



ARCHDIOCESE
of CARDIFF
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Fire Marshal Training

Presented by SafetyToolbox

Agenda

- Understanding why fire marshals are important
- How fire starts and spreads
- Common fire hazards
- Procedures in the event of fire
- Fire extinguishers

Fire Regulations



Regulatory Reform (Fire Safety) Order –
otherwise known as the (FSO)

Churches & Church Halls are covered by FSO



Parish Priests are typically the Responsible Person

The Responsible Person has a legal obligation to:

- Manage fire safety
- Maintain fire safety systems and equipment
- Ensure emergency procedures in place
- **Appoint & train Fire Marshals to implement procedures in case of fire**

What do fire marshals do?

The duties of a fire marshal can be summarised as:



Implementing the emergency fire evacuation plan

At a service, event or fire drill:

Know what your role involves

Clothing and equipment
(e.g., hi viz jacket, handheld torch,
mobile phone, two way radio).



Hazard spotting

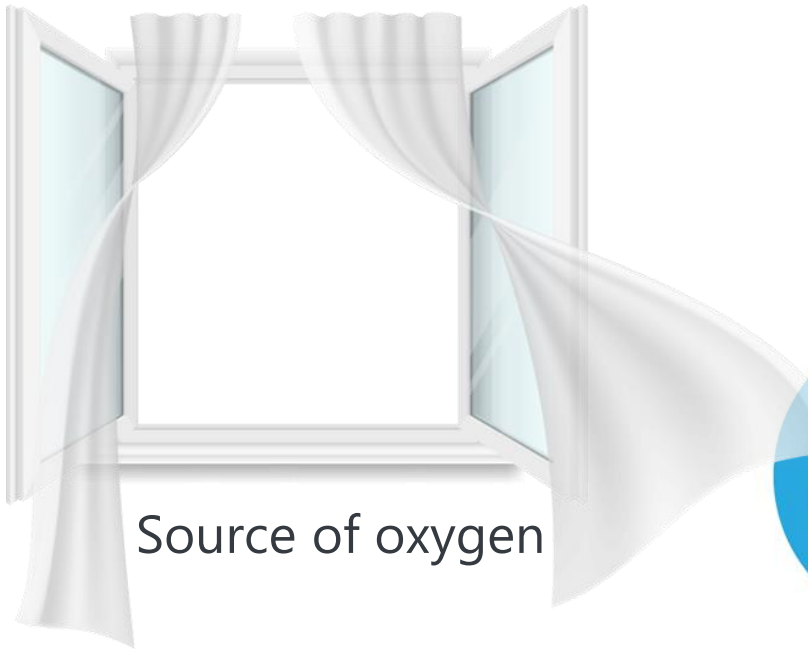
Being vigilant to fire safety dangers.

Don't ignore it –
See it, Sort It or Report it!



Support in-house testing and inspection

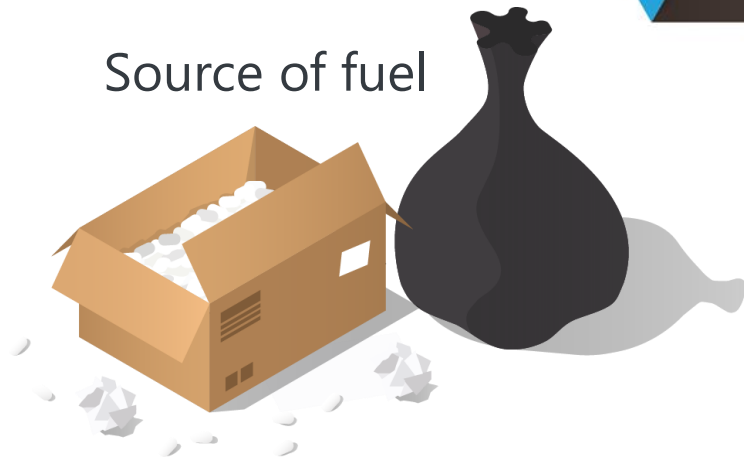
In-house testing and inspection
such as fire alarms, emergency
lighting etc.



Source of oxygen



Source of heat



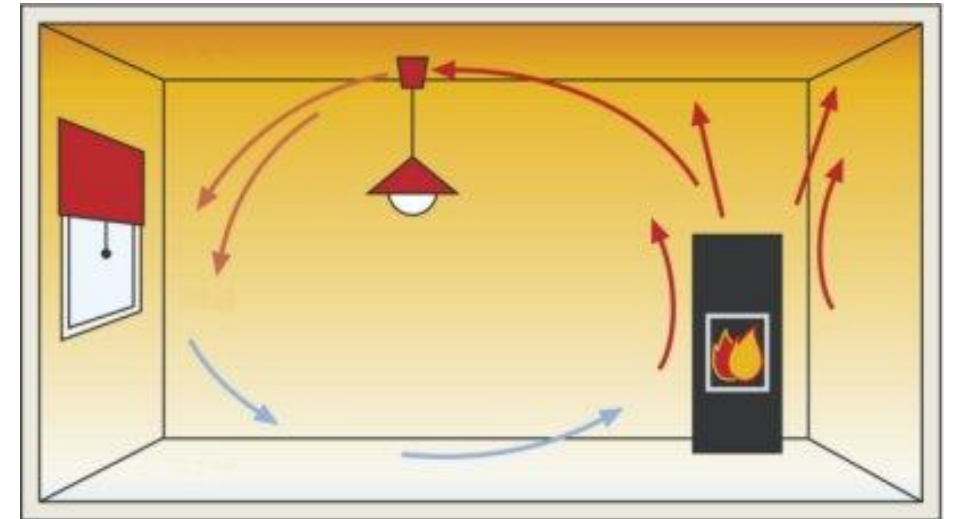
Source of fuel



How Fire Starts

How Fire Spreads

- Fire spreads quickly, consuming the available fuel and producing highly toxic smoke. Just a couple of deep breaths is enough to make you disorientated and compromise your escape.
- Highly toxic smoke initially rises to the ceiling and then drops as a thick layer.
- Fire and smoke uses elements of the building structure to spread through the building e.g., door openings, small gaps and holes in walls and ceilings.



Early detection is vital to maximise escape time.

Common causes of fire

 Electrical hazards

 Arson

 Naked flames

 Smoking

 Heating Appliances

 Poor Housekeeping

Electrical Fire Hazards

Hazards

- Faulty electrical system
- Faulty electrical appliances

Be vigilant to warning signs:

- Damaged appliances, evidence of scorching
- Flickering lights
- Regular 'tripping' of the electrics
- Improper use of extension leads (overloading, daisy chaining)



Naked Flames (Candles / Incense / Fire liturgy)

Hazards

- Fire spread from naked flames

Be vigilant to warning signs:

- Overloaded votive candle stands
- Lit candles or the thurible too close to materials that catch fire
- Votive candle stands too close to exits and thoroughfares
- People getting too close to lit candles or fire
- Fires lit too close to the building, or outdoor structures such as fences or overhanging vegetation



Heating - Fixed and Portable

Hazards

- Faulty fixed heating system
- Inappropriate or defective portable heater
- Trailing leads

Be vigilant to warning signs:

- Heaters too close to combustible materials
- Heaters not switched off when building unattended
- Inappropriate heaters in use
- Trailing leads in thoroughfares



Arson



Hazards

- Poorly maintained premises
- Poor security
- Accumulated rubbish
- Readily available materials e.g., combustible materials, candles and lighting equipment
- External bins close to buildings

Be vigilant to warning signs:

- Graffiti and vandalism
- Attempted break ins
- Signs of fires being lit remote from the building
- Suspicious behaviour

Smoking

Hazards

- Fire from poor disposal of smoking litter

Be vigilant to warning signs:

- Inappropriate smoking e.g., smell cigarette smoke in the building
- Smoking litter in internal rubbish bins



Housekeeping



Hazards

- Combustible or dangerous materials or substances coming into contact with heat
- Fuel to allow a fire to grow

Be vigilant to warning signs:

- Storage in escape routes
- Storage in boiler rooms or electrical cupboards
- Flammable materials close to heat sources
- Damaged upholstered furniture
- Inappropriate storage of dangerous substances e.g., petrol, candle oil



Hazards in the event of a fire


 People unaware of fire


 Obstructed exits / escape routes

 Overcrowding

 Missing signage

 Poor lighting

 Fire resisting doors that are damaged, poorly fitted, or propped open

 Fire extinguishers damaged, faulty, missing, or obstructed

 Poor emergency planning

Scenario

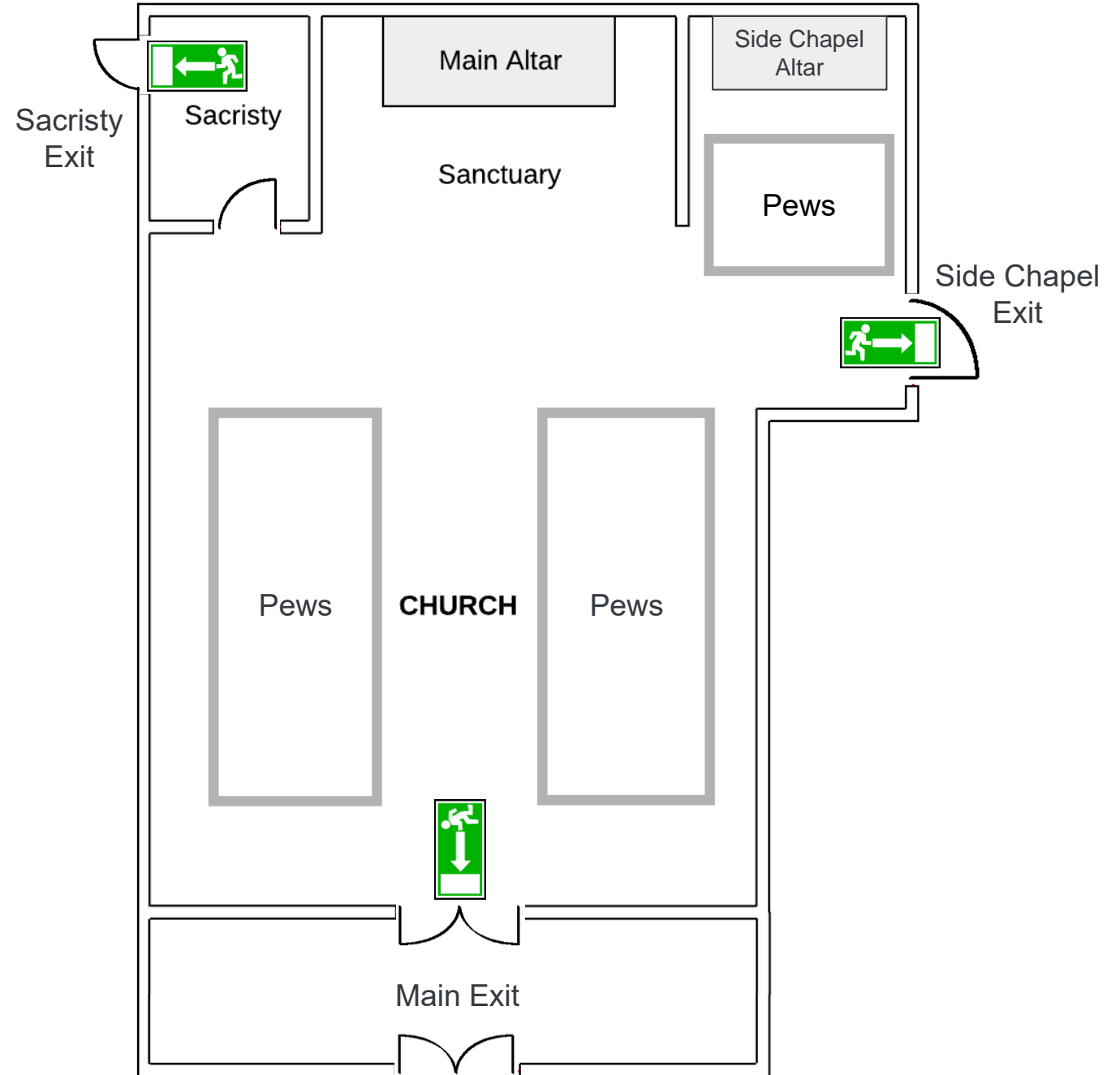
(Hazards in the event of fire)

Our scenario takes place in a simple church, during a very popular parish service.

