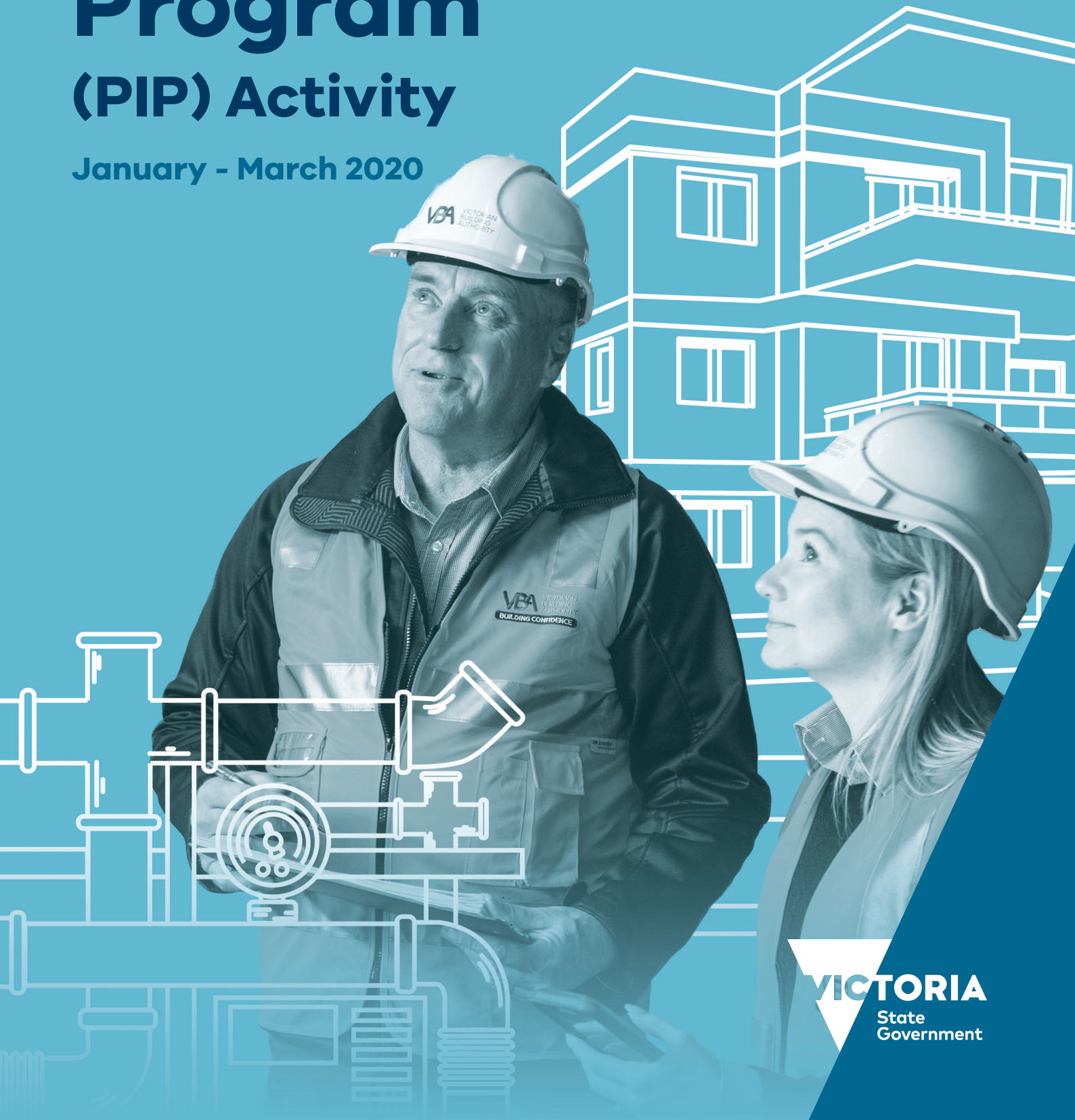


Proactive Inspections Program (PIP) Activity

January - March 2020



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1. About

The VBA's Proactive Inspections Program (PIP) is an early intervention regulatory initiative that identifies and reduces non-compliant building and plumbing work in Victoria. PIP involves teams of building and plumbing inspectors inspecting building and plumbing works under construction throughout Victoria.

Our PIP team includes experienced building inspectors, building surveyors and licensed plumbers. They undertake a large volume of inspections of both domestic and commercial sites, typically visiting over 900 sites each month. Inspections are generally focused on either building work only or plumbing work only.

In line with the Minister's Statement of Expectations, our goal is to undertake inspections of 10 per cent of all building permits issued per year across Victoria. When selecting the sites for inspection, we use building permit data and consider a range of risk factors. We sometimes target certain types of construction to manage risk and to ensure intervention at the earliest possible stage.

When our inspectors identify compliance risks (potential non-compliant building and plumbing work), they provide a written notification to the practitioner requiring any issues to be addressed. For potential non-compliant items, the practitioner responsible (whether the builder, plumber or building surveyor) must respond to the VBA within 14 days and within 3 days for more serious issues. Critical life safety issues are actioned immediately by contacting the practitioner and the surveyor by telephone, as well as co-regulatory agencies such as WorkSafe.

In some circumstances, we will issue a Direction to Fix (DTF) requiring work to be carried out to resolve the most critical issues. For example, where non-compliant wall cladding is identified, a DTF will be issued requiring its removal before an occupancy permit is issued.

The VBA uses a risk-rating scale (Appendix 1) to determine the level of scrutiny it will apply

to a potential issue. The scale considers the potential adverse effects on the future safety of the building occupants and people nearby, and on the amenity of the building.

1.1. Benefits

The benefits of the PIP are improved safety and compliance outcomes for building and plumbing work in Victoria through early identification and rectification, and in some cases by taking other enforcement action. By inspecting work under construction, the VBA can address significant failures early, resulting in better outcomes for all involved; rectification is often easier and less costly (and the cost of rectification is covered by practitioners not the owner) and it avoids impacting the safety, health, and amenity of future occupants if the compliance risk had remained undetected or unresolved.

