

Roof Plumbing Assessment Report

Property: [REDACTED] South Yarra, Victoria 3141

Prepared for: [REDACTED]

Prepared by: Victor B

Date: June 23, 2025

Executive Summary

[REDACTED]

Thank you for engaging our services to assess the leak issue at your multi-story apartment located at [REDACTED] South Yarra, Victoria. This report has been prepared by myself, Victor B, in collaboration with John Rohan, a licensed roof plumber with over 35 years of experience, registered with the Victorian Building Authority (VBA). We have conducted a thorough inspection of the property to identify the source of the leak and propose solutions to rectify the issue. This report outlines our findings, the relevant regulatory frameworks guiding our recommendations, and multiple repair options tailored to your needs and budget. Our goal is to provide you with comprehensive, unbiased information to enable an informed decision based on your preferences and financial considerations.

The leak originates from a stormwater drain, with water ingress observed three floors below the top apartment, indicating a blockage or potential defect in the drainage system. We have identified three scenarios for repair, each with detailed pros, cons, risks, and cost considerations. These options comply with Victorian building regulations, including the **Building Act 1993, Building Regulations 2018, National Construction Code (NCC) 2022**, and relevant Australian Standards. We also highlight the importance of timely action to prevent further damage and potential legal or safety risks.

Please note that our recommendations are impartial, and we have no preference for which option you choose. Our role is to provide expert advice, ensuring you have all the necessary information to make a decision that aligns with your priorities. Should you have any questions or require further clarification, we are available to discuss this report in detail.

1. Introduction

The purpose of this report is to document the findings of our inspection at [REDACTED] [REDACTED] South Yarra, and to provide professional recommendations for addressing the identified leak in your multi-story apartment building. The inspection was conducted by John Rohan, a licensed roof plumber, in collaboration with Veki, a qualified architect and building designer experienced in multi-story residential construction. Our assessment included a review of building plans, physical inspection of the stormwater drainage system, and analysis of the sump at the top of the building.

The primary issue is a leak manifesting three floors below the top apartment, likely due to a blockage or defect in the stormwater drain. This report complies with all relevant Victorian and Australian regulatory frameworks, ensuring that our recommendations meet legal and safety standards. Below, we outline our findings, regulatory compliance, repair options, and the consequences of inaction.

2. Regulatory Compliance

As a licensed roof plumber operating in Victoria, John Rohan is bound by several legislative and regulatory frameworks that ensure the safety, quality, and compliance of plumbing work. The following regulations guide our assessment and recommendations:

- **Building Act 1993 (Vic):** This Act provides the framework for regulating building construction and plumbing in Victoria. Section 16 requires that all building work, including plumbing repairs, comply with the **Building Regulations 2018** and the **NCC**. Section 221D mandates that plumbing work be carried out by a licensed plumber registered with the VBA, ensuring accountability and adherence to standards.
- **Building Regulations 2018 (Vic):** Regulation 229 adopts the **NCC 2022**, including the **Plumbing Code of Australia (PCA)** (Volume Three), which sets out technical requirements for plumbing and drainage systems. Regulation 246 requires that plumbing work complies with **AS/NZS 3500.3:2021 (Plumbing and Drainage – Stormwater Drainage)**, a deemed-to-satisfy solution for stormwater drainage design and installation.
- **National Construction Code (NCC) 2022:** The NCC is Australia's primary set of technical provisions for building and plumbing design. Volume Three (PCA) specifies performance requirements for stormwater drainage systems, including **Performance Requirement C1P1**, which mandates that drainage systems must safely convey stormwater to a legal point of discharge without causing damage or health hazards. Our recommendations align with these requirements to ensure compliance.
- **Building Code of Australia (BCA):** As part of the NCC (Volumes One and Two), the BCA applies to the structural and safety aspects of the building. For multi-story apartments (Class 2 buildings), **Part J4D6** addresses building fabric protection, which is relevant to preventing water ingress from drainage issues.
- **Australian Standards:** We adhere to **AS/NZS 3500.3:2021**, which provides detailed specifications for stormwater drainage systems, including pipe materials, installation methods, and maintenance requirements. Additionally, **AS 3740:2021 (Waterproofing of Domestic Wet Areas)** is relevant if wall openings are required for repairs, as in Scenario 3.
- **Construction Occupations (Licensing) Act 2004 (ACT):** While this Act applies to the Australian Capital Territory, it is noted for its emphasis on licensing requirements for plumbers. In Victoria, equivalent licensing is governed by the VBA under the

Building Act 1993, ensuring that only qualified practitioners undertake plumbing work.