There are **3 possible fire exits** from the church.

The **main exit** is the way the congregation enter the church and the way they will **instinctively want to exit from** if there is an emergency evacuation.

Alternative exits are available off the side chapel and through the sacristy.

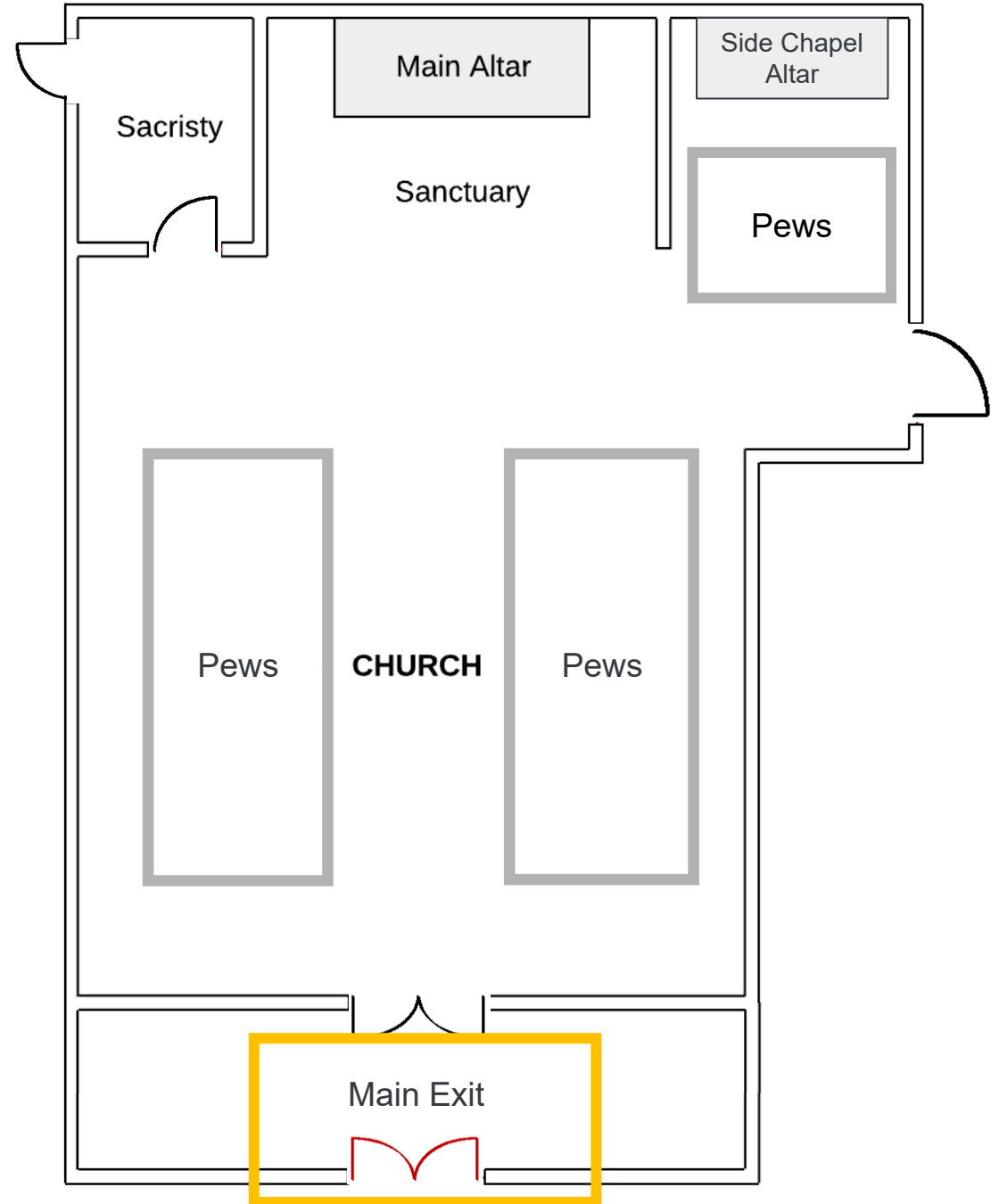


Scenario

(Exits – Main Exit)

The outer doors on the main exit **open inwards**, opposite the direction of escape-
(outlined in orange) .

This means that **if these doors are not secured open** before an evacuation, **it may be difficult to get them open** once the congregation has started to fill the entrance lobby.



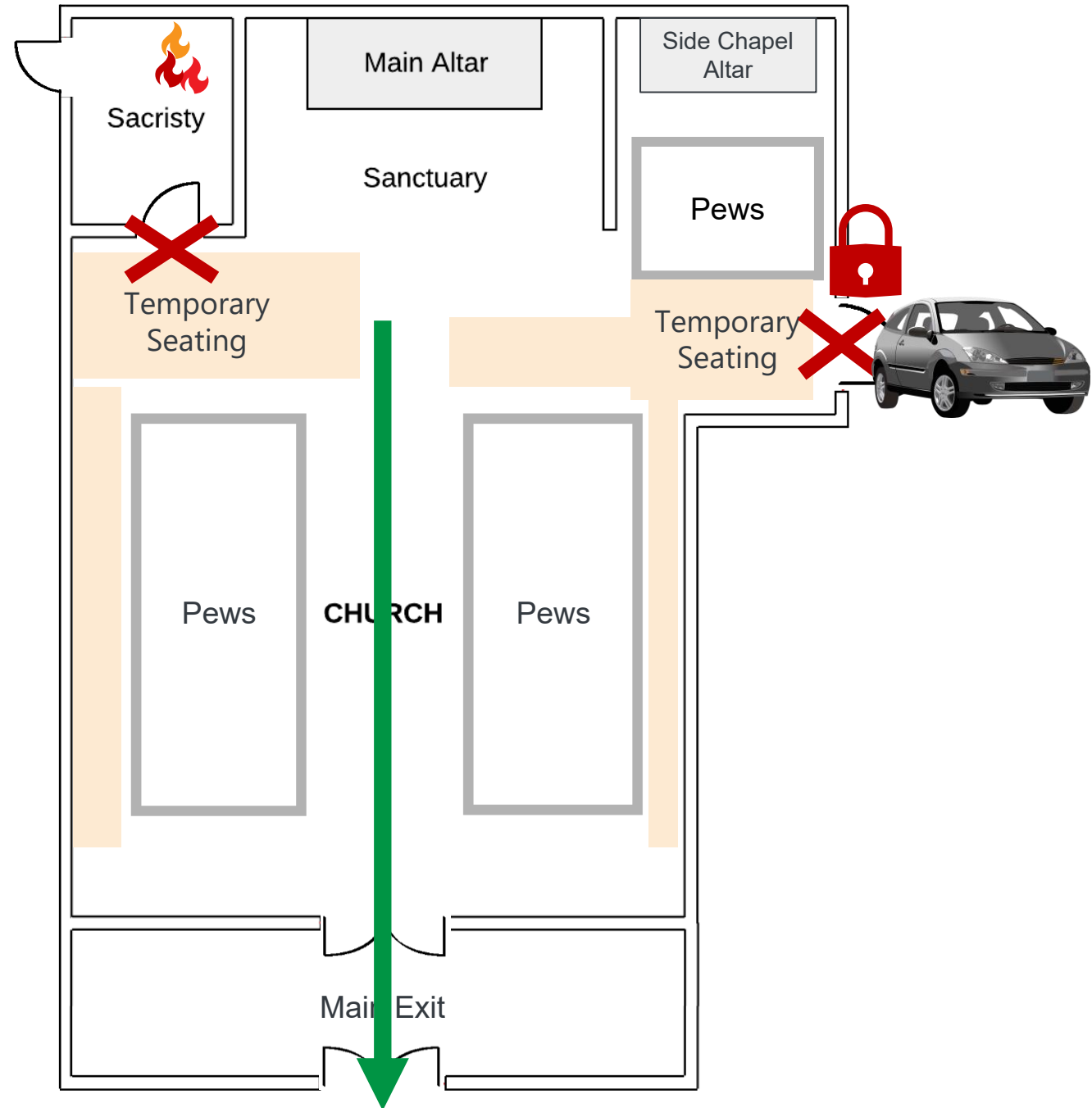
Scenario

(Exits and escape routes)

Temporary seating has been set out to accommodate the larger numbers of people expected to attend the service. **This has obstructed the exit near the side chapel** and resulted in the side aisles being unusable.

The exit from the side chapel is **locked** and **obstructed** on the outside by a parked car.

Let's suppose that **the fire has started in the sacristy** so the exit from the sacristy is unusable. This means that everyone is **now reliant on the central aisle** in the nave and the main exit (*indicated with green arrow*).

