Protection Work

Building work can sometimes affect adjoining or neighboring properties. Owners wanting to do building work have obligations under the Building Act 2016 (‘the Act’) to protect adjoining property from potential damage.

If building work is close to, or adjacent to, the property boundary, protection work may be required to ensure that the adjoining property is not damaged by that building work.

The requirements relating to protection of adjoining property are contained in Part 6 of the Act and Regulation 16 of the Building Regulations 2016 (the Regulations).

Protection work should not be confused with building work and is different in its nature, even though protection work may be part of the building work.

Background

If proposed building work is close to an adjoining property, an owner may be required to carry out protection works to ensure that the neighboring property is not damaged by the work. Protection works should extend to preventing personal injury to users of adjoining land, road or footpaths, workers where the building is being built.

Protection work is work that involves taking measures to protect any adjoining property from damage due to the performance of building work, demolition work or some types of plumbing work, including:

- Constructing retaining walls where site cuts and excavations have occurred;
- Barriers to prevent material from falling on the roof or other part of an adjoining property.
- Underpinning, including vertical support, lateral support, protection against variation in earth pressures, ground anchors and other means of support for the adjoining property. This can include bored piers and piles etcetera.
- Shoring up of the adjoining property.
- Propping up of shared party walls or common walls and props going through, under or over walls.
- Overhead protection for adjoining property.
- Other work designed to maintain the stability of adjoining property or to protect it from damage from building work. Sometimes the protection work forms part of the building work (retaining walls supporting the adjoining premises).
- Drainage and plumbing work.
• Any work or use of equipment necessary for the provision, maintenance and removal of work referred to above, whether or not the work or equipment is carried out or used on, over, under, or in the air space above the land on which the building work is or is to be carried out or the adjoining property.

Scope of Protection Work

Part 6 of the Act requires a combination of these actions during the carrying out of construction work (building, demolition or plumbing work):

1. Protecting people (users of other land) while construction work takes place; and
2. Protecting existing built structures adjoining the applicant’s land before any construction work takes place (and while that work continues until completion).

Sometimes the required protection work itself, such as erection of temporary barriers on the adjoining property, may have a temporary impact on adjoining owners during the construction work.

Who is an adjoining owner?

1. The owner of any adjoining premises; or
2. The agency responsible for management of the adjoining premises.

If there is a change of ownership of an adjoining premises after the previous owner had agreed to protection work, then there is no requirement that the consent of the new owner be obtained.

Application to premises

See definitions in sections 4 and 75 of the Building Act 2016

“Premises” means

a) Land or part of land
b) A building
c) Any other thing that is prescribed (currently, there are no other types of prescribed premises).

The Building Act 2016 definitions of adjoining premises and relevant premises would include land such as a street, highway, lane, footway, square, alley and right of way. That means that works along a street frontage are included. The owner will have to show how the public are to be protected, and for work along a boundary, the type and nature of protection works that will be carried out.

How do you know if protection work is required?

The Director’s Determination Protection Work details the circumstances or types of construction work activities where protection work will be required. Examples include constructing or repairing party walls and party fences, boundary retaining walls or excavations below the adjoining owner’s footings. It also includes trenching through or building over another person’s property.

However, as no two developments or allotments are the same, the Determination also provides that the building surveyor may also require the need for performance of protection works for a specific project, based on a holistic
assessment of the project, taking into account, but not limited to, site conditions, property information and engineering and architectural design.

**Application to Risk Categories of Work**

Building Act divides work into three Risk Work categories that have different approval requirements (Low Risk, Notifiable and Permit work)

Protection work may be applicable to any of these work categories if the circumstances in the Director’s Protection Work Determination are present.

**Low Risk Building or Demolition Work**

Consistent with a risk-based approach, the category of Low Risk Work excludes any deep trenches, cutting or filling by an owner. Therefore, it would be unlikely that protection work would be required.

It is still necessary to consider if protection work is required and if there is any doubt then the person undertaking the low risk work should seek advice from a building surveyor before commencing work, as the work is likely to be notifiable work instead of low risk work and the building surveyor can make that assessment.

The maximum cut and fill limits allowed within the scope of Low Risk work are 500mm if that is within 1.5m of an allotment boundary or if greater than 1.5m from an allotment boundary, a cut or fill of 1200mm is permitted.

