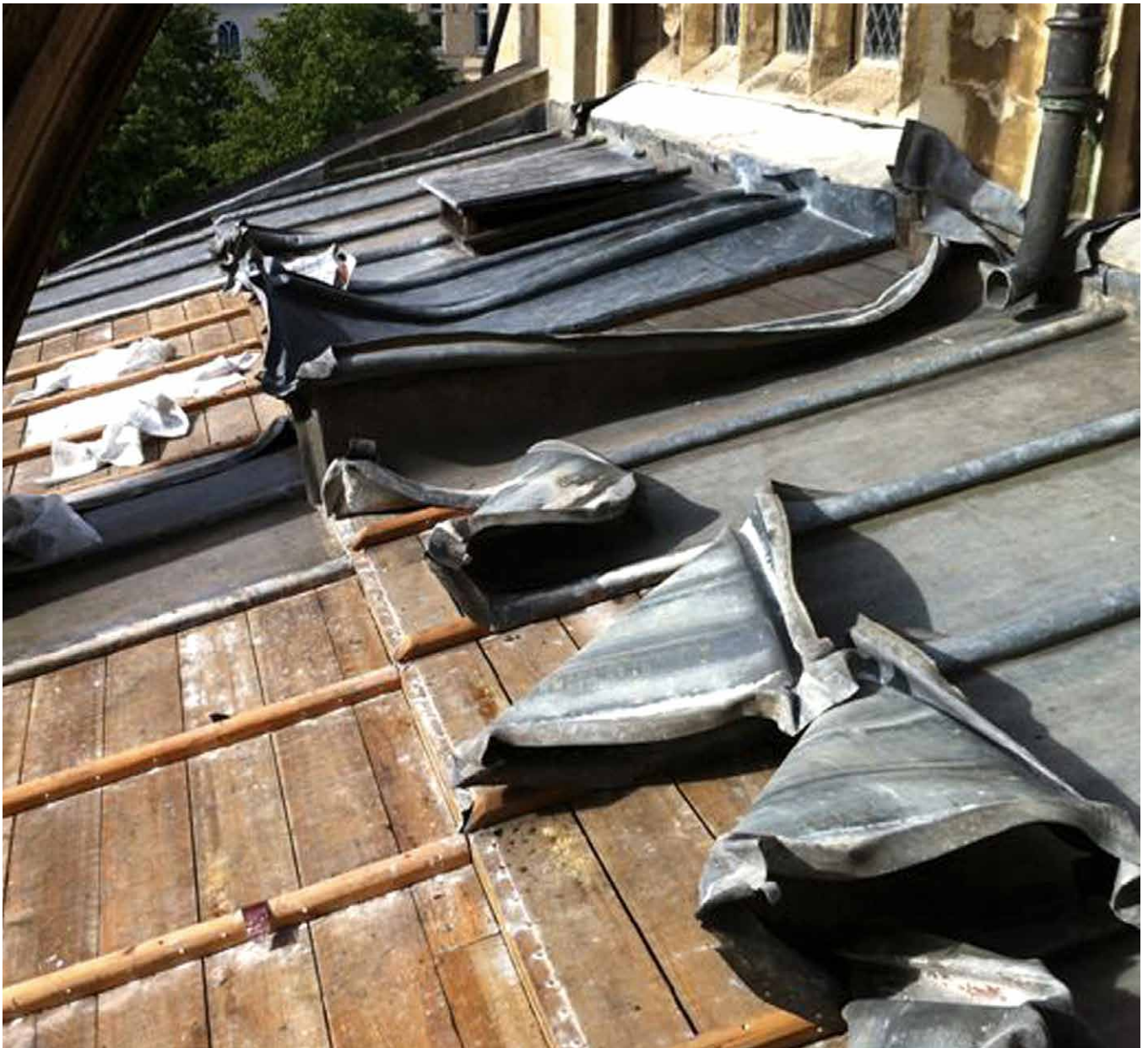




Historic England

Metal Theft from Historic Buildings

Prevention, Response and Recovery



Summary

This advice note is for churchwardens, trustees, fabric officers, volunteers and owners who care for historic buildings, especially places of worship. Preventing metal theft, especially from roofs, is the priority but dealing with an attack appropriately is crucial to protect historic buildings and keep them in use.

At Historic England, we recognise the serious impact of metal theft. As well as damage to historic buildings, it causes expense, distress and frustration. Replacement and subsequent insurance can be costly.

The note deals mainly with theft of lead roofs from historic churches but the information applies to other types of building and traditional metal. It is an update of our 2011 note, *Theft of Metal from Church Buildings*, and reflects our updated advice to those dealing with metal theft and how to prevent it.

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Front cover

Damaged and torn lead on a church roof following metal theft.

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Figure 1
Theft has a serious impact on communities and is costly and frustrating.



Figure 2
Metal theft causes serious damage to buildings and, through water ingress, interiors.

1 Historic England's Approach to Metal Theft

Historic England strongly encourages the use of appropriate and traditional materials for historic buildings, particularly on roofs.

Changing the material of a building's roof could detract enormously from the building's appearance and significance and mean that it performs less well technically. This is why we start out with the position that like-for-like replacement following theft is highly desirable, with appropriate security measures.

Traditional metals, including sand-cast and rolled lead sheet, are regarded as the most appropriate for covering historic buildings for the following reasons:

- They are the material for which the structure of the building was designed
- Their appearance
- They are virtually maintenance-free
- Their technical performance, ability to be repaired in situ and longevity
- Their contribution to the significance of the building
- Their ability to be recycled, minimising the carbon footprint of the building



Figure 3
1960s lead roofing patched to recommended Lead Sheet Association standards.

We will not support the pre-emptive removal of lead from roofs not affected by theft unless there are exceptional circumstances.

Each case will need to be judged on its own merits and we appreciate that sometimes a change of material should be considered following a theft in order to ensure the long term future of the building.

We would only expect the most appropriate alternative to be used, such as a long-term durable metal with a known standard of performance. For example terne-coated stainless steel. Slates or tiles could be an alternative where these would be historically appropriate and the roof is sufficiently steep. Any harm done to the significance of the historic building would need to be outweighed by the benefits, including ensuring wind and weather-tightness.

More information about the basis for Historic England's advice is available in [Section 2: Replacement following metal theft](#).

1.1 Key points

1. A roof that has been covered in lead for centuries was probably designed specifically for that material and it is therefore the best choice for re-covering. Changing the material could detract enormously from a building's significance and make it functionally less efficient. This is why Historic England starts out with the position that like-for-like replacement is highly desirable.
2. All reasonable security measures should be put in place to prevent theft. It is not, however, justifiable to remove lead and replace it with another material before thieves have struck.
3. If a theft takes place, we strongly recommend installing emergency covering straight away then seeking advice about minimising the risk of further attacks and the permanent re-covering of the roof.
4. Before making decisions about replacing stolen metal, seek advice from an accredited conservation architect or building surveyor with conservation expertise and the local authority. If the building is a Church of England, Roman Catholic, Methodist, Baptist Union or United Reformed church then

seek the advice of the relevant Diocesan, Historic Churches or Listed Buildings Advisory Committee. If the replacement will affect the character and significance of a grade I or II* listed building, please contact us. Historic England is a statutory adviser to local authorities and the listed five denominations in accordance with the Town & Country Planning Act 1990 and the Ecclesiastical Exemption Order 2010.