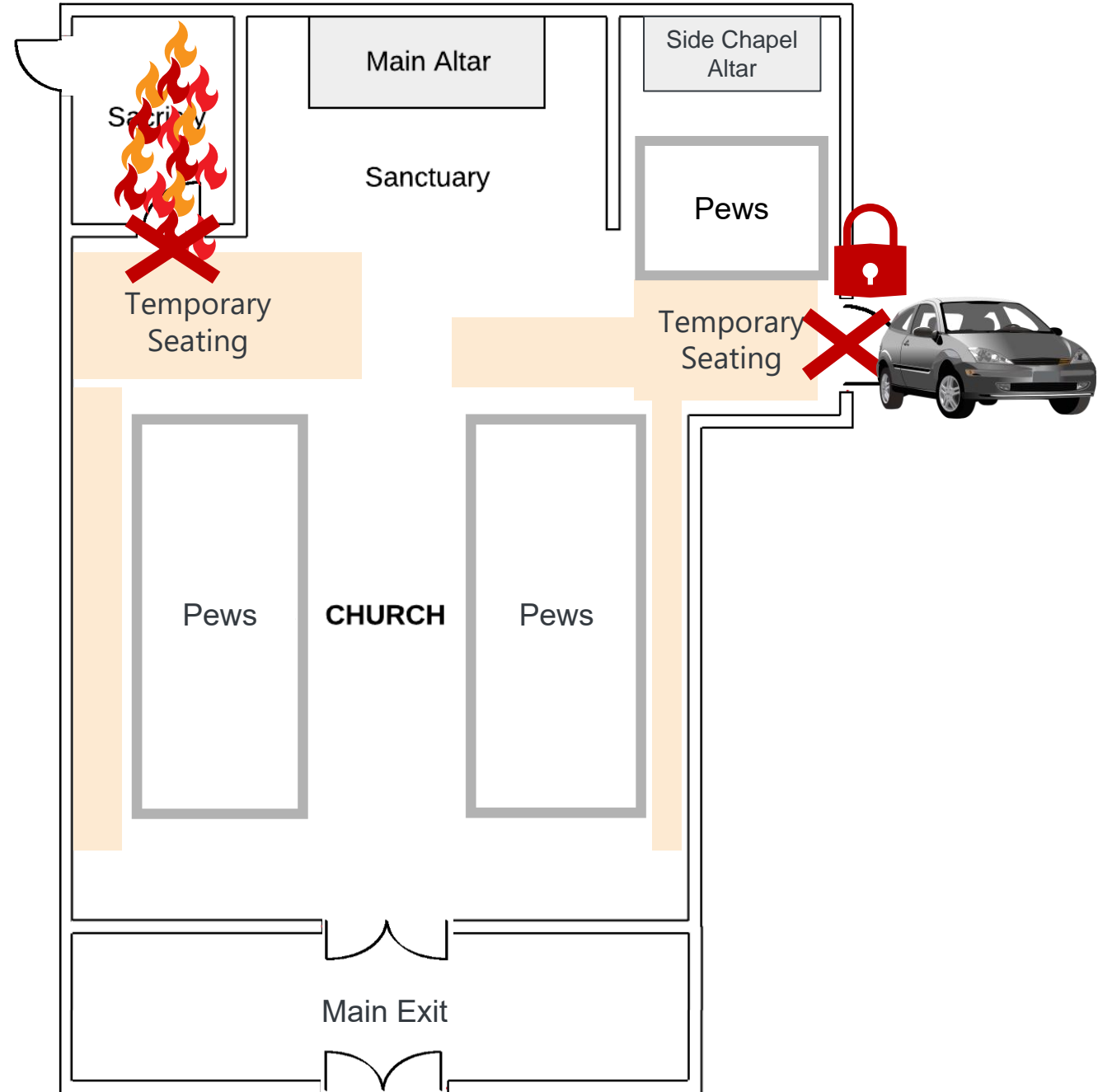


Scenario (Fire detection)

There is **no automatic fire detection and warning** in the church. This means that until the occupants in the church become aware of the fire it will continue to grow undetected.

There is a **large amount of combustible material in the sacristy** and the fire will grow quickly.

There are no appointed fire marshals on duty. This means it may take longer for people to respond to the fire, even if it starts to become obvious that there is a problem.



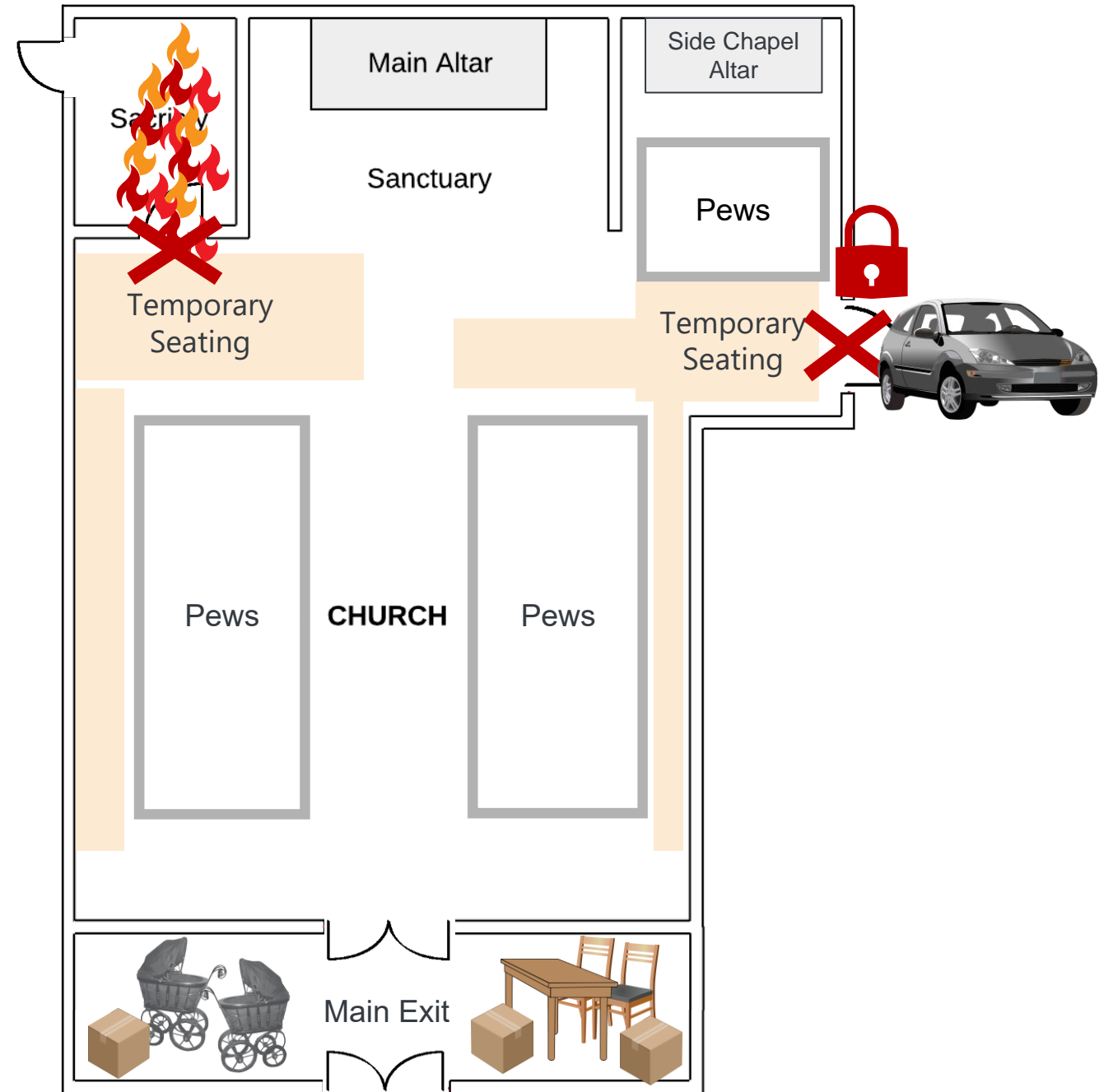
Scenario

(Exits – Main Exit)

The **entrance lobby is congested** with pushchairs, donations for a local charity and items of furniture.

This will make it **harder to get the outer doors open in an emergency** and increase the risk of the exit becoming overwhelmed.

Considering the church is already overcrowded, this **increases the risk of people becoming crushed** whilst trying to reach the exits. Some people will be unable to get out in time.

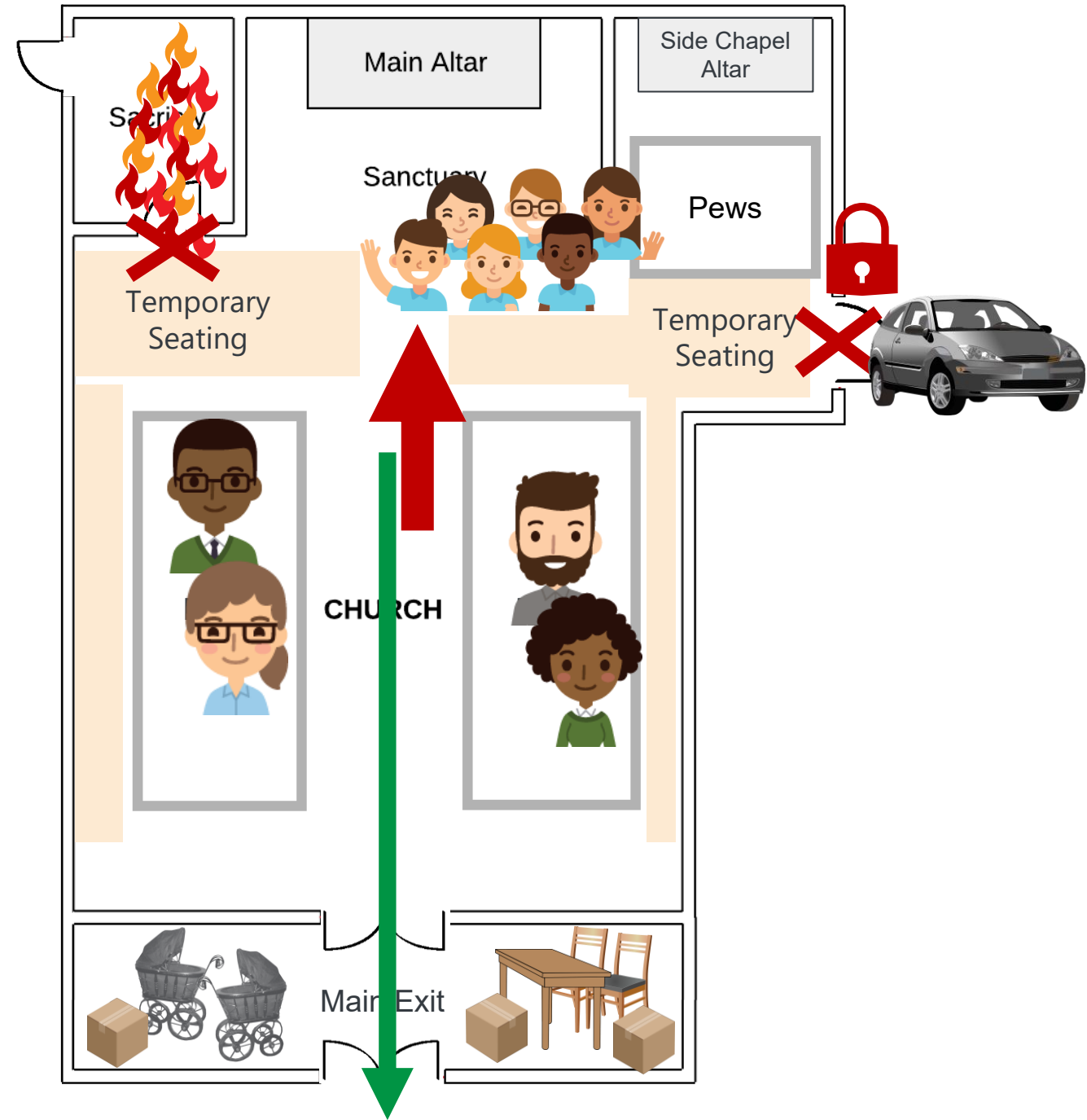


People at Special Risk

At the time that fire has started, a **children's choir is performing in front of the sanctuary**. Their parents or carers are seated in the nave.

