FLOOD|DOCTOR

WATER DAMAGE RESTORATION SPECIALIST

PRELIMINARY REPORT

Prepared for:

Client details

Surveyed property		Customer details		Flood Doctor	
				(office annotations)	
				Your ref.	N/A
				Our ref.	2025/777
				Assessor	Pawel Szczepaniak
				Survey date	20th April, 2025
				Time	14:00
Postcode		Postcode		Report date	21st April, 2025

Table of Contents

Instructions & Scope

Following formal instruction from xxxxxx a site inspection was undertaken at xxxxxxxxxx on 20th April 2025.

The purpose of the inspection was to assess the extent of water damage resulting from an escape-of-water (EOW) incident originating within the kitchen area.

It is understood that the incident occurred while the leaseholders were overseas attending a family funeral.

The water escape was first identified by a family friend attending the property, who promptly isolated the water supply on 17th April 2025. The leaseholders subsequently returned to the UK on an emergency basis, and the survey was arranged and conducted on the same day as their return, 20th April 2025.

The assessment comprised a non-intrusive inspection, incorporating a detailed visual survey, thermal imaging, and moisture mapping using electronic moisture detection equipment. The objective was to determine the extent of moisture migration and identify any retained moisture resulting from the EOW incident.

Property Details

Building Use: Residential block of flats
Approximate Year of Construction: Circa 2018–2019
Number of Storeys: 5 above ground (including ground floor)
Flat 6: Located on the third floor
Internal Layout: 2 bedrooms, 2 bathrooms, open-plan kitchen/living/dining, utility room, hallway, two balconies
External Amenity: Landscaped communal podium garden at first-floor slab level
Roof Type: Flat warm roof construction with extensive solar PV array
Access: Via internal communal lobbies and stair/lift core

External Walls

- **Wall Type:** Traditional cavity wall construction
- **Outer Leaf:** Clay facing brickwork in stretcher bond
- **Cavity:** Likely 100–150mm, fully filled with rigid PIR insulation board (e.g. Celotex or Kingspan Kooltherm) or partial fill with residual air space
- **Inner Leaf:** Lightweight aircrete or dense concrete blockwork
- **Internal Finish:** 12.5mm plasterboard affixed with adhesive (dot-and-dab); potential secondary layer for enhanced fire/acoustic performance at party wall junctions
- **Thermal Bridging Consideration:** Lintel areas, slab edges, and balcony junctions may be protected with insulated cavity closers or thermal breaks (as per BR 262)

Roof Construction

- **Type:** Inverted warm flat roof system
- **Finish:** Ballasted or paved over membrane (non-loadbearing zones), with integrated PV mounts
- **Build-Up (Typical):**
    - Structural concrete deck
    - Vapour control layer (VCL)
    - Rigid insulation (e.g. extruded polystyrene or high-density PIR)
    - Waterproofing membrane (e.g. bituminous or synthetic single-ply)
    - Protection layer and ballasted finish
- **Drainage:** Internal rainwater outlets and parapet scuppers

Openings & Fenestration

- **Windows:** Powder-coated aluminium-framed double-glazed units (thermally broken)
- **Glazing:** Likely argon-filled low-E double glazing, 28–32mm units
- **Doors (Balconies):** Aluminium-framed patio doors, full-height for daylighting
- **Balcony Construction:**
    - Cantilevered reinforced concrete slabs
    - Finished with non-combustible decking (compliance with post-Grenfell amendments to Approved Document B)
    - Glass balustrading fixed through the slab edge

Internal Construction (Assumed)

Ceilings

- **Type:** Suspended MF system
- **Finish:** 12.5mm plasterboard (single or double-layered for sound/fire resistance)
- **Above MF:** Mineral wool insulation (e.g. Rockwool) for thermal and acoustic performance
- **Support:** Galvanised metal framing suspended from concrete soffit using acoustic hangers
- **Void Use:** Conceals services (electrical, mechanical, fire alarm, ventilation)

Internal Partitions

- **Type:** Lightweight metal stud partitions throughout
- **Finish:** 12.5mm plasterboard each side, skim finished
- **As observed during the inspection:**
    - Skimmed finish throughout, corner beading evident at reveals
    - Standard white emulsion paint finish
- **Insulation:** Assumed mineral wool soundproofing between studs (particularly between bedrooms and bathrooms/living zones)
- **Door Casings:** MDF linings with square-edged or chamfered architraves
- **Fire Doors:** FD30 internal doors with intumescent strips, standard in modern apartment compliance

Party Walls

- **Wall Type:** Solid blockwork construction with acoustic insulation and fire-rated finishes
- **Support:** Extend from concrete slab to slab (not built on screed), providing continuous fire and acoustic separation
- **Finish:** Plasterboard (dot-and-dab or mechanically fixed)
- **Compliance:** Likely tested against Approved Document E (airborne and impact sound) with cavity barriers and acoustic sealant at junctions

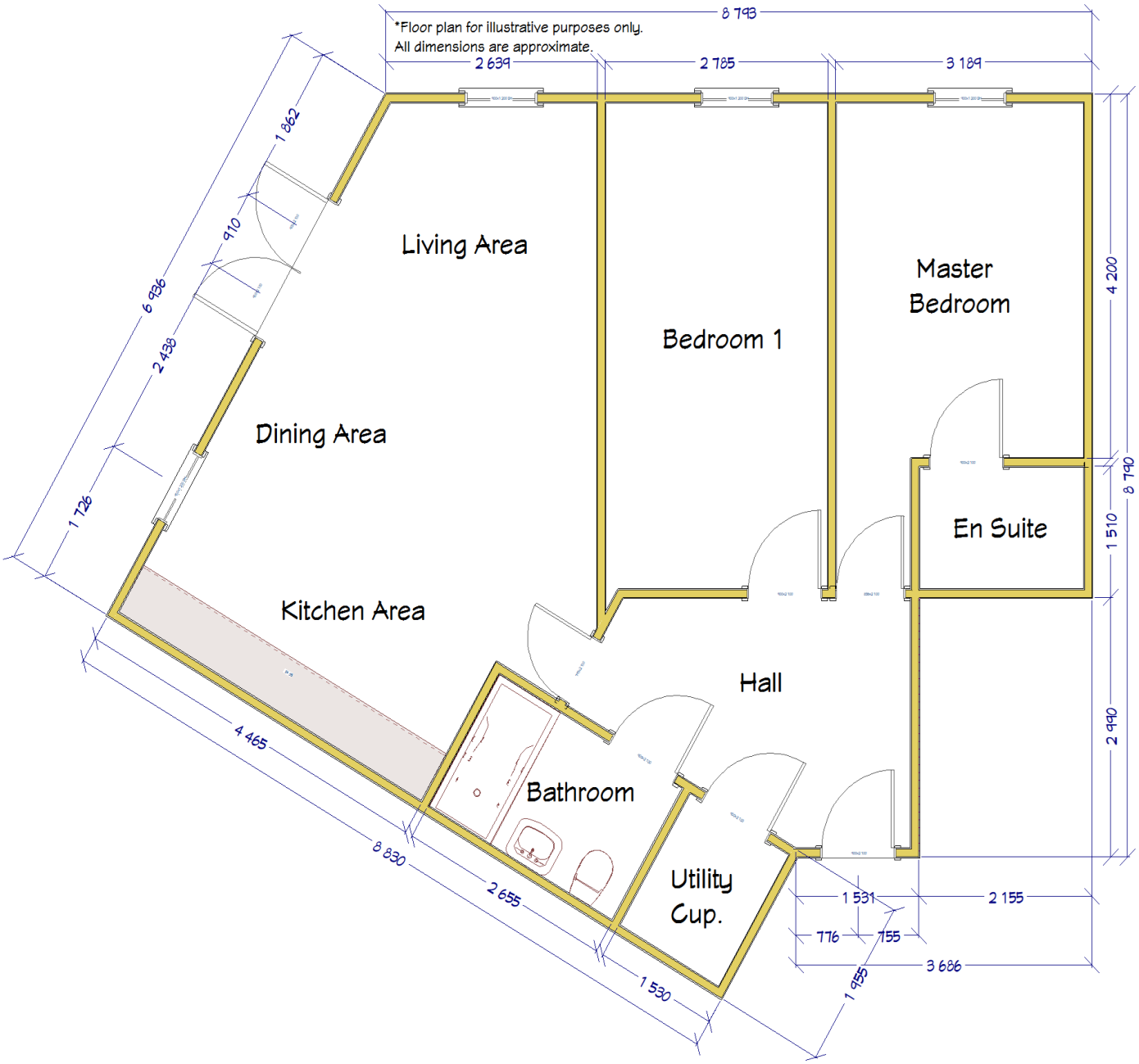
Floors (Flat 6 – Third Floor)