5. Where the risk of further theft is too high, for example where there has been a serious theft, or repeated minor attacks, it is not reasonable to expect like-for-like replacement. We would normally recommend that the most appropriate alternative would be a long-term durable material with a known standard of performance, such as terne-coated stainless steel, zinc, slates or tiles.
6. Historic England will not support the use of synthetic non-metal materials as roof coverings on listed buildings, unless there are highly exceptional circumstances.
7. Where a permanent repair cannot be organised quickly, a short term covering of roofing felt might be necessary.

Please note: If your building is listed or in a conservation area, check with your local authority or denominational advisory body before making modifications to the building or installing equipment to prevent theft. This will ensure that you get any necessary permissions and do not damage the building while trying to protect it.

You should also check with your insurer that any measures you take are acceptable under the terms of your policy.



Figure 4
Thieves partially stripped this church of lead, leaving a lot of damage.

1.2 Why Historic England considers traditional metal roofing to be important

The roof of an historic building is always an important element in its design, structure and appearance. Such buildings are often among the oldest, largest or most prominent buildings in the area and its roof is likely to be a major feature in the local streetscape or landscape. The roof is also fundamental to protecting the structure of a building and the fixtures and fittings inside. All these elements are part of what makes it valuable within a particular place.

A traditional metal roof such as lead or copper is likely to make an important contribution to the character and significance of an historic building, particularly where it is visible from ground level, or surrounding higher ground or buildings.

These are high quality materials with a traditional appearance which are in keeping with the historic character and architectural quality of a building. Often the roof structure was historically designed or adapted to be covered with such materials: so that the roof we see today can be viewed as intended. Even if it can't be seen, an historically appropriate roofing material is likely to be significant in its own right, particularly where

it is especially old or where there are historic plumbers' marks, graffiti or particularly fine detailing. Where the roof is visible, changing from lead or copper to another material is likely to have a big impact on the building's appearance and performance. There may also be true of flashings, where they are highly visible, and traditional metal downpipes and guttering.

More detail about specific materials is available in [Section 3: Recovering the Roof](#).



Figure 5
Lead downpipes and drainage goods are also targets for theft.

2 Replacement Following Metal Theft

Historic England advises that traditional metal, such as a lead roof covering, should be retained wherever possible. Changing the material could detract enormously from the building's appearance and significance and mean that the building performs less well technically. This is why Historic England starts out with the position that like-for-like replacement following theft is highly desirable, with appropriate security measures.

Each case will need to be judged on its own merits and we recognise that in certain circumstances following theft like-for-like replacement would not be prudent. If we are persuaded that the risk of further theft is too high we will support appropriate alternative materials. As stated above, we would only expect the most appropriate alternative to be used, such as a long-term durable metal with a known standard of performance, for example terne-coated stainless steel or zinc. Slates or tiles could be an alternative where these would be historically appropriate and the roof is sufficiently steep. Any harm done to the significance of the historic building would need to be outweighed by the benefits, including ensuring wind and water tightness. Where a permanent replacement cannot be organised quickly, a short term covering of roofing felt might be appropriate.

2.1 Getting permission and advice

If your building is listed or in a conservation area, you need to ensure you get any necessary permissions and do not damage the building while trying to protect it.

If your building is listed and you wish to use a different material to the one that was stolen, you will need to get Listed Building Consent (or



Figure 6

A temporary felt covering may be needed while permanent arrangements are made.

denominational equivalent) and find out if you also need planning permission from your local planning authority.

Places of worship under Ecclesiastical Exemption (Church of England, Roman Catholic Church, Methodist Church, Baptist Union and United Reformed Church) have denominational consent systems that are equivalent to local authority Listed Building Consent. Even if the building is a place of worship under Ecclesiastical Exemption you must still consult the local authority to see if planning permission is required for a change of roof covering.

Before making decisions about replacing stolen metal, seek advice from an accredited conservation architect or building surveyor with conservation expertise as well as from the local authority or the relevant ecclesiastical advisory body ([ChurchCare](#) for Church of England; the [Patrimony Committee](#) for the Roman Catholic Church; the [Listed Buildings Advisory Committee](#) for the Baptist Union of Great Britain; [local Property/Trust Officers](#) for the United Reformed Church; the [Listed Buildings Advisory Committee](#) for the Methodist Church).

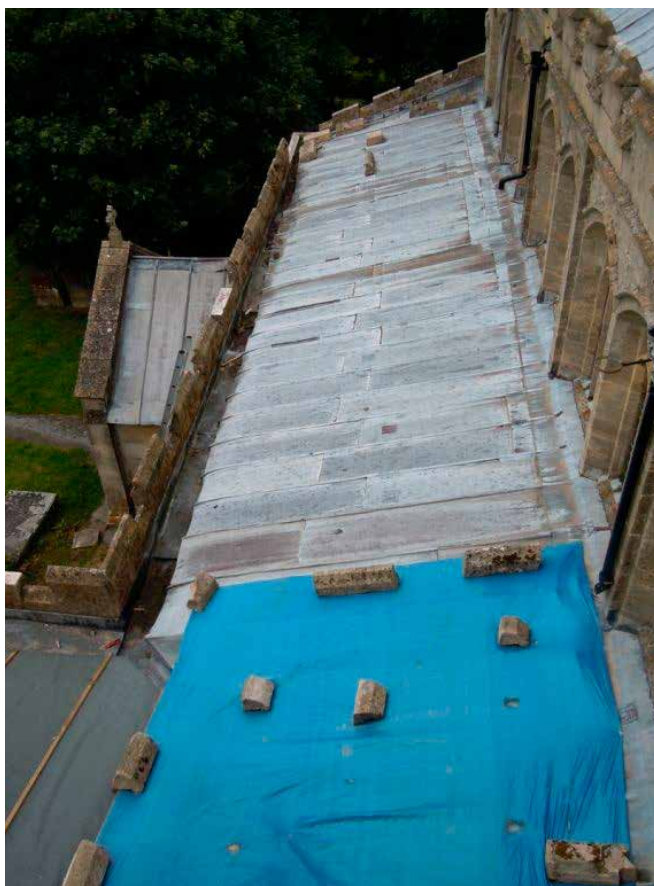


Figure 7
Emergency covering may be needed immediately following theft.

Action

- Information on the [denominational consent systems](#) can be found at <https://HistoricEngland.org.uk/advice/caring-for-heritage/places-of-worship/caring-for-places-of-worship/ecclesiastical-exemption/>
- Find out more about [Planning Permission](#) (<https://www.planningportal.co.uk/>)
- Find out more about [Listed Building Consent](#) (<https://HistoricEngland.org.uk/advice/planning/consents/lbc/>)

2.2 When is Historic England involved?

Historic England is frequently involved after metal has been stolen when different options for recovering roofs or reinstating lost features are being considered.