**Summary of Act’s Protection Work Provisions and Processes (refer to Appendix 1 - Protection Work Flow Chart)**

**Notice of intent to perform work and proposed Protection Work**

Reference: s.77 of the Act.

The owner must provide the Notice for Proposed Protection Work (Approved Form No. 6) to all adjoining owners who may be affected by the work.

A copy must also be provided to the building surveyor engaged for that work.

For Plumbing work that may require protection work to be performed, a copy of the Notice must be sent to the Permit Authority – Plumbing.

Building work cannot be started until:

a) the building surveyor has determined that the proposed protection work is appropriate; and

b) the adjoining owner(s) agrees to the proposed protection work, or where the owner does not agree, the Building Surveyor has determined that the work should go ahead.

**Notice for Proposed Protection Work (Approved Form No. 6)**

This form is be used by the owner or their agent (that could include their designer or builder, but it should not be prepared by the building surveyor engaged by the owner).
The owner or their agent should provide sufficient details on that Form (with any necessary attachments) of matters, such as:

1. site fencing, barriers, screens for protection of persons (the public/neighbours) using adjoining properties; and
2. provide details of works for protection of any adjoining properties, including:
   - Nature of the building, demolition or plumbing work proposed to be performed
   - Details of the proposed protection work including the nature, location, time and duration; and
   - Any other information relevant to the work
   - Any reports on the existing condition of an adjoining property
   - Insurance cover required
   - Name of the building surveyor (for building or demolition work)
   - Name of the Permit Authority (only for plumbing work alone that could cause damage).

Absent owner or owners incapable of responding to the Notice

Reference s.78 of the Act.

Where the adjoining owner is absent or incapable of acting, the Director of Building Control may appoint an agent on their behalf to manage this requirement. The Director will require proof that the owner has made reasonable efforts to contact or deal with the adjoining owner.

Where this becomes necessary, the owner should contact Consumer Building and Occupational Services.

Response to Notice

Reference s.79 of the Act.

The adjoining owner must respond to the notice no later than 21 days after the Notice has been provided. They can either:

- request further information about the proposed protection work;
- disagree; or
- disagree and propose changes.

An adjoining owner who fails to respond to the notice within 21 days is taken as having agreed to the proposed protection work.

If the adjoining owner agrees (or taken as having agreed) to the proposed protection work, the owner may proceed to carry out that work after obtaining all other required permits or approvals.

A response is to be in writing, signed and dated by the adjoining owner. It may be made either by signing the section at the bottom of the Notice, or by providing separate documentation (letter or email) addressed to the owner.

Requests for more information
Reference s.79 of the Act.

The adjoining owner served with the Notice may request more information. The building surveyor will have to decide whether that request is reasonable. If appropriate, they may ask the owner to provide more information. It is in the owner’s interest to reply promptly to the building surveyor, to provide that additional information, so that the owner can receive any comments on that additional information.

If the building surveyor refuses the request for more information, the owner is to notify the adjoining owner of that decision.

If the work is plumbing work alone, the owner and Plumbing Permit Authority should follow a similar process of responding to the request for further information.

Disagreement between parties

Reference s.81 of the Act.

In the event that the adjoining owner disagrees with the proposed protection work:

- The owner must refer that matter to the building surveyor within 5 days, who must then examine the proposal for protection work. They must determine whether the proposed protection work is appropriate in relation to the building work, and notify the owner and adjoining owner in writing of this decision.

- If the protection work relates to plumbing work, the permit authority must make a decision as to its adequacy and notify the owner and adjoining owner in writing of this decision.

- The building surveyor or permit authority making the decision may seek more information from the owner or adjoining owner. If requested, that information must be provided within 5 days.

- The building surveyor or permit authority has 14 days from receiving a referral to determine the appropriateness of the proposed protection work.

Specified times for actions and specified documents

The table in Schedule 1, from the Determination called the Director’s Specified List gives minimum mandatory periods or specified documents required to comply with the Act.

Appeals

Reference s.279; s.285 of the Act.

- An adjoining owner may appeal against the adequacy of proposed protection work as specified in the Notice;

- An adjoining owner may appeal against a determination of the building surveyor or permit authority to refuse a request for more information;

- either party may appeal against a failure by the building surveyor or permit authority to make a decision within a reasonable time
- A person has 28 days to lodge an appeal against a decision that was made. Appeals are heard by the [Resource Management and Planning Appeal Tribunal](#).