- **Base:** Reinforced concrete slab
- **Acoustic Build-Up (Typical for flats above ground):**
    - Resilient acoustic membrane (e.g. Regupol, Isorubber)
    - Thermal insulation layer (e.g. PIR board or mineral wool) beneath screed
    - Vapour barrier above insulation
    - Screed layer: Likely anhydrite or sand/cement screed (50–65mm)
- **Finish:** Laminate (Hallway, Utility Room, Kitchen/Dining/Living Area), Tile (Bathoom & En Suite), Carpet & Underlay (Master Bedroom & Bedroom 1)
- **Services:** Pipework & electrical cables run within walls and ceilings with no services within the floor void

Internal Doors, Joinery & Fixtures

- **Doors:** Fire-rated doors (900mm wide), (likely FD30) with intumescent strips
- **Architraves/Skirtings:** MDF or softwood with painted finish
- **Joinery:** Standard apartment specification with pre-formed modules

Flat 6 – Floor plan



Summary

Upon arrival at the property, we were received by the leaseholders, who had returned to the UK only a few hours prior following notification of the escape-of-water incident. At the time of inspection, they were still in the process of assessing the extent of the damage and were unable to confirm the precise cause of the leak.

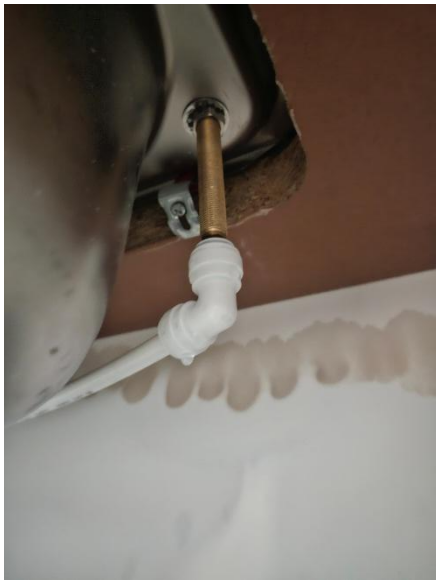
However, it was understood that the source of water ingress was located within the kitchen sink base unit.

The water supply had remained isolated since the incident was first discovered. A preliminary visual inspection of the kitchen units identified extensive moisture-related damage to the sink base cupboard and adjacent units. Evident symptoms included swelling, delamination of laminated surfaces, and deterioration of internal chipboard shelving—characteristic of sustained water exposure.

Leak Identification

As part of our investigation, we requested that the water supply to the kitchen be reinstated in order to facilitate active leak detection, as no visible signs of active leakage were initially evident during the dry inspection.

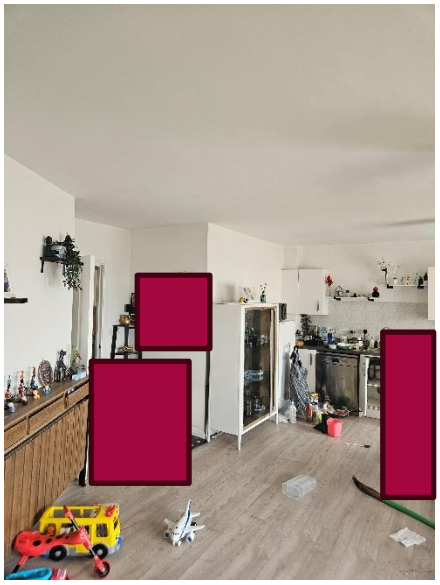
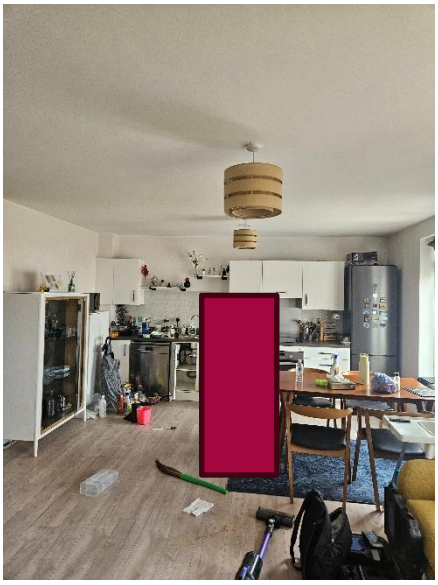
Upon restoration of the water supply, a leak became immediately apparent. Water was observed discharging from a plastic push-fit elbow (L-bend) connector located beneath the kitchen sink. This fitting connects a flexible plastic feed line from the Harvey water softener unit to the metallic threaded tail of a secondary tap (likely a dedicated filtered water tap installed as part of the softener system). The leak was identified at the push-fit joint interface, with active dripping noted within seconds of repressurisation.

The mains water supply was immediately switched off to prevent any further damage. Upon closer inspection we have noted a separate valve within the water supply to the softener which has been switched off. This allowed us to isolate the water supply to the softener but restoring the water supply to the rest of the property.

Once the leak has been identified and isolated we begun our inspection.

Open Plan Kitchen/Dining/Living Area - Overview


We began visual inspection of this area, during this part of the survey we have noted the following:

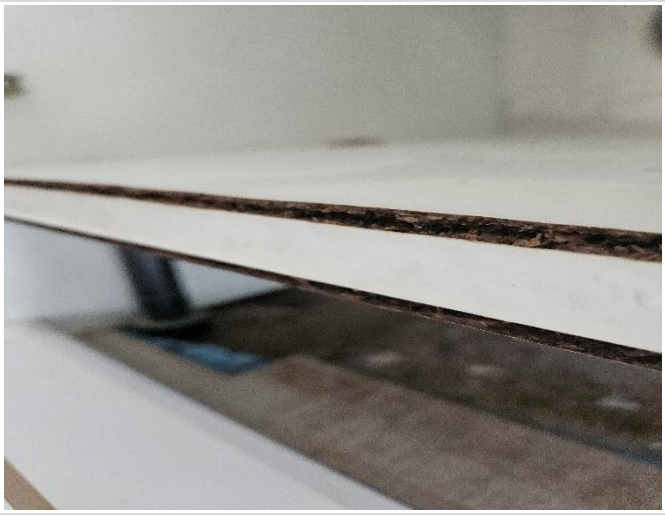
- Swelling and bowing of the laminate floor finish
- Staining, expansion, and paint failure to multiple kitchen units, end panels and kickboards.
- Localised deterioration to skirting boards and architraves, including splitting, surface blistering, and loss of integrity to paint finishes.
- Visible water staining and paint discolouration to lower wall surfaces and skirtings.
- Upon removal of the kitchen plinth, early-stage microbial (mould) growth was observed forming on the concealed surfaces of the skirting boards and the lower sections of plasterboard wall behind the kitchen units, indicating the onset of fungal activity due to sustained moisture exposure.

Kitchen - Photographs & Annotations

Brown moisture staining to lower wall, swelling of the skirting boards.

Fungal colonisation along skirting board and lower wall

Condensation and mould growth behind kitchen units



Swollen particleboard shelf with visible edge delamination indicative of prolonged water exposure.