This is because we are the statutory adviser to local authorities and the listed five denominations in accordance with the Town & Country Planning Act 1990 and the Ecclesiastical Exemption Order 2010. If the replacement of stolen metal will affect the character and significance of a grade I or II* listed building, please contact us after consulting your expert advisor and denominational advisory body.

We give advice on a case-by-case basis and have years of experience in dealing with metal theft and the terrible impact it can have on buildings and communities. Our approach to dealing with the situation is described below.

1. Historic England starts from the position that like-for-like replacement is highly desirable. A roof that has been covered in lead for centuries was probably designed specifically for that material and that is therefore the best choice for re-covering. Changing the material could detract enormously from a building's significance and make it less efficient as a functioning building.
2. Where the risk of theft is too high following a serious theft, or repeated minor attacks, it is not reasonable to expect like for like replacement of stolen lead. We would normally recommend that the most appropriate alternative would be a long-term durable material with a known standard of performance, such as terne-coated stainless steel, zinc, slates or tiles.
3. All reasonable security measures should be put in place to prevent theft. We will not support the pre-emptive removal of lead from roofs not affected by theft, unless there are exceptional circumstances. For example, where a lead roof on a church has reached the end of its life (as proven in the Quinquennial Inspection), the church has been subject to previous thefts and the risk of further theft is too high, we may support the removal and replacement of lead with an appropriate alternative material.
4. Where a permanent repair cannot be organised quickly, we recommend installing temporary covering such as roofing felt, then seeking advice about minimising the risk of further attacks and the permanent re-covering of the roof.

You should also check with your insurer that any measures you take are acceptable under the terms of your policy.

Action

- Go to [Appendix 2](#) for a template containing the information Historic England will need if you need to contact us about metal theft

2.3 What do we need to know to offer you relevant advice?

When our advice is sought, every case is assessed on its merits. Before offering any advice we need some basic information so we can understand the situation. Once we have that we aim to provide advice on applications within 21 days. The table below lists what information we need in order to offer sensible advice and why. (see [Table 1](#))

Action

- Go to [Appendix 2](#) for a template letter for contacting Historic England about metal theft
- If you have completed the [Alarm Checklist at Appendix 3](#) or [Risk Assessment at Appendix 4](#), please send these in to us with the other information

Information needed	Why we want to know
Details of the existing roof covering, its condition as set out in the last Quinquennial Inspection (if relevant), and how much of the covering remains/has been stolen.	What is the condition of the roof?
Photographs of the roof area/s affected.	Where is the replacement needed?
Details of the number and approximate dates of thefts that have occurred and which roof areas have been affected.	Has theft already occurred, and if so how many times and from which part of the building?
A description of security measures in place at the time of the most recent theft (for example roof alarm systems, any marking system whether visible or invisible, security lighting or restricted vehicle access).	Is there a realistic prospect of preventing further lead thefts? Have the obvious solutions been tried? Are the circumstances exceptional?
Whether any grant-aid for repair of the roof was received in the last 10 years. For churches, this may have been under the English Heritage/HLF Repair Grants for Places of Worship Scheme.	Could like-for-like replacement be required under the grant conditions? Would it be fair and reasonable to do so?
Any financial information that might be relevant. For example capping insurance pay-outs, the current financial situation, recent expenditure on other repairs or, for church buildings, works arising from the Quinquennial Inspection Report.	Is there an exceptional financial case to be made?
Photographs of the building from surrounding viewpoints (for example from the road, surrounding land and tall buildings) to enable us to assess how visible the roof is within the local area.	Would replacement using a different material take away from the character and appearance of the building or of the surrounding area?
Clarification of whether lead survives elsewhere on the building and whether it is to be retained.	Would any remaining important leadwork be kept in situ? Is there an indication that the lead needed to be replaced in the next five years?
Details of the replacement material proposed for the roof, and whether the roof slope is suitable for this material (based on consultation with an architect or surveyor).	Would a non-lead replacement perform its job satisfactorily? Is there an exceptional case for a short-term covering?
Description of security measures proposed to be installed with the replacement roof and to protect any remaining lead roofs.	What would be done to reduce the likelihood of further loss?

Table 1



Figure 8
 Repaired lead sheeting incorporating graffiti from before the First World War.

2.4 How do we use this information in deciding how to advise you?

We take a number of factors into account in deciding whether a change of roof material is justified, in particular the risk of further theft and the impact on the significance of the building.

Factors which affect the risk of further theft include:

- The number of thefts and how recent they were
- Whether reasonable measures can be put in place to prevent further thefts and their likely effectiveness
- The degree of natural surveillance of the roof and the isolation of the building
- The ease of access to the roof

Factors which affect the impact on the character, appearance and significance of the building include:

- How visible the roof is from the ground and surrounding area
- The significance of the part of the building which has been attacked
- The significance of the metal itself

We will also take into account other factors including:

- Whether the lead on the roof in question has reached the end of its life
- Previous grant conditions
- Whether an exceptional financial case can be made
- The need to provide security for surviving lead elsewhere on the building

3 Recovering the Roof

We encourage those who care for historic buildings to take the long view when deciding which materials to use. We understand that sometimes a short term covering will be permitted for a limited time after metal theft whilst a permanent roof covering is being identified or funds are being raised.

3.1 Permanent replacement

Replacing a traditional metal roof covering with another metal roof covering will usually have less of an impact on the appearance, character and significance of a historic building than synthetic non-metal materials.

Most roofs intended to be covered by lead have a shallow pitch and are not suitable for tiles or slates. Tiles or slates may also not be appropriate where a roof has a slightly steeper pitch but was designed for lead. In some cases where a roof is steep enough and was designed for slate or tiles they are likely to be a suitable alternative. In some parts of the country where there are traditional local materials these may be long-term options. In all cases it is strongly recommended that alternative roof coverings must be long lasting and give reliable service and be relatively maintenance-free.

As well as looking attractive and contributing to the character and significance of an historic building, traditional metals perform very well, particularly where the historic roof structure was designed for them.

Lead

Lead has proven longevity as a high quality roofing material. It is also virtually maintenance-free, which is beneficial for buildings like churches, which are not used daily.