The seating arrangements increase the congestion problem, as **parents will instinctively want to reunite with their children before evacuating**.

Given there is only the central aisle available as an escape route this means **the parents will be trying to move against the flow of escape** (*indicated with red arrow*).

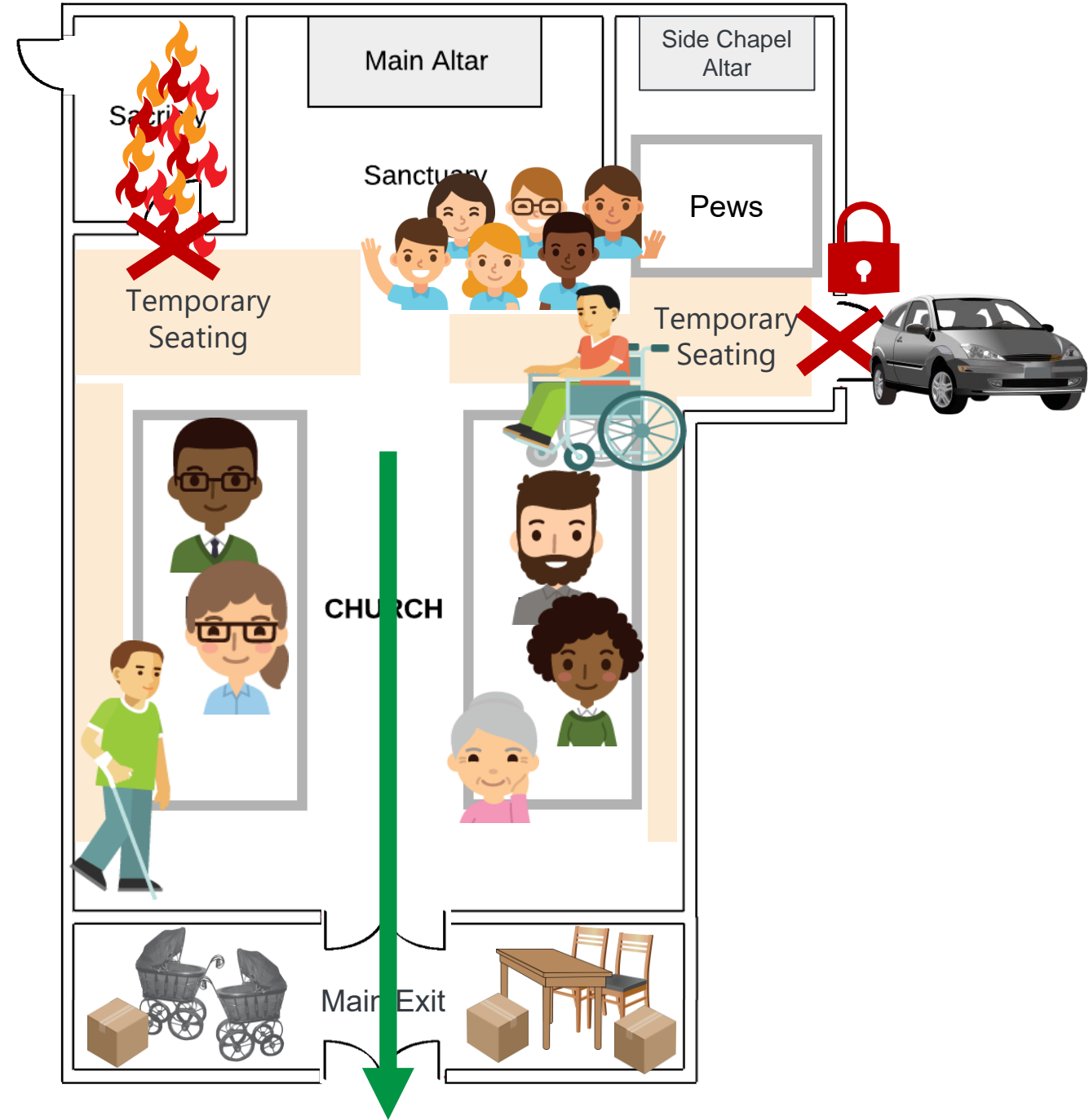


People at Special Risk

There are **numerous visitors** who are **unfamiliar with the church**, making them more reliant on clear and confident direction from fire marshals (not present in our scenario).

There are also **people with reduced mobility** which will slow them down in an emergency evacuation – at least one person relies on their wheelchair and numerous people use walking aids.

Given the congestion in the church, people with mobility difficulties will find it harder to evacuate and **could inadvertently block the exit** if they get stuck.

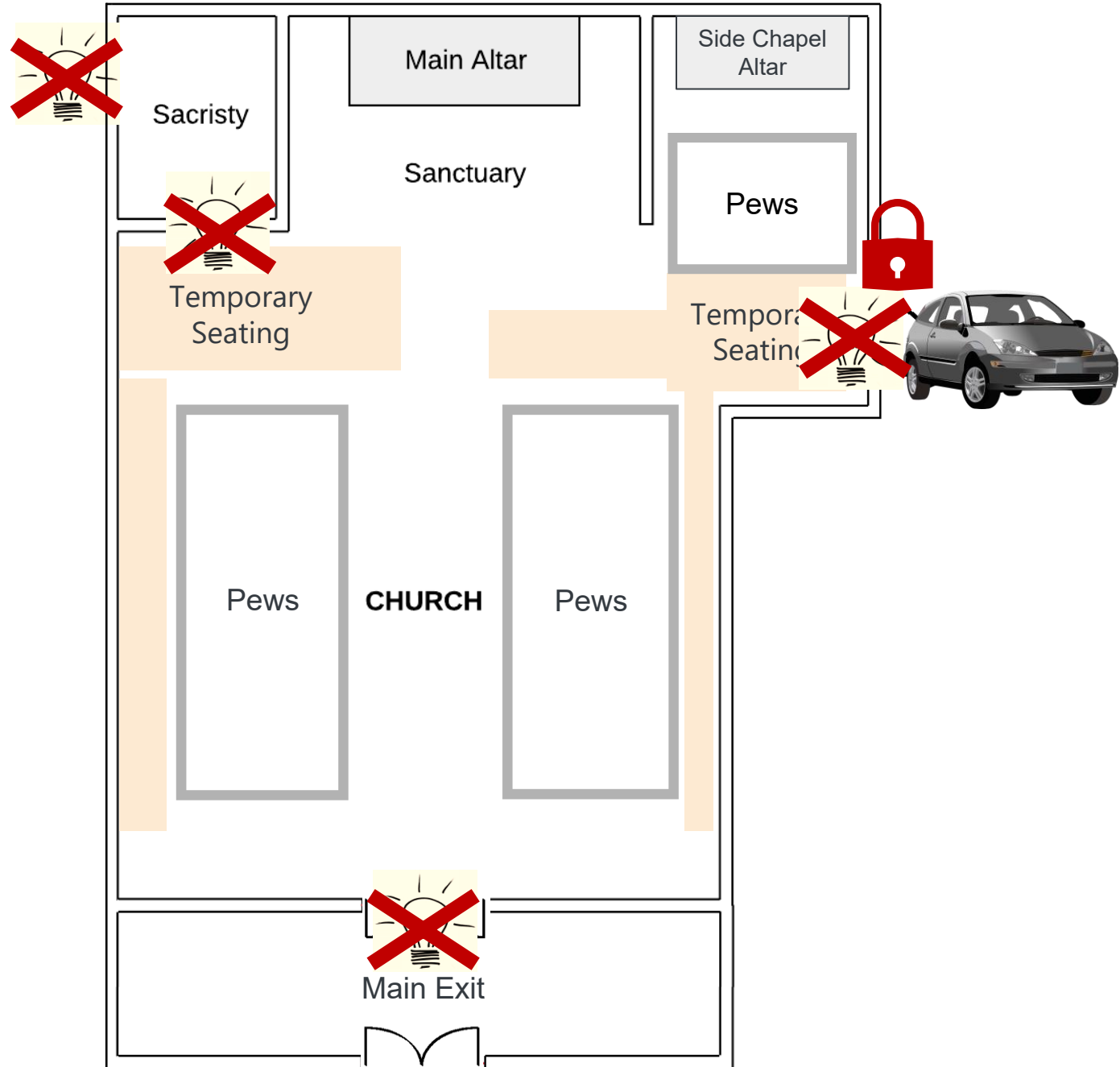


Scenario (Hazards)

The service is taking place in the **early evening** and it is getting dark outside. The lights have been switched on in the church.

There are signs showing where the emergency exits are, but **the emergency lighting has not been checked** for some time **and is not working**.

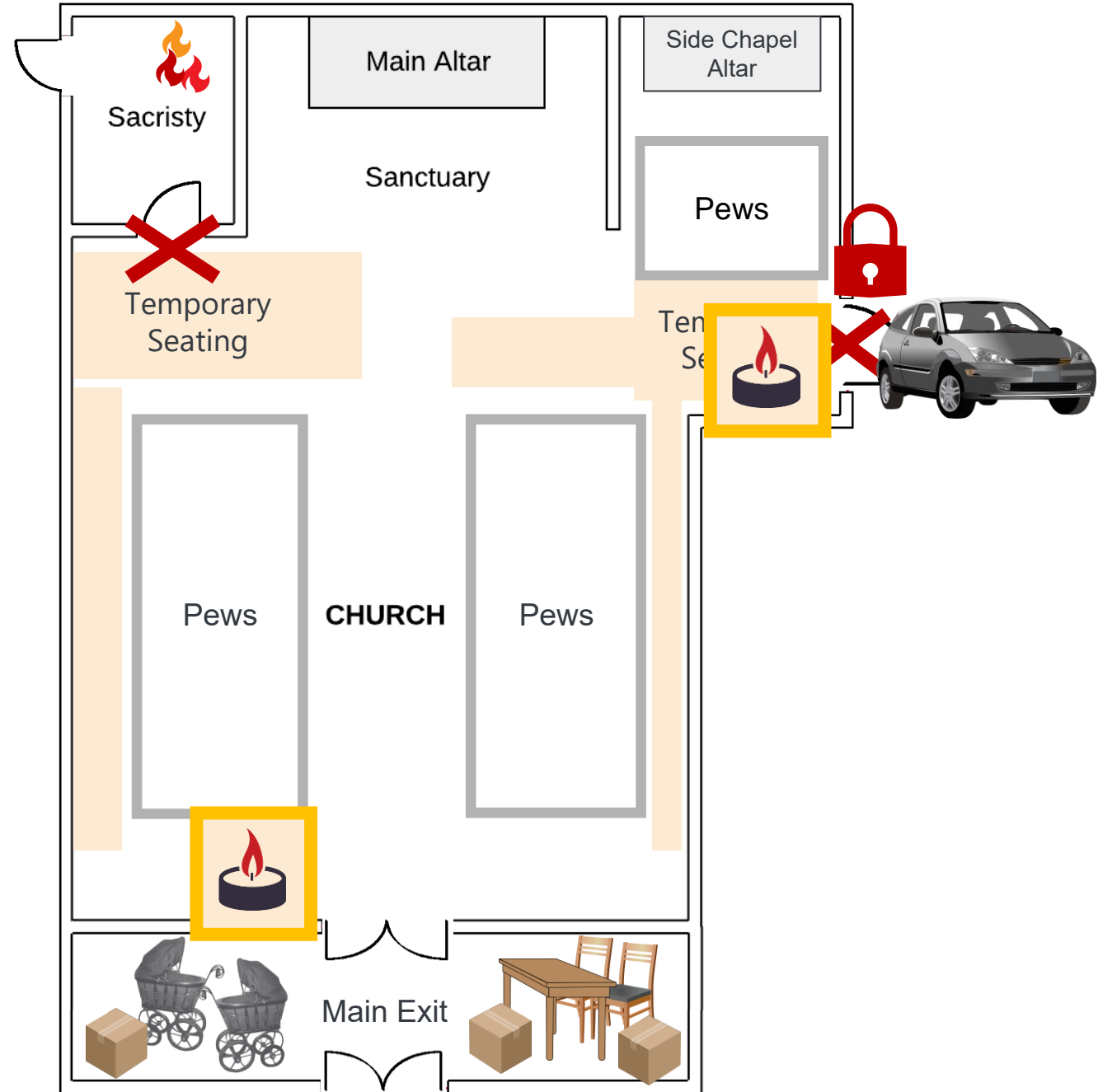
This means that **if there is a power failure** the occupants will be reliant on **limited light from nearby street lighting** and **the glow from the candles** on the sanctuary and votive candle stands.