**Inspection of the adjoining premises before work commences**
Reference s.84 of the Act.

- The owner, with each adjoining owner, must prepare a full and adequate assessment of the adjoining premises.

- The survey or detailed inspection must be a record of all existing issues such as cracks or defects. This record can include photographs, diagrams and written reports (a checklist of the type of issues to be considered is included in Schedule 2). This record must be signed or acknowledged as an agreed record of the condition of the adjoining property before the start of any protection work.

- Parties have 14 days to agree and sign an agreement on the condition of the premises. If the adjoining owner fails to sign the record and return it within that period then it is taken to have been agreed and signed.

**Insurance cover of adjoining premises**
Reference s.83 of the Act.

- The owner of the property where the building work is to be carried out must ensure that a contract of insurance is in force against potential damage caused by the proposed protection work to the adjoining property. This is required before protection work begins and should insure against damage by the proposed protection work to the adjoining property, and any liabilities likely to be caused to adjoining owners, occupiers or members of the public during the carrying out of the work.

- It can be difficult for an owner or owner builder to get this type of cover, but this not a reason to continue without insurance. This insurance can often be obtained as an extension of the builder’s liability insurance, however it must meet the requirements of the Building Act for protection work. It is not good enough to just provide a copy of the builder’s construction insurance.

- Parties have 14 days to agree on the amount of the insurance and to enter an agreement for insurance cover.

- If the adjoining owner fails to respond to the notification from the owner, they are taken to have agreed to the amount of insurance.

**Coverage of policy**

- The insurance policy must protect the adjoining property, occupiers and the general public during the works and for a period of 12 months following completion of the work. A standard construction and public liability policy may not provide the minimum cover required. Parties should check with their insurer whether the policy is suitable.

**Amount of policy**
• The contract for insurance must be for an adequate amount agreed between the owner and adjoining owner. Proof of the insurance policy must be provided to the adjoining owner(s) before building work begins.

Entry to adjoining premises to perform work
Reference: s.85 of the Act.
• To carry out any necessary protection work, an owner may enter the adjoining property or the airspace above it between 8.00 am and 6.00 pm or at other agreed times. The owner must give at least 72 hours’ notice (or any other agreed notice) of the intention to enter the adjoining premises.
• A person may remove any furniture or fittings or do any other thing necessary to carry out the protection work, as long as they do not cause any unnecessary damage.

Offence to prevent protection work
Reference: s.86 of the Act.
It is an offence to prevent any agreed protection or survey work.

Failure to perform protection work
Reference: s.90 of the Act.
It is an offence not to perform the protection work that was agreed or as determined as being required.

Compensation
Reference: s.89 of the Act.
Compensation is payable for a loss, damage or the inconvenience incurred by an adjoining owner, which is why the insurance policy is necessary.

Plans of the completed protection work
Reference: s.87 of the Act.
A complete set of plans is must be provided to each adjoining owner and copy provided to the permit authority within 14 days of the completion of the protection work.

Expenses of Adjoining Owner
Reference: s.88 of the Act.
A property owner must pay any reasonable expenses the adjoining owner necessarily incurred to protect their interests. These costs could include specialists’ fees to check protection work documentation.

Protection Work performed as Emergency Work
Reference: s. 214 of the Act.
Here the protection work performed does not follow usual processes outlined above of notification and agreement as there is an emergency requiring that work to be done immediately and that action is justified because of:

1. a threat to public health or safety; or
2. necessity to prevent significant damage to property

Examples:
- heavy rain causes retaining wall to partially collapse and works required to give support;
- street frontage of a building has to be propped due to an imminent structural failure.

The responsible person is required to report the performance of that work to the Permit Authority, within 2 business days after work was started.

It is an offence to perform any “emergency work” when there was no actual emergency (see the Building Regulations, regulation 79).

These provisions of the Act are not an easy alternative to following the usual processes outlined above in relation to a program of work planned by the owner:

- emergency work is not applicable to circumstance where the owner or their builder simply wishes to avoid serving a protection work notice or about a failure to consider the possible effects their work may have on other owners.
- This provision is not designed to allow a builder to commence work, cause an emergency and then have to perform remedial protection work to fix the problems they created.