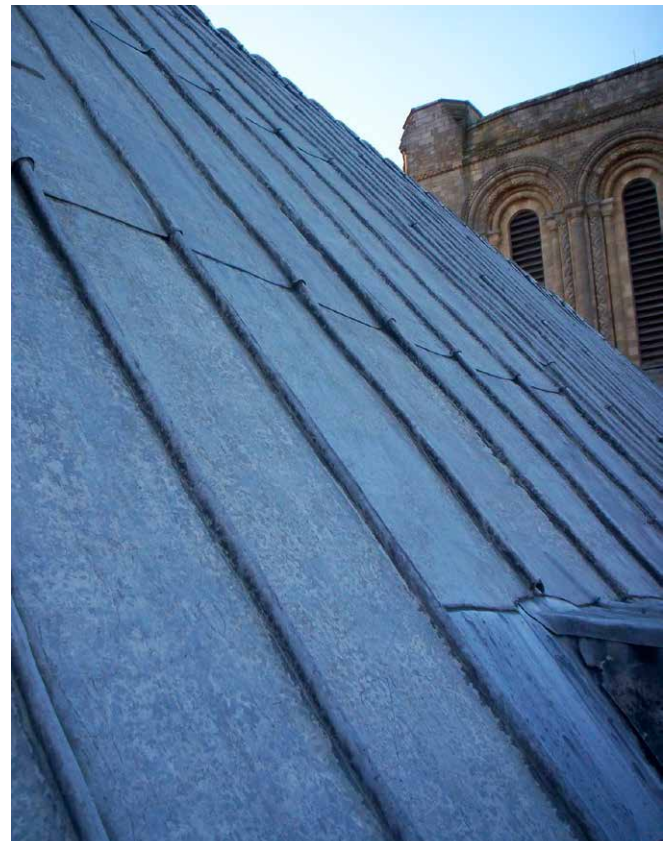


Figure 9
Lead roof illustrating the colour and appearance of lead sheet roofing and overlaps to avoid water ingress.

Reasons for use	Other considerations
Gives the most effective weatherproofing if lead is the original covering.	More expensive than many modern options.
Best performer on low-pitched roofs with less risk of water ingress.	Requires specialist skills to install and repair.
Likely to be more secure in extreme weather conditions.	Requires careful protection from theft.
Highly resistant to corrosion on the topside. Underside corrosion is effectively resisted with pre-treatments or design changes.	Can be easy to remove or steal, which can often result in damage the building.
Highly sustainable – all roofing lead sheet is fully recyclable and has value when recycled.	The value of lead makes it attractive to thieves.
It has a proven track record in exposed locations.	
Lifespan of over 50 years with many examples lasting well over a century.	
Can be easily shaped to cover difficult details.	
Mostly maintenance free and easy to repair on site.	
Aesthetically attractive.	

Table 2: Lead roofs

3.2 Alternative metals

The advantages and disadvantages of the most common long lasting alternatives to lead - stainless steel, zinc and copper - are given below.

If we consider that the risk of further theft outweighs the benefits of replacing stolen metal with the same material we will consider a suitable alternative.

Stainless Steel

Terne-coated stainless steel is the most popular long-term alternative to lead and offers advantages over other options, including a similar appearance.

Stainless steel roofs should always be installed by competent and experienced hard metal roofers. Members of the [Federation of Traditional Metal Roof Contractors](#) (FTMRC) have their work regularly vetted. (see [Figs 10, 11 and Table 3](#)).



Figures 10 and 11

This church's roof is stainless steel following repeated lead thefts.

Reasons for use	Other considerations
Lightweight and, where there are few complicated details, cheaper to install in long lengths than lead. It is resilient to damage; it will dent but rarely be holed.	Minor repair is not possible apart from small-scale soldering. If repairs are needed, this usually means replacing the whole sheet. Replacement sheets may not be the same due to changes in manufacturing techniques.
Total cost of roof likely to be cheaper than a lead roof, depending on the complexity – the metal is cheaper but more costly to lay.	Costs vary over time, but in early 2017 stainless steel was 20% cheaper than lead.
Long-lasting – it should last well over 50 years.	May not last as long as a lead roof.
Stainless steel is very unlikely to corrode underneath.	Bad weather is more likely to affect steel roofs. This means they are more likely to leak or be lifted by strong winds.
Longer sheet lengths mean that some historic details can be kept.	Lead is still the best material to use for flashings.
Can be detailed with traditional batten rolls.	Steel is not as flexible as lead so fine detailing may not be possible.
Recent improvements mean that stainless steel is now longer lasting although it is more difficult to work	Rain drumming on the roof can be noisy unless a purpose made acoustic underlay is used.
The terne coating on stainless steel is now made of tin, not lead, which is less dangerous to manufacture and install.	Requires more maintenance than lead: <ul style="list-style-type: none"> ■ Tape and mastics have quite short lifespans; ■ Needs regular washing; ■ May become marked or discoloured
Less likely to be stolen as it is harder to remove and the scrap value is much less than that of lead. Nickel-free steel, has a scrap value that is a fraction of that of lead.	It may be mistaken for lead and attacked.

Table 3: Stainless steel roofs

Copper

Weathering to a distinctive green colour over time, copper has been used on roofs for centuries. However, the green patina will now take many decades to appear (if at all) because of the reduction in levels of sulphur in the atmosphere.

Copper will not necessarily be a suitable replacement for lead due to the difference in appearance. Copper is also prone to staining (caused by contact with other metals such as iron) which can affect the appearance of the roof.



Figure 12
A rural church with a copper roof of distinctive green colour.

Reasons for use	Other considerations
Lifespan of over 50 years.	Relatively high-cost material and attractive to thieves.
Good performer on both low-pitched and steeply-pitched roofs with less risk of water ingress.	Requires specialist skills to install and repair.
Corrosion of the top layer of metal, which causes the green colour, provides a protective coating.	Repairs may never develop the same colour as the original roof due to climate change.
Can be shaped to cover difficult details.	Can be difficult to repair.
Takes time and expertise to take apart so difficult to steal quickly especially long strip with standing seams.	Can be prone to acid erosion.

Table 4: Copper roofs

Zinc

Zinc has been used successfully on historic buildings, particularly in Europe, for many years,

but has not been extensively used in the United Kingdom.



Figure 13
A zinc roof being added to a bandstand showing the colour of new zinc roofing.



Figure 14
A zinc roof which has weathered over time.

Reasons for use	Other considerations
Similar in colour to certain types of lead.	Zinc is often coated to enhance protection.
Now has a reasonable longevity of 50 years.	Relatively low scrap value compared to lead or copper so not very attractive to thieves.
Can be detailed to resemble lead details for example rolled battens.	More difficult to steal than lead, although speed of removal depends on design.
Like copper, zinc can be supplied and fitted in long strip which has some advantages, for example in allowing water to run off more easily.	Zinc has not been widely used on historic buildings in England.
Can be repaired in situ through use of mastics.	The longevity of mastic repairs has yet to be proven.
	Can be repaired in situ by soldering patches over the affected area, however this may be difficult due to the potential of overheating (zinc has a melting point of just over 400°C).

Table 5: Zinc roofs

3.3 Other materials

Historic England will not support the use of synthetic non-metal materials as roof coverings on listed buildings, unless there are highly exceptional circumstances.

These materials do not replicate the appearance of lead and because they are visually inappropriate they are highly likely to harm the significance of historic buildings. Their technical performance

and longevity in the demanding environment of a roof on a historic building has not been proven.

There are an increasing number of new roofing systems being marketed as alternatives to traditional metal. Many of these offer guarantees of 10 years or more. Few have been around for a considerable length of time and continuous changes in their design and composition makes judgements on performance problematic.