Vertical cracking and edge swelling of internal panel

Widespread swelling and staining of the sink cupboard

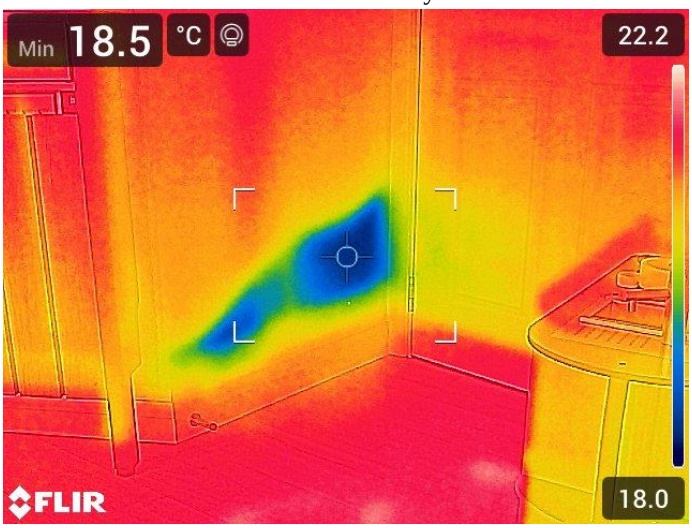
	
Swelling and mould contamination on the surface of the shelf	Swelling, splitting of the door frame and architrave, peeling of paint

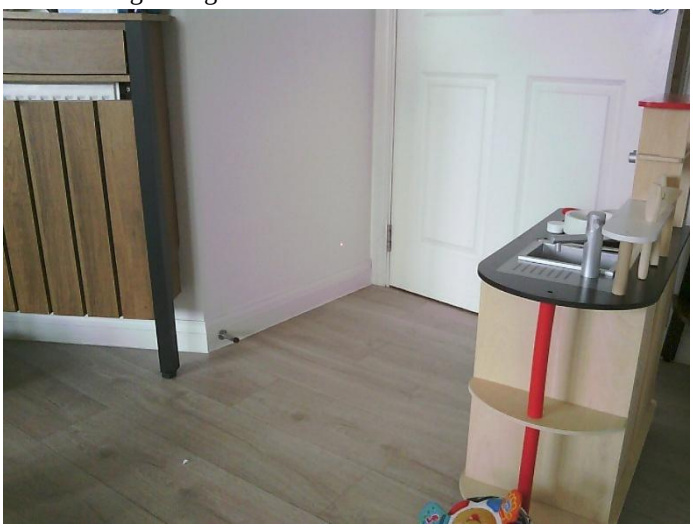
Kitchen – Thermal Imaging Inspection

Visible thermal anomaly at the base of the wall spanning whole width of the kitchen indicating moisture accumulation

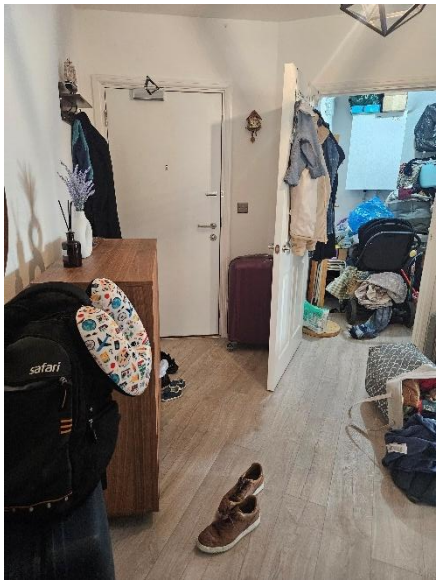
Localised thermal anomaly to lower internal wall indicative of moisture retention

Themal anomaly noted at the base of the wall dividing dining area and bedroom 1





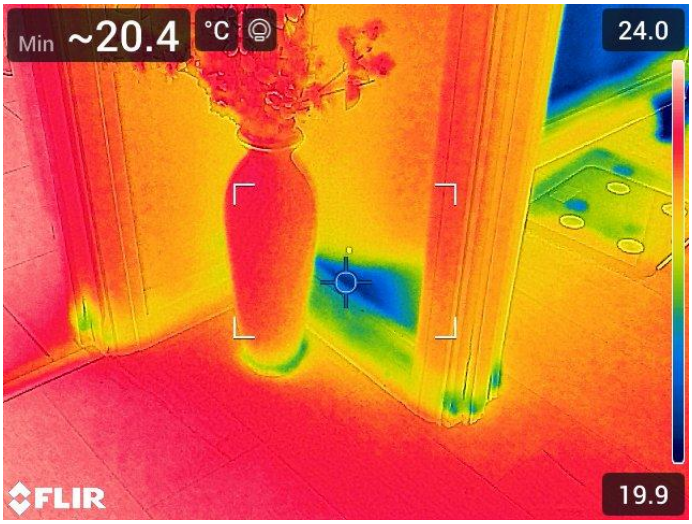
Hallway - Overview

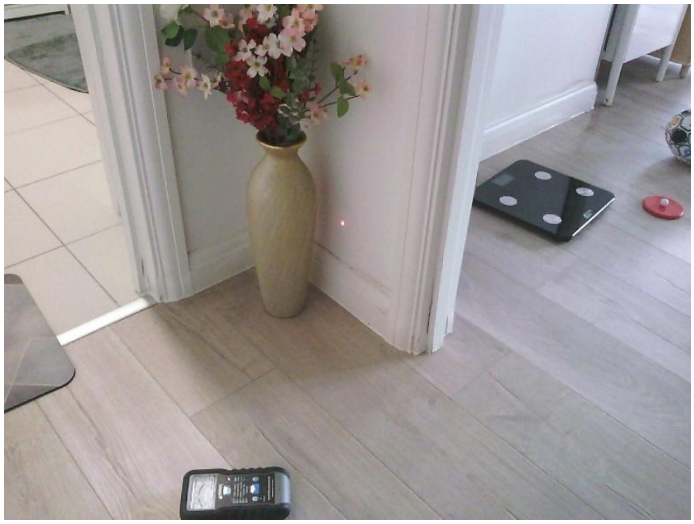


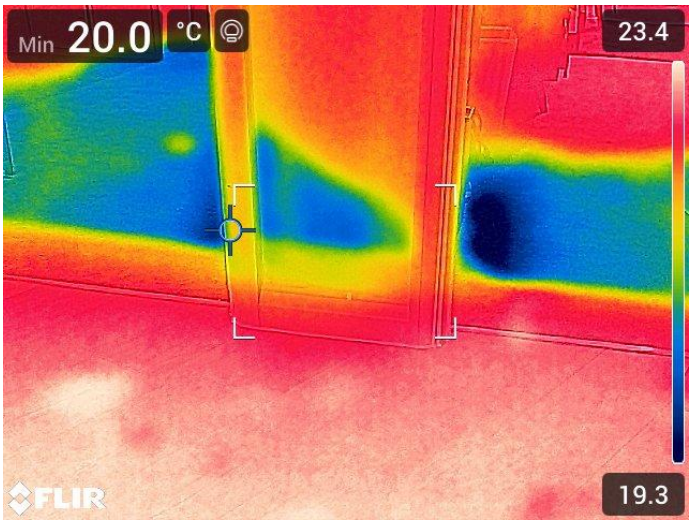
Whilst inspecting this part of the property we have noted staining to the lower wall dividing bedroom 1 and master bedroom as well as swelling of skirting boards indicating that the water/moisture has spread from the kitchen all the way to the front door.

We have also noted that virtually all door frames and architraves in the hallway area sustained water damage at a low level (swelling, cracking & paint peeling).

