Homecorp

Home Handover Manual

South Australia

Homecorp

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Homecorp

1. HANDOVER PACKAGE

Congratulations on your new home!

This manual contains some useful information on maintaining your new home.

If there are any build defect warranty issues within the first 90 day period after the Handover date please follow the instructions in Section 6 - "Reporting A Defect".

This manual also includes a list of contractors, suppliers and manufacturers with the relevant contact details. They should be contacted if reporting a warranty claim or an emergency outside of our regular office hours.

For any warranty issues relating to any appliances, please refer to Section 8 - "Warranty Information".

Please see Section 7 - "Reporting A Urgent Warranty Defect".

As per South Australian legislation you are provided with a structural guarantee for your new home by the builder for a period of 5 years from the date of Practical Completion.

We strongly recommend the use of the contractors listed in Section 8 - "Warranty Information" page to ensure that all workmanship is upheld to the same standard and any issues are fixed in compliance with suppliers/manufacturer's warranty (if applicable). By doing this, warranties are not voided and the maintenance costs for you are potentially reduced. Homecorp are not liable for costs if the correct process has not been followed.

PLEASE FIND BELOW SOME KEY DATES TO REMEMBER

Date of Practical Completion: .....

Date of Handover: .....

Warranty period expiry date: .....

Structural Warranty expiry date: .....

We trust you have enjoyed building with us and wish you all the best.

2. MAINTAINING YOUR NEW HOME

MAINTENANCE MANUALS

As part of your handover, you will receive a number of maintenance manuals. There is also a QR code inside the pantry door which contains warranty and care guidelines for some components of your home. Please familiarise yourself with these manuals.

FOUNDATIONS & FOOTINGS

The foundations and footings have been designed by a qualified engineer to suit the local soil conditions. Concrete surface cracking may occur and does appear in all types of concrete due to the curing process. These cracks do not affect the strength of concrete and minor slab movement over time may lead to some minor cracking. This minor cracking does not affect the structural integrity of your foundations.

FOUNDATION AND SITE DRAINAGE – MAINTENANCE AFTER OCCUPATION

The builder is not responsible for foundation movements caused by activities that were not evident at the time of entering into the contract or further variation to that contract. The builder is also not responsible for any works that have been undertaken by the owner after construction has been completed. These include paving, landscaping, planting trees and drainage works after the site is handed over to the owner. The builder is not responsible for foundation movements caused by the owner's failure to maintain drainage systems after the site is handed over to the owner.

Please refer to the CSIRO Foundation Maintenance and Footing Performance: A Homeowner's Guide found at the end of this manual.

FENCING

Good Neighbour Fencing has been installed as the external fencing of your home. Simple maintenance by periodically washing with clean, fresh water will prolong its life. A soft broom should be sufficient to remove any cobwebs. Do not build up soil or garden fill against the bottom rail of your fence as this will retain water and lead to corrosion. Do not use your fence as a retaining wall as it is not designed for this purpose.

It is important that you note of any fence defects on your final defect checklist before handover takes place. Fencing that moves as a result of land movement is not considered a build defect.

WINDOWS AND SLIDING DOORS

We use low maintenance aluminium windows. To ensure they function correctly it is necessary to clean the window tracks and occasionally apply lubricant. It is recommended to spray any window lock barrels with silicone spray to maintain smooth operation of your window locks every 6 months.

GLAZING

After the construction of your new home, scratches, fractures, chips or other blemishes on glazing and mirrors are defects if they are caused by the builder and can be seen from a normal viewing position (3000mm from window). Minor scratches, fractures, chips or other blemishes that are not more than 10 mm long and where there are not more than three blemishes per pane, are not defects.

If your windows contain a Low-E coating, do not use metallic based cleaning objects such as scourers or abrasive cleaners. Clean with soapy water and carefully clean with a soft lint free cloth.

CONDENSATION

Condensation is a common problem in buildings, particularly in bathrooms, laundries and on windows. Where the requirements of the BCA have been complied with, the responsibility for controlling condensation by maintaining adequate ventilation through the use of exhaust fans or other means is the responsibility of the owner. It is recommended that windows are opened slightly in wet areas when in use.

CERAMIC TILING

The junctions of benchtops, splashbacks, skirting, baths and tiles have a flexible silicone seal installed to absorb any settlement movement. When the house settles this silicone may need to be inspected every six (6) months, and if required, replaced in accordance with general maintenance of your home. Use of cleaning agents gradually deteriorates the silicone and is not considered a building defect. Floor tiling grout may experience minor cracking due to settlement and can be replaced as part of general maintenance of your new home. This is not considered to be a building defect.

Foot traffic and abrasive cleaning methods can erode the grout's surface making it more susceptible to discoloration. Soap scum and mineral deposits can accumulate on grout surfaces creating a layer of film that gradually changes the appearance of grout. This is not considered to be a building defect.

Any renovation, alteration or repair work where new tiles are to be used to match existing tiles, it may be impossible to match the new to existing work. The use of a tile that is slightly different in colour, size, texture etc. is not a defect. Where non-matching tiles have to be used, a joint location such as the aluminium channel of a shower screen, a separating doorway, an intersecting wall, a change in wall direction or similar should be selected to separate the different tiles.