One of the key problems with synthetic non-metal products is that they rely on adhesives and particularly high standards of workmanship to make sure that they perform even to the degree proposed. There are high quality adhesives available on the market and many manufacturers have their own training and inspection regimes, but the threat of leaks is particularly acute for historic buildings such as churches where the roof material must accommodate movement and avoid cracking and joints opening up. Water penetration from the roof can be unnoticed in a building which is not regularly used and severe damage to important internal fabric as well as the timber roof structure can result. Repairing these can be significantly more than replacing the roof. The great advantage with most traditional roof coverings is that they are largely maintenance free and only require occasional inspection.

Many synthetic non-metal roof coverings are glued onto a plywood deck. Laboratory testing has shown that plywood decks are dimensionally stable. All buildings and materials move to varying degrees during the seasons, particularly south and west facing roofs which receive most of the sun. The adhesives would have to accommodate this movement. Lead is laid and fixed to allow for this.

Modern roofing materials are mainly designed for use on new buildings with relatively straightforward detailing. Many church roofs have evolved over centuries to accommodate additions and alterations that have made detailing at eaves, verges, upstands, abutments etc. quite complex. And with all roofing systems it is essential that they are able to accommodate seasonal movement without the fear of joints opening or cracks appearing. A common feature of many synthetic non-metal roofing systems is the use of mastic to seal flashings at upstands. Mastic sealants which are open to the elements can be very short-lived and where they split this becomes a route for water ingress.

At present information about the performance of synthetic non-metal roofing systems is elusive, mainly because many are relatively new, but



Figures 15-17

15 Detailing on a Glass Reinforced Polyester roof.

16 Church with Glass Reinforced Polyester roof covering.

17 Glass Reinforced Polyester covering on a flat roof.

understandably, there can be a reluctance to report problems or failures. Notwithstanding their technical performance, the suitability of modern roofing materials for use on historic buildings will also have to be judged on their appearance and their impact on the significance of the building.

4 Preventing Theft

There is no ‘one size fits all’ answer to the challenges of metal theft. Prevention and security measures should be tailored to your building and its location, taking cost and resource into account. The most effective measure is to use a combination of methods, some very low-cost. Your insurer may have also specific requirements regarding security measures.

All reasonable security measures should be put in place to prevent theft. It is not, however, justifiable to remove lead and replace it with another material before thieves have struck.

If you wish to make changes which may alter or mark your historic building, or any trees on site, you should first contact the local authority or denominational body for permission.

4.1 Actions you can take

1. Do a simple risk assessment

This basic measure asks questions which can help you decide what action to take to reduce the risk of metal theft.

Some examples are:

- What type of metal is there? How much is there? How easy would it be to remove?
- Would a thief be seen? Do neighbours overlook the site? Are there notices saying what measures are in place?

Action

- Go to [Appendix 4](#) for a Risk Assessment Template

2. Prepare a Statement of Significance

If your building has a roof covered with traditional metal, we encourage you to prepare a brief statement of its significance, which can be used to inform decisions in the event of the building being attacked.

It will help the architect or surveyor specifying the repairs or re-covering and any contractors undertaking the work. It will also help the local authority, Historic England and denominational advisory bodies to give well informed advice.

The statement may include:

- Any information about when the metal was laid
- Whether there are particular details, graffiti or markings
- Photographs showing the whole roof and any particular details (see [Fig 18](#))

3. Involve the community

Building good relationships with your local community can help to protect your building from crime. You may wish to:



Figure 18
Plumber's mark from 1748. Many historic roofs have unique or distinctive markings.



Figure 19
Developing relationships with neighbours can help ensure that crime is reported.

- Give neighbours a contact number and encourage them to note vehicle numbers and alert the police if they see anything suspicious. Thieves often remove a small amount of metal at a time, making repeat visits to clear the site. **Alerting police** may help them identify and catch criminals
- Display a warning notice, requesting that members of the public call the police if they see vans or workmen around the building outside normal working hours. You may need permission from before you erect such signs
- Tell neighbours to be extra watchful when works are going on, as buildings are attractive to thieves if there are workers or scaffolding on site
- If there is a neighbourhood watch scheme make sure the building is included

Develop good relationships with your local policing team. Contact them to discuss the building's significance and the amount of metal. Offer to show them round and explain the building's importance, whether it is listed, and what the long-term damage to heritage might be.

4. Take basic protective measures

Consider what low-cost measures can be taken to make it as difficult as possible for thieves to access metal or to make a quick getaway.

Bear in mind that you may need permission for some changes and that it is best to seek appropriate advice if you are unsure.

Below are some examples of basic protective measures you may wish to consider:

- Do regular checks of metal roofs, gutters and downpipes so any thefts are detected quickly
- Make access onto the building difficult. Remove water butts, compost bins, and wheelie bins. Store ladders securely
- Apply anti-climb paint to drain pipes, roof guttering and sections of scaffolding. You should not apply below a height of 2m and must prominently display a warning notice about it so that people do not damage their clothes on it. You should seek advice on whether consent is required for signs

- Keep gates locked and restrict vehicle access to the site. Consider ways to block entrances, while allowing necessary traffic to get close to the building

5. Make it harder for thieves to hide

This may involve consideration of the following options:

- Make the building as visible as possible. Cut back tall trees and vegetation close to buildings, which could hide criminal activities. Permission may be required to cut back or remove certain trees, for example if there is a Tree Preservation Order or if your building is in a Conservation Area or a Church of England churchyard
- Installing security lighting, particularly at roof level. Fittings should be inaccessible and/or vandal resistant. Seek advice on siting lights from a security expert, to ensure they do not create shadows where a thief can hide. Such work may require permission
- Avoid lighting areas that are secluded and not overlooked – you might be assisting thieves



Figure 20
Carefully positioned lighting can help to make your building visible.

6. Secure movable items

If there are statues, railings, water troughs or other metal objects around the building, make sure they are anchored to the ground or a fixed structure. If you would like to fit fixtures to a historic building, consult a security specialist with expertise in conservation of historic fabric. Check whether you would need permissions to anchor objects or fix fixtures.

Protect the lower section of lightning conductors using a metal cage or sheath securely fixed to the building.

7. Mark your metal

There are several types of marking which enable metal to be identified: some forensic marking shows up under UV light, and physical marking leaves a visible mark on the material. Some of these can connect to central databases so that marked materials or traces on people can be linked to a site or a crime.

The forensic marking of accessible areas of a building provides unique identification so materials can be traced to that building. It can



Figure 21
Where possible, remove opportunities for thieves to climb or hide.

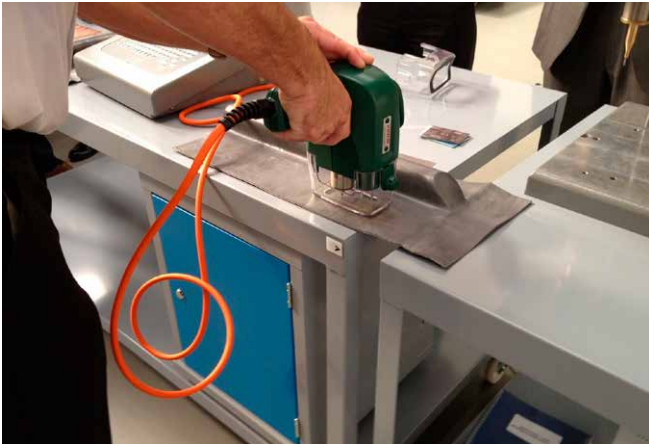


Figure 22
There are methods of marking metal so it can be identified if stolen.