People at Special Risk

The **votive candle stands** are located near the exit from the side chapel and at the back of the church near the exit to the entrance lobby (*indicated with orange outlines*).

Given how congested the church is, there is a risk that **people might come into contact with lit candles** which could lead to a **clothing fire**.



Poor emergency planning

There is no emergency fire plan and **no appointed fire marshals** in the event of fire.

There is an assumption that people will use their 'common sense' if there is a fire.

This **lack of planning and coordination** will delay the evacuation process **increasing the risk** that some occupants will be trapped and unable to get out.

Good emergency planning would have avoided many of the dangers associated with the hazards in this scenario.



People don't always do what you expect!

This video linked below will **challenge the view** that people will use common sense in a fire situation.

Fire marshals need to be aware of **human behaviour in an emergency situation** and how important it is to give **clear and confident direction** to get people to do what you want them to do.

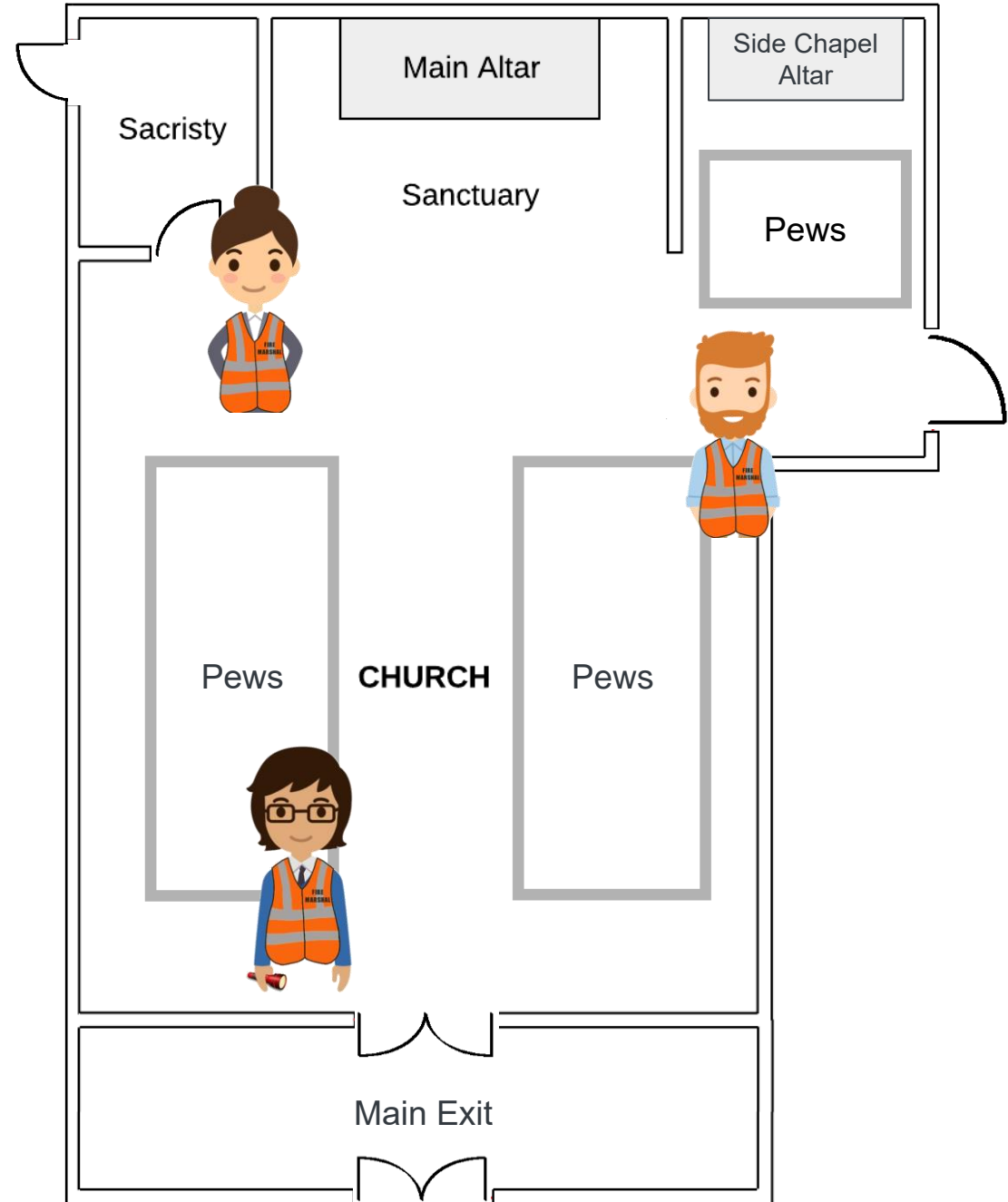
https://www.youtube.com/watch?v=msYOo_gliEo

Scenario (Let's fix it)

Let's consider what **could have been done differently** in our scenario.

Having fully briefed fire marshals on duty who are **vigilant** to the warning signs of fire increases the likelihood of **early fire detection** and the implementation of a **coordinated and controlled emergency evacuation plan**.

In addition to being vigilant to fire hazards, fire marshals can contribute to the **planning of services** and events to avoid problems early on.



Scenario (Let's fix it)

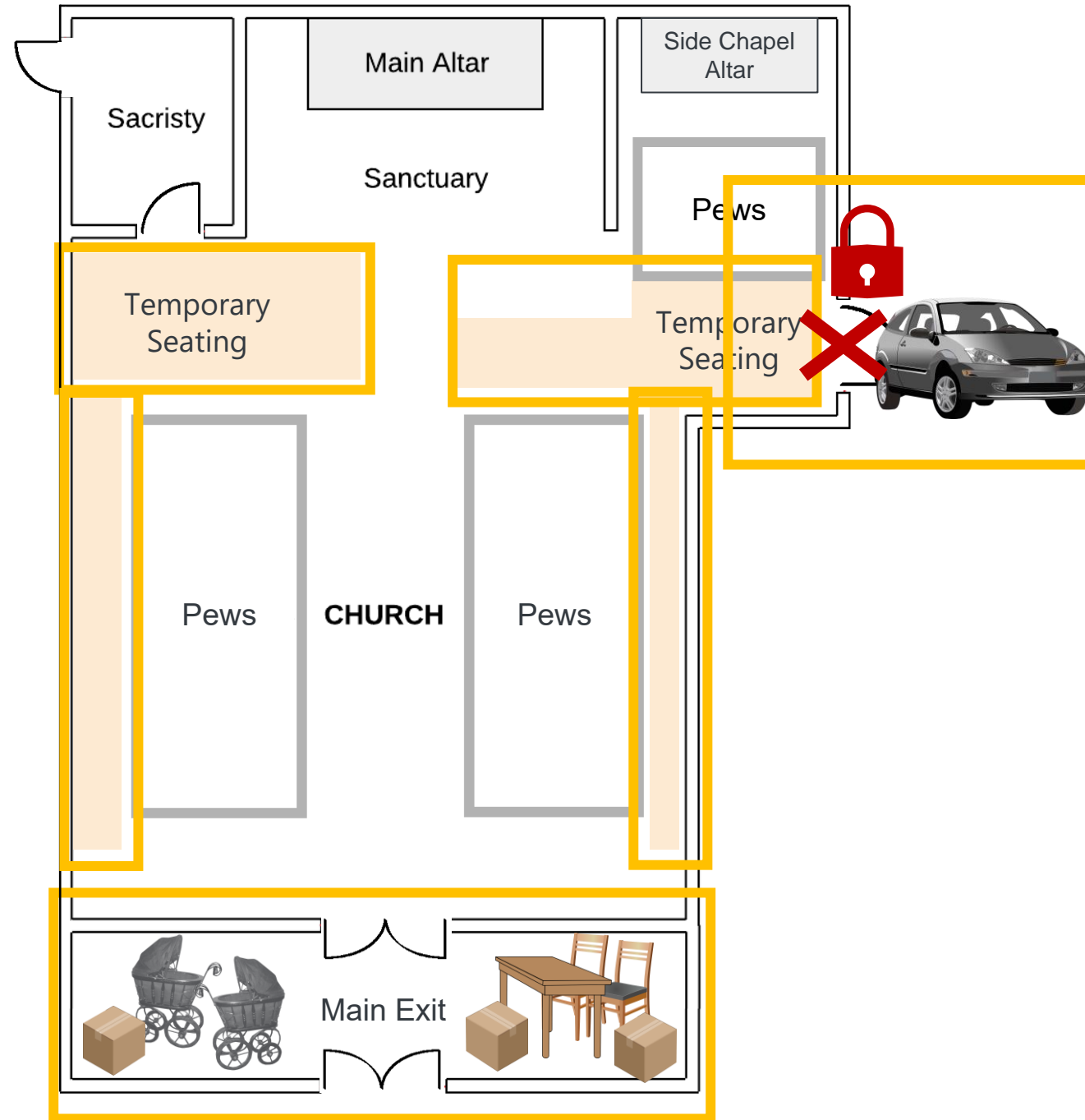
The **exits and exit routes** must be **free from obstructions** (*obstructions are outlined in orange*).

The **maximum safe capacity** for the building is observed, to avoid the catastrophic risks of overcrowding.

The temporary seating is removed so that exit routes are unobstructed.

The **main entrance lobby is clear** of unnecessary items

Fire marshals can check that fire hazards are not being introduced e.g., obstructed exits, opening inward opening doors.