General obligations

Obligations of the Owner

Protection work can be difficult and complex. As the builder and any engineers involved in the process will have input into this process, the owner may consider appointing a suitably qualified person to provide specialist advice on the protection work required for their site.

It is the owner’s responsibility to prepare and serve the Notice for Proposed Protection Work (Form 6) together with supporting documentation on each adjoining owner and the building surveyor (and the Permit Authority if plumbing work alone will require protection work).

An owner needs to ensure that the notice has been served correctly, in order to verify the 21-day response period. Ideally the owner should receive evidence of service of the Notice on the adjoining owner, such as registered mail receipts.

Adequate information needs to be exchanged. It is not sufficient to just state: “to build wall on the boundary”. It is generally difficult to construct a wall on the property boundary without requiring access to the adjoining property for scaffolding, brickwork joint raking, or construction joint caulking or the like. Therefore, in cases of this nature, the details should include location of the scaffolding, how it is to erected, the length of time it is to be in place and what measures are in place to ensure no damage will occur to the adjoining property.

The owner also has obligations to provide to the adjoining owner, prior to commencement of the protection work:
• a copy of the insurance cover
• a copy of the survey report of the adjoining property.

A key obligation is that agreed protection work must be performed prior to any other proposed construction work commencing.

The owner must also provide copies of all documents to their building surveyor that are relevant to the work or the protection work. On completion, provide plans of the protection work to the permit authority.

**Obligations of an Adjoining Owner**

Ignoring notices or purposely not agreeing simply to create delays to the owner’s work is an abuse of that owner’s rights under the Act.

An adjoining owner is required to respond in writing in accordance with Notice (Form 6) to both the owner and the building surveyor. They have 21 days to consider the Notice and attached documents and if necessary obtain expert advice about the proposal.

As the parties are required to agree on the condition of the premises and adequacy of insurance, the adjoining owner should allow reasonable access to survey the building’s condition as it is in their interest to establish its condition before any work commences.

**Obligations of the licensed building surveyor**

Licensed building surveyors should be able to give general advice to owners on the correct processes to follow for performance of protection work.

It is advisable for the Building Surveyor to be provided with a copy of the proposed forms prior to sending them to the adjoining owner. This provides the Building Surveyor with an opportunity to notify the owner of anything wrong in the proposed forms or additional information that should accompany the forms.

Failure to notify owners is a matter to take into account before issuing any certification or approval to commence work.

**Determinations made by a building surveyor**

The *Occupational Licensing Act 2005* requires that building surveyors are to exercise skill and professional judgement for their functions, including the requirements for protection work.

As a professional, the building surveyor is an independent decision maker, as disagreements between owners over protection work are required to be ruled on by the building surveyor. They are not a consultant of the owner or the contracted builder and not working for their commercial interests.

They may be required to use their compliance powers (Inspection Directions, Notice or Orders) against the owner or builder where they have breached the Act.

**Level of inspection of site conditions**

A careful assessment of soil reports will give an indication of local soil conditions for site cuts and appropriate battering of cuts. Investigation should also be undertaken to locate existing sewer and stormwater drainage systems.
During the assessment of designs in preparation of the certificate of likely compliance, the building surveyor should assess the site to determine whether protection work is likely to be required and take action early on to ensure that the protection work is adequately designed, appropriate for the site conditions and has been performed before building work commences.

**Assessing adequacy of proposed protection work**

The owner may require information from a number of specialists including the builder and engineers involved in the design of the building work.

Even if the owner and adjoining owner have agreed to the protection work, the building surveyor should ensure that the design of the protection work and the appropriateness of the protection work provide the level of protection and safety required by the Act.

The building surveyor should consider the information and refuse to issue a certificate of likely compliance if he or she disagrees with the design of proposed protection work.

**Monitoring protection works**

Building surveyor also has a responsibility to ensure there is checking, assessing and inspection of works during construction phase, this is particularly important during protection work as this work is undertaken due to particular vulnerabilities on the site.

This may include inspection of the site prior to issuing the certificate of likely compliance, inspection of the protection work during construction, issuing of an Inspection Direction, Building Notice or Building Order as required under the Act, for any non-compliances or changes in circumstances.

**Standard of protection work performed or installed**

Installed protection work must be able to withstand loads and perform in a manner whereby risks to buildings, their inhabitants and passers-by are minimised. A failure by the owner or builder to install protection work as agreed is a breach of the Act and should be rectified before construction work commences.