Information and intelligence gathered through the PIP enables the VBA to provide advice on building and plumbing standards and education and training in the industry.

1.2. How proactive inspections are conducted

Building and plumbing inspectors are provided with comprehensive electronic inspection checklists. The checklists have over 500 elements grouped into three parts that address:

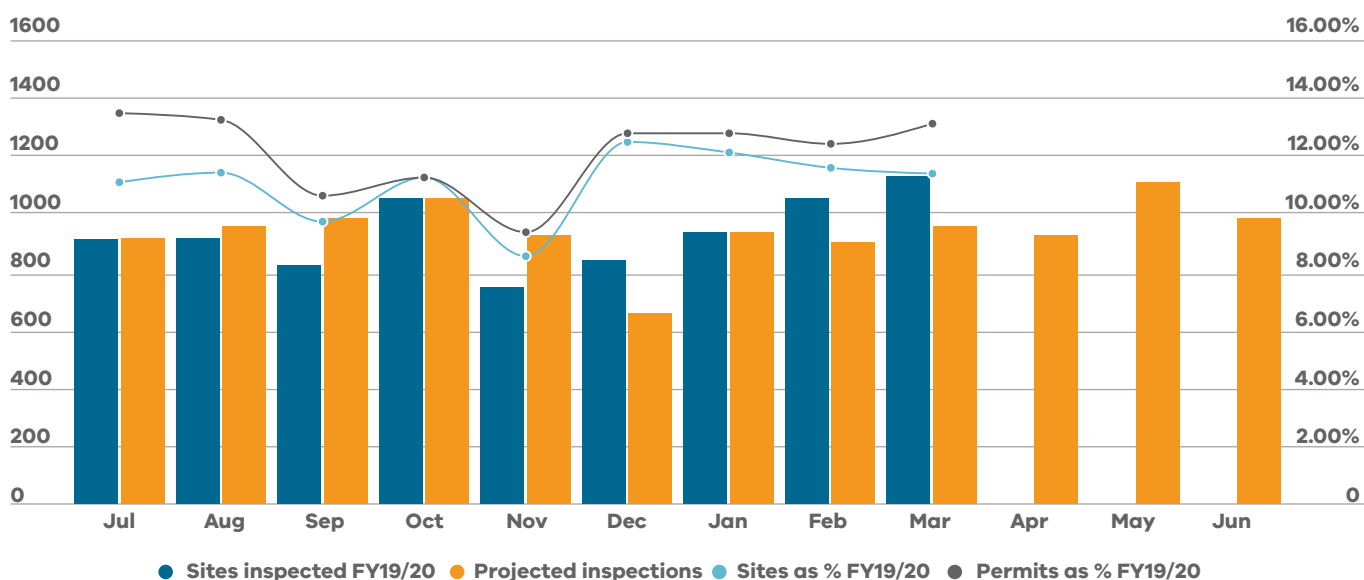
- Building and plumbing work broken down into different building stages under the National Construction Code of Australia BCA Vol 1 and Vol 2.
- Mandatory requirements under the Building Act, Building Regulations 2018 and Plumbing Regulations 2018 and displaying permit information.
- Occupational Health and Safety (OHS) elements, such as working at heights, temporary fencing, adequacy of propping and bracing and working in trenches. If any OHS items present an unacceptable risk, the relevant co-regulators (Environmental Protection Authority, WorkSafe and/or Energy Safe Victoria) are contacted immediately by the building inspector.

The VBA is working with stakeholders to develop guidance summarising key inspection components for particular classes of buildings.

A comprehensive outline of the electronic inspection checklists is detailed in Appendix 2.

1.3. Performance year to date

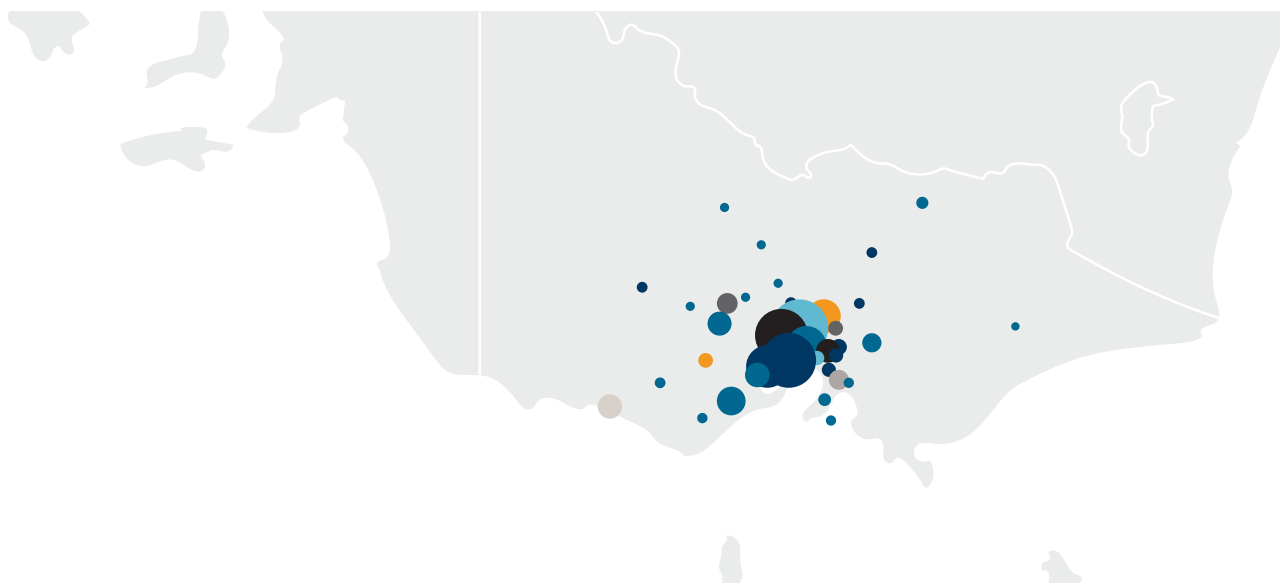
The graph below illustrates the number of sites inspected each month and shows how the VBA is tracking against the Minister's Statement of Expectations to inspect 10 per cent of new building permits every year.