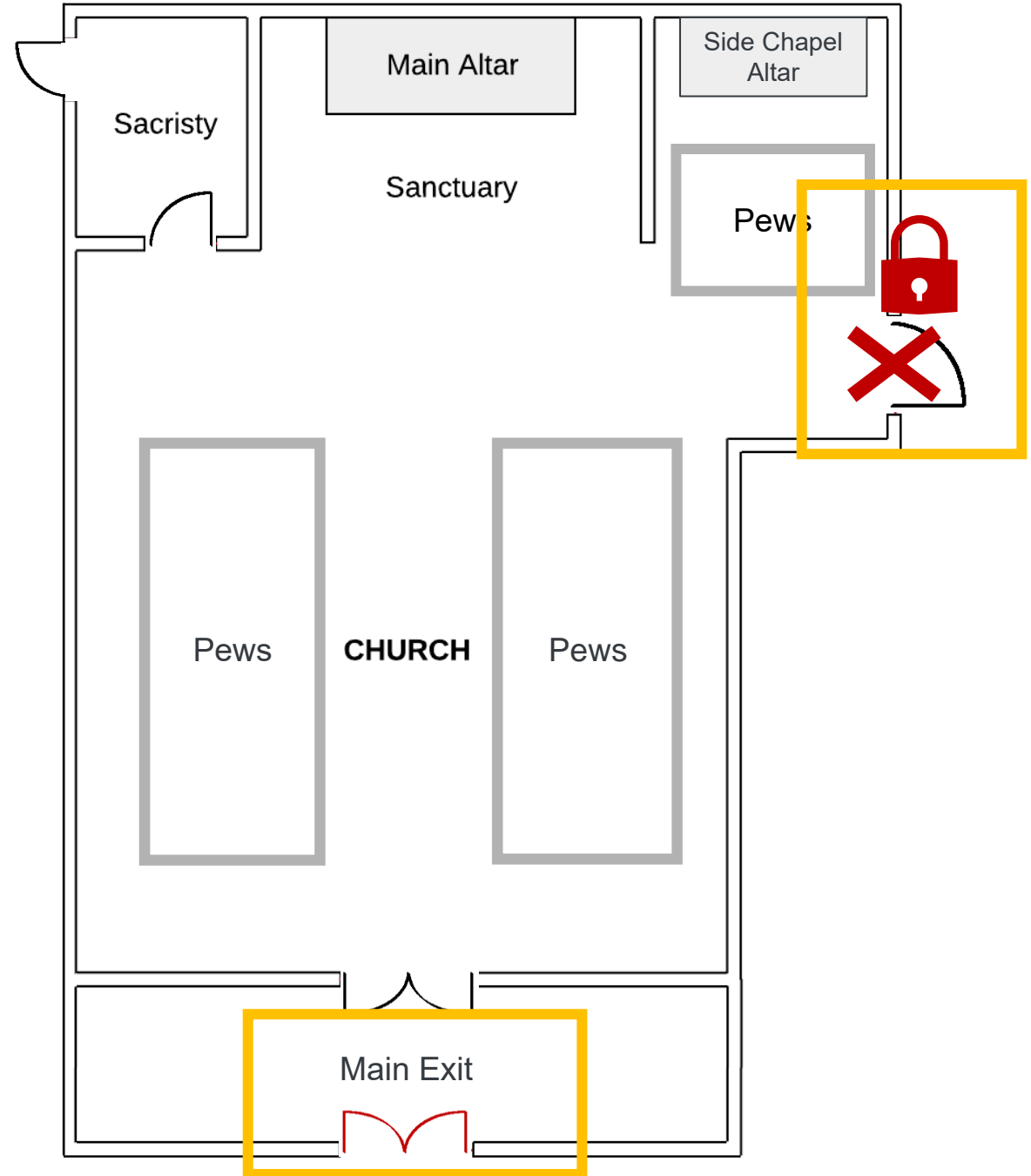


Scenario (Let's fix it)

Fire exits should **never be locked with a key**.

Fire exits should have **emergency opening devices** like a push bar or push pad so they can be opened quickly.

Ideally, fire doors should **open outwards** OR be **secured open** during the service/ event.

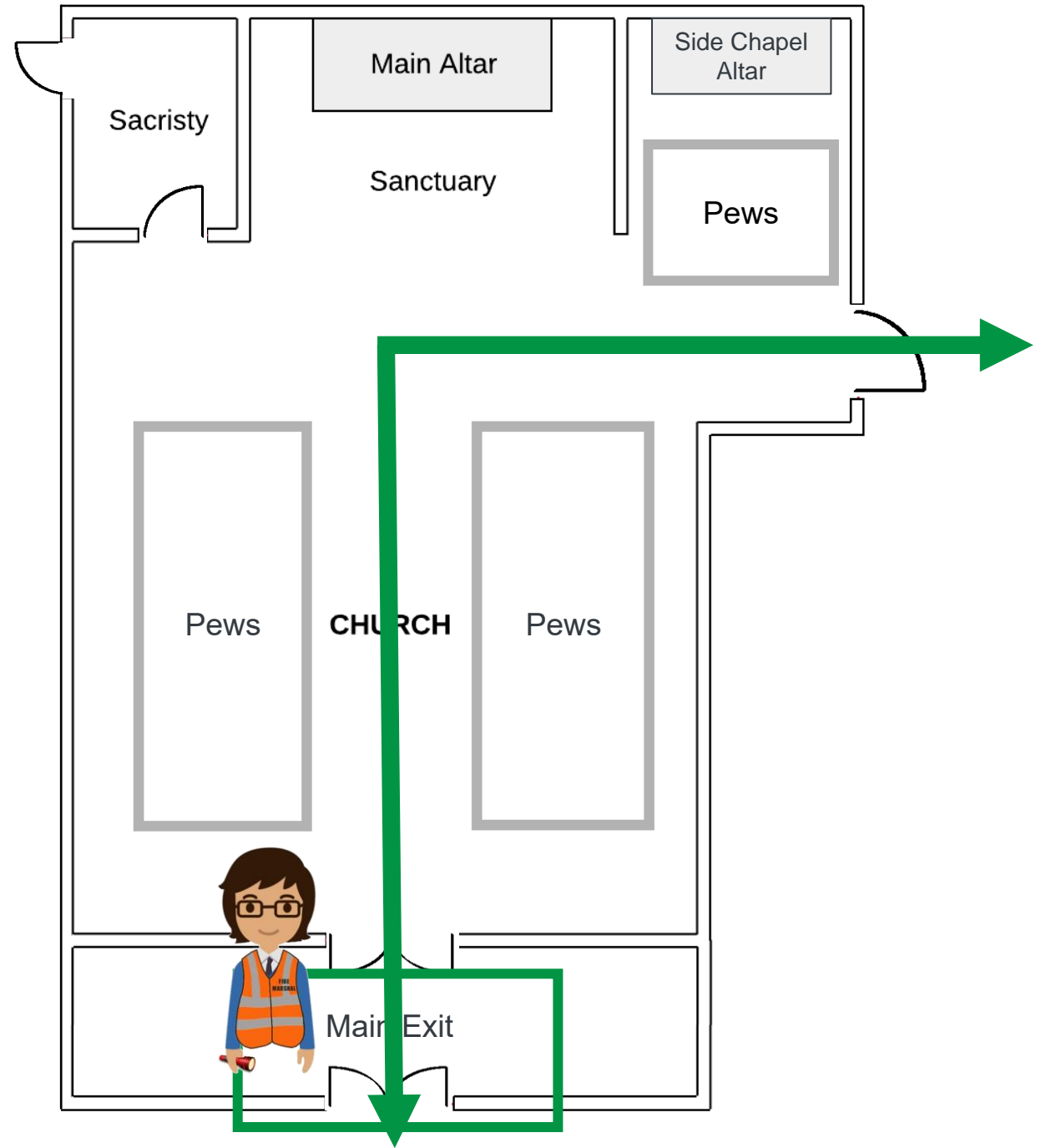


Scenario (Let's fix it)

In our example church, the final exit doors on the main exit **open inwards** and the side exit door was **locked**.

In this case, the side exit **must not be locked**, and the main doors should be **secured in the open position** before a service.

Through just a few simple changes, we have now created **two clear exit routes** (indicated with green arrows).

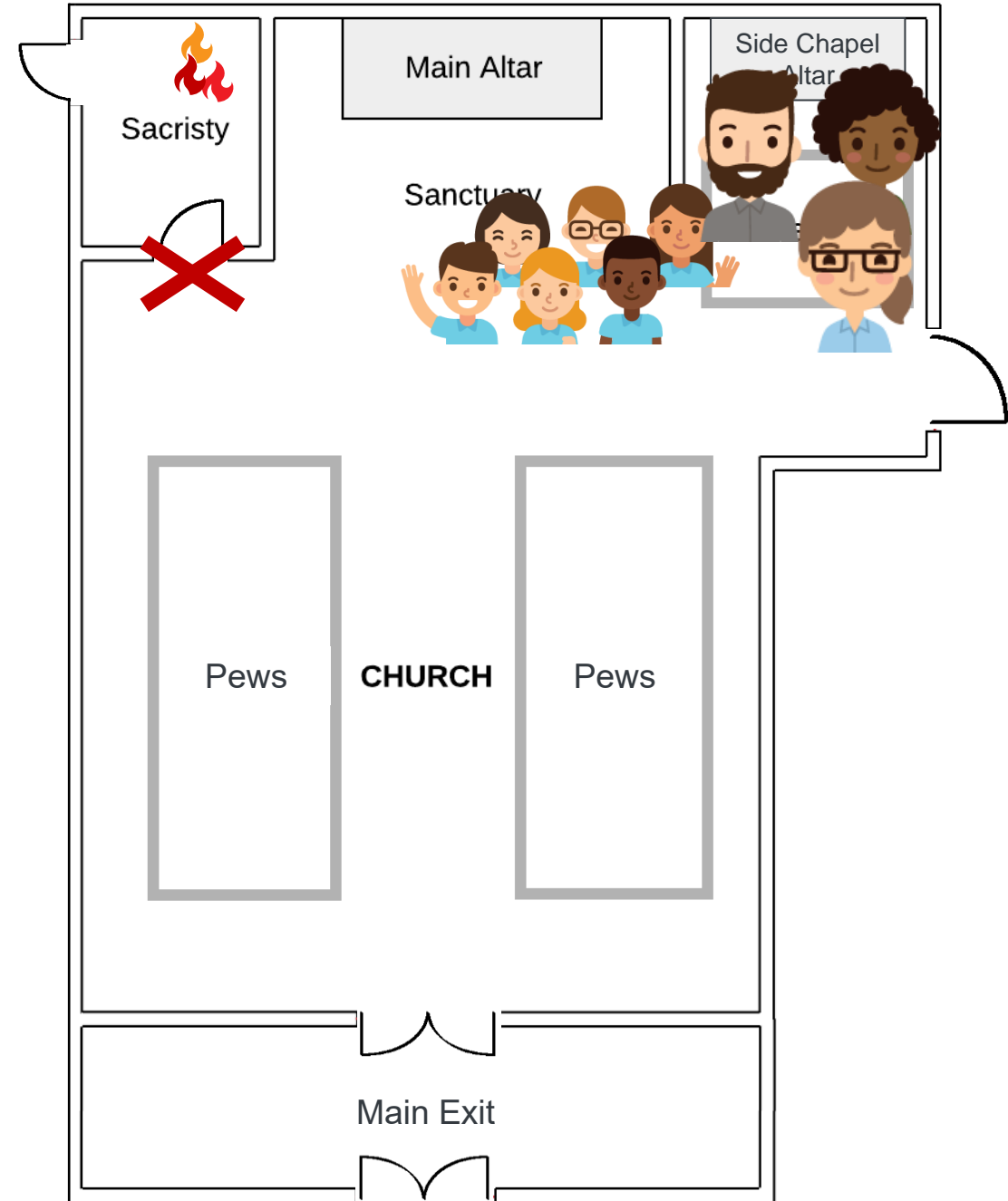


Scenario (Let's fix it)

Remember the **choir at the front of the church**, and how this created a scenario where parents fought against the flow of escape in order to reach their children before evacuating?

