Village & Community Halls A Guide to Surveys











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FOREWORD

This guide explains the different types of surveys that anyone managing a village hall may need to commission. It also aims to assist surveyors to understand a little about the complexities that may be faced when undertaking such a survey. Although we refer to 'village halls' the guidance can also be applied to many other similar community-use buildings.

The need for this guidance was recognised by the ACRE network member, ACTion with Communities in Cumbria, whilst working with a local surveyor. In making enquiries and exploring the market there were very few surveyors available and able to support surveys for these types of community buildings.

A bursary scheme was put in place funded by the National Lottery Community Fund as part of the 'Northumberland, Durham and Cumbria Community Places' project which led to over 50 surveys being completed across Cumbria to date.

ACTion with Communities in Cumbria approached ACRE and Stagg Architects with the proposal for this guidance. Ben Stagg had authored the ACRE Net Zero Design Guide so was in a good position to undertake this work.

We are all pleased with the guidance which we hope you will find useful, and proud to have had this opportunity to work with the ACRE network member for Cumbria, the National Lottery Community Fund and Ben Stagg for the benefit of all.



stagg architects







ACRE

ACRE is the national body of England's largest rural grouping of community support charities. We enable our members to deliver initiatives that equip people with the knowledge, skills, and connections needed to improve their community. This includes the coordination of nationally funded projects, programmes and research. Through a network of skilled advisers, ACRE coordinates a nationwide information and advice service for village halls. Advisers are based in every rural county of England and combine their specialist knowledge of running community buildings with local knowledge.

www.acre.org.uk

Stagg Architects

Stagg Architects has been in practice since 2011, and are keen to use the knowledge and skills they have accumulated to benefit charities and other social-purpose organisations. They have a strong focus on environmental retrofit, low carbon technologies and working with existing buildings. Ben is also the author of ACRE's Net Zero Design Guide, and is keen to continue working with charities and third sector organisations, helping them to realise their net zero ambitions.

Al Muir, Building Surveyor, Cumbria

Al has been a Building Surveyor for more than 20 years, working in public and private sectors in the North-West. With twin interests in traditional buildings and energy auditing, he currently provides combined building condition surveys and energy audits to produce recommendation reports for a range of community buildings in Cumbria. Meeting the committee members during the survey really helps tailor the report to what they want and what is practical. This results in a clear programme to improve comfort levels and reduce carbon emissions/running costs while ensuring essential repairs and maintenance are included, securing the site for the future.

National Lottery Community Fund and ACT

We are grateful for the National Lottery Community Fund support for this project through ACT. www.cumbriaaction.org.uk

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INTRODUCTION

Why have we produced this guide?

The intention of this guide is;

- to make the process of commissioning surveys easier for village hall committees; to provide clarity, save time and save money.
- to explain the various types of survey available, the reasons for undertaking them, who should produce them, and what they should include.

There are around 10,000 village halls in England, many of which are older buildings requiring maintenance and improvement work. While simple day-to-day repairs can be undertaken without a survey, there will be times when a thorough and detailed assessment of the building is required, especially if significant alteration or refurbishment is planned. Most village halls will have already been subject to a survey of some kind and certainly will require one in the future.

Knowing when to commission a survey and the type required is an important consideration for a management committee. It's a question that has led to some confusion, both among community groups and surveyors, and it is not unusual for the wrong type of survey to be produced, or for it to contain insufficient detail. In some cases, overly complex surveys are produced which are expensive and can be difficult to understand.

While for many years a simple condition survey and maintenance plan would for most village halls be sufficient, with the rising awareness of energy efficiency and carbon reduction there are now a lot more subjects to address.

This document discusses the types of survey available, the reasons for choosing one, who should be approached to undertake it, what it is likely to include, how much it should cost, and how long it should take to produce. The information contained will help village hall committees and community groups commission surveys that are most suitable to their needs, saving time, money and unnecessary stress.

Who is the guide intended for?

 The guide is primarily for those commissioning surveys such as village hall committees and community groups but is also relevant to surveyors and funding bodies.

Surveys may be required for many reasons, but organisations who are awarding funding, grants or loans are increasingly asking for surveys as part of their due diligence when assessing applications. Primarily this is to ensure that the grant will be invested in a sound building and the investment will be successful and represent good value. To assure themselves that a proper process is being followed, funders often want professional, independent, and impartial confirmation that the building is in good condition and that the proposed works will have a positive and beneficial impact.

Funding bodies are therefore an important consideration in this guidance, and they represent one of three key stakeholder groups who have been consulted. The other two groups are those commissioning surveys such as village hall committees, and those producing the surveys, typically but not always, surveyors. Although grammatically the guide is written to address village hall committees, it is intended that this document will be useful to all three stakeholder groups.

DOCUMENT OVERVIEW

Below is a two-page summary of the guidance. If you want to know more, click on a bullet point and it will take you to the relevant part of the document.

Chapter One – Surveys and their use

- Surveys are needed because they help ensure your hall is kept in a good condition and that alteration and improvement work is appropriate and beneficial.
- Surveys don't just describe the existing situation, they can also be used to identify improvement works, and assess and evaluate recommendations.
- Used as a starting point for your project, surveys should be clear in their purpose and give you specific information that you need in order to move forwards with design, specification, and construction work.
- If you are considering energy efficiency improvements, then a detailed energy survey will be useful for informing a whole-building strategy and the phasing of work if necessary.
- For halls that are listed or historic, extra care needs to be taken when commissioning surveys taking into consideration guidance published by Historic England.

Chapter Two – Types of building survey

- Condition surveys provide a solid start for most construction projects as they assess the building and tell you what you need to do to put right any defects.
- Maintenance surveys tell you what you need to do in future to keep the building in good condition.
- You should have an asbestos register and management plan and will also need a Refurbishment & Demolition (R&D) survey if you are planning to undertake 'major' construction work.
- A structural survey may be required if you are planning to make changes to the structure of the building such as loadbearing walls, roof trusses, columns or beams.
- A specialist damp or timber survey may be needed but usually a good general condition survey will be sufficient to cover this aspect.
- Other types of building survey such as a drain survey, measured survey, ground condition survey or building services survey are also available.
- The local planning authority sometimes requests surveys as part