Goal: Inspect 10% of new building permits each year.

2. Q3 in focus

A total of 3048 inspections (2156 building and 892 plumbing) were conducted across 58 municipalities throughout Victoria (predominantly selected according to defined risk factors), covering 1265 builders and 241 building surveyors across the state. The defined risk factors assign a higher risk rating on building permits that relate to buildings for human occupation and to building permits related to practitioners who conduct higher volumes of work.



<http://vba.vic.gov.au/building/complaints-compliance-enforcement/proactive-inspections-program/proactive-inspections-program-reports>.

2.2. What we found

One third of the inspections found compliance risk which, if not appropriately considered or addressed, had the potential of causing:

- an adverse effect on safety and/or amenity of the future occupants of the building and the public; and/or
- financial loss for future occupants or loss of structural integrity.

Data on low risk elements are not included in this report as they are considered unlikely, if left untreated, to cause any adverse effects. Examples of low-risk items include site signage not visible, rubbish not controlled, or no toilet on site.

Critical issues

One percent of the inspections identified non-compliant issues that if left untreated, would almost certainly result in adverse effects on safety and/or amenity or financial loss for future occupants or loss of structural integrity. These inspections also included sites that had OHS risks which were referred to the relevant regulator.

2.3. Action taken by the VBA

The compliance risks identified resulted in the VBA sending 950 notifications to practitioners.



Who receives the notifications?

Both the builder and the Relevant Building Surveyor (RBS) are notified when compliance risks are identified however, the builder is the primary addressee for potential non-compliant building work, if the elements have not been subject to a mandatory inspection stage. Where elements have been subject to mandatory inspection, the RBS is the primary addressee as they are the party who attests to the building work as being compliant. The RBS will also be the primary addressee where permit documentation is lacking information such as a performance solution or where the RBS has not considered mandatory items such as fire separation in dual occupancy buildings.

The builder is also the primary addressee for potential non-compliant plumbing work, (because the plumber is not named on the building permit documents). The VBA relies on the builder to provide the plumber's details and if provided, the VBA will also notify the plumber of the potential non-compliant issues.

Typically, these notifications require the practitioners to:

- provide any relevant documentation (such as an approved performance solution, engineering drawings or certificate of compliance from a registered practitioner) showing how the work meets the requirements under the building legislation – this is because practitioners are currently not required to lodge this documentation with the VBA; or
- demonstrate the work is incomplete rather than non-compliant and will be resolved as the build progresses; or
- provide the RBS/VBA with proof the work has been brought into compliance (e.g. provide photographs).

While some issues are resolved where the builder can demonstrate the work is underway or a performance solution has been applied, a large proportion of the non-compliant work identified requires rectification¹. The VBA's PIP data collection and reporting is being further developed and a break-down of how many and types of elements that required rectification will be available in subsequent data releases.

2.4. Enforcement activity

The RBS is expected to manage any rectification required, using their enforcement powers. Typically, a verbal DTF is issued to the builder, however, depending on the severity and risk of the issue, the RBS may choose to issue a written DTF to the builder and notify the VBA.

The VBA will monitor all sites requiring rectification to ensure the appropriate work is carried out and in exceptional circumstances, the VBA will issue the DTF to the builder instead of the RBS. Such circumstances include where the RBS is responsible for the non-compliance or where an issuance of the occupancy permit is imminent, and the VBA wants to ensure the non-compliance is addressed before the property is handed over to the purchaser. In Q3, three DTF's were issued by the VBA:

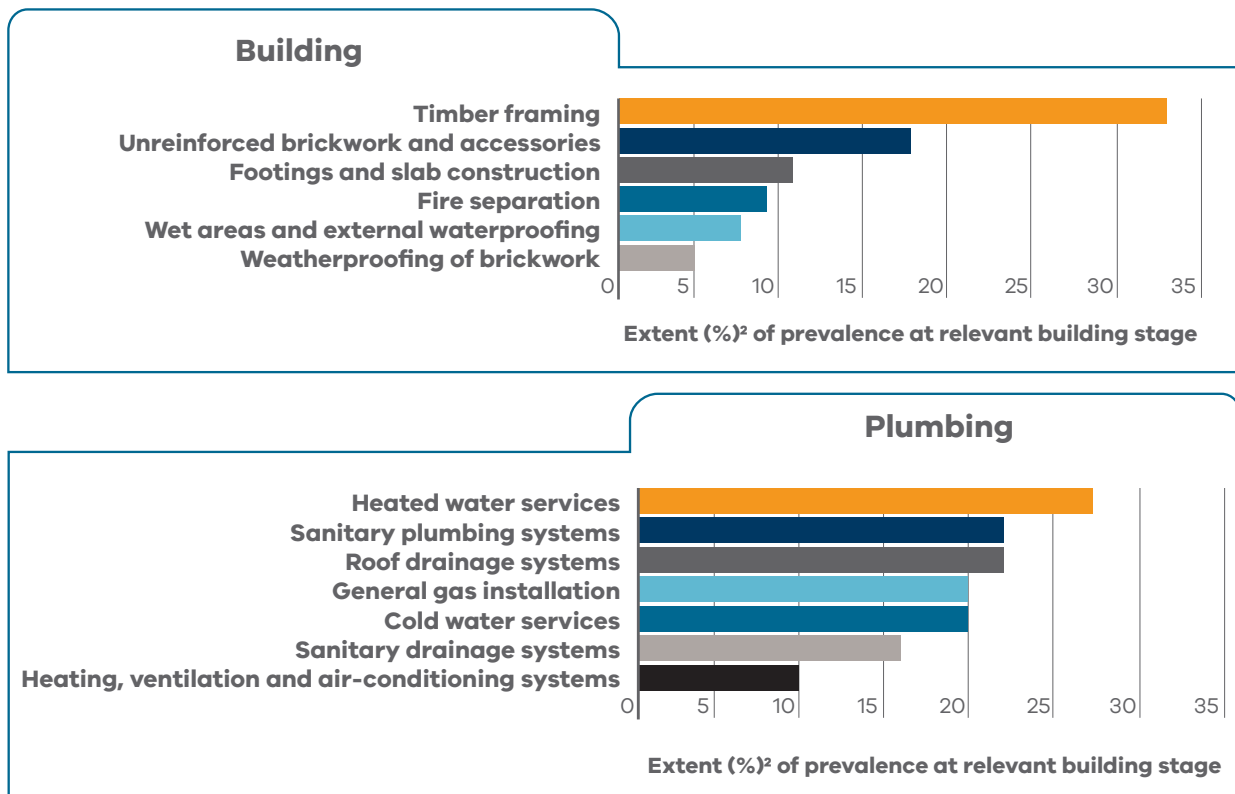
Common problems—by building class

Enforcement 2 DTF			Enforcement 1 DTF
Building type Class 2: Apartment	Nature of non-compliance Two buildings of type A construction had combustible cladding attached to an external wall, without a determination from the Building Appeals Board	Nature of non-compliance Building work not carried out in accordance with the approved engineering drawings (frame to top storey not as per engineering drawings – mainly roof framing and lintel matters)	Building type Class 1: Domestic
	Reason for VBA to issue DTF The RBS had approved a non-compliant combustible product therefore it was not appropriate for the RBS to issue the DTF	Reason for VBA to issue DTF Building work progressed beyond frame stage when it did not comply with the approved engineering drawings. Note: frame inspection had been inappropriately approved and VBA issued DTF	
	Outcome The builder removed the combustible cladding and replaced it with a compliant non-combustible product. The RBS is under investigation	Outcome A certificate of compliance for proposed building work and an amended engineered design (drawing) was obtained from the structural engineer. This confirmed the as-built construction was compliant and the RBS amended the building permit accordingly	

¹ For Q3, a sample of 100 inspections were considered and revealed 76% required rectification and the remaining 24% did not require rectification because the building surveyor could provide performance solution documentation (in 19% of cases) and because the work was in progress (in 5% of cases).

3. Overview of compliance risks found

The most prevalent issues split between plumbing and building are tabled below:



Appendix 3 covers a more detailed view of the proactive inspections undertaken, more information on prevalent compliance risk elements and how critical items were rectified.

3.1. Detailed overview of compliance risks

Building

Domestic (Class 1)

A total of 54,779 elements were assessed across 2018 domestic building sites in Q3 (an average of 27 elements per inspection), of which 1123 elements were identified as a compliance risk and required rectification or justification. Of these elements, 65 were critical and were in the following categories:

Fire separation and fire resistance and stability

- Fire separation at 10 sites was not installed as per manufacturer's guidelines.
- EPS on first and second floor running continuous over separating walls between units 1–7 and 8–14 in the construction of a dual occupancy development.

Swimming pool safety

- Absence or inadequate barriers around swimming pools at five sites.
- Absence or inadequate temporary swimming pool barriers at six sites.

² Percentage figure was calculated using the building stage most applicable to the area of compliance risk (i.e. the stage at which the item can be most easily viewed for inspection). For example, the percentage figure for timber framing was calculated by dividing the number of inspections with compliance risks identified at the 'frame' stage, by the total number of inspections conducted at the 'frame' stage.

Poor foundations

- Issues with concrete slab and reinforcements at three sites – cracks to top of slab, insufficient clearance for mesh and pipes through slab, pipes not wrapped, and step down not provided below pipes through trenches.

OHS (reported to WorkSafe on same day) and public safety

- Inadequate OHS provisions at 12 sites ranging from working >2.0 m, makeshift platforms, openings in platforms/stair voids and access ladders. These serious matters are referred to WorkSafe on the same day and/or rectified immediately.
- Site entry restrictions inadequate at one site with openings between panels and close to train station and public carpark.

Commercial (Classes 2–9)

A total of 3424 elements were assessed across 138 sites (an average of 25 elements per inspection), of which 115 elements were identified as a compliance risk requiring rectification or justification. Of these elements 17 were critical and covered the following categories:

Firefighting equipment

- Construction of a five-storey residential apartment, retail and carpark development in the City of Hobson's Bay had no precautions installed (in accordance with E1.9) during construction. No fire extinguishers were provided on each storey and the building had reached an effective height of 12 metres without the required hydrants and booster connections being installed.

Protection of openings

- The window openings (required to have an FRL) of sole occupancy units in four three-storey attached residential apartments in the City of Moreland were not protected in accordance with NCC Volume 1 C3.2.

Fire resistance and stability

- The same three-storey attached residential apartments in the City of Moreland had been incorrectly assessed and constructed to Type C fire-resisting construction in lieu of Type A, contrary to Table C1.1.
- Some parts of a fire-isolated stair shaft in a six-storey, multi-residential unit development in the City of Maribyrnong were constructed using combustible material, contrary to NCC Volume 1 D2.2.
- The openings for service installations within the floors and walls of a five-storey residential development (54 townhouses and 49 apartments) under construction in the City of Monash are required to have an FRL. These openings were not protected in accordance with the NCC Volume 1 Specification C3.15.

Fire separation

- Fire-resistant plasterboard between sole occupancy units (in the same five-storey residential development above) had not been installed in accordance with the manufacturer's specifications (with multiple components missing or installed incorrectly).

Plumbing

Domestic (Class 1)

A total of 9197 elements were inspected across 835 sites (an average of 11 elements per inspection) and 569 elements were identified as a compliance risk requiring rectification or justification. No critical issues were found. The most serious compliance risks were in the following categories:

Roof drainage systems

- Rain-heads have not been constructed appropriately.
- Incorrect discharge of box gutter, must discharge to sump or rain-head.
- Valley is obstructed and not discharging directly to the eaves gutter.
- The sumps have been undersized.
- No overflow provision has been provided for the box gutter installation.

Heated water services

- No tempering device installed.
- No inspection shaft or overflow relief gully has been provided for each dwelling.
- No inspection shaft at main connection.