The **parents** of the children performing in the choir are now **deliberately seated near their children**, to the side chapel, or perhaps the front row.

Again, this is a point to be **highlighted** and **addressed at the planning stage**.

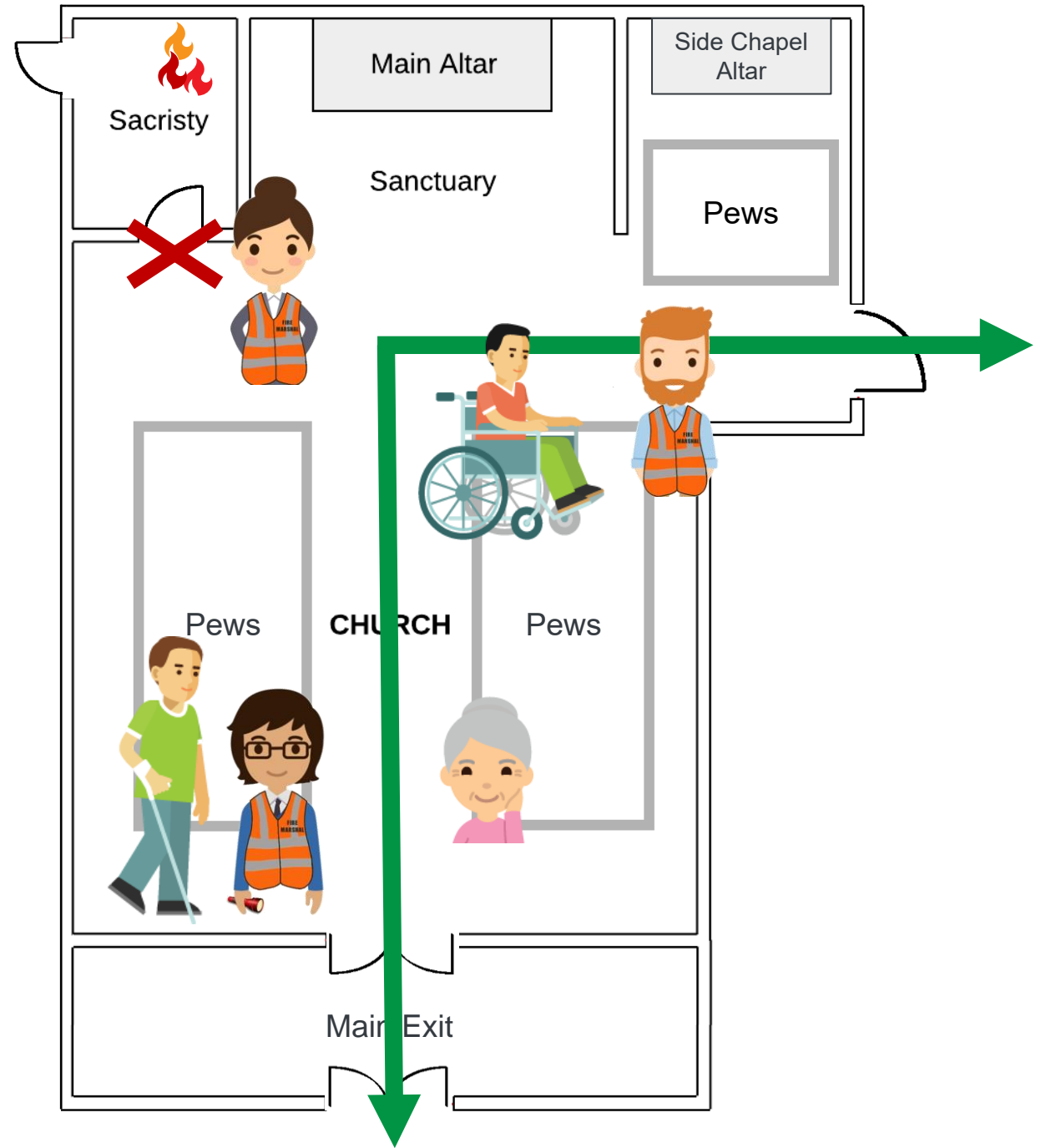


Scenario (Let's fix it)

Removing the temporary seating and other **obstructions** helps with the flow of escape and provides plenty of space for people in wheelchairs or with walking aids to move to the exits.

Fire marshals are positioned throughout the church to **assist with evacuations**.

It is sometimes necessary to **prioritise the ambulant congregation** in an evacuation. This might sound counter intuitive, but it helps to keep the evacuation flowing, avoiding escape routes and exits becoming blocked.



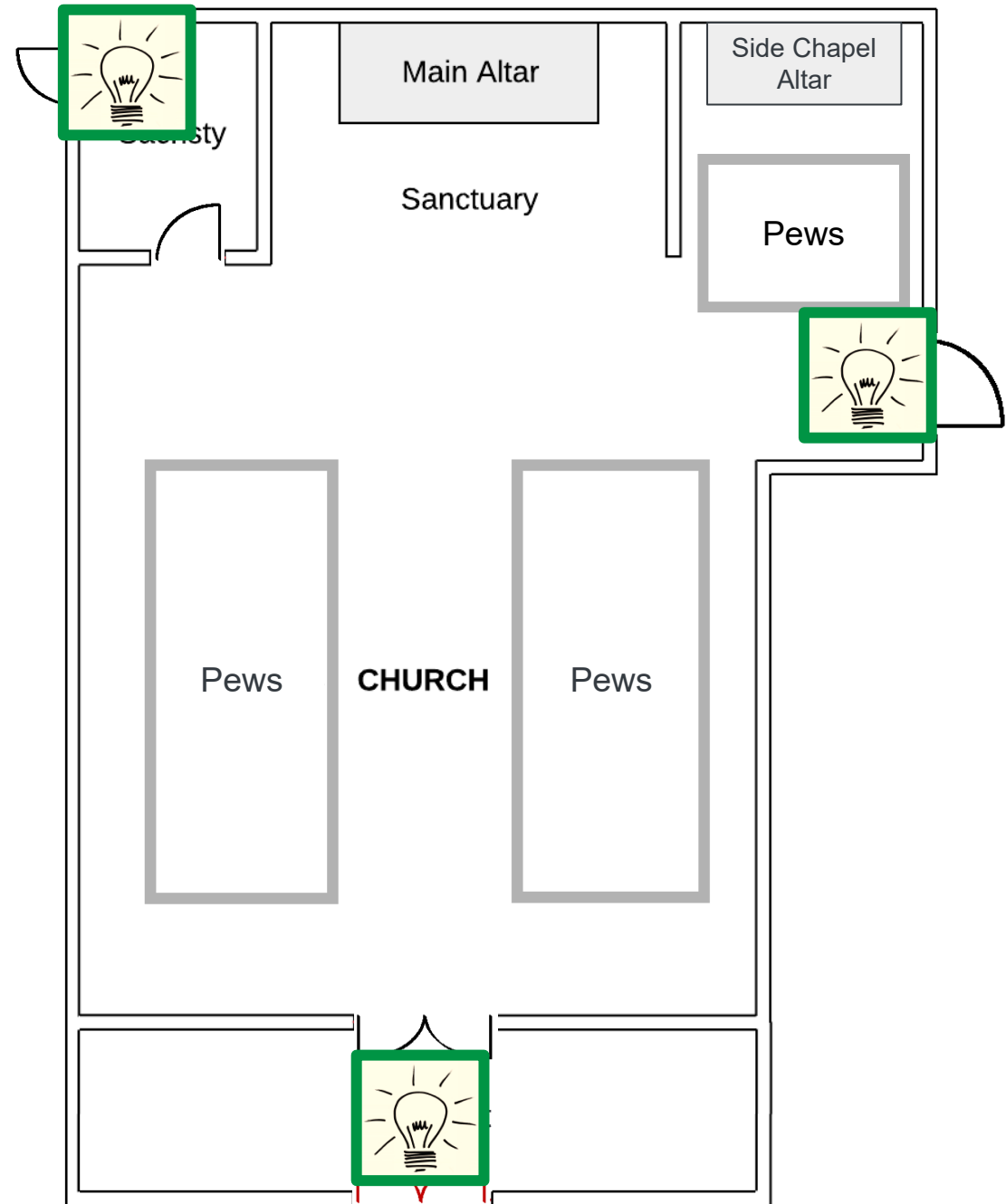
Scenario (Let's fix it)

Remember in our scenario how the emergency lighting wasn't working?

Arrangements should already be in place to **check emergency lighting**, as well as other **fire safety equipment regularly**.

Fire marshals may agree to **assist with these checks**.

In any case, fire marshals should make a quick check that **emergency lighting units appear visually to be working** (usually a green charging light can be seen) or that **hand-held torches** are in the right place and working properly.