Figure 23
Example of identifying markings which can be made on metal.

also mark thieves so they can be linked to a site or crime. This increases the likelihood of recovering material and achieving a prosecution. There are [accredited products](#) available. Some insurers require the use of specific products as a condition of cover so always check to ensure compliance.

Mechanical stamping leaves a mark including the postcode, name or Listed Building Number. The work must be done by a trained contractor who will not damage the metal. Some contractors can mark existing materials or can include marking as part of a contract to fit new metal. Others offer marking services as part of their contract whilst doing gutter clearance or maintenance.

Put up warning notices saying security marking has been used to act as a deterrent. You should seek advice on whether putting up new signs would require consent.

8. Install Alarm systems

We encourage the installation of appropriate alarm systems when roofs are re-covered using metal. Ideally, a system should be installed before the roof is put down, so that it is protected during building works. We recognise that each situation is unique and sometimes an alarm will not be a realistic

or practical solution. If you are considering installing an alarm system, our checklist will help you with the main considerations. Please see [Appendix 3](#) for further information.

Check with your insurer before installing alarms for guidance on appropriate and acceptable systems for insurance purposes.

Alarm systems should be installed and maintained by a [National Security Inspectorate \(NSI\)](#) or [Security Systems and Alarms Inspection Board](#) approved company. Their websites will help you find details of approved companies in your area.

An alternative approach is to install vibration detection to the underside of the roof substrate. Depending on the substrate characteristics, each detector will cover a radius of about 2m. In considering this approach, it is important to bear in mind that each device will need to be accessible for maintenance. Wire-free movement detectors may be the most appropriate for protecting historic buildings. They are also more quickly deployed.

Where systems are being installed on existing roofs, Historic England is content for the installation to be authorised by denominational authorities without prior consultation with us, subject to the church architect or surveyor



Figure 24
Alarm systems can deter thieves or even contact the emergency services.



Figure 25
Check with your insurer and/or advisory body before installation.

supervising cable routes and fixings to ensure damage to historic fabric is minimised.

In cases where the new work is being partly funded by the Heritage Lottery Fund, it may be possible to include the cost of an appropriate security system as an eligible item in assessing the project.

9. Closed Circuit Television (CCTV) Systems

These are the most complex and expensive systems to install, manage and maintain. Systems should comply with the latest [British Standards](#) and only be installed by accredited contractors who understand the conservation and legal protection of historic buildings.

Always seek advice from your local planning authority or denominational advisory body before approaching a contractor.

Motion sensor alarm systems may be more cost-effective.

Many of the considerations of the CCTV system are the same as for alarm systems. Please see our alarm checklist at [Appendix 3](#) if you are thinking about installing one.

10. Take extra precautions when contractors are on site

Buildings are particularly attractive to thieves when building work or scaffolding is on site. This is especially true of unoccupied or remote buildings, for example places of worship, barns, pavilions or empty houses.

Whenever work is being done, it is important to make sure that neighbours and the local police are aware. Tell them the name of the contractor, the times that workers will be on site and who to contact if they see something suspicious.

Some actions to consider are:

- Before erecting scaffolding additional precautions need to be in place: Check your building insurance policy to see what is required
- Whatever the insurer's requirements are, discuss what the contractors will do to minimise the risks. The [National Security Inspectorate](#) Code of Practice for Scaffold Alarm Systems (NCP 115) sets a standard for alarms on scaffolding
- Bolt corrugated iron sheeting or solid timber boarding around the base of the scaffold to a height of 3.5m to deter climbers. Any doors in the hoarding should be flush with the face of the hoarding. Hinge pins should be protected to prevent them being driven out. Doors should be locked using a heavy duty staple and hasp or locking bar, with heavy duty, close-shackled padlocks
- Erect Heras®-type fencing panels around the work site to a height of at least 2m. In some areas, where theft is prevalent, 3m or even 4m is recommended
- At the end of each working day: ladders should be secured, old metals removed, doors locked and scaffolding boards strapped down to make it harder to access or remove materials
- In some locations security patrols or manned guarding, undertaken by [NSI](#) approved and licensed security personnel, might be necessary

For further advice on scaffolding, please see the [Ecclesiastical Insurance Scaffolding Checklist](#) and advice on [Metal Theft](#).

5 Dealing with Theft

Metal theft often causes great damage because it goes undetected for days or even weeks. We encourage frequent checking of roofs, rainwater goods and lightning conductors to minimise additional damage caused by rain and wind where metal has been stolen. It is also important to check interiors in case there are puddles or new damp patches at high level that could be signs of metal theft.

This section covers the immediate action you should take when you discover that metal has been stolen. The priority should be to make the building wind and weather-tight.

5.1 Actions you can take

1. Tell the police

- If the crime is in progress and offenders are still at the scene call the police immediately using 999
- If the offenders have gone, call the police non-emergency number 101

2. Information to tell the police call handler

- Give clear information about location, providing as much detail as possible; for example a postcode or an Ordnance Survey Reference; listed buildings also have a unique building number
- Give any information that would help to identify thieves or their vehicles



Figure 26
This church suffered from lead theft, which caused flooding and subsequent damage to the building.



Figure 27
Interior of a church that has been flooded due to damage caused to the roof by metal theft.

- If you think that the criminals have left stolen property, such as roofing lead, at the scene or nearby, please inform the call handler as it is likely that the thieves will return to collect and to steal additional material from another part of the building
- Make sure that you ask the call handler for the incident reference number. You will need this for any insurance claim and for ensuring different police teams have a single reference point
- Say that the building is listed and that you would like the incident reported as a heritage crime, and that the Heritage Crime Liaison Officer should be notified

3. Check the building and secure the crime scene

- Check the building for any additional damage caused by the theft
- If you believe that the suspects have left items of property, tools or any object or mark which may contain forensic evidence, such as fingerprints or tyre marks, please tell the call handler
- Record anything else unusual about the building and surrounding grounds (bins which have been moved to allow access to the roof, etc.)

4. Take action to protect the building

- Get emergency roof covering in place, using tarpaulins or plastic sheeting. This is a top priority as even a small amount of rain can cause huge damage very quickly
- If you can, take some quick security measures (described in [Section 4: Preventing Theft](#)) to prevent further thefts



Figure 28

A marker left by criminals to show where cameras have been disabled.