Water services

- No backflow-prevention device was provided, causing a potential cross-contamination of the drinking water supply.
- The backflow-prevention device is not adequate for the hazard rating.
- The flexible hand-held shower head can reach the spill level of the toilet pan.

Commercial (Classes 2–9)

A total of 557 elements were inspected across 57 sites (an average of 10 elements per inspection) and 45 elements were identified as a compliance risk requiring rectification or justification. No critical issues were found. The most serious compliance risks were in the following categories:

On-site liquid trade waste system

- There is no suction line provided to an accessible location for the grease interceptor. There is no disconnector gully provided on the outlet of the grease interceptor as shown in the plans.
- Appropriate access to pump the trade waste interceptor does not appear to have been provided.

Fire fighting water services

- Insufficient clearance between other services under ground.
- There is a substantial pressure differential either side of the check and butterfly valves.

Heating, ventilation and air conditioning

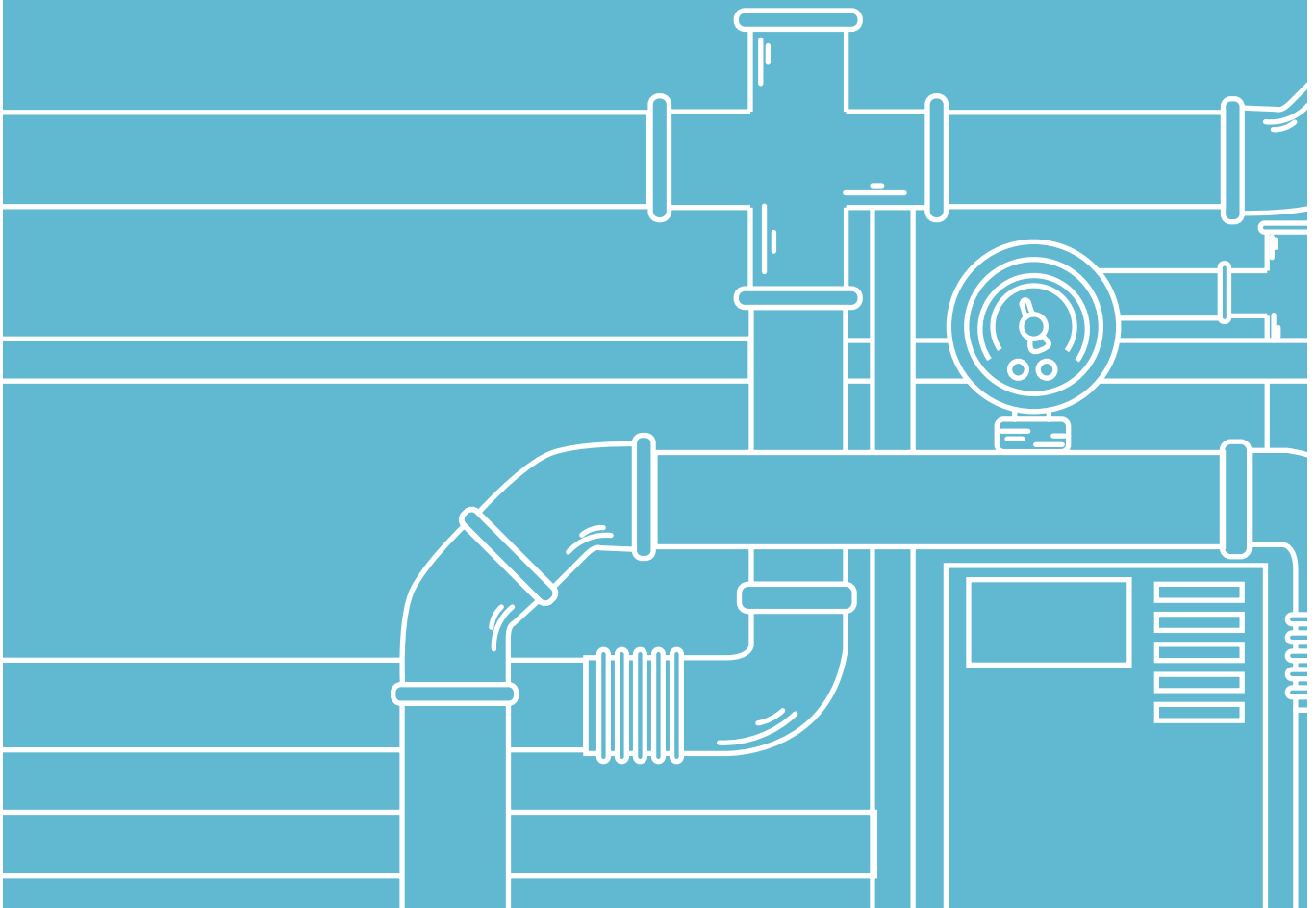
- Refrigeration pipework not clipped.
- Cooling system's condensation-drain pipe installed in box gutter, insufficient clippings and inadequate joining of fittings.
- Flexible duct not hung correctly with strapping, hot water pipe too close to duct, refrigeration pipe clipped to fire service.
- Mechanical services too close to drainage system and air conditioning pipework not capped off.

Hot water services

- Hot water services do not have the appropriate separation from other services (electrical cables).
- Gas line tempering balances are not accessible for servicing. Hot water piping tails need to be removed and be capped off close to the ring main to prevent stagnant water and the potential growth for legionella.

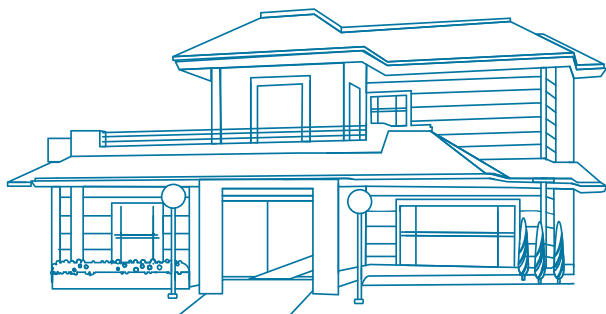
Sanitary drainage systems

- No inspection openings on stack.
- Missing expansion joint and clips on stack, drainage.
- An overflow relief gully has not been installed the drain.
- Discharge pipe has insufficient separation from electrical cables.



3.2. Prevalence of compliance risks in single and dual occupancy dwellings

Single occupancy



Prevalence of compliance risks

Building 33%
Plumbing 35%

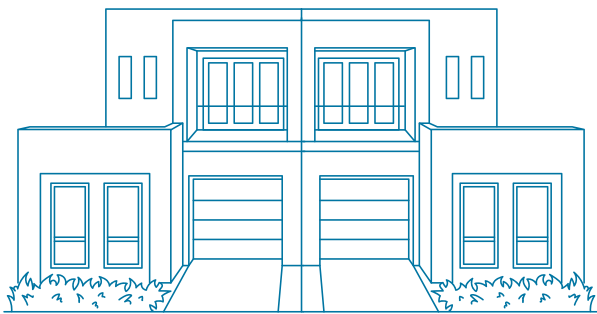
Common building issues

- Timber framing
- Unreinforced masonry
- Fire separation
- Concrete and reinforcing
- Weatherproofing of masonry

Common plumbing issues

- Roof drainage systems
- Heated water services
- Cold water services
- General gas installations
- Sanitary plumbing systems (above ground)

Dual occupancy



Common building issues

- Timber framing
- Fire separation
- Unreinforced masonry
- Openings in platforms/stair voids
- Working >2.0 m in height

Common plumbing issues

- Cold water services
- General gas installations
- Sanitary drainage system (underground)
- Roof drainage systems
- Heated water services

Prevalence of compliance risks

42% Building
31% Plumbing

3.3. Prevalence of compliance risks by class

			Areas of serious compliance risk	
Class	No of sites inspected ³	% of compliance risks across class	Building	Plumbing
Domestic (Class 1)	2662	34%	- Timber Framing - Unreinforced Masonry - Fire Separation - Wet Areas & External Waterproofing - Masonry Accessories	- Heated Water Services - Sanitary Plumbing Systems - Roof Drainage Systems - General Gas Installation - Cold Water Services
Apartments ≥2 Sole Occupancy (Class 2 + mixed use) and Group dwellings and hospitals (Class 3,4, 9)	80	44%	- Fire Resistance and Stability - Fire Separation - Compartmentation and Separation - Damp & Weatherproofing	- Sanitary Drainage Systems - Heated Water Services - Sanitary Plumbing Systems - HVAC Systems
Assembly building with no dwellings (Class 9b)	41	21%	- Provision of Escape - Construction of Exits - Emergency Lighting, Exits Signs and Warning systems	- Non-Drinking Water Services - Roof Drainage Systems - Cold Water Services - General Gas Installation
Office buildings and cafes, shops & markets with no dwellings (Class 5 and 6 + mixed use)	28	18%	- Site Entry Restrictions - Structural Provisions - Access for People with a Disability - Provision of Escape - Fire Resistance and Stability - Construction of Exits - Compartmentation and Separation	- Sanitary Drainage Systems - Cold Water Services - Sanitary Plumbing Systems - Site Entry Restrictions - Surface and Subsurface Drainage Systems
Warehouse & factories no dwellings (Class 7b & 8)	24	35%	- Access for People with a Disability - Emergency Lighting, Exit Signs and Warning Systems - Fire Fighting Equipment - Provision of Escape	- Roof Drainage Systems - Sanitary Plumbing Systems

3. Please note: Of 3048 sites inspected 213 had no compliance risks detected and are not included.

4. Case studies

Alterations and additions to an existing single storey dwelling

Serious structural framing issue

A proactive inspection, carried out after the mandatory frame stage, identified an issue with an upper roof structure constructed from existing rafters and bolted metal plates. One existing rafter was insufficiently supported by an external load-bearing wall and had an additional LVL laminated to it. After receiving and reviewing the approved plans from council, the VBA identified that several roof beams (required as per the engineer's design) had not been installed.

A re-inspection took place on site, with the builder confirming that the existing roof structure had been retained and new metal plates were made up to connect the rafters together.

The VBA issued a section 37B Direction to Fix (DTF) building work for the installation of beams and framing members, including their connections, in accordance with the approved building permit.

A VBA delegate also lodged a formal complaint against the site's building inspector for approving the frame (at a mandatory inspection stage) when the works were not in compliance with the approved plans.

The complaint is under investigation.

EPS found on an apartment building more than three storeys high

Serious cladding issue

Proactive inspection of a Class 5 and 6 building revealed rendered expanded polystyrene (EPS) on a Type B building. Approval for the work occurred after the commencement of Minister's Guideline MG-14. No application for the use of EPS was submitted to the Building Appeals Board.

A VBA notification of high-risk building activity sent to a senior building surveyor prompted a review of materials by a fire safety engineer. This review resulted in the amendment of plans and replacement of the EPS with non-combustible material.

Complex plumbing in a large-scale residential nursing home

Serious issue - protection of the water supply

A proactive inspection targeting complex plumbing discovered that a chemical dispenser in an aged-care facility had not been installed with a backflow-prevention device. Had the VBA not discovered the fault, the building's drinking water supply could have been contaminated, causing serious risks to health and safety.

The builder took full responsibility for the fault and immediately rectified the issue.

EPS cladding found on an apartment building more than three storeys high

Serious cladding issue

A proactive inspection on an occupied apartment building undergoing alterations and rectification work identified expanded polystyrene (EPS) cladding on its external walls. The cladding had been installed without a determination from the Building Appeals Board as required by Minister's Guideline MG-14.

The VBA issued a section 37B Direction to Fix (DTF) building work for the removal of all EPS cladding from the building. In response, the relevant building surveyor amended the approved plans to show non-combustible external cladding in lieu of EPS.

The VBA will monitor compliance with the DTF until the work is complete.

5. Appendices

Appendix 1: Proactive Inspections Program - risk rating scale

Risk rating matrix - The following table shows the PIP risk rating matrix. The level of risk observed during inspection determines the VBA's response and any actions required of the relevant building practitioners.

Low risk (Pass)	Non-compliance is not identified at inspection, or any non-compliance is consistent with work in progress and is reasonably expected to be resolved as work progresses.
Low risk (Low-impact)	It is unlikely that the compliance risk, if left untreated, would cause an adverse effect on the safety and/or amenity of the occupants. Financial loss for future occupants or loss of structural integrity is unlikely.
Medium risk	It is possible that the compliance risk, if left untreated, would cause an adverse effect on safety and/or amenity of the occupants/public. Financial loss for future occupants or loss of structural integrity is possible.
High risk	It is almost certain that the compliance risk, if left untreated, would cause an adverse effect on the safety and/or amenity of the occupants/public. Structural integrity would be significantly compromised and/or total loss of project value would be incurred.

Appendix 2: Proactive Inspections Program - electronic checklist

SECTION ONE

Guidance on mandatory requirements under the Building Act 1993 and Building Regulations 2018

Provision and display of permit information

Part 12 - Building Administration - Building Permit Levy

Building Permits (16 (a) works without a Building Permit, not as per Building Permit, 24A - Appropriate Class, OB certification, DBI if work >\$16,000, RBP where >\$5000

Occupancy Permit

Part 5 Siting - Building Regulations -

(All sections ,73 to 97)

Part 6 Protection Works - Building Regulations,

Part 8 Building work in Special Area - Building Regulations -

(All Sections 132, 150, 152, 153,154, 155)

SECTION TWO

Guidance on building work relevant to residential inspections and is broken down into different building stages under the National Construction Code of Australia BCA Vol 2 (class 1 and 10)

Site preparation - Earthworks and Site cuts, site surface drainage and termite risk management

Footings and Slabs Preparation - Concrete and Reinforcing, site classification, and footings and Slab construction

Masonry - Unreinforced and reinforced, Accessories, weatherproofing and earth wall construction

Framing - Sub-floor ventilation, Timber/Steel Framing, Structural Steel members

Roof and Wall Cladding- roof cladding, Gutters and Down-pipes, Wall Cladding

Glazing - site entry is restricted or affecting public

Fire Safety - Separation, Smoke Alarms, Heating appliances, bushfire areas, Alpine Area

Health and Amenity - Wet Area and External water

Safe movement and Access - Stair Construction, Balustrading and Handrails, Swimming pool Safety Barriers, Swimming pool Water recirculation

Additional Construction - High Wind, Earthquake and Flood Hazard

Structural Design

Energy Efficiency - Building fabric, external glazing, Building Sealing, Air Movement

SECTION THREE

Guidance on building work relevant to commercial inspections and is broken down into different building stages under the National Construction Code of Australia BCA Vol 1 (class 2 to 9)

Section B: Structure

Section C: Fire Resistance - Fire Resistance and Stability, Compartment and Separation, Protection of Openings

Section D: Access and Egress - Provision of Escape, Construction of Exits, Access for People with Disability

Section E: Services and Equipment - Fire Fighting Equipment, Smoke Hazard Management, Lift Installations, Emergency Lighting, Exit Signs and Warning Systems.

Section F: Services and Equipment - Damp and Weatherproofing, Sanitary and Other Facilities, Room Heights, Light and Ventilation, Sound transmission and Insulation

Section G: Ancillary Provisions - Minor Structure and Components, Heating Appliances, Fireplaces, Chimneys and Flues, Atrium Construction, Construction in Alpine Areas and Bush-Fire Prone Areas

Section H: Special Use Buildings - Theatres, Stages and Public Halls, Public Transport Buildings

Section J: Energy Efficient - Energy Efficient, Building Fabric, Glazing, Building Sealing, Air-Condition and Ventilation Systems, Artificial Lighting and Power, Heated Water Supply and Swimming Pool and Spa Plant, Access for Maintenance and Facilities Monitoring.

SECTION FOUR

Guidance on requirements under the plumbing regulations that apply to residential and commercial properties.

Section B: Water Services - Cold Water Services, Heated Water Services, Non-Drinking Water Services, Firefighting Water Services

Section C: Sanitary Plumbing and Drainage - Sanitary Plumbing Systems and Sanitary Drainage Systems

Section D - Stormwater Drainage Systems - Roof Drainage Systems, Surface and Subsurface Drainage Systems

Section E: Heating, Ventilation and Air-Conditioning

Section F: On-Site Wastewater Systems - On-Site Wastewater Management Systems; On-Site Liquid Trade Waste Systems

Reg C: Gas Installations - General Gas Installation, Type A Servicing Work, Type A Conversion Work

Reg A: Unlicensed Plumber in Relevant Field - Unlicensed in: Drainage, Fire Protection, Gas fitting, Irrigation, mechanical, Roofing -Sanitary Water Supply

Reg B: Poor Standards

SECTION FIVE – OHS elements

Guidance on elements concerning immediate life-safety issues to ensure these items are inspected first.

OHS - practices at the site and hazards etc.

Scaffolding - makeshift working platforms, Guard Rails & Kick boards

Electrical Risk - Exposed Live Electrical, Power leads & Power boards

Excavation - working in trenches over 1.5 m Deep, site cut over 1.5 m

Asbestos - Debris or removal

Temporary Fencing - site entry is restricted or affecting public

Amenity and housekeeping at the site - rubbish control, materials storage and site toilets

Fall risks - working over 2m in height (Opening in platforms/stair voids, Secured access ladders

Structure stability - Adequate temporary propping & bracing

If these items present an unacceptable risk, the relevant co-regulators are contacted immediately by the building inspector.

Appendix 3 - Detailed view of Q3 proactive inspections

		No Sites Inspected	% of Inspections per STAGE	No. Inspections with Compliance Risk (excludes low risks)	Top categories of non-compliances	Extent of prevalence (%3 or n)	No. of inspections with Critical issues (OHS items not included)	Categories of Critical issues	Frequency (n)	Outcomes of Critical issues
BUILDING	Domestic	2018	Demolition 1%	623 (31%)	Timber framing - Penetrations >25mm through top plates, sheet bracing, structural load bearing top plate. Tie down of bottom plate missing for load bearing walls with sheet roof. Veranda post to beam connections not bolted. Shear blocking missing. Missing or inadequate bracing. Non-compliant joins in the top plate, Posi-joists not braced, Angle bracing cut in deeper than 20mm. Nogging non continuous	33%	38 (2%)	OHS items	n21	Referred to relevant co-regulator on same day
			Foundations 6%		Unreinforced brickwork and assessories - Control joints not maintained adjacent to windows and doors. Brick ties not installed to required spacing. Brick ties not fixed to timber frame. Control joint ties not installed or not maintained adjacent to the windows. Building fabric not placed between studs and brickwork. Solid ties in lieu of expansion ties or not attached correctly.	18%		Work not as per building permit	n1	Builder provided documents
			Footings 9%		Footings and slat construction - Exposed steel, Excessive overhang. Insufficient clearance for mesh and pipes. Slab cut & being jack hammered for plumbing. Slab not in line with approved engineering drawings. Ligatures required due to rebate size. Water in trenches. Damage or cracks to top of slab. Honeycomb effect and cracking to slab edge	11%		Timber Framing, steel framing & Structural Steel members	n5	Builder rectified issue (n4) One was because balcony flooring was temporary - work was in progress
			Frame 33%		Fire separation - Fire separation wall not installed, or damaged or not installed as per manufactures guidelines. Aluminium clips not attached to both side of the wall. Mineral wool not packed between brick veneer and shaft-liner, Eave within 900mm of property boundary. EPS on first and second floor running continuous over separating walls between units. Timber blocks required to be removed from shaft-liner	9%		Safe movement (swimming pool access)	n7	Builder rectified issues
			Lock-up 16%		Wet areas and external water proofing- No waterproof plaster. Splash backs / wet area tiling not waterproofed. Lack of water stops. Bath hob not as per standard, Gaps in water proofing air gaps. No water stops to end of doors around bathroom no waterproofing down into wastes.	8%		Fire Separation	n11	2 sites providing documents to proof compliance and Builder rectified issues in the other sites
			Fixing 22%		Weatherproofing of brickwork - No window flashings. Weep holes not provided. Damp proof course set back too far. Garage external retaining wall is not waterproofed below ground level.	5%		Preparation and earthworks (encroachment)	n1	Builder rectified issues
			Final 8%					Protection of adjoining property	n2	Builder rectified issues
			Completed 1%					Concrete and Reinforcing	n1	Builder rectified issues
	Commercial	138	Demolition 1%	38 (28%)	Fire Resistance and Stability	n11	7 (5%)	OHS items	n10	Referred to relevant co regulator on same day
			Foundations 10%		Access for People with a Disability	n6		Fire Resistance and stability and Fire Separation	n4	Builder rectified issues
			Footings 5%		Compartmentation and Separation	n6		Permits information missing	n1	Builder provided documents
			Frame 30%		Fire Safety Provisions (Fire Fighting Equipment, Construction of Exits and Provisions of escap3)	n15		Builder not of appropriate class	n1	Builder rectified issues - incorrect builder on signage
			Lock-up 6%		Structural Provisions	n6		Compartmentation and Separation	n1	Performance solution documents provided
			Fixing 17%		Damp and Weatherproofing	n5		Earthworks	n1	Builder rectified issues
			Final 15%		Fire Separation	n5		Fire Fighting equipment	n1	Builder rectified issues
			Completed 9%		Working >20. m in Height	n4		Protection of openings	n2	Confirmed compliance with documents



Appendix 3 - Detailed view of Q3 proactive inspections

		No of sites inspected	% of inspections per STAGE	No of inspections with compliance risks		Top categories of compliance risks	Extent of prevalence (% or n)
PLUMBING	Domestic	835	Demolition 1%	267 (32%)		Heated water services - Separation issues with other services. Solar pipe lagging not weather resistant or UV rated. Solar hot water lagging missing. Framework cut out for solar hot water exceeds limit. No tempering device installed.	27%
			Foundations 9%			Sanitary plumbing systems - Sanitary drainage vent within 5 m of the evaporative cooler. Inadequate pipe support on sanitary vents. Drainage vents exceed maximum allowable holes for framework. Upstream vent to atmosphere is undersized. 88-degree junctions installed on a graded drain.	22%
			Footings 7%			Roof drainage systems - Flashings fixed incorrectly. Box gutter change of direction. Box gutter incorrectly terminated. Undersized items e.g. flashings, box gutters, rain heads	22%
			Frame 38%			General gas installation Insufficient separation of gas piping with other services (electrical and water). Gas lines not UV protected. Insufficient pipework support of the gas service throughout the installation. Gas flue issues. Gas piping not labelled at gas meter. Gas pressure pipe installed above ground. No reversion fitting provided	20%
			Lock-up 17%			Cold water services - Separation with other services, Water service pipework has been chased into the concrete slab without using impermeable flexible material. Omission of pressure limiting valve omitted at meter. Absence of lagging through slabs footings. Several areas of framework penetration not sealed. Handheld shower reaches shower base, backflow prevention required.	20%
			Fixing 17%			Sanitary Drainage Systems - Sewer surcharge and overflow provision. No inspections shaft and/or Overflow relief gully. Drain inspection not booked. Inspection cover not appropriately installed and no lagging. No concrete installed underneath disconnected gully.	16%
			Final 9%			Heating, Ventilation and Air-Conditioning Systems - Pipes have not been clipped. Drain not discharged correctly. Duct work not secured correctly.	10%
	Commercial	57	Demolition 2%	18 (32%)		Sanitary Plumbing Systems	n8
			Foundations 17%			Roof Drainage Systems	n7
			Footings 9%			Cold Water Services	n5
			Frame 41%			Heated Water Services	n5
			Lock-up 17%			Sanitary Drainage Systems	n5
			Fixing 13%			General gas installation	n4
			Final 2%			Firefighting Water Services	n3
						On-site Liquid Trade Waste Systems	n2