We recommend you review the warranty and tile maintenance information provided.

PAINT

Paint is a very important component of your new home and regular maintenance including repainting can add to the longevity of the products supplied.

Internal Painting Do not use harsh abrasives, stiff scrubbing brushes or caustic solutions. These will polish the surface resulting in obvious highlights. Always wash the surface with warm water and only a small amount of mild detergent and use a soft white cloth.

External Painting To maintain exterior quality it is recommended to wash down regularly. Always use soft bristle brushes, cloths and a mild detergent. Never allow detergent to dry on the house and rinse thoroughly.

We recommend you review the warranty and paint maintenance information provided.

SURFACE FINISH OF PAINTWORK

Within the first 90 days after completion of the work, paintwork is defective if application defects or blemishes such as paint runs, paint sags, wrinkling, dust, bare or starved painted areas, colour variations, irregular and coarse brush marks, sanding marks, blistering, uniformity of gloss level and other irregularities are visible in the surface from a normal viewing position, (1500mm from wall).

After completion of the work, excessive over- painting of fittings, trims, skirtings, architraves, glazing and other finished edges is a defect.

PEST CONTROL

We install a termite pest control system in all of our homes. Information on warranty is located in the handover folder. Maintenance of the pest control system is crucial and following the below steps is essential:

- Contact the pest control company for an annual check of the system and adopt their recommendations prior to the 12-month warranty expiry date. Details of your warranty can be located in your electrical meter box.
- Any landscaping against the perimeter of the property must adhere to specific parameters stipulated by the manufacturer of the termite protection system.
- Do not stockpile timber or firewood against the house.
- Do not place sheds, pet housing or BBQs against the house.

ELECTRICAL

A safety switch* is installed in the meter box with the circuit breakers. A faulty appliance may cause the safety switch to shut off the power supply. Please check all appliances if this occurs. There is an isolation switch* for the hot plate (electrical only); this is an extra switch that can be found on one of the power points or light switches in the kitchen. Blown light bulbs are not a build defect after handover.

*Please refer to Section 6 – "Reporting a Defect" for photo reference.

SMOKE DETECTORS

Smoke detectors have been installed in your home as part of safety and legislative requirements. They are hardwired but also come with a battery which will need to be replaced every year.

GAS

A gas leak, whether it be minor or severe, is a very serious problem. This should be fixed immediately to avoid accidents. Signs of leaking gas include a hissing or whistling sound near gas appliances or gas lines and the presence of strong gas odour.

If a gas leak is detected, please refer to Section 7 - "Reporting an Urgent Warranty Defect".

APPLIANCES

Appliances are covered by the manufacturer's warranty. Ensure you complete any documentation required and if any problems are experienced with the appliances please contact the manufacturer directly to arrange an appointment.

Please refer to Section 8 – "Warranty Information" for supplier details in relation to any warranty calls.

ROOFING

Roofing requires little maintenance. A roof should be walked on infrequently and only by treading carefully on the overlap edge. If a leak is detected, locate and repair it without delay using a professional tradesperson.

Gutters must be checked regularly to ensure they are clean and free of blockages. Special attention must be given to box gutters and rain heads.

Please note: Leaks caused as a result of works carried out after handover are not the responsibility of the builder.

Please note that iron roofs are subject to noise such as popping. This is common and not a construction defect.

PLUMBING

Leaking Tap Washer Due to constant use and small obstacles in the water supply; tap washers deteriorate and require replacement at various intervals. This is considered general homeowners' maintenance.

Hot water system Gas instantaneous - If there is no hot water; the power point near the unit needs to be checked to ensure it is turned on. Please allow additional time for hot water to travel from hot water system to outlets in your home. For further details refer to the manual supplied with the unit.

Electric Heat Pump - Please refer to the troubleshooting section of the maintenance manual provided with the unit.

Toilet Cistern

The toilet has an overflow mechanism and if the water continually leaks internally into the bowl, the outlet washer or inlet valve will possibly

need replacing over time. We recommend contacting a licensed plumber for this issue.

Please refer to Section 8 – "Warranty Information"

Toilet Seat

Your toilet seat is fitted with adjustable hinges and should be checked and tightened regularly. This is not a defect and is noted as general homeowners' maintenance.

Sink and Basin Leaks

During the initial stages of use, the waste pipes in the cupboards will encounter very hot water for the first time. This can lead to expansion of the pipes, potentially loosening the connection between the plug and the waste trap. If leaks occur simply tighten the fittings by hand which provides effective connection. Do not over tighten with a spanner as the pipe may crack. We recommend using a qualified tradesperson.

Please note: Leaks caused as a result of works carried out after handover are not the responsibility of the contractor.

DRAINAGE

Sewer

Where the sewer drains connect to the main sewer line a plastic IP cover is installed at ground level. Do not landscape or place obstruction over this cover as access will be required in case of blockages.

Stormwater

Downpipes dispose of the rainwater from the gutters and must remain free from leaf litter and debris. Surface stormwater is directed away from the footings using grated inlets which are located along the perimeter pathway. These must be regularly checked for blockages.