**Obligations of licensed designers**

Reference: s.43 of the Act.

The plans submitted to the building surveyor for their assessment (for the granting of a certificate of likely compliance) should include the details of the required protection work program of works that the appointed builder is to follow. Therefore, it is a duty of the licensed designer engaged by the owner to produce design documentation that:

- includes sufficient information for the assessment of the work in accordance with this Act; and
- is sufficiently detailed for a licensed builder or a licensed plumber to perform the work in accordance with the documents and this Act.

**Level of detail of protection work plans**
Any design documentation prepared by a licensed designer (including engineers) must be of a standard that allows the building surveyor to make a judgement whether the proposed work is likely to comply with the Act. Inadequate details or documentation may be rejected and required to be amended to a satisfactory standard.

**Review of site conditions**

As usually they are the first building practitioner engaged by the owner, the building designer is in position to make some preliminary decisions about the site such as:

- Soil characteristics
- Practicality of construction methods for the site conditions
- Method of construction
- Depth of likely excavations, and whether they can be worked on safely
- Special materials that may be used
- Whether work will be performed along boundaries
- Availability of special equipment or trades with special knowledge for the work proposed.

Therefore, the designer can consider these matters and provide advice to owner and their contractors whether the proposed program of works is likely to trigger further investigations of site conditions (soil characteristics and water table) and flag the likelihood of invoking the protection work provisions of the Act.

**Obligations of the licensed builder installing the protection work**

The builder should ensure that the owner and adjoining owner have complied with the protection work process. That includes ensuring that protection work notices have been served on adjoin owners and the building surveyor has determined the appropriateness of any proposed, or already installed, protection work.

The builder should be involved in the project as early as possible, to ensure that the design of the protection work is appropriate, to limit the potential for problems further down the track when construction begins.

The protection work process may place specific requirements on the builder regarding how the building and protection work is carried out. The builder is in a position to ensure they are able to carry out protection work required or inform others of their proposed method of construction to protect the adjoining property.

The builder must construct the building work and protection works in accordance with the approved design and building permit documents. Any changes to the design must be documented and submitted to the building surveyor, for assessment and approved before the work is undertaken.

Where building work is likely to affect users of roads or footpaths, the builder needs to liaise with the council or the Department of State Growth regarding access and providing barriers, hoardings etc. to protect the public.

Owner builders performing work have the same responsibilities and obligations regarding protection work as a licensed builder.

**Obligations of the licensed Permit Authority**
**Plumbing work requiring protection work**
As the Permit Authority – Plumbing is the technical regulator of plumbing work, the Act requires that any plumbing work that may result in protection work having to be performed, should be assessed as adequate. That could include deep trenching, cuts along boundaries to lay pipes, deep or large excavations to install septic tanks or underground rainwater tanks.

**Building work requiring protection work**
It is the obligation of the owner requiring any new building work to ensure that applications for approval are in accordance with the Act. The Permit Authority – Building is only to ensure that for any application received, the owner has at least considered and addressed the issue of protection work. For example, that the information including a copy of the Notice (Form 6) is served and consented to prior to the application for a building permit.

**Other requirements of the Act, relevant to performing Protection Work**

**Protection of easements, pipes and infrastructure**
Reference: sections 73 and 74 of the Act
A person must not perform any building work

- over an existing drain or within one metre from the edge of an existing drain measured horizontally, unless the owner of the building obtains written consent from the general manager of the council for the municipal area where the work is performed.
- within a service easement unless the person obtains written consent to do so from the person on whose behalf the service easement was created.
- over an on-site wastewater management systems or its land application area
- within 1m of gas infrastructure
- within a strategic gas pipeline easement of TasGas Pty Ltd

Works, including installation of services (other than those crossing perpendicular +/- 15 degrees to TasWater infrastructure), must also be outside of TasWater easements as shown on title documents and not within 2m of TasWater infrastructure.

- The need to understand the proximity of protective works to easements, pipes and infrastructure will require that documentation be provided to the designer and building surveyor to identify the presence and particulars of these features. The extent of excavation that may be needed for service trenches may also mean that plans will need to show where these are to occur. For many projects, multiple plans may be required showing different stages of excavation work for multiple services.