Hall – Thermal Imaging Inspection





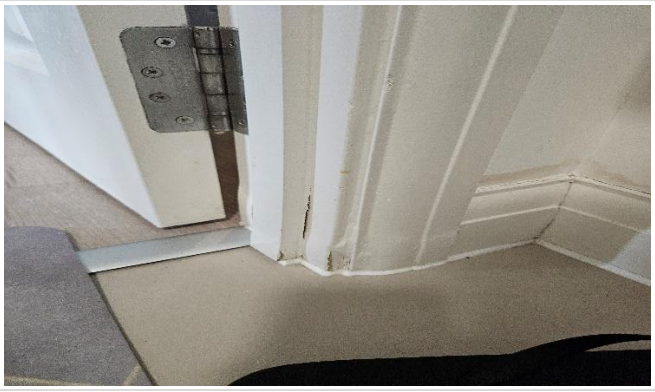


Bathroom - Overview

At the first glance bathroom is not showing any major signs of damage except for the visible damage to the lower door frame and architrave, however upon closer inspection we have noted the following additional damage:

- Swelling and delamination of skirting boards from the walls particulary adjacent to the door
- Staining on the lower walls on the wall dividing the bathroom and the hallway

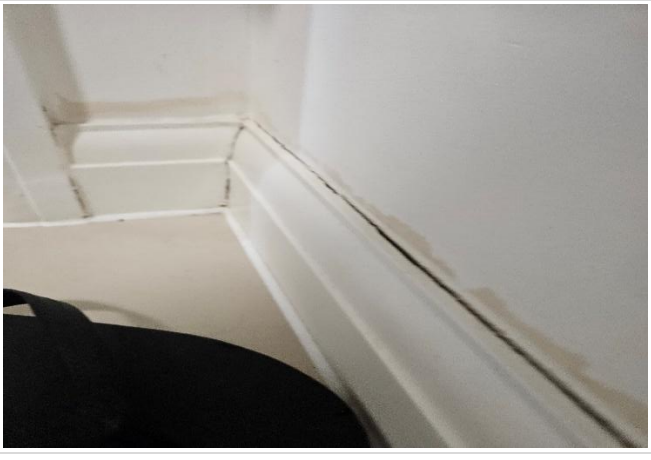
Bathroom - Photographs & Annotations



Swelling and cracking of the door frame and architrave

Swelling and cracking of the door frame and architrave

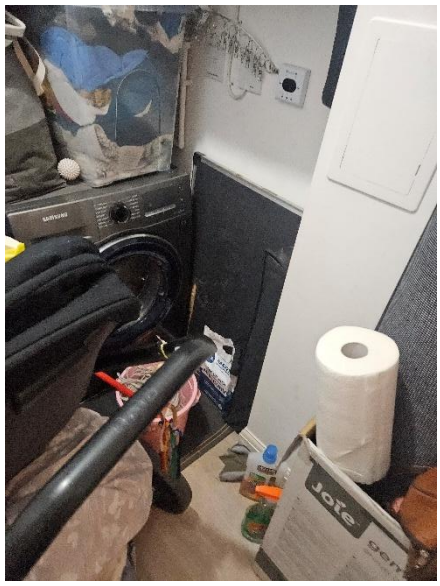
Debonding of the skirting board from the wall behind



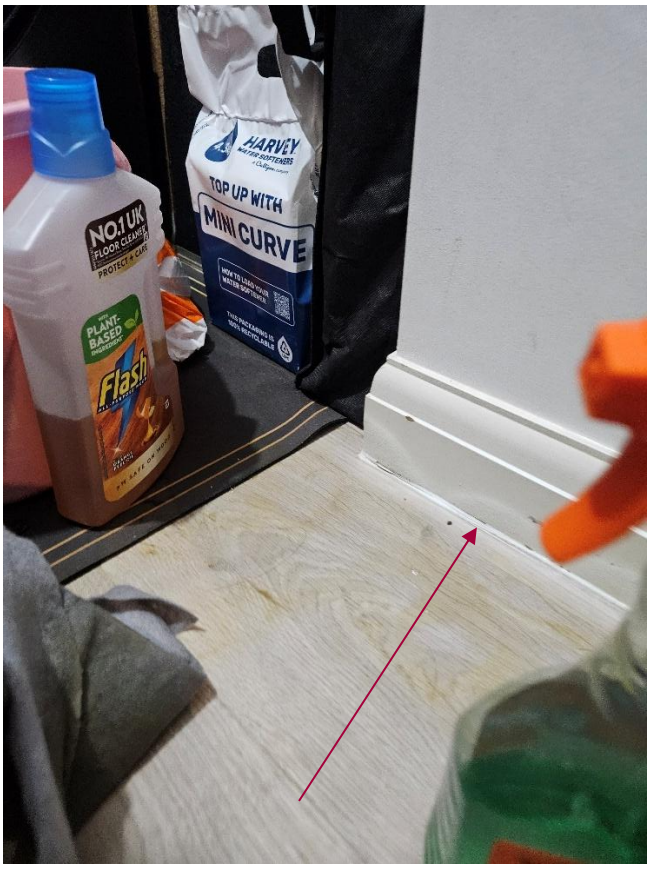
Swelling & debonding of the skirting board, staining of the lower wall`

Bathroom – Thermal Imaging Inspection

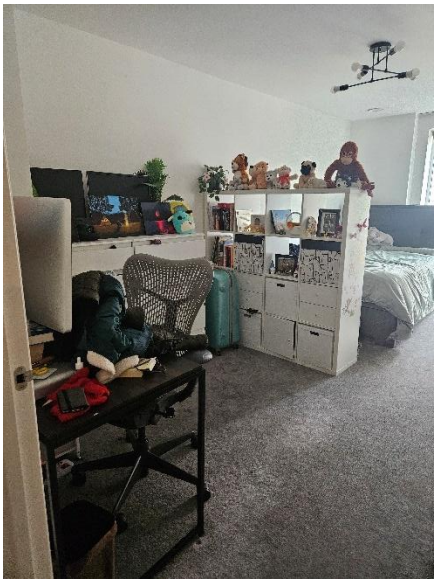
Utility Cupboard – Overview

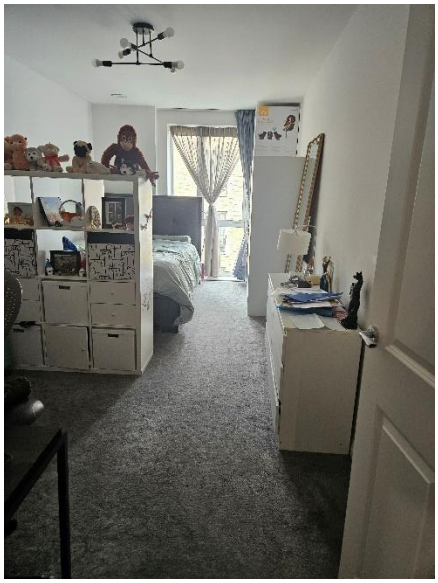


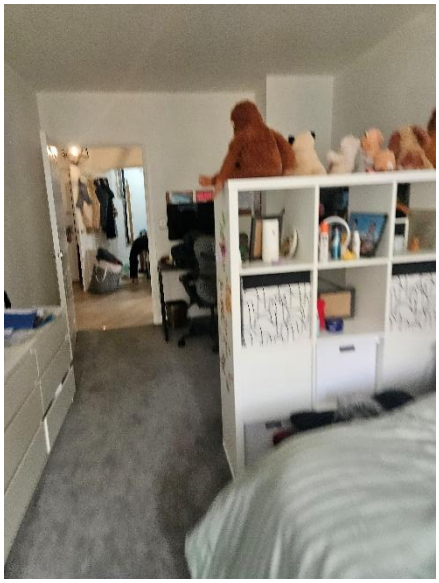
Access to parts of the cupboard area was restricted due to the presence of contents; however, standing water & water staining was observed on sections of the cupboard floor. Additionally, localised swelling of the skirting board was noted, indicating that moisture has migrated into this area resulting in material saturation.