- **Professional Engineers Registration Act 2019 (Vic)**: This Act requires that engineering work, such as structural assessments related to drainage repairs, be conducted by registered professional engineers. While our team includes a qualified architect (Veki), any structural modifications (e.g., wall openings in Scenario 3) will involve consultation with a registered engineer to comply with this Act.
- **Work Health and Safety Regulation 2011 (Vic)**: Regulation 297 requires that employers ensure a safe work environment during construction activities. Our repair methods, including the use of high-pressure water jetters and working at heights, will comply with safe work practices, such as fall protection and equipment maintenance, to protect workers and residents.

These regulations inform our approach to diagnosing and repairing the leak, ensuring that all work meets minimum safety, performance, and durability standards. For example, **AS/NZS 3500.3:2021** recommends regular maintenance of stormwater drains to prevent blockages, which aligns with our proposed use of CCTV inspections and drain cleaning equipment.

3. Inspection Findings

Our inspection revealed the following key findings:

- **Leak Location**: The primary leak is observed three floors below the top apartment, indicating that water is escaping from the stormwater drainage system at or above this level. The leak is causing water damage to internal walls and potentially compromising the building's amenity.
- **Drainage System**: The stormwater drain is accessible via a sump at the top of the building, which we inspected (see attached photo). Each level has inspection openings, allowing access to the drain for cleaning and inspection. The drain appears blocked, as evidenced by water pooling and leakage.
- **Potential Defect**: There is a possibility that the drain on the third level down was not installed correctly, as suggested by the localized leakage. This will require further investigation via CCTV and flood testing.
- **Supporting Evidence**:
 - Veki, our architect, reviewed the building plans and identified the likely leak area within the stormwater drainage system.
 - Videos provided (links in the document) show the blocked drain and leakage points.
 - Images (image1.png to image7.png) document the sump, inspection openings, and affected areas.

These findings suggest that the leak is caused by a combination of a blockage and/or a defect in the drainage system, which must be addressed to prevent further damage.

4. Consequences of Inaction

Failure to address the leak promptly could result in significant consequences, including:

- **Structural Damage:** Prolonged water ingress can weaken the building's structural elements, such as concrete slabs and masonry walls, leading to costly repairs. This is particularly critical in a multi-story Class 2 building, where structural integrity is governed by **NCC Volume One, Part B1 (Structural Provisions)**.
- **Health Hazards:** Water leaks can promote mould growth, posing health risks to residents, including respiratory issues. **NCC Volume One, Part H4 (Health and Amenity)** requires buildings to be free from conditions that could cause health hazards.
- **Legal and Financial Liability:** As a property owner or body corporate, you may be liable for damages to individual apartments or common areas if the leak is not addressed. The **Building Act 1993, Section 129** allows for legal action against owners who fail to maintain buildings in a safe condition.
- **Increased Repair Costs:** Delaying repairs could exacerbate the blockage or defect, requiring more extensive interventions, such as replacing entire drain sections or repairing multiple apartments.
- **Reduced Property Value:** Ongoing water damage can deter potential buyers or tenants, impacting the property's market value.

Given these risks, we strongly recommend taking action to resolve the leak as soon as possible to protect the building, its occupants, and your financial interests.

5. Repair Options

Below, we present three repair scenarios based on our inspection findings. Each option is designed to comply with the regulatory frameworks outlined in Section 2 and addresses the leak in a manner suitable for different budgets and priorities. We provide pros, cons, risks, and cost considerations for each option to ensure you can make an informed decision. Our recommendations are unbiased, and we encourage you to select the option that best aligns with your needs.

Scenario 1: Drain Cleaning with High-Pressure Water Jetter and CCTV Inspection

We have checked the sump at the top of the building as per the photo below. We will use this as an entry point to clear the drain. So we will start from the top to clear the drain



Description: We will access the stormwater drain via the sump at the top of the building and use a high-pressure water jetter or electric eel to clear the blockage. Following this, a CCTV camera will be inserted to inspect the drain for damage or defects. If issues are identified, we will propose additional repairs.

Regulatory Compliance:

- **NCC 2022, Volume Three, C1P1:** Ensures the drainage system conveys stormwater without causing damage.
- **AS/NZS 3500.3:2021, Clause 4.6:** Requires maintenance of stormwater drains to prevent blockages.
- **Work Health and Safety Regulation 2011, Regulation 297:** Mandates safe use of high-pressure equipment.

Pros:

- **Cost-Effective:** This is the most budget-friendly option, ideal for price-conscious clients.
- **Minimally Invasive:** No structural modifications are required, reducing disruption to residents.
- **Quick Implementation:** Can be completed within 1–2 days, minimizing downtime.
- **Diagnostic Capability:** CCTV inspection provides clear evidence of the drain's condition, informing future maintenance.

