

Windows and Doors

What Can Go Wrong?

Windows and doors can have serious draught problems if they are not properly maintained. Draughts lead to heat loss which reduces the energy efficiency of your church, and will not allow your church to reach net zero carbon. Knowing what can go wrong with windows and doors means that you know what warning signs to look out for when maintaining your church.

Windows are a particularly fragile component of your church; the majority of churches contain stained glass which is a very fragile material. A number of problems can arise with glass and windows, algae and mould can grow on the glass and joints around the window. Damp in the church can be evident on the glass with water droplets and can be evident in the stone window frames. Stonework tracery of the windows and the frames can also erode. Glass can become loose, start to bulge or even crack from weather and vandalism. Rust can develop on iron fittings and white powder or cracks can develop on lead fittings. More specifically for stained glass, the paint can begin to chip away, especially if the church is damp. Discolouration can also happen.

Doors are also susceptible to deterioration if not properly maintained. The vast majority of doors in churches are constructed from wood, which can host a variety of problems especially in a damp church. Wet and dry rot can happen in wooden doors that can hurt the structural integrity of a door, they are also prone to infestation from insects such as mites and wood beetles. Rot and infestation can lead to cracks and warping of the wood which will create gaps in the doors leading to draught and heat loss problems.

It is important you maintain your windows and doors to stop problems such as heat loss arising in your church. If they become too damaged, expensive and intrusive repair will be required to return your church to an acceptable standard.

How Should They Be Maintained?

With proper maintenance, windows and doors can last longer and help retain heat more effectively. There are a number of things you can do to help adequately maintain your windows and doors. Firstly we will name a few things you can do to help maintain your windows.

Look out for signs of damp in your church, damp conditions can be detrimental to the health of your glass, this maintenance goes hand in hand with maintenance of walls and floors, so as you are inspecting your churches walls, think about how their status could be affecting your windows as well.

Maintain a photographic record of all your windows, in the case of breakage, we will then have an accurate account of how it exactly looked pre-breakage.

When monitoring windows look out for a harmful environment for your windows, this could be algae or other vegetation growing on or around the windows. Or damp in the stone frames or tracery. If you are aware of a problem you can protect against it, the longer a problem is left unchecked, the harder it will be to fix.

When cleaning windows on the inside, only use a very soft and dry bristle brush. Do not wet clean as this can cause more harm than good.

If you have a stained-glass window, you will need to regularly inspect it for any signs of paint loss. If you notice paint loss, do not dust or clean the window.

If you notice any sign of damage, consult with your architect and an accredited stained-glass conservator for the next steps.

If you see any breakage, collect and save every piece of broken glass and lead both inside and outside. Please then consult your architect and an accredited stained-glass conservator for the next steps.

When it comes to doors, monitoring is also a vital part of the process. Inspect them for timber rot or insect infestation, or damp in the door frame. Make sure the hinges and fittings are working properly by opening and closing the door, locking and unlocking if it has a lock. When using the door, check if it is dragging against the floor. Check for draughts coming through the door or for any holes and cracks in the timber.

If you notice any fixtures or fittings on your door are a bit stiff, lubricate them as required. If they are faulty this is a safety concern, so hire an appropriate contractor and organise for them to be fixed.

If you notice that the timbers in your door are rotting, this will be a sign that your church is damp. Check the rest of your church for damp, talk to

your architect and hire an appropriate contractor to treat or replace the timber that is effected.

Minor repair work concerning glass that is not stained glass or of historical value will be a **List B** item.

Major repair work to glass or any work concerning stained glass or glass of historic interest will require a **full faculty application** and consultation with the **DAC**.

Most maintenance work on a door will be a **List A item**, however if timbers or fittings need replacing this will be a **List B item** and will require consultation with the **DAC secretary**.

Window Harm Prevention: What Can You Do?

As much as you can maintain and monitor your windows, there is still a risk that something may happen to them. Vandalism and bad weather can result in window damage just as much as damp. So what can you do to prevent harm to your windows?

Trees can present an acute risk to windows, if they have grown close to the window they may harm the window in bad weather. Make sure there are no branches near windows that could cause damage, cut the trees back and maintain and monitor them.

Environmental Protective Glazing (EPG) is best used only for windows of high heritage significance. The glazing is design to protect windows from weather that could harm it, by sitting in front of the window. This is not the same sort of glazing as secondary heat glazing which is attached to the window, this is not an acceptable modification to church windows. Take in mind that EPGs are an expensive procedure and should only be considered when a high significance window is at risk of weather damage.

Wire guards offer protection from vandalism but do keep in mind that it will not protect against small projectiles such as BB pellets. Another point to consider with metal wire guards is the metal used. Iron and copper will rust and stain the stonework orange and green respectively. Stainless steel won't stain but manufacturers can produce a faulty wire guards that lacks rigidity, it will also be a colour that may not blend in with the church's historic character. Powder coating can offer protection for both the metal and the building's character. The recommended wire guard to use is a stainless steel guard with black powder coating.

Trimming or cutting back trees is generally a **List A item**, however if you are in a **conservation area**, it will be a **List B item** and will require consultation with the **DAC**. If you are cutting down a tree entirely this will require a **full faculty application**.

The addition of EPG or wire guards will require a **full faculty application**. Consult with the DAC about other steps that can be taken before installing them.