
| Specification Clause            | SK_PHA.0005 (Lift Pit Detail)            |
| NCRs                            | N/A                                      |

**Note:** The appropriate information **MUST** be attached to this Check sheet prior to being used. Appropriate information could include, detail drawing, pages from the specification, a list of tolerances, etc.  
Documents can be attached using the paperclip icon and can be attached to either the form or individual questions as appropriate.

| 1. Location inspected and surface suitable for application? |     |
|-------------------------------------------------------------|-----|
| Sub-contractor check and Adequate                           | Yes |

## Images

[22/10/2024 07:05:58](#)[22/10/2024 07:05:59](#)[22/10/2024 07:05:59](#)[22/10/2024 07:06:00](#)[22/10/2024 07:06:01](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building Check and Adequate | Yes |
|-----------------------------------|-----|

|                                                                                                               |                                                                                     |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Client/Other Check and adequate                                                                               |                                                                                     |
| <b>2. Primer (cab flex)</b>                                                                                   |                                                                                     |
| Sub-contractor check and Adequate                                                                             | Yes                                                                                 |
| <b>Images</b>                                                                                                 |                                                                                     |
|                               |    |
| <a href="#">22/10/2024 07:06:15</a>                                                                           | <a href="#">22/10/2024 07:06:16</a>                                                 |
|                              |                                                                                     |
| <a href="#">22/10/2024 07:06:17</a>                                                                           |                                                                                     |
| VINCI Building check and adequate                                                                             | Yes                                                                                 |
| Client/Other check and adequate                                                                               |                                                                                     |
| <b>3. Liquid applied products</b>                                                                             |                                                                                     |
| Sub-contractor check and Adequate                                                                             | Yes                                                                                 |
| <b>Images</b>                                                                                                 |                                                                                     |
|                               |    |
| <a href="#">22/10/2024 07:06:39</a>                                                                           | <a href="#">22/10/2024 07:06:40</a>                                                 |
|                              |  |
| <a href="#">22/10/2024 07:06:41</a>                                                                           | <a href="#">22/10/2024 07:06:42</a>                                                 |
| VINCI Building check and adequate                                                                             | Yes                                                                                 |
| Client/Other check and adequate                                                                               |                                                                                     |
| <b>4. Material placed as per specification – laps, number of layers, bonding, protection layer, Fillets ?</b> |                                                                                     |
| Sub-contractor check and Adequate                                                                             | Yes                                                                                 |

## Images



[22/10/2024 07:07:01](#)



[22/10/2024 07:07:02](#)



[22/10/2024 07:07:03](#)



[22/10/2024 07:07:03](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and adequate | Yes |
| Client/Other check and adequate   |     |

## 5. Adhesion or another required test acceptable

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

## 6. Is third party verification required as per the Contract

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other                      |     |

## 7. Check all joints/laps between membrane are 100mm (check spec and drawing if different) minimum overlap

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

## 8. Check membrane around the perimeter of the block is 90deg (internal/external corners) (check spec and drawing for specifics)

|                                   |     |
|-----------------------------------|-----|
| Sub-contractor check and Adequate | Yes |
|-----------------------------------|-----|

## Images



[22/10/2024 07:17:28](#)



[22/10/2024 07:17:29](#)

|                                   |     |
|-----------------------------------|-----|
| VINCI Building check and Adequate | Yes |
| Client/Other check and Adequate   |     |

|                                                                                                 |     |
|-------------------------------------------------------------------------------------------------|-----|
| 9. Check all joints around all service openings, piles and thresholds are correctly sealed      |     |
| Sub-contractor check and Adequate                                                               | Yes |
| VINCI Building check and Adequate                                                               | Yes |
| Client/Other check and Adequate                                                                 |     |
| 10. Radon sumps installed and pipe joints taped, pea gravel surround                            |     |
| Sub-contractor check and Adequate                                                               | N/A |
| VINCI Building check and Adequate                                                               |     |
| Client/Other check and Adequate                                                                 |     |
| 11. Land drains installed                                                                       |     |
| Sub-contractor check and Adequate                                                               | N/A |
| VINCI Building check and Adequate                                                               |     |
| Client/Other check and Adequate                                                                 |     |
| 12. Any damages/tears/punctures repaired                                                        |     |
| Sub-contractor check and Adequate                                                               | N/A |
| VINCI Building check and Adequate                                                               |     |
| Client/Other check and Adequate                                                                 |     |
| 13. Final check of general condition of membrane                                                |     |
| Sub-contractor check and Adequate                                                               | Yes |
| VINCI Building check and Adequate                                                               | Yes |
| Client/Other check and Adequate                                                                 |     |
| <h2><u>HOLD POINT</u></h2> <h1>DO NOT CONTINUE UNTIL VINCI BUILDING HAVE CHECKED THE ABOVE</h1> |     |
| Do any tasks need to be raised as a result of this inspection?                                  | No  |
| Final Sign Off                                                                                  |     |
| I can confirm all checks assigned above to Client have been completed                           |     |

Theo Coleman (VINCI Building -  
North West & Retail)  
20/05/2026 16:41:52