Cons:

- **Limited Scope:** Only addresses blockages, not structural defects or incorrect installations.
- **Recurrence Risk:** If the drain is damaged or misinstalled, the blockage may recur, requiring further repairs.
- **Temporary Solution:** May not resolve the leak if the issue is a defect rather than a blockage.

Risks:

- **Incomplete Resolution:** If the CCTV reveals significant damage, additional costs will be incurred for further repairs.
- **Water Damage During Cleaning:** High-pressure jetting could exacerbate leaks if the drain is compromised, though we will take precautions to minimize this risk.
- **Regulatory Non-Compliance:** If defects are found but not addressed, the drainage system may not meet **NCC** performance requirements, exposing you to liability.

Cost Estimate: \$2,000–\$4,000 (includes equipment hire, labor, and CCTV inspection).

Note that additional repairs, if required, will increase costs.

Recommendation: This option is recommended for clients on a tight budget who wish to address the immediate blockage and assess the drain's condition before committing to more extensive repairs. However, you should be aware that choosing this cheaper option may lead to recurring issues if underlying defects are present.

Scenario 2: Comprehensive Drain Cleaning from Top to Street Level



Description: If the blockage extends to the street level, we will clear the drain from each inspection opening on every level, using a high-pressure water jetter or electric eel. We suspect a filter system at the base of the building may be collecting debris, which we will clear to restore water flow. A CCTV inspection will follow to confirm the drain's condition.

Regulatory Compliance:

- **NCC 2022, Volume Three, C1P1:** Ensures effective stormwater conveyance to the council drain.
- **AS/NZS 3500.3:2021, Clause 5.4:** Specifies requirements for inspection openings and maintenance access.

- **Building Regulations 2018, Regulation 246:** Mandates compliance with **AS/NZS 3500.3** for drainage work.

Pros:

- **Thorough Approach:** Addresses blockages throughout the entire drainage system, reducing the likelihood of recurrence.
- **Preventive Maintenance:** Clearing the filter system enhances long-term drainage performance.
- **Compliance Assurance:** Comprehensive cleaning aligns with **NCC** and **AS/NZS 3500.3** maintenance requirements.
- **Diagnostic Insight:** CCTV inspection identifies any additional issues, enabling proactive repairs.

Cons:

- **Higher Cost:** More labor-intensive than Scenario 1, increasing expenses.
- **Disruption:** Accessing multiple inspection openings may inconvenience residents across several levels.
- **Potential for Additional Repairs:** If defects are found, further work will be required, adding to costs.

Risks:

- **Incomplete Resolution:** If the leak is caused by a defect (e.g., misinstalled drain), cleaning alone may not resolve the issue.
- **Equipment Risks:** High-pressure jetting could damage weakened pipes, though we will use appropriate settings to mitigate this.
- **Access Challenges:** Some inspection openings may be difficult to access, requiring coordination with residents or the body corporate.

Cost Estimate: \$5,000–\$8,000 (includes equipment hire, labor for multiple levels, and CCTV inspection). Additional repairs, if needed, will increase costs.

Recommendation: This option is suitable for clients seeking a more comprehensive solution to ensure the entire drainage system is clear and functional. It is more expensive than Scenario 1 but offers greater assurance of resolving blockages and preventing future issues. For price-conscious clients, this may stretch the budget, but the risk of recurrence is lower compared to Scenario 1.