Water Tank

The water tank is fitted with a retention tank. This switches over to mains water when the tank is empty. It is good practice to turn off the power to the retention tank occasionally to make sure it is working (To check this, turn off at the power point and then turn on the rain water tap. If water comes out, the retention tank is working).

Gutters

To ensure efficient disposal of rainwater, remove leaves and debris from the gutters regularly. Do not hose those items into the downpipes and the stormwater drains. If leaves continually build up, a leaf guard should be installed. Continued maintenance will extend the life of the gutters. This is considered general homeowners' maintenance.

Retaining Walls Once a retaining wall is in place, it is important to keep the area well-drained to prevent moisture sitting at the footings. Water ingress coming from the neighbouring property, is not a build defect and will need to be addressed directly with your neighbours and local council for a resolution.

AIR CONDITIONING

The air conditioning unit needs to have the filters cleaned regularly and be serviced annually. We strongly recommend you follow the manufacturers recommendations, so your warranty isn't voided. This is considered general homeowners' maintenance.

Please refer to Section 8 – "Warranty Information" for supplier details in relation to any warranty calls.

GARAGE DOOR

It is recommended to service the doors once every 12 months and follow the manufacturers recommendations, so your warranty isn't voided. Should your garage panel lift door fail, please contact your garage door supplier directly. You can manually operate the door until a service technician attends. A quick reference guide can be found in the handover folder.

Please refer to Section 8 – "Warranty Information" for supplier details in relation to any warranty calls.

CRACKING

As a result of standard "settling" of your new home, hairline cracks may appear your home, in particular plasterboard, cornice and concrete and is not considered a defect. If you are concerned with any cracking please refer to the CSIRO documentation found in this manual and Table following.

CRACKING IN CONCRETE PAVING & DRIVEWAYS

Cracking in concrete is common and is not always attributable to unsatisfactory workmanship. Common causes of cracking include shrinkage stress, stress due to trees, commercial or heavy vehicle traffic, soil movement due to changes in the moisture content due to garden watering or insufficient drainage. If you are concerned with any cracking please refer to the CSIRO documentation found in this manual

TABLE 3.2 CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

DESCRIPTION OF TYPICAL DAMAGE AND REQUIRED REPAIR	APPROXIMATE CRACK WIDTH LIMIT IN FLOOR (SEE NOTE 1)	DAMAGE CATEGORY
Hairline cracks	< 0.1mm	0 Negotiable
Fine cracks that do not need repair	< 1mm	1 Very slight
Cracks noticeable but easily fixed. Doors and windows stick slightly.	< 5mm	2 Slight
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weather tightness often impaired.	5mm to 15mm (or a number of cracks 3mm or more in one group)	3 Moderate
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted.	15mm to 25mm but also depends on number of cracks	4 Severe

Source: CSIRO Foundation Maintenance and Footing Performance: A Homeowner's Guide

EXAMPLES OF WHAT IS NOT CONSIDERED A BUILD DEFECT IN RELATION TO MOVEMENT CRACKS POST HANDOVER

Subsidence – What to do if you notice cracks in your walls.

When the ground supporting a building moves, cracks may occur. This is sometimes known as subsidence.

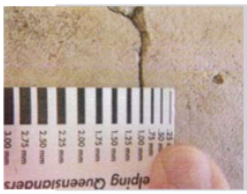
It is caused by the ground compressing under load or by clay soils swelling and shrinking with changes in its moisture content.

What are the expectations for footing and slabs in the NCC?

Walls	Hairline cracks that do not need repair and cracks that are noticeable but easily filled and are less than 5mm wide, are acceptable and consistent with expectations of the Standard. Similarly, doors and windows that stick slightly are not unusual. These issues are considered a maintenance responsibility of the owner. Cracks over 5mm wide that require whole or partial replacement of the wall, noticeably bulging walls, and windows and doors that stick and distort, do not meet the standard.

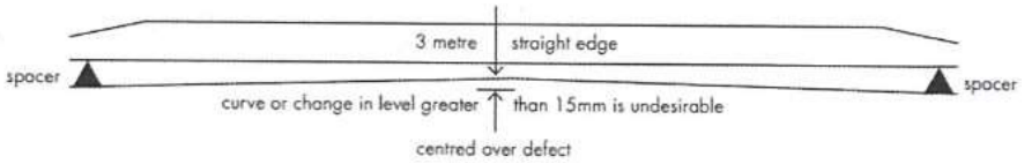
Concrete Floors

Hairline cracks less than 2mm wide meet the expectations of the Standard. Even distinct cracks where the slab has a noticeable level change might be acceptable. The way to test it is to measure the deviation from a 3m straight edge centred over the defect. If it is less than 15mm, the defect is within the acceptable limits of the standard.



Examples of cracking which would be deemed the maintenance responsibility of the building owner.

Cracks wider than 2mm, or where the deviation from the straight edge is greater than 15mm are not within the Standard – repairing these defects is the responsibility of the builder.