- Immediately after a theft, once emergency cover is in place, it is important to secure all remaining metal. Any metal still on the roof should be kept – it must not be removed for ‘safekeeping’ or sold to fund repairs. Any proposal to remove metal must be discussed with the appropriate authorities, including Historic England in the case of grade I or II* buildings
- Places of worship should contact the building’s architect or surveyor so they can inspect the building, help to arrange emergency protection and plan how to repair the damage
- If lead has been stolen or damaged then the contractors you get to replace or repair it need specialist training. The [Lead Contractors Association](#) guarantees the work of some contractors

5. Inform key contacts

- Tell your insurance company
- Church of England congregations should notify their Archdeacon and Diocesan Advisory Committee Secretary for immediate advice and support
- Baptist Union, Methodist, Roman Catholic and United Reformed Church congregations should notify their respective Advisory Committees
- Church Crime Alert: the Church Buildings Council has published guidance intended to protect church treasures and has set up Crime Alert (contact 020 7898 1860 or churchcrimealert@churchofengland.org). Reporting theft of metal or other materials or artefacts will ensure an immediate alert to auction houses, museums and crime prevention agencies

6. Warn your neighbours

- Tell neighbours, as they are likely to be at heightened risk from thieves working in a particular area
- If you are part of a local neighbourhood watch scheme or Community Messaging Scheme, you may wish to start a Heritage Watch Scheme that will include all the protected sites and buildings in your area. Such schemes exist already in [Essex](#) and [Kent](#)

6 Help the Police Get a Conviction

Timely reporting, recording and evidence-gathering are crucial in assisting the police to identify offenders involved in the theft of metal from heritage sites and buildings.

The Sentencing Guidelines for Theft now highlight the theft of heritage assets and this will include the theft of metal from a protected building.

The police, prosecutors and the courts are now more aware of the scale, extent and impact of the theft of metal from heritage sites and buildings.

Metal theft from a church or community building is:

- An attack on the resources belonging to local communities that restricts their use, imposes an additional financial burden and undermines the morale of volunteers
- A threat to our local and national history, which may spoil future generations opportunities to enjoy, understand and celebrate their shared past and inherited legacy

Actions you can take:

- Your local [Neighbourhood Police Team](#) and Designing Out Crime Advisor can provide more information on how to minimise crime and anti-social behaviour
- Check the [Historic England Crime Prevention Guide for Owners and Managers](#) and the [Church Care](#) website for more advice

- If the police identify an offender they may ask you to provide a [Heritage Crime Impact Statement](#). This statement will assist the Court to understand the impact that the crime has had on the building and local community
- If you do need an impact statement, these are usually read to the Court after the conviction and before sentencing. It is possible that the Prosecutor will require you to attend to provide evidence. If this is the case, you will be contacted by the Court Witness Service who will provide support and advice
- Try to get others to provide Impact Statements to add weight to the evidence you provide and to show how important the building is to the community. For example, you could ask members of the community or congregation, the local authority conservation officer or your denominational advisory body. Your local Historic England team may also provide an Impact Statement, explaining the importance of the damaged building in the national context

- Make any photographs of the stolen metal available to the police as these may enable them to identify it if found

No remaining metal should be removed without permission from the appropriate authorities.

Action

- Go to [Appendix 1](#) for a simple pro forma for Impact Statements
- Get in touch with your [Neighbourhood Police](http://www.police.uk/) (<http://www.police.uk/>)
- Get in touch with your [local Historic England](https://historicengland.org.uk/about/contact-us/local-offices/) team (<https://historicengland.org.uk/about/contact-us/local-offices/>)

7 Where to Get Advice

7.1 Publications and webpages

Historic England 2013. Crime Prevention Guide
<https://HistoricEngland.org.uk/images-books/publications/heritage-crime-prevention-guide/>

Historic England 2013. Conservation Bulletin
'Heritage Crime'
<https://HistoricEngland.org.uk/images-books/publications/conservation-bulletin-70/>

Local Government Association 2013. Metal Theft:
A Councillor Handbook
http://www.local.gov.uk/publications/-/journal_content/56/10180/3716389/PUBLICATION

Local Government Association 2013. Metal Theft
Toolkit
http://www.local.gov.uk/publications/-/journal_content/56/10180/3376193/PUBLICATION

The Alliance to Reduce Crime against Heritage
(ARCH)
<https://www.HistoricEngland.org.uk/advice/caring-for-heritage/heritage-crime/get-involved/>

7.2 Trade organisations

The British Security Industry Association
<http://www.bsia.co.uk/>

Federation of Traditional Metal Roofing
Contractors
<http://ftmrc.co.uk/>

Lead Contractors Association
<http://www.leadcontractorsassociation.com>

Lead Sheet Association
<http://www.leadsheet.co.uk>

National Federation of Roofing Contractors
<http://www.nfrc.co.uk>

7.3 Ecclesiastical advisory bodies

Church of England: ChurchCare
<http://www.churchcare.co.uk/churches/church-buildings-council/who-s-who/dacs>

Roman Catholic Church: the Patrimony Committee
<http://www.cbcew.org.uk/CBCEW-Home/Departments/Christian-Life-and-Worship/Patrimony/Care-of-Churches>

Baptist Union of Great Britain: the Listed Buildings
Advisory Committee
http://www.baptist.org.uk/Groups/220867/Listed_Buildings.aspx

United Reformed Church: local Property/Trust
Officers
<http://www.urc.org.uk/plato-property-handbook1/613-plato-property-handbook.html>

Methodist Church: the Listed Buildings Advisory
Committee
<http://www.methodist.org.uk/ministers-and-office-holders/property/conservation/listed-buildings-advisory-committee>

Contact email:
kate.guest@HistoricEngland.org.uk

7.4 Historic England regional offices

East Midlands

2nd Floor, Windsor House
Cliftonville
Northampton NN1 5BE
Tel: 01604 735460
Email: eastmidlands@HistoricEngland.org.uk

East of England

Brooklands
24 Brooklands Avenue
Cambridge CB2 8BU
Tel: 01223 582749
Email: eastofengland@HistoricEngland.org.uk

Fort Cumberland

Fort Cumberland Road
Eastney
Portsmouth PO4 9LD
Tel: 023 9285 6704
Email: fort.cumberland@HistoricEngland.org.uk

London

1 Waterhouse Square
138-142 Holborn
London EC1N 2ST
Tel: 020 7973 3700
Email: london@HistoricEngland.org.uk

North East

Bessie Surtees House
41-44 Sandhill
Newcastle Upon Tyne
NE1 3JF
Tel: 0191 269 1255
Email: northeast@HistoricEngland.org.uk

North West

3rd Floor, Canada House
3 Chepstow Street
Manchester M1 5FW
Tel: 0161 242 1416
Email: northwest@HistoricEngland.org.uk

South East

Eastgate Court
195-205 High Street
Guildford GU1 3EH
Tel: 01483 252020
Email: southeast@HistoricEngland.org.uk

South West

29 Queen Square
Bristol BS1 4ND
Tel: 0117 975 1308
Email: southwest@HistoricEngland.org.uk

Swindon

The Engine House
Fire Fly Avenue
Swindon SN2 2EH
Tel: 01793 445050
Email: swindon@HistoricEngland.org.uk

West Midlands

The Axis
10 Holliday Street
Birmingham B1 1TG
Tel: 0121 625 6870
Email: westmidlands@HistoricEngland.org.uk

Yorkshire

37 Tanner Row
York YO1 6WP
Tel: 01904 601948
Email: yorkshire@HistoricEngland.org.uk

For planning casework email addresses requesting advice on a specific building, please see [Appendix 2: Template letter to Historic England](#).

Appendix 1: Checklist – What to do after a theft?

Use this checklist to identify what you should do, who is going to do it and when.

Action	Yes/No	Who and when?	Notes
Call the police: <ul style="list-style-type: none"> ■ Use 999 if the crime is in progress ■ Use 101 if the thieves have left the scene 			
Tell the police: <ul style="list-style-type: none"> ■ Where the building is (postcode, OS Reference) ■ The National Heritage List for England number for listed buildings or scheduled monuments ■ Any information which may help identify the thieves or their vehicles ■ Whether there is any metal left in situ ■ That this is a heritage crime 			
Reference Number: <ul style="list-style-type: none"> ■ Ensure that you obtain the call-handling reference number 			
Have you taken action to protect the building? <ul style="list-style-type: none"> ■ Is emergency roof covering in place? ■ Have you called your surveyor/architect? ■ Have you taken any extra security measures? 			
Have you secured any remaining metal?			
Have you informed key contacts? <ul style="list-style-type: none"> ■ Your insurance company ■ Your Neighbourhood Watch, Heritage Watch or Police Community Messaging Network ■ The Church Crime Alert (if relevant): 020 7898 1860 churchcrimealert@churchofengland.org. 			
Have you told your neighbours or nearby congregations? They may be at risk.			
Heritage Crime Impact Statement <ul style="list-style-type: none"> ■ Be prepared to draft an impact statement as the police may ask you to do so after an arrest ■ If needed, ask others (community, Local Authority Conservation Officer, Historic England) to write impact statements too as these will help show the police and courts the impact the crime has had 			

Appendix 2: Template letter to Historic England

Request for pre-application advice from Historic England to replace a roof covering on a church following theft (Faculty Consent and/or Planning Permission).

Please send to your local Historic England office by post or email. The appropriate email addresses are as follows (for all general enquiries, please see contact details at [7.4 Historic England regional offices](#)):

East Midlands e-emids@HistoricEngland.org.uk

East of England e-east@HistoricEngland.org.uk

London e-london@HistoricEngland.org.uk

City of Westminster e-Westminster@HistoricEngland.org.uk

North East e-neast@HistoricEngland.org.uk

North West e-nwest@HistoricEngland.org.uk

South East e-seast@HistoricEngland.org.uk

South West e-swast@HistoricEngland.org.uk

West Midlands e-wmids@HistoricEngland.org.uk

Yorkshire & the Humber e-yorks@HistoricEngland.org.uk

The appropriate [postal addresses](#) can be found here (<https://HistoricEngland.org.uk/about/contact-us/local-offices/>)

The Historic England Customer Service number is 0370 333 0607

Request for advice about the replacement of stolen roof metal with another material

We have recently suffered a theft of roof metal and I am writing to seek Historic England's advice about our proposal to replace the stolen material with a different material.

The details are as follows:

1. Name of the building, its location and listing grade.
2. Details of the number and approximate dates of thefts (most recent and any previous) that have occurred and which roof was affected (for example: porch, aisle, nave etc.). Clarification of whether metal similar to that which has been stolen is still in place on the roof.
3. A description of security measures in place at the time of the most recent theft, for example roof alarm systems, forensic or physical marking, security lighting, restricted vehicle access.
4. Whether any grant-aid for repair of the roof was received in the last 10 years, for example, under the English Heritage/HLF Repair Grants for Places of Worship Scheme.

5. Any financial information that might be relevant, for example capping insurance pay-outs, recent expenditure on other repairs or works arising from the Quinquennial Inspection Report, the current financial situation. Whether funding will be sought from a grant giving body.
6. Close up photographs of the roof in its damaged condition, including internal damage if any. Also photographs from ground level (both close and at a distance) and from any surrounding taller land or buildings, showing how much of the roof is visible.
7. Details of the replacement material proposed for the roof, and whether the roof slope is suitable for this material (based on consultation with your architect or surveyor). This may include drawings, letters, quotations, etc.
8. Description of security measures proposed to be installed with the replacement roof and to protect any remaining metal.

To note: Historic England will normally advise congregations to contact their denominational Advisory Committee and/or the local Planning Authority for pre-application advice, if this has not already been done.

Appendix 3: Alarm Checklist

Use this checklist as a guide when you are considering installing an alarm system.

Have you thought about:	Yes / No	Notes
Whether your insurer has any specific requirements for an alarm system under the terms of your cover?		
The cost of the alarm system?		
The cost of ongoing maintenance and management?		
Will your neighbours notice an alarm going off? Bells and sirens on their own may be effective in built up areas but not in isolated areas.		
Have you got permission for an alarm system from your denominational advisory body or local authority?		
Will the alarm also activate a flashing floodlight?		
Will the alarm be linked to a 24 hour manned receiving centre or directed to the phones of appointed keyholders? What is the cost of this?		
Have you contacted your local policing team to find out how to respond to an alarm without putting yourself at risk?		

Appendix 4: Risk Assessment Template

Item	Management of Risk			
	Satisfactory Condition			Proposed action to be taken
	Yes	No	Don't know	
<p>Boundary treatment</p> <p>Does the building have a well-defined perimeter fence? Could a vehicle be brought on site? If so, how close to the building? Check for holes, gaps under gates and climbable sections of fence.</p>				
<p>Visibility</p> <p>Is the property overlooked by neighbours? Are there many passers-by? Are overlooked areas lit at night? Is it likely that a thief would be seen? Are secluded areas dark to discourage youths congregating? Have neighbours or building users been primed to report suspicious activity?</p>				
<p>Grounds</p> <p>Is terrain flat and easy to move over or stepped/sloped? Are there valuable metals – statues or garden furniture?</p>				
<p>Building Access</p> <p>Is there easy access to upper storeys via lean-to roofs, escape stairs or rainwater goods?</p>				
<p>Metals</p> <p>How easy to remove are the metal assets? How portable are they? How close are they to likely points of vehicular/pedestrian entry?</p>				
<p>Security Systems and Management</p> <p>Is there an effective alarm system? Is there a guaranteed response to activations? Is the building unoccupied for long periods? Is there CCTV? Are there security patrols? If building works are to be carried out: will they be supervised? Do you know the contractor?</p>				

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Acknowledgements

Images

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Figures 3, 8, 10-11: Caroe and Partners

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Historic England

We are the public body that looks after England's historic environment. We champion historic places, helping people understand, value and care for them.

Please contact guidance@HistoricEngland.org.uk with any questions about this document.

HistoricEngland.org.uk

If you would like this document in a different format, please contact our customer services department on:

Tel: 0370 333 0607
Fax: 01793 414926
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Email: customers@HistoricEngland.org.uk

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