**Resources:**
- [Dial before You Dig](#) to locate services.
- To access TasWater’s serviced land and infrastructure maps go to [www.maps.thelist.tas.gov.au](http://www.maps.thelist.tas.gov.au)
- TasWater contact details:
Work on Party Walls, Party Structures etc.

Reference: Part 5 Division 2 of the Act (sections 4 and 56 – 65).

This refers to work on the boundary of premises where both adjacent owners have a shared ownership of a structure. The Act has specific provisions for giving of notifications, assessments of work and the performance of the required work on these party structures.

Where the proposed building work involves changes to the structural stability, fire rating, or weatherproofing of the wall, protection work would typically be required. Where work is only painting or rendering, protection work is unlikely to be needed.

Protection Work requirements during demolition work

Work Health and Safety requirements

Requirements for a safe workplace apply to any person in control of a business or undertaking. That includes persons engaged on work on a construction site or performing protection work.

Certain demolition work is notifiable to WorkSafe Tasmania, including demolition work that affects the load bearing integrity of structures over 6m high. See the information available from Worksafe Tasmania

Demolition Code of Practice

A Safe Work Australia publication “Demolition Work Code of Practice” (February 2016) applies as a legal requirement in Tasmania.

This model Code of Practice has been developed to provide practical guidance for persons conducting a business or undertaking on how to manage the health and safety risks associated with demolition work. It applies to all types of demolition work and is relevant to demolition contractors as well as persons conducting a business or undertaking who have management or control of workplaces where demolition work is carried out, such as principal contractors.

See the Safe Work website for more details

Further information about building legislation

Contact Consumer, Building and Occupational Services helpline: 1300 65 44 99.

Appendix 1 - Adjoining Premises Checklist

This checklist is a useful tool to help to prepare a report on the site conditions on adjoining premises that exist prior to commencing of any construction or associated protection work.

Where a more detailed dilapidation survey is required, reference should be made to AS 4349.0 - 2007 Inspection of buildings.

Why prepare a report?
A report requires the investigation of the site, the structures on it and improvements such as driveways and paths or, landscaping features.

It allows the inspector and the adjoining owner becomes aware of any potential difficulties that may arise such as:

- existing condition or dilapidation of the buildings and structures on the site
- any features of neighbouring properties that will require attention and/or protection from future damage claims, e.g. a pool close to the boundary may require protection if excavation is to take place.
- General features of the site such as slope, roots of large trees, vegetation along the boundary, that may impact on planned protection work
- any existing services that require removal
- Council infrastructure including kerbs and crossovers that could be affected
- potential legal problems arising from boundaries, e.g. there may be an existing dispute over the location of the boundary

Existence of a carefully prepare report will prevent spurious claims of damage caused during construction. The following is not a comprehensive list of potential issues, as each premises will require a specific report on any existing conditions that could be affected by proposed work.

**Sample Checklist**

- Name of inspector
- Name of adjoining owner
- Address and the areas inspected
- Any areas not inspected or are inaccessible
- Time and date of report
- Accompanying photos or other documentation are listed

**External areas**

- Kerbs, paths, and roads and driveways gutter crossings (cracks, holes, previously patched)
- Subsidence of paths or changes to levels
- Fencing (loose palings, rotted posts)
- Vegetation along the boundary
- Tiles on paved areas (drummy, cracked, broken or missing)

**Non-habitable structures**

- Retaining walls (leaning, subsidence or structural failure)
- Fence walls (cracking of brickwork)
- Carports or garages (subsidence or movement of slabs, cracking)
• Decks (deterioration of wooden support posts)

**Habitable Buildings**

• Approximate age (estimate)
• Number of levels or storeys
• Occupied or not
• Type of construction (e.g. brick veneer on slab, pitched roof, colourbond sheeting)
• External walls
  o Cracking of brickwork or mortar joints
  o Structural cracking or subsidence of brick walls
  o Delamination or rusting if steel reinforcing of concrete steps, landings
• Brick sills (cracked mortar, mortar lifting)
• Internal walls
  o Cracking to plaster work (location size of cracks and extent) significance of the cracking (assessed a minor/ major)
• Subsidence to brick piers
• Balcony – evidence of decay of attachment points (rusting or cracking at joints)
• Moisture damage to wooden members
• Internal doors not operating due to subsidence/movement/ settlement