Source: VBA

Table 2.10 Classification of Damage to Concrete Floors

DESCRIPTION OF TYPICAL DAMAGE	APPROX. CRACK WIDTH LIMIT IN FLOOR	CHANGE IN OFFSET FROM 3M STRAIGHT EDGE PLACED OVER DEFECT (SEE NOTE 1)	DAMAGE CATEGORY
Hairline cracks Insignificant movement of slab from level.	< 0.3mm	< 8mm	0 Negotiable
Fine but noticeable cracks. Slab reasonable level.	< 1.0mm	< 10mm	1 Very slight
Distinct cracks. Slab noticeably curved or changed in level.	< 2.0mm	< 15mm	2 Slight
Wide cracks. Obvious curvature or change in level.	2mm to 4mm	15mm to 25mm	3 Moderate
Gaps in slab. Disturbing curvature or change in level.	4mm to 10mm	> 25mm	4 Severe

Source: VBA

ENGINEERED AND LAMINATE BENCH TOPS

Benchtops can be porous and are subject to staining. Please ensure you do not overload bench top with unnecessary weight. Placing portable cooking devices on your bench top can potentially cause your bench top to crack due to the heat they can generate. If using such devices, please ensure you are protecting your bench top accordingly.

To keep your bench top clean, simply wipe with a soft cloth and a PH neutral household liquid detergent.

Please refer to your care and maintenance guide for how to look after and clean your benchtops.

LANDSCAPING

Landscaping is installed with a natural fall away from the external perimeter of the property to allow surface water drain away from the home. It is important to maintain this fall as part of ongoing homeowners' maintenance. The builder is not responsible for land movement occurring due to factors outside of their control.

3. INTERNET

NBN INFORMATION

An NBN connection box is installed within your home. It is the Owners/Tenants responsibility to organise connection to NBN with your preferred service provider.

OPTICOMM INFORMATION

If Opticomm forms part of your estate, this service provides internet and free-to-air television negating the need for a standard TV antenna.

It is the Owners/Tenants responsibility to organise connection with Opticom and with your preferred service provider. You will need to check with your chosen provider to confirm which services are available in your area.

https://www.opticomm.com.au/residents/

4.STATUTORY GUARANTEE

All new homes have a statutory guarantee, which protects homeowners against loss or damage caused by defective or substandard workmanship.

The guarantee ensures the builder will rectify any defects; however, the classification of a defect alters as the dwelling ages. For example, a faulty door handle is not considered a defect after 90 days and as time elapses the guarantee relates primarily to structural items.

Two time periods are relevant when identifying applicable standards and tolerances to identify defective work:

- 90 day maintenance period from date of completion of the works.
- 5 years structural warranty from date of completion of the works.

The dates applicable to your property are noted in Section 1 of this manual.

RESPONSIBILITY TO RECTIFY

Builders do not have to rectify damage caused by the owner's actions or inactions or those of other people engaged by the owner. For Example:

- A builder will not have to repaint a poorly painted wall that was painted by the building owner.
- A builder will not have to repair a distorted gutter when the damage was caused by an owner placing a ladder against the gutter.
- A builder will not have to repair a storm water drain that was properly constructed and later blocked by tree roots.
- The builder will not be responsible for the repair of general wear & tear items such as but not limited to; toilet roll holders, toilet seats, towel rails, door handles etc. Fixtures such as these are to be inspected on a case by case basis as they are mostly moving parts exposed to everyday use by the occupant.

RESPONSIBILITY TO RECTIFY WARRANTY TIMEFRAME

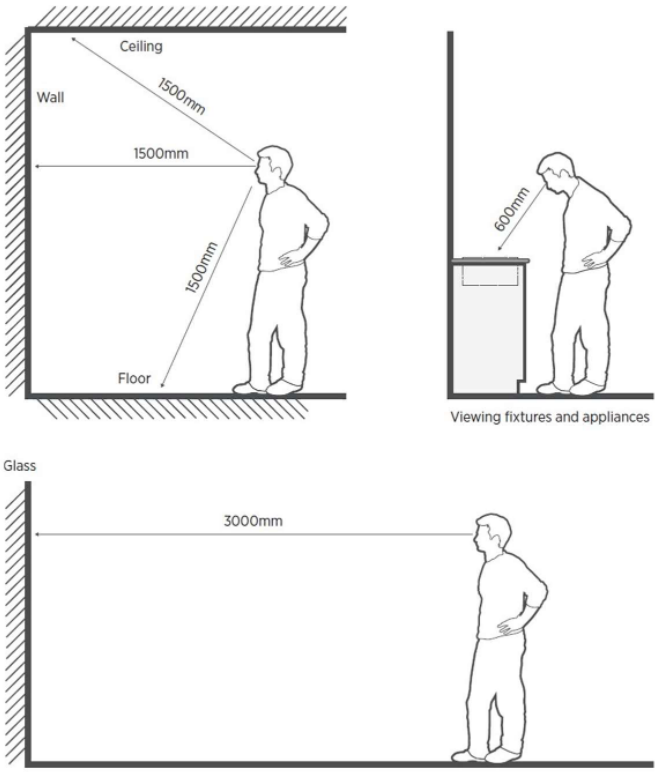
- Defect Liability period - 90 days
- Structural Warranty - 5 years

5. HOW ARE DEFECTS DETERMINED

VIEWING AND INSPECTING DISTANCES

Variations in the surface colour, texture and finish of walls, ceilings, floors and roofs, and variations in glass and similar transparent materials are to be viewed where possible from a normal viewing position. A normal viewing position is looking from a distance of 1.5 m or greater (600 mm for appliances and fixtures) with the surface or material being illuminated by "non-critical light". "Non-critical light" means the light that strikes the surface is diffused and is not glancing or parallel to that surface. Slight variations in the colour and finish of materials do not constitute a defect.

NORMAL VIEWING POSITIONS



6. REPORTING A DEFECT

The hours of operation for the Warranty Team are 8.30am to 5:00pm Monday – Friday. Closed on public holidays and over the Christmas Period.

The dates applicable to your property are noted in Section 1 of this manual.

*****IMPORTANT*****

PLEASE CHECK YOUR NEWLY HANDED OVER PROPERTY FOR DEFECTS AND SEND YOUR LIST AS PER STEPS 1 – 6 BELOW AT THE END OF THE 90 DAY PERIOD.

IF DEFECTS ARE NOTICED AFTER THE INITIAL 90 DAY PERIOD, THEY WILL BE ACTIONED ACCORDINGLY IF THEY ARE DEEMED TO BE A GENUINE WARRANTY DEFECT. THE EXCEPTION TO THIS RULE IS STRUCTURAL MOVEMENT CRACKS WHICH WILL BE INSPECTED AND WHERE APPLICABLE WILL BE ADDRESSED.

1. Complete the defect list on the last page of this document. Please note: Routine inspection/entry reports from Property Managers are not accepted as defect lists.
2. Ensure the lot number, house number and all contact details are provided.
3. Send the defect list as an email attachment to samaintenance@hcorp.com.au. Defect lists must be provided in writing to be actioned and for tracking purposes. Please send photos to support your request as detailed on page 21 "Photo Requirements"
4. The list will be assessed and items deemed to be a genuine warranty issue will be actioned accordingly.
5. The Warranty Team will communicate by email advising you of the progress.
6. A Warranty Team member or the relevant trade will be assigned to carry out the rectification works.

PLEASE NOTE

- It is your responsibility to ensure any defect issues are reported as detailed above within the relevant warranty timeframe. Homecorp are not obliged to action any defect issues raised outside of the warranty period.
- If you are renting then your point of contact is your Property Manager.
- Homecorp will deal directly with Property Managers when access to tenanted properties is required.
- A maximum of three (3) attempts will be made to contact the tenant for access. If we are unable to make contact the job will be put on hold until notice of entry is raised by the Property Manager.
- If following the builder attendance, it is determined that the reported defect occurred as a result of the occupants' actions or inactions then the occupant will be liable for all associated costs.
- Clear, unobstructed access to carry out works must be provided by occupants

between 7:00am to 4:00pm Monday to Friday.

7. REPORTING A URGENT WARRANTY DEFECT

The hours of operation for the Warranty Team are 8.30am to 5:00pm Monday – Friday. Closed on public holidays and over Christmas Period.

IN CASE OF AN EMERGENCY PLEASE CONTACT CONTRACTORS & SUPPLIERS LISTED UNDER SECTION 9 – WARRANTY INFORMATION. ONCE YOU HAVE READ AND UNDERSTOOD THE SECTIONS HEADED "COSTS" AND "WHAT IS CONSIDERED AN EMERGENCY"

Costs

It is important that you follow the instructions listed in Section 8 - "Warranty Information" when reporting urgent warranty related defects. Homecorp are not liable for any costs associated if the correct procedure for reporting urgent defects has not been followed. A written report of works undertaken by the attending builder during the call out is required to be sent to Homecorp at samaintenance@hcorp.com.au once works have been completed. Supporting photos are required with each claim. Please send photos to support your request.

Please Note: If following the builder attendance, it is determined that the reported emergency defect occurred as a result of the occupants' actions or inactions then the occupant will be liable for all associated costs.

GUIDELINES FOR WHAT IS AND ISN'T CONSIDERED AN EMERGENCY

Emergency Water Leak

A leak that will cause major damage to the property if not rectified immediately is an emergency.

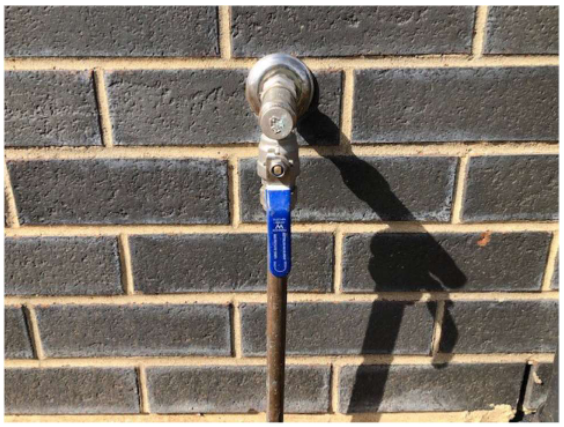
TURN OFF WATER AT THE MAINS IMMEDIATELY.

Non-Emergency Water Leaks:

- A dripping tap or plumbing fitting is not deemed an emergency leak.
- A toilet that continually leaks internally into the bowl is not considered an emergency leak if there is another operational toilet in the property.
- A single blocked toilet is not considered an emergency if there are other operational toilets within the property. If the toilet is blocked as a result of occupant's actions, this is not considered a build defect and is not covered under warranty.
- Air conditioning leaks only occurring while the A/C unit is in use are not considered an emergency leak as the A/C unit can be isolated. Appliance faults are not build defects.

Refer to Section 8 – "Warranty Information" for supplier details in relation to any warranty calls.

Water valve shown below in the ON position



Water valve shown below in the OFF position

Sewerage Leak

Water backing up through multiple drains/ toilets and sewerage system is considered an emergency call out.

Loss of Hot Water

Please refer to the hot water trouble shooting guide provided for your particular hot water unit. If after you have actioned the steps on the troubleshooting guide but are still not receiving hot water please refer to the relevant authority as per Section 8.

Gas Leak

If you detect a leak, turn off all gas appliances and the main gas lever. The gas lever is located at your gas meter.

Contact the relevant authority as per 'Section 8'.

Gas valve shown in the OFF position

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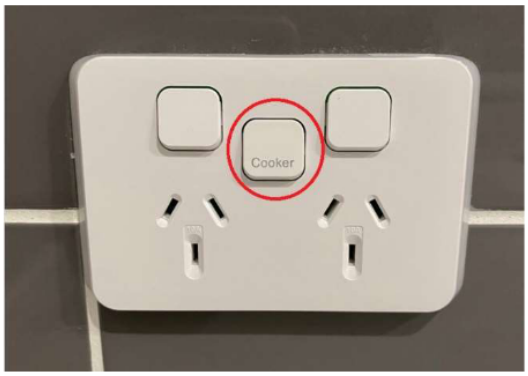
Electrical

- Ensure there isn't a power outage in your area.
  https://www.sapowernetworks.com.au/outages/
- We strongly recommend engaging a qualified electrician to troubleshoot electrical faults. Please refer to "Section 8 – Warranty Information" to contact relevant authority.
- Ensure you do not have a faulty appliance which could be causing the circuit breaker in your main switchboard to trip. A process of elimination may be required to identify the faulty appliance.
- Appliance faults are not considered a build defect and you will need to contact the appliance manufacturer directly for assistance. Please refer to Section 9 – "Warranty Information" for supplier details in relation to any warranty calls.

Main Switch shown in the ON position

Circuit Breakers

If applicable electric cooktop isolation switch located in kitchen



Door Lock Issues (Directly affecting security of property)

Contact a locksmith directly. Homecorp will cover the cost of the attendance and rectification if the issue is deemed to be a genuine build installation defect.

A full technicians report of the Warranty issue attended to is to be supplied with the invoice. Supporting photos will also be requested.

We would recommend the below locksmiths;

Northside Locksmiths	0417 853 733
Lock Around the Clock (Mt Barker)	(08) 8398 5397

PHOTO REQUIREMENTS

It is a requirement that all warranty/service requests are accompanied by supporting photos of any alleged defects, to be submitted for review as detailed below;

- 1st photo is of the location of the item you are submitting for review.
- 2nd photo is a photo of the actual issue and can be closer if applicable.
- Photo is to be of a high quality (high definition will assist for ease of zooming) without blurring.
- Separate photos are required (jpeg or similar) and not embedded in a document (pdf, word or similar format).
- When sending in photos for review, please accompany with a general description of the item you are submitting for review and the location of this item.

8. WARRANTY INFORMATION

Contractors, suppliers and manufacturers as listed in the table overleaf are to be the direct point of contact for Owners/Property Managers reporting an urgent afterhours warranty defect related issue. This will ensure warranties are not voided.

Appliance related defects must be sent to the manufacturer directly.

In the unlikely event that no response has been received utilising the contacts provided, please contact a licensed contractor of your choice directly to attend. A report of works undertaken by the attending licensed contractor is required and is to be sent to samaintenance@hcorp.com.au upon completion. Supporting photos are required with each claim.

PLEASE NOTE

You must make a genuine attempt to contact the contractors/suppliers listed above before utilising an external licensed contractor. A genuine attempt consists of two (2) phone call attempts, and text message or email. We may ask for this proof before agreeing to cover the cost of any invoice received.

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ELECTRICAL CONTRACTORS

Bison Electrical		(08) 8317 4930
Star Electrical		(08) 8266 7703

PLUMBING CONTRACTORS

Classic Plumbing	Damien	0413 074 483
Plumb-Tech Plumbing & Gas		(08) 7230 9191

GAS CONTRACTORS

Southern Gas	Matthew	0413 756 513

APPLIANCE

Technika	customer.support@glendimplex.com.au	1800 444 357
Euro	service@eurostylegroup.com.au	1800 440 335

PANEL LIFT GARAGE DOOR

Dynamic Door Service	service@dynamicds.com.au	1300 645 056

HOT WATER SERVICE

Chromagen	service@chromagen.com.au	1300 367 565

AIR CONDITIONING UNIT

First Choice Airconditioning	(08) 8186 4411

RAIN WATER TANK & PUMP

Amari Tanks	(08) 8281 2555

** Please note chargeable to the Homeowner if not a Warranty Defect*

WARRANTY INFORMATION – APPLIANCES

- All faulty appliance and manufacturer warranty claims following handover of a property are to be addressed directly between the Owners/Property Manager and the manufacturer. The first point of contact for all Owners/Property Managers when reporting an appliance fault will be the manufacturer.

- The documentation required to lodge a manufacturers warranty claim will be provided to the Owner/Property Manager as part of the handover documentation. Should you require any further documentation please contact Homecorp.

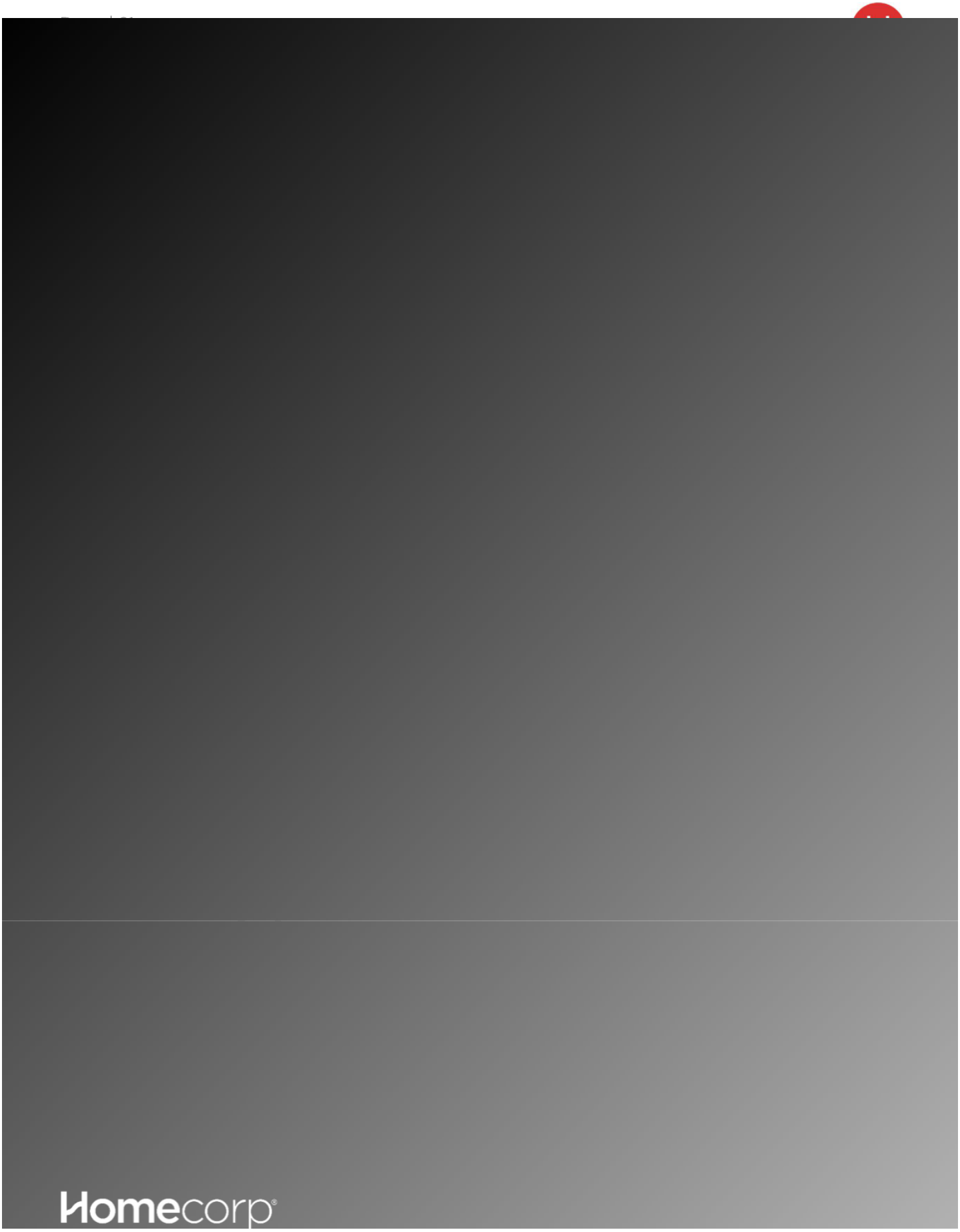
- Homecorp can provide the manufacturer details to the Owner/Property Manager if required. Please contact the Warranty Team on (08) 7094 0150 or by email on samaintenance@hcorp.com.au during our business hours to receive manufacturer details.

- Troubleshooting on some appliance issues may be provided over the phone by the Homecorp Warranty Team in some instances.