Bedroom 1 - Overview



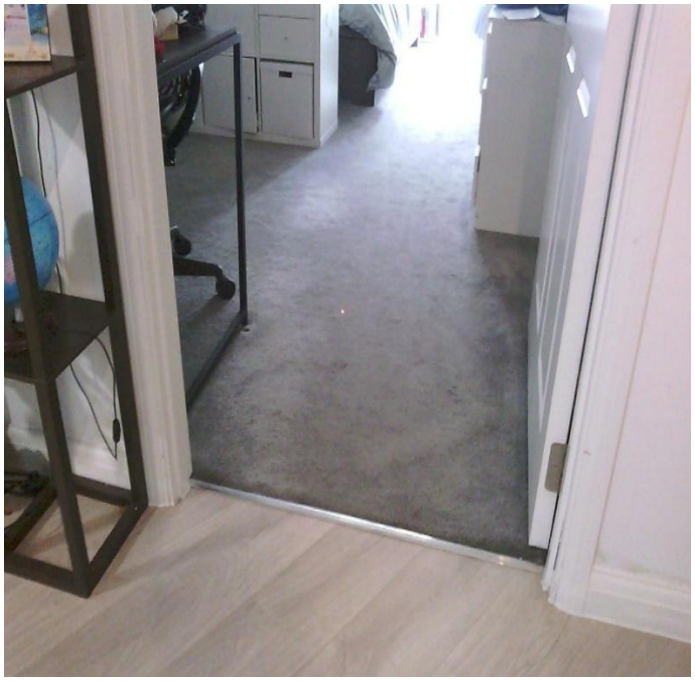




- Localised swelling and fracturing of the door frame and associated architrave elements.
- Moisture-induced distortion and expansion of skirting boards.
- Approximately 20% of the carpeted area was found to be heavily saturated, exhibiting signs of prolonged water exposure.

Thermal Imaging Inspection

Thermal anomaly at floor and skirting junction indicating moisture accumulation in part of the floor and lower walls.

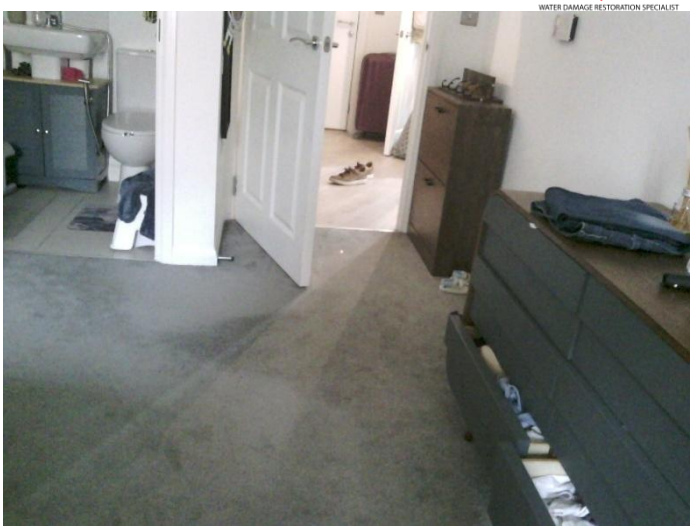


Master Bedroom - Overview

- Localised swelling and fracturing of the door frame and associated architrave elements.
- Moisture-induced distortion and expansion of skirting boards.
- Approximately 5%-10% of the carpeted area was found to be heavily saturated, exhibiting signs of prolonged water exposure.

Thermal Imaging Inspection

Similiary as in Bedroom 1, we have noted thermal anomaly at floor and skirting junction indicating moisture accumulation in part of the floor and lower walls.

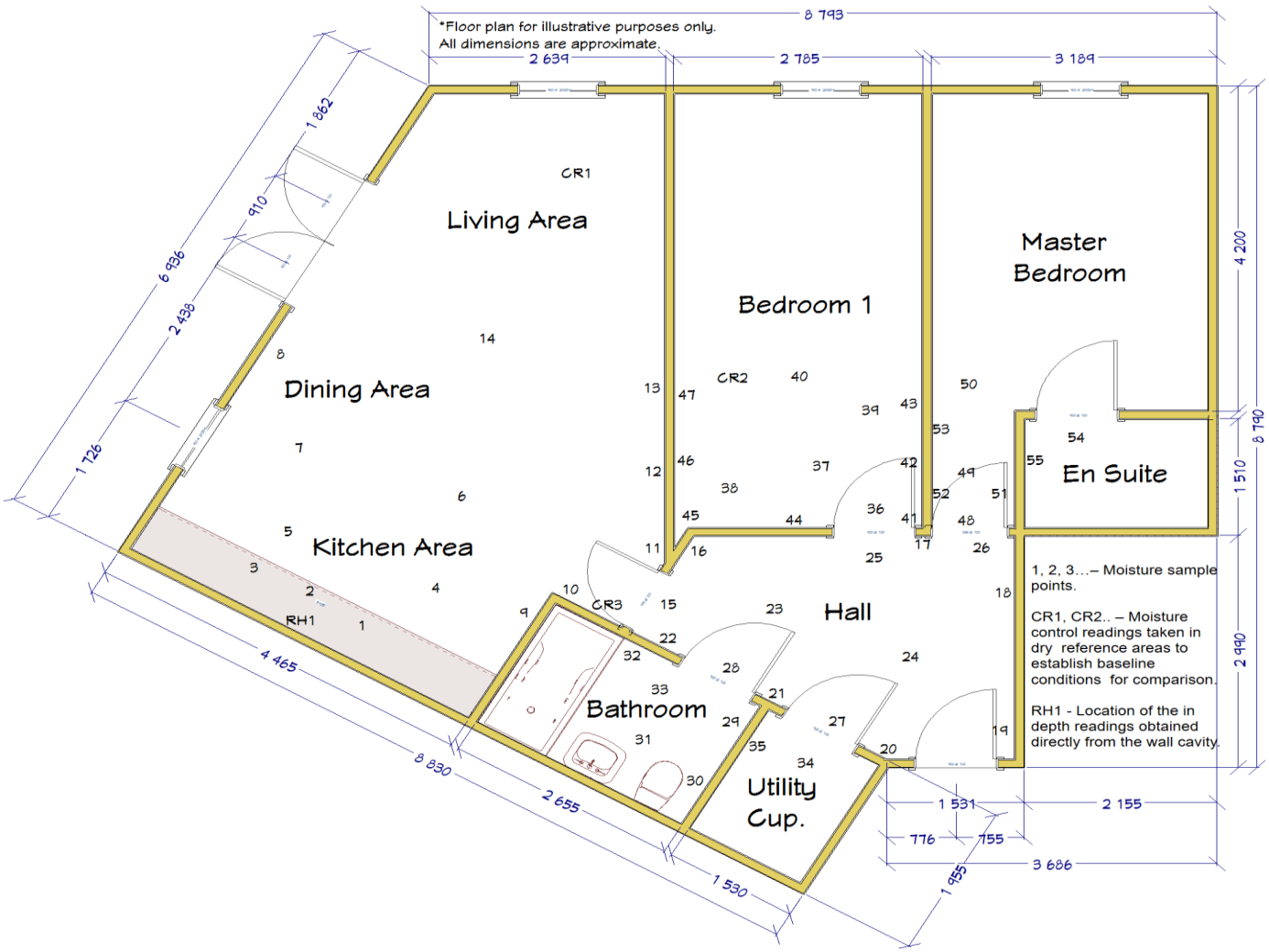


Moisture Survey

Ambient Conditions:

Internal ambient temperature measured at 21.3°C Temperature with 57.6% Relative Humidity, Dew point of 12.6°C, and 9.1 g/kg Specific humidity as recorded using a Tramex Concrete X5 moisture meter.

External conditions (balcony) recorded at 18.0°C Temperature with 51.9% Relative humidity, Dew Point of 7.9°C, and 6.6 g/kg Specific humidity.



FLOOD|DOCTOR
WATER DAMAGE RESTORATION SPECIALIST

Sample Point	Location / Material	Moisture Reading
CR1	Floor / Laminate	30PS
CR2	Floor / Carpet	8.7%WME
CR3	Wall / Plasterboard	20PS
1.	Floor / Screed	6.9% MC (Max. Reading)
2.	Floor / Screed	6.9% MC (Max. Reading)
3.	Floor / Screed	6.9% MC (Max. Reading)
4.	Floor / Laminate	100 PS
5.	Floor / Laminate	100 PS
6.	Floor / Laminate	100 PS
7.	Floor / Laminate	100 PS
8.	Wall / Plasterboard	30 PS
9.	Wall / Plasterboard	100 PS
10.	Wall / Plasterboard	100 PS
11.	Wall / Plasterboard	100 PS
12.	Wall / Plasterboard	60 PS
13.	Wall / Plasterboard	25 PS
14.	Floor / Laminate	30 PS
15.	Floor / Laminate	100 PS
16.	Wall / Plasterboard	100 PS
17.	Wall / Plasterboard	100 PS
18.	Wall / Plasterboard	30 PS
19.	Wall / Plasterboard	20 PS
20.	Wall / Plasterboard	100 PS
21.	Wall / Plasterboard	100 PS
22.	Wall / Plasterboard	100 PS
23.	Floor / Laminate	100 PS
24.	Floor / Laminate	90 PS
25.	Floor / Laminate	100 PS
26.	Floor / Laminate	100 PS
27.	Floor / Laminate	100 PS
28.	Floor / Laminate	100 PS
29.	Wall / Plasterboard	100 PS
30.	Wall / Plasterboard	100 PS
31.	Floor / Tile	60 PS
32.	Wall / Plasterboard	100 PS
33.	Floor / Tile	80 PS
34.	Floor / Laminate	100 PS
35.	Wall / Plasterboard	100 PS
36.	Floor / Carpet / Screed	100% WME
37.	Floor / Carpet / Screed	100% WME
38.	Floor / Carpet / Screed	75% WME
39.	Floor / Carpet / Screed	23% WME
40.	Floor / Carpet / Screed	13% WME
41.	Wall / Plasterboard	100 PS
42.	Wall / Plasterboard	100 PS
43.	Wall / Plasterboard	50 PS
44.	Wall / Plasterboard	100 PS
45.	Wall / Plasterboard	100 PS
46.	Wall / Plasterboard	30 PS
47.	Wall / Plasterboard	30 PS
48.	Floor / Carpet / Screed	100% WME
49.	Floor / Carpet / Screed	100% WME
50.	Floor / Carpet / Screed	11.4% WME
51.	Wall / Plasterboard	50 PS
52.	Wall / Plasterboard	75 PS
53.	Wall / Plasterboard	60 PS
54.	Floor / Tile	30 PS
55.	Wall / Plasterboard	50 PS

Sample Point	˚C Temperature	% Relative Humidity	˚C Dew Point Temp.	g/kg Specific Humidity
RH1	19.1	95.0 (and rising)	18.3	13.2 (and rising)
Internal - Ambient	21.3	57.6	12.6	9.1

RH1 – Reading obtained from the wall cavity behin the units. Flat 6 – Ambient Conditions

A moisture reading taken at Sample Point RH1—located within the wall cavity behind the kitchen unit at the point of known water escape—recorded a temperature of 19.1°C, with a relative humidity (RH) of 95.0% and rising. The corresponding dew point temperature was 18.3°C, and the specific humidity measured at 13.2 g/kg (also increasing).

By contrast, the ambient internal conditions at the time of survey registered 21.3°C with a relative humidity of 57.6%, a dew point of 12.6°C, and a specific humidity of 9.1 g/kg.

The markedly elevated RH and specific humidity within the wall cavity—both of which were rising—are indicative of trapped moisture in the concealed void. The proximity of the measured dew point (18.3°C) to the actual cavity temperature (19.1°C) suggests the internal surface conditions are nearing saturation, with a high risk of continued condensation and further microbial activity if not adequately dried.

These results confirm the presence of retained moisture within the wall cavity and support visual findings of early-stage microbial growth. Proactive moisture control and targeted cavity drying are recommended to prevent further material degradation and microbial proliferation.

Conclusions & Recommendations

The following section outlines our technical conclusions and corresponding recommendations on a room-by-room basis, derived from the detailed visual inspection, moisture mapping, thermal imaging, and invasive testing conducted during the site visit on 20th April 2025.

The inspection confirmed th at the escape-of-water (EOW) incident originated beneath the kitchen sink, where a failed plastic push-fit elbow connector—linked to the Harvey water softener system—had allowed pressurised water to discharge into the surrounding kitchen cabinetry and subfloor structure. Based on the observed damage and elevated moisture readings, the leak had remained active for a sustained period prior to isolation, resulting in significant moisture migration into adjoining areas.

Moisture-related damage was identified throughout multiple rooms in the affected flat, including swelling, delamination, and microbial growth to internal finishes and joinery. Early-stage fungal colonisation was noted in concealed wall and floor voids, highlighting the need for prompt drying and decontamination interventions to mitigate further deterioration and hygienic risk.

Additionally, external moisture staining visible on the building façade beneath Flat 6 strongly suggests that water ingress has affected the flats directly below, including those on the second and first floors. We have been contacted by the leaseholder of Flat 3, who has reported related water damage. Arrangements are currently being made to carry out an inspection of Flat 3, and a supplementary report will be issued upon completion of that assessment.

The room-specific recommendations provided herein are intended to guide effective drying, decontamination, and material reinstatement, with the priority being the full stabilisation of the building fabric and prevention of long-term moisture retention or microbial proliferation.

Findings - Summary

1. Open-Plan Kitchen / Dining / Living Area

Conclusions:

- Source of the EOW was traced to a leaking plastic push-fit elbow connected to the Harvey water softener.
- Significant moisture damage was identified to base kitchen units, including swelling, delamination, and particleboard degradation.
- The laminate flooring showed widespread distortion and bowing, with high moisture readings throughout.
- Skirting boards and lower plasterboard walls behind kitchen units showed signs of fungal colonisation.
- Thermal imaging confirmed moisture accumulation along lower wall sections.

2. Hallway

Conclusions:

- Water migration extended through the hallway to the front door.
- Notable swelling and paint degradation to skirting boards and all door frame bases.
- Moisture readings and thermal anomalies confirmed elevated moisture at wall/floor junctions.

3. Bathroom

Conclusions:

- No standing water observed; however, moisture-related damage present to skirting boards, lower walls, and door architrave.
- Skirting debonding and visible swelling at the junctions with the hallway wall.
- Isolated thermal anomalies confirmed low-level moisture retention.

4. Utility Cupboard

Conclusions:

- Partial access due to stored contents.
- Standing water noted at the rear section of the cupboard.
- Skirting boards showed signs of swelling and paint delamination.

5. Bedroom 1

Conclusions:

- Moisture ingress confirmed via thermal imaging at floor and wall junction.

- Approximately 20% of the carpeted floor area saturated.
- Swelling and splitting to door frame and architraves.

6. Master Bedroom

Conclusions:

- Similar symptoms to Bedroom 1, with minor saturation affecting 5–10% of the carpeted floor area.
- Thermal anomalies support moisture retention at floor perimeters.
- Door frame bases show signs of swelling and cracking.

Recommendations

Preliminaries:

- In view of the extent and severity of damage sustained throughout the property, the leaseholder will require alternative accommodation (AA) for the duration of the drying and decontamination works. The kitchen will be rendered non-operational for a prolonged period, and all habitable rooms—excluding the en suite—have been directly impacted by moisture ingress, surface deterioration, or microbial activity. The scope of required works includes substantial strip-out of kitchen units, flooring, and joinery to enable effective structural drying and remediation, further justifying the temporary decant of occupants.

  Of particular note, a young child resides at the property. Given the observed microbial (mould) growth within concealed cavities and behind units, this child should be considered vulnerable due to an increased risk of respiratory or immune-related complications from mould exposure.

- All contents not designated for immediate disposal should be removed to alternative accommodation or secure external storage to prevent cross-contamination and secondary damage during strip-out, drying, and decontamination activities.

- Communal areas, including corridors, stairwells, and lift lobbies, which will be utilised for the transport of drying equipment, waste materials, and replacement fixtures, should be adequately protected. The use of temporary floor coverings, corner guards, and containment sheeting is advised to safeguard communal finishes and minimise risk of cross-contamination to other building users.

- All waste arising from initial strip-out and decontamination works is to be promptly removed from site and disposed of in accordance with environmental and health & safety regulations.

- Deployment of dust extraction units to operate during strip out works, reducing the risk of airborne particulate spread and maintaining safe indoor air quality during the initial strip out phase.

- Installation of a HEPA-grade air scrubber within the affected areas during the drying phase to control airborne particulates, including fungal spores, bacteria, and dust generated by material degradation and air movement.

1. Open-Plan Kitchen / Dining / Living Area

- Removal of base kitchen cupboards to enable full access to the underlying floor structure and rear wall surfaces. All damaged units are to be photographed for documentation and disposed of appropriately. Units and components that remain unaffected are to be protected, carefully dismantled, and set aside for reinstatement. Salvageable items such as door fronts, end panels, handles, and hinges should be retained wherever possible to reduce claim costs.

- Support of existing worktop by installing temporary timber framing or suitable structural props to prevent damage or deflection during the removal of base units.

- Removal of skirting boards from all identified moisture-affected walls
- Disconnection and removal of radiators fixed to affected wall areas to enable unhindered access for plasterboard removal and subsequent drying and treatment works.
- Removal and disposal of laminate flooring and underlay
- Plasterboard lining to be cut and removed from the lower sections of affected walls to a height of approximately 500mm (one side only), to expose underlying insulation and facilitate cleaning, decontamination and drying
- Removal of thermal insulation from within the exposed external wall cavities where found to be moisture-contaminated or obstructing effective drying.
- Removal of self-levelling compound from the exposed screed substrate in affected areas. This is necessary as latex-based compounds can act as a moisture barrier and inhibit vapour diffusion, thereby impeding drying efficiency.
- Drilling of 24mm apertures into the screed floor slab and at the base of affected external walls in preparation for installation of an injection drying system.
- Manual cleaning of exposed wall cavities, followed by application of a broad-spectrum antimicrobial agent (e.g., Formula 429+ or equivalent) to treat and neutralise microbial growth identified during inspection.
- ATP swab testing to be conducted on cleaned surfaces to verify the effectiveness of the decontamination process. Swab results must demonstrate acceptable biological cleanliness levels prior to progression.
- Repeat cleaning, decontamination, and validation via ATP testing as necessary until microbial activity is reduced to within acceptable hygienic thresholds.
- Installation of an injection drying system, comprising positive pressure air injection and controlled extraction, to target excess retained moisture within the screed floor, wall base sections, and concealed voids such as external wall cavities.

2. Hallway

- Removal of skirting boards from all identified moisture-affected walls
- Disconnection and removal of radiators fixed to affected wall areas to enable unhindered access for plasterboard removal and subsequent drying and treatment works.
- Removal and disposal of laminate flooring and underlay to facilitate drying of the substrate below
- Plasterboard lining to be cut and removed from the lower sections of affected walls to a height of approximately 500mm (one side only), to expose underlying insulation and facilitate cleaning, decontamination and drying
- Removal of thermal insulation from within the exposed external wall cavities where found to be moisture-contaminated or obstructing effective drying.
- Removal of self-levelling compound from the exposed screed substrate in affected areas. This is necessary as latex-based compounds can act as a moisture barrier and inhibit vapour diffusion, thereby impeding drying efficiency.
- Drilling of 24mm apertures into the screed floor slab and at the base of affected external walls in preparation for installation of an injection drying system.

- Manual cleaning of exposed wall cavities, followed by application of a broad-spectrum antimicrobial agent (e.g., Formula 429+ or equivalent) to treat and neutralise microbial growth identified during inspection.

- ATP swab testing to be conducted on cleaned surfaces to verify the effectiveness of the decontamination process. Swab results must demonstrate acceptable biological cleanliness levels prior to progression.

- Repeat cleaning, decontamination, and validation via ATP testing as necessary until microbial activity is reduced to within acceptable hygienic thresholds.

- Installation of an injection drying system, comprising positive pressure air injection and controlled extraction, to target excess retained moisture within the screed floor, wall base sections, and concealed voids such as external wall cavities.

3. Bathroom

- Careful removal of all sanitaryware, including toilet, basin, and any fitted furniture. Items are to be retained, protected, and set aside for re-use during the reinstatement phase, subject to post-drying inspection confirming no damage or contamination.
-
- Removal of floor tiles across all affected areas to allow access to the underlying substrate and facilitate efficient drying of the screed or structural slab.
-
- Disconnection and removal of towel radiator, to be retained for reinstallation following completion of the drying and decontamination process.

- Removal of skirting boards from all identified moisture-affected walls

- Dismantling and removal of horizontal boxing to allow inspection, cleaning, and drying of concealed voids and finishes behind.

- Plasterboard lining to be cut and removed from the lower sections of affected walls and vertical boxings to a height of approximately 500mm (one side only), to expose underlying insulation and facilitate cleaning, decontamination and drying

- Removal of thermal insulation from within the exposed external wall cavities where found to be moisture-contaminated or obstructing effective drying.

- Removal of self-levelling compound from the exposed screed substrate in affected areas. This is necessary as latex-based compounds can act as a moisture barrier and inhibit vapour diffusion, thereby impeding drying efficiency.

- Drilling of 24mm apertures into the screed floor slab and at the base of affected external walls in preparation for installation of an injection drying system.

- Manual cleaning of exposed wall cavities, followed by application of a broad-spectrum antimicrobial agent (e.g., Formula 429+ or equivalent) to treat and neutralise microbial growth identified during inspection.

- ATP swab testing to be conducted on cleaned surfaces to verify the effectiveness of the decontamination process. Swab results must demonstrate acceptable biological cleanliness levels prior to progression.

- Repeat cleaning, decontamination, and validation via ATP testing as necessary until microbial activity is reduced to within acceptable hygienic thresholds.

- Installation of an injection drying system, comprising positive pressure air injection and controlled extraction, to target excess retained moisture within the screed floor, wall base sections, and concealed voids such as external wall cavities.

4. Utility Cupboard

- Removal and disposal of laminate flooring and underlay to facilitate drying of the substrate below.
- Removal of skirting boards from all identified moisture-affected walls
- Dismantling and removal of horizontal boxing to allow inspection, cleaning, and drying of concealed voids and finishes behind.
- Plasterboard lining to be cut and removed from the lower sections of affected walls and vertical boxings to a height of approximately 500mm (one side only), to expose underlying insulation and facilitate cleaning, decontamination and drying
- Removal of thermal insulation from within the exposed external wall cavities where found to be moisture-contaminated or obstructing effective drying.
- Removal of self-levelling compound from the exposed screed substrate in affected areas. This is necessary as latex-based compounds can act as a moisture barrier and inhibit vapour diffusion, thereby impeding drying efficiency.
- Drilling of 24mm apertures into the screed floor slab and at the base of affected external walls in preparation for installation of an injection drying system.
- Manual cleaning of exposed wall cavities, followed by application of a broad-spectrum antimicrobial agent (e.g., Formula 429+ or equivalent) to treat and neutralise microbial growth identified during inspection.
- ATP swab testing to be conducted on cleaned surfaces to verify the effectiveness of the decontamination process. Swab results must demonstrate acceptable biological cleanliness levels prior to progression.
- Repeat cleaning, decontamination, and validation via ATP testing as necessary until microbial activity is reduced to within acceptable hygienic thresholds.
- Installation of an injection drying system, comprising positive pressure air injection and controlled extraction, to target excess retained moisture within the screed floor, wall base sections, and concealed voids such as external wall cavities.

5. Bedroom 1

- Roll back carpet and underlay to facilitate drying of the substrate below.
- Removal of skirting boards from all identified moisture-affected walls.
- Plasterboard lining to be cut and removed from the lower sections of affected to a height of approximately 500mm (one side only), to expose underlying insulation and facilitate cleaning, decontamination and drying.
- Removal of thermal insulation from within the exposed external wall cavities where found to be moisture-contaminated or obstructing effective drying.

- Removal of self-levelling compound from the exposed screed substrate in affected areas. This is necessary as latex-based compounds can act as a moisture barrier and inhibit vapour diffusion, thereby impeding drying efficiency.

- Drilling of 24mm apertures into the screed floor slab and at the base of affected external walls in preparation for installation of an injection drying system.

- Manual cleaning of exposed wall cavities, followed by application of a broad-spectrum antimicrobial agent (e.g., Formula 429+ or equivalent) to treat and neutralise microbial growth identified during inspection.

- ATP swab testing to be conducted on cleaned surfaces to verify the effectiveness of the decontamination process. Swab results must demonstrate acceptable biological cleanliness levels prior to progression.

- Repeat cleaning, decontamination, and validation via ATP testing as necessary until microbial activity is reduced to within acceptable hygienic thresholds.

- Installation of an injection drying system, comprising positive pressure air injection and controlled extraction, to target excess retained moisture within the screed floor, wall base sections, and concealed voids such as external wall cavities.

6. Master Bedroom

- Roll back carpet and underlay to facilitate drying of the substrate below.

- Removal of skirting boards from all identified moisture-affected walls.

- Plasterboard lining to be cut and removed from the lower sections of affected to a height of approximately 500mm (one side only), to expose underlying insulation and facilitate cleaning, decontamination and drying.

- Removal of thermal insulation from within the exposed external wall cavities where found to be moisture-contaminated or obstructing effective drying.

- Removal of self-levelling compound from the exposed screed substrate in affected areas. This is necessary as latex-based compounds can act as a moisture barrier and inhibit vapour diffusion, thereby impeding drying efficiency.

- Drilling of 24mm apertures into the screed floor slab and at the base of affected external walls in preparation for installation of an injection drying system.

- Manual cleaning of exposed wall cavities, followed by application of a broad-spectrum antimicrobial agent (e.g., Formula 429+ or equivalent) to treat and neutralise microbial growth identified during inspection.

- ATP swab testing to be conducted on cleaned surfaces to verify the effectiveness of the decontamination process. Swab results must demonstrate acceptable biological cleanliness levels prior to progression.

- Repeat cleaning, decontamination, and validation via ATP testing as necessary until microbial activity is reduced to within acceptable hygienic thresholds.

- Installation of an injection drying system, comprising positive pressure air injection and controlled extraction, to target excess retained moisture within the screed floor, wall base sections, and concealed voids such as external wall cavities.

7. En Suite

- Installation of in-depth relative humidity (RH) probes along the perimeter of the en suite (adjacent to the master bedroom) to assess whether moisture has tracked beneath the tiled floor via subfloor voids or capillary pathways.

- No further remedial actions are required at this stage, pending results from RH probe monitoring and confirmation of dry conditions beneath the floor assembly.

Note:

Flood Dr Ltd. and its operatives will take all reasonable care and precautionary measures to remove any fitted furniture, fixtures, or appliances required to facilitate remediation works, with the intention of avoiding damage.

However, due to the inherent risks associated with the removal of integrated or tightly fitted items—particularly where original installation methods, fixings, or concealed services are unknown—Flood Dr Ltd. shall not accept liability for any damage that may occur as a result of, or during, such removal.

By proceeding with the instructed works, it is understood and accepted that any resultant damage arising during the removal process will not be the responsibility of Flood Dr Ltd. or its personnel.

Schedule of Costs

Equipment Type	Qty	cost	Days used	Chargeout
Commercial Pump out Dehumidifier	3	£18.00	21	£1,134.00
Corrventa C25 Piping Kit	6	£12.50	21	£1,575.00
Corroventa A4SX	3	£25.00	21	£1,575.00
T4ES - Corroventa Turbine	4	£25.00	21	£2,100.00
Initial Site Visit & Report	1	£390.00	1	£390.00
Monitoring Visits	3	£150.00	1	£450.00
Skips/Waste Disp	1.5	£475.00	1	£712.50
8 hr Day / Restoration Tech	2	£350.00	4	£2,800.00
Travel (Mileage)	70	£0.60		£42.00
Materials & Fire Equip	1	£560.00	1	£560.00
Total exc VAT:				£11,338.50
VAT:				£2,267.70
Total inc VAT:				£13,606.20

Additional Notes & Terms

Drying Inspections:
Regular inspections will be undertaken to ensure optimal equipment efficiency and that the most effective drying strategy is maintained. Should drying take longer than initially anticipated, notification will be provided at the earliest opportunity.

Extended Drying Periods:
If the drying period extends beyond the estimated duration, an additional weekly charge of £898.50 (excl. VAT) will apply for continued equipment hire.

Equipment Storage Post-Project:
Should equipment need to remain on-site or in storage beyond the conclusion of decontamination or drying works, a separate charge may be incurred.

Inclusions:
The above costs include project management, labour, equipment hire, materials, waste disposal, and necessary subsistence.

Exclusions:
Costs associated with replacement parts, external repair services, or recommissioning by third-party providers are not included and would be charged separately, subject to prior approval.

Scope Changes:
If the scope of work is amended, revised costs will be submitted for approval prior to any additional works being undertaken.

VAT:
All charges are subject to VAT at the prevailing rate.

Survey Equipment:

1. Tramex CMEX5

- **Method:** Electrical impedance for concrete/screeds
- **Typical Scale (Concrete/Screed):** 0–6.9% Moisture Content (MC)
- **Approx. Depth of Survey:** ~10 mm (subject to material properties)
- **Ambient Readings:** Can also measure temperature (°C), relative humidity (%RH), and specific humidity (g/kg)

2. Tramex ME5

- **Method:** Electrical impedance for non-wood materials (masonry, plaster, etc.) and wood
- **Non-Wood Scale:** 0–30% Wood Moisture Equivalent (WME)*
- **Wood Scale:** % Moisture Content (calibrated to wood species)
- **Approx. Depth of Survey:** ~30 mm (subject to material properties)
- **Note:** Numerical readings on masonry/plaster are comparative; they do not represent absolute moisture content.

3. Testo 616

- **Method:** Capacitive moisture meter for wood and other building materials
- **Usage:** Provides non-destructive moisture readings, typically displayed in %MC or %WME depending on material settings
- **Depth:** Dependent on material density and meter calibration

4. FLIR E96 Thermal Imaging Camera

- **IR Sensor Resolution:** 640 × 480
- **Spectral Range:** 7.5 – 14.0 µm
- **Purpose:** Detects thermal anomalies often indicative of moisture presence (e.g., cooler areas due to evaporation)

Reference Moisture Guidelines

Note: All electronic meter readings should be interpreted alongside visual inspection, material characteristics, and professional judgement to determine the true condition of the structure.

1. **Non-Destructive Tramex ME5 (Masonry Scale)**
    - **15% WME or below** – Often considered within normal or “dry” parameters for masonry (guidance only).
2. **Invasive Moisture Readings (Plaster and Masonry)**
    - **16% WME or below** – Typically viewed as a guide threshold for acceptable moisture levels in plaster/masonry.
3. **Invasive and Non-Invasive Wood Readings**
    - **Below 15% MC** – Generally regarded as an acceptable moisture level for timber elements.
4. **Normal Indoor Wood Moisture Content**

- **10–12% MC** – Typical equilibrium moisture content range for interior timber in normal UK conditions.

5. **Air Moisture in Concrete (using Tramex CMEX5 or equivalent hygrometry method)**

   - **Below 11 g/kg Dry Air** (equivalent to ~75% ERH at 20°C) – Typically indicative of concrete or screed being within a 'dry' or acceptable range for many floor finishes.

Moisture reading guide:

	High Moisture Levels
	Moderate Moisture Levels
	Low Moisture Levels

** All readings and parameters above serve as practical guidelines rather than absolute values. Where uncertainty arises, further invasive investigation or laboratory analysis may be appropriate to confirm the exact moisture content and material condition.*

We await further instructions should our services be required.

For & on behalf of Flood Dr.Ltd

Pawel Szczepaniak Dew. BDMA Senior Technician

Senior Technical Manager