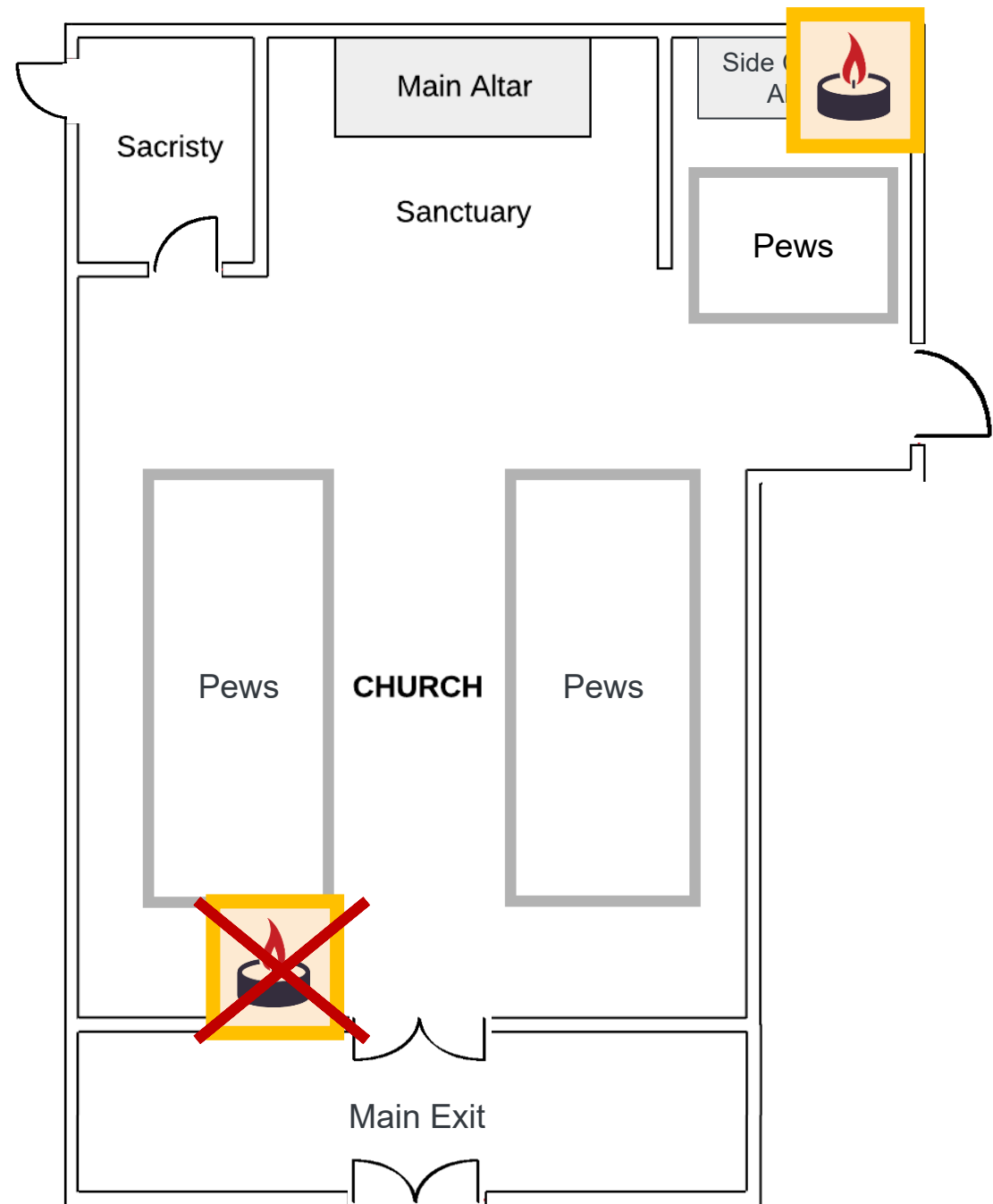


Scenario (Let's fix it)

The **location of the votive candle** stands was a problem in our scenario, because they increased the **risk that people would get pushed up against them** in the queue to get out.

These should be **relocated away from the exits** and **out of the aisles** to reduce the risk. It may mean that at a popular service **some stands have to be temporarily removed**.

Fire marshals can help by checking that candle stands are **safely located**, that they **don't get overloaded** and be **ready to respond** if a candle causes a fire.



Scenario

(Emergency Planning)

The emergency plan includes:

- How people will be warned of the fire.
- Calling the fire and rescue service and
- Evacuating the building to the fire assembly point

Familiarise yourself with the emergency plan and your role for any given service or event.



A vertical sign with a black border. At the top is a blue circle with a white exclamation mark. Below it is a blue horizontal bar with the text "Fire action" in white. The sign contains five rows of instructions, each with an icon on the left and text on the right. The first three rows have blue bars, and the last two have red bars.


-  **Sound the alarm** 
-  **Leave building by nearest available exit** 
-  **Report to assembly point** 
-  **Do not return to the building until authorised to do so**
-  **Do not use the lifts**

Emergency Fire Procedures

1. Warning of fire



2. Call the fire and rescue service



3. Evacuate the building



4. Go to the fire assembly point

Emergency Fire Procedures

1. Warning of fire

- **Be vigilant to fire and raise the alarm without delay**
- **Stop the service or event** to reinforce the danger
- Give **clear and confident** verbal direction.
- If you cannot quickly and safely confirm a false alarm, **begin the evacuation.**

Emergency Fire Procedures

2. Call the Fire & Rescue Service

- **Call 999 or 112** as soon as evacuation is confirmed
- Tell the operator you require the **Fire & Rescue Service**
- Provide the **full postal address** of the building
- Tell the operator about other urgent concerns **e.g., person trapped, medical assistance required**

Emergency Fire Procedures

3. Evacuate the building(s)

- 1. Prepare fire exits and direct people to them**
 - Assist vulnerable people
- 2. Close off exits** compromised by fire
- 3. Check the building** (without putting yourself in danger)
 - Check for occupants
 - Switch off equipment where appropriate
 - Close doors and windows
- 4. Report to the fire assembly point and report any concerns** e.g. people trapped

Emergency Fire Procedures

4. Fire Assembly Point



- The Fire Assembly Point is a **safe place to gather** post evacuation.
- **A fire marshal should be present at the assembly point** to assist people and to contact the fire officer when the fire and rescue service arrive
- **Make sure you know where the assembly point is so you can direct others to it.**

Fire extinguishers

If you do need to use a fire extinguisher:

- **Call the fire brigade**, so that help is on the way.
- Only tackle **small fires** – (waste paper bin size or smaller).
- Check that you have the **right extinguisher** for the type of fire.
- Don't put the fire between you and your exit.
- Keep around **1m away from the fire**.
- If you do put the fire out, **keep an eye on it** in case it reignites.



Common fire extinguishers

Different extinguishers are designed for **different types of fire.**

Common extinguishers in parish buildings are:

- Water
- Foam
- Carbon dioxide
- Fire blanket



Familiarise yourself with the fire extinguishers in your buildings.

Using Fire extinguishers



Using Fire extinguishers

P = Pull the pin at the top of the extinguisher to break the seal.

A = Aim the nozzle or horn at the base of the fire.

S = Squeeze the handle on the top of the extinguisher to release the contents.

S = Discharge the entire contents of the extinguisher using a **sweeping** motion whilst keeping the nozzle or horn aimed at the base of the fire.

Fire Extinguisher Types

Water



Suitable For

☑ Fires involving solid materials
e.g., paper, wood, textiles

📖 Recognisable by the red-
coloured band on the body of the
extinguisher

📋 Always check instructions on
the extinguisher if in doubt

Not Suitable For

✘ Live electrical equipment, flammable liquid or
free running solids

👉 Water mist extinguishers containing de-
ionised water can be used on live electrical fires

➡ [Watch a video on how to use this
extinguisher](#)

Fire Extinguisher Types

Foam



Suitable For

☑ Fires involving solid materials, flammable liquids and free running solids e.g. wax candle fires

Not Suitable For

✗ Live electrical fires

⚡ Only di-electrically tested foam extinguishers can be used on or near live electrical equipment

How to Operate

👉 When using a foam extinguisher on a flammable liquid fire, aim the hose at a vertical surface near the fire rather than spraying directly at the fire to avoid spreading the fire to surrounding areas

📄 Recognisable by the cream-coloured band on the body of the extinguisher

➡ [Watch a video on how to use this extinguisher](#)

📄 Always check instructions on the extinguisher if in doubt

Fire Extinguisher Types

Carbon Dioxide



Suitable For

☑ Electrical fires and flammable liquids

Not Suitable For

✘ Cooking oil or fat fires, or fires involving multiple candles e.g., votive candle stands.

🔑 Recognisable by a black horn and the black-coloured band on the body of the extinguisher

How to Operate

📐 When operating the extinguisher, the horn should be raised to 90 degrees to the extinguisher cylinder before operating the trigger with both hands

⚠ Unless the horn is a frost-free device, do NOT place your hands on the horn when discharging as it becomes extremely cold and can cause severe frost burns

➡ [Watch a video on how to use this extinguisher](#)

📄 Always check instructions on the extinguisher if in doubt

Fire Extinguisher Types

Fire Blanket

Suitable For

Most small fires, including cooking fires and if a person is on fire



Not Suitable For

Larger fires. Only suitable for small fires, where you can safely get close enough to use the blanket

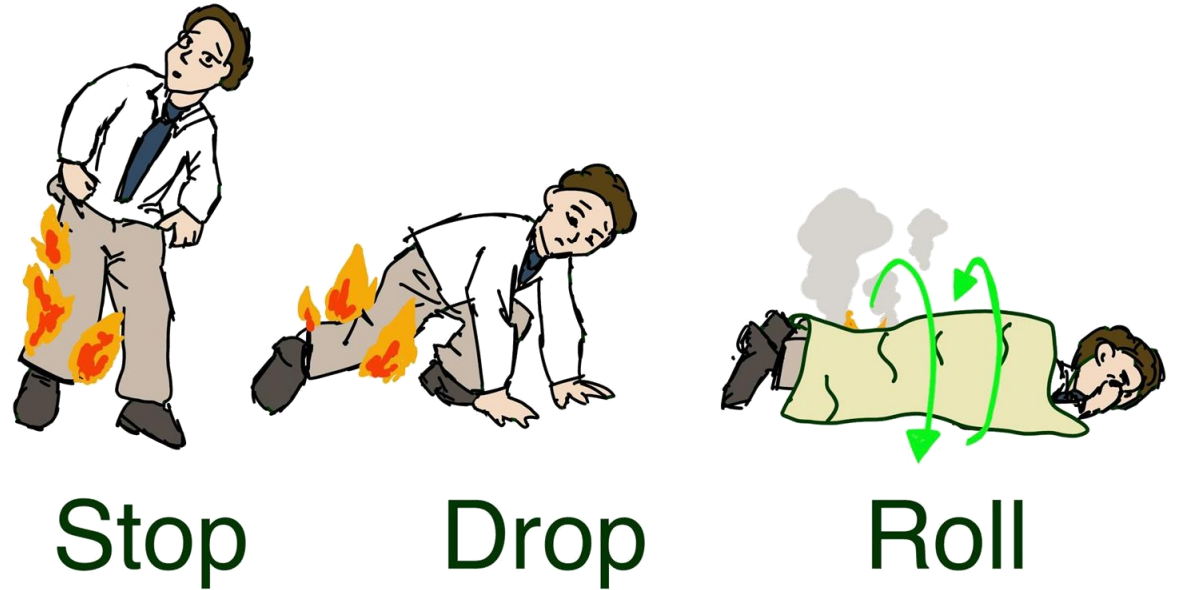
How to Operate

- Pull on the tabs to release the blanket from the holder
- Grab the corners of the blanket and wrap the material around your hands to protect them
- Do NOT throw the blanket. Walk towards the fire and as soon as the blanket comes into contact with the flames, lay the blanket over the fire tucking the blanket in as much as possible
- Switch off the heat source if you are putting out a fire on a cooker
- [→ Watch a video on how to use this extinguisher](#)

STOP – DROP – ROLL technique

If you are dealing with a fire involving a person:

1. **STOP** the person from moving around.
2. **DROP** the person to the floor
3. **ROLL** the person in the fire blanket to put out the flames.



TIP: If you don't have a fire blanket to hand, use damp towels and use these to put out the fire.

Next steps

- Agree the **scope of your role** with your parish priest.
- Familiarise yourself with your **parish emergency fire procedures.**
- Familiarise yourself with the **fire safety systems** and equipment in your buildings, **where they are** and **how to use them.**
- Be vigilant** to fire hazards and **report concerns.**
- Never put yourself or others at risk.**
- Take our fire marshal quiz.

Getting Help

Archdiocese of Cardiff

Ken Dyson - H&S Manager

Phone| Ffôn: 029 2037 9488

Mobile| Ffôn: 073 5583 5838

Email |Epost: Kenneth.dyson@rcadc.org