- If a manufacturer assigned technician attends and provides a written report stating that the issue being experienced is install related then the builder will take over the repairs from that point by sending a work order to the original installer to return and rectify the issue.

- Please be aware that your install warranty may be voided if you haven't followed manufacturers recommendations in relation to scheduled maintenance requirements.

- Homecorp must be notified in writing as per Section 7 - "Reporting A Warranty Defect"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BUILDING | TECHNOLOGY | RESOURCES

FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE

Understanding and preventing soil-related building movement

This Building Technology Resource is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking.

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the home owner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

SOIL TYPES

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. Table 1 below is a reproduction of Table 2.1 from Australian Standard AS 2870-2011, Residential slabs and footings.

CAUSES OF MOVEMENT

SETTLEMENT DUE TO CONSTRUCTION

There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction but has been known to take many years in exceptional cases.

These problems may be the province of the builder and should be taken into consideration as part of the preparation of the site for construction.

EROSION

All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

SATURATION

This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

SEASONAL SWELLING AND SHRINKAGE OF SOIL

All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below, from AS 2870). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

SHEAR FAILURE

This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.

In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

TREE ROOT GROWTH

Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.

TABLE 1. GENERAL DEFINITIONS OF SITE CLASSES.

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites, which may experience only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which may experience moderate ground movement from moisture changes
H1	Highly reactive clay sites, which may experience high ground movement from moisture changes
H2	Highly reactive clay sites, which may experience very high ground movement from moisture changes
E	Extremely reactive sites, which may experience extreme ground movement from moisture changes

bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume,

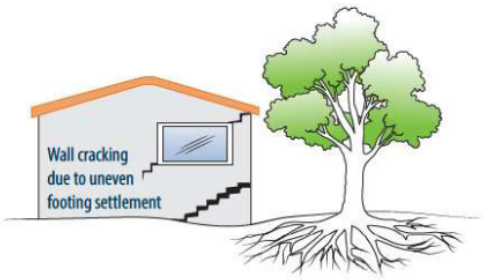

FIGURE 1 Trees can cause shrinkage and damage.

- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

UNEVENNESS OF MOVEMENT

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior through absorption. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Shrinkage usually begins on the side of the building where the sun's heat is greatest.

EFFECTS OF UNEVEN SOIL MOVEMENT ON STRUCTURES

EROSION AND SATURATION

Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpends).

Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

SEASONAL SWELLING/SHRINKAGE IN CLAY

Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.

As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated, and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry, and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

MOVEMENT CAUSED BY TREE ROOTS

In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

COMPLICATIONS CAUSED BY THE STRUCTURE ITSELF

Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

EFFECTS ON FULL MASONRY STRUCTURES

Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also

exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

EFFECTS ON FRAMED STRUCTURES

Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation causes a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

EFFECTS ON BRICK VENEER STRUCTURES

Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

WATER SERVICE AND DRAINAGE

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem. Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.
- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

SERIOUSNESS OF CRACKING

In general, most cracking found in masonry walls is a cosmetic

AS 2870-2011 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

PREVENTION AND CURE

PLUMBING

Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

GROUND DRAINAGE

In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject may be regarded as an area for an expert consultant.

PROTECTION OF THE BUILDING PERIMETER

It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill.

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

CONDENSATION

In buildings with a subfloor void, such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. Table 2 below is a reproduction of Table C1 of AS 2870-2011.

moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

TABLE 2. CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS.

Description of typical damage and required repair	Approximate crack width limit	Damage category
Hairline cracks	<0.1 mm	0 – Negligible
Fine cracks which do not need repair	<1 mm	1 – Very Slight
Cracks noticeable but easily filled. Doors and windows stick slightly.	<5 mm	2 – Slight
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired.	5–15 mm (or a number of cracks 3 mm or more in one group)	3 – Moderate
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted.	15–25 mm but also depends on number of cracks	4 – Severe

Warning: Although this Building Technology Resource deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders, and mould.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

THE GARDEN

The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

EXISTING TREES

Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

INFORMATION ON TREES, PLANTS AND SHRUBS

State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information.

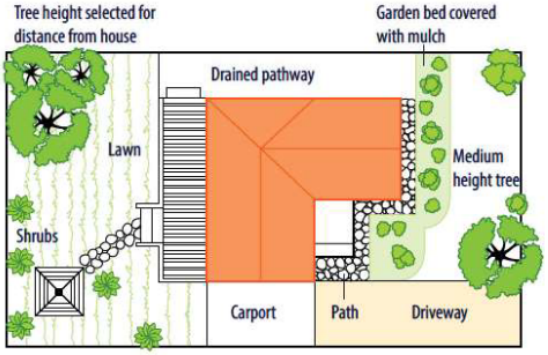

FIGURE 2 Gardens for a reactive site.

EXCAVATION

Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

REMEDIATION

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the home owner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

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For information about CSIRO testing services visit www.csiro.au/en/work-with-us/services
ISBN 9781486312962 (print)/9781486312979 (digital) © CSIRO 2021
(replaces Building Technology File 18, 18-2011 and Information Sheet 10/91)