Scenario 3: Drain Cleaning, CCTV Inspection, and Potential Pipe Replacement

The main leak is coming from 3 floors down on the same apartment

See Video



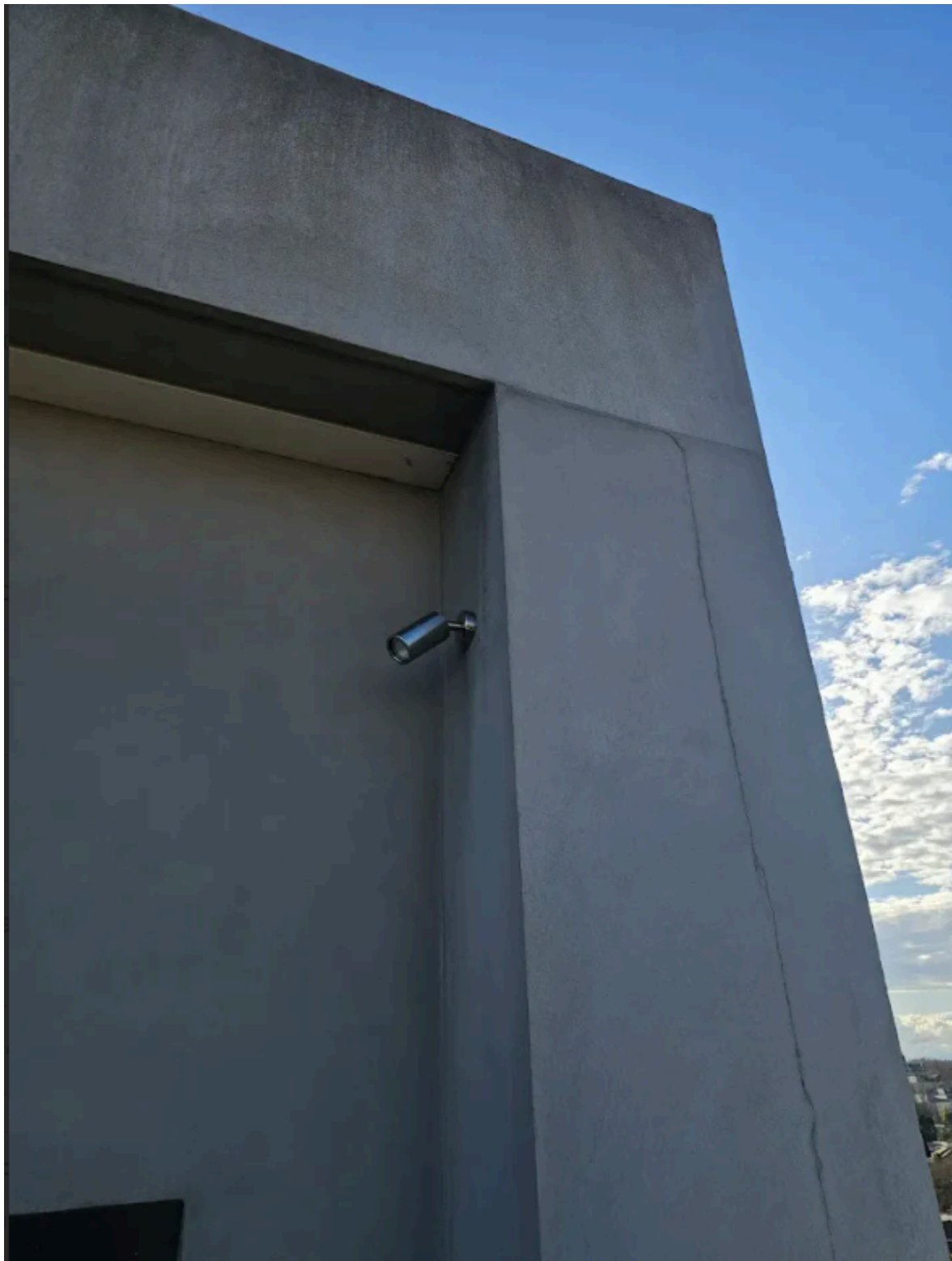
We would need to open the wall to get access to the pipe

This will require us to work around the gas line and emergency water hydrants

See video

The drain here feels blocked and is leaking from here

See Video



Description: After clearing the drain and conducting a CCTV inspection (as in Scenarios 1 or 2), we suspect the drain on the third level down may be incorrectly installed. If confirmed, we will open the wall to access and replace the defective pipe section. A flood test will be conducted to verify the repair. This option involves working around gas lines and emergency water hydrants, requiring coordination with a registered engineer and compliance with safety standards.

Regulatory Compliance:

- **NCC 2022, Volume Three, C1P1:** Ensures the drainage system is defect-free and functional.
- **AS/NZS 3500.3:2021, Clause 3.4:** Specifies correct installation of stormwater pipes.
- **Building Act 1993, Section 221D:** Requires plumbing work to be performed by a licensed plumber.
- **Professional Engineers Registration Act 2019, Section 10:** Mandates that structural modifications involve a registered engineer.
- **Work Health and Safety Regulation 2011, Regulation 291:** Requires safe work practices around gas lines and hydrants.
- **AS 3740:2021:** Governs waterproofing of walls if opened for repairs.

Pros:

- **Comprehensive Solution:** Addresses both blockages and potential defects, offering the highest likelihood of resolving the leak permanently.
- **Long-Term Durability:** Replacing defective pipes ensures compliance with **NCC** and **AS/NZS 3500.3**, reducing future maintenance costs.
- **Regulatory Compliance:** Meets all relevant standards, minimizing legal and safety risks.
- **Enhanced Property Value:** A fully functional drainage system improves the building's condition and appeal.

Cons:

- **High Cost:** The most expensive option due to labor, materials, and engineering consultation.
- **Invasive Work:** Opening walls causes disruption and requires reinstatement (e.g., plastering, painting).
- **Coordination Complexity:** Involves multiple stakeholders, including engineers and the body corporate, potentially delaying work.

Risks:

- **Unexpected Complications:** Opening walls may reveal additional issues, such as structural damage or other defective pipes, increasing costs.
- **Resident Disruption:** Noise, dust, and access requirements may inconvenience occupants.

- **Safety Hazards:** Working near gas lines and hydrants requires strict adherence to safety protocols, which we will ensure through compliance with **Work Health and Safety Regulation 2011**.

Cost Estimate: \$10,000–\$15,000 (includes drain cleaning, CCTV inspection, pipe replacement, wall reinstatement, and engineering consultation). Costs may increase if additional issues are found.

Recommendation: This option is recommended for clients prioritizing a permanent solution and compliance with all regulatory standards. It is the most expensive but offers the greatest assurance of resolving the leak and preventing future issues. For price-conscious clients, this may be challenging to afford, but choosing a cheaper option risks ongoing leaks and higher long-term costs.

6. Why Action Is Necessary

As a qualified roof plumber, John Rohan approaches this issue from a practical and technical perspective, focusing on the integrity of the drainage system and the safety of the building. The leak at [REDACTED] is not merely a cosmetic issue but a symptom of a potentially serious problem within the stormwater drainage system. A roofer's mindset is to identify the root cause, ensure compliance with regulations, and recommend solutions that balance durability, cost, and safety.

Taking action is critical because:

- **Preventing Escalation:** A blocked or defective drain can lead to widespread water damage, compromising the building's structural integrity and habitability.
- **Regulatory Obligations:** The **Building Act 1993** and **NCC 2022** require owners to maintain buildings in a safe and compliant condition. Failure to address the leak could result in enforcement action by the VBA or local council.
- **Resident Safety and Comfort:** Leaks create health risks (e.g., mould) and disrupt residents' quality of life, which could lead to complaints or legal disputes.
- **Cost Management:** Addressing the issue now prevents more extensive and expensive repairs in the future.

By acting promptly, you demonstrate due diligence as a property owner and protect the long-term value and safety of your asset.

7. Our Commitment to Unbiased Advice

We understand that you value an impartial assessment, and we are committed to providing you with all the information needed to make an informed decision. Our recommendations are based solely on our professional expertise and the findings of our inspection. We have

no financial or personal interest in which option you choose, and our goal is to ensure you feel confident in your decision.

Each option presented—whether budget-friendly (Scenario 1), comprehensive (Scenario 2), or permanent (Scenario 3)—is designed to address the leak in a manner that complies with regulations and meets industry standards. We have outlined the pros, cons, risks, and costs of each to help you weigh your priorities, whether they are cost savings, long-term durability, or minimal disruption. The decision is yours, and we are here to support you with further advice or implementation of your chosen solution.

8. Next Steps

To proceed, we recommend the following:

- **Review Options:** Consider the three scenarios based on your budget, timeline, and priorities.
- **Contact Us:** Reach out to discuss your preferred option or request additional information. We can arrange a meeting to clarify any questions.
- **Obtain Approvals:** If you are part of a body corporate, consult with them to secure approval for the chosen repair, especially for Scenario 3, which involves structural work.
- **Schedule Work:** Once you select an option, we will coordinate with you to schedule the repairs at a convenient time, ensuring minimal disruption to residents.

We are committed to delivering high-quality, compliant work and ensuring your satisfaction. Please contact me at 0426 204 244 to proceed or discuss further.

9. Conclusion

The leak at [REDACTED] South Yarra, is a pressing issue that requires prompt action to prevent further damage, ensure resident safety, and comply with Victorian building regulations. Our inspection, conducted with the expertise of John Rohan, a licensed roof plumber, and Veki, a qualified architect, has identified a blockage and potential defect in the stormwater drainage system as the likely cause. We have proposed three repair scenarios, each compliant with the **Building Act 1993**, **Building Regulations 2018**, **NCC 2022**, and relevant Australian Standards, offering options for different budgets and priorities.

By providing detailed pros, cons, risks, and cost estimates, we aim to empower you to make an informed decision without bias. We strongly urge you to act promptly to mitigate the risks of structural damage, health hazards, and legal liabilities. Our team is ready to assist you in implementing your chosen solution with professionalism and care.

Thank you for trusting us with this assessment. We look forward to supporting you in resolving this issue.

Sincerely,
Victor B
Compliance Officer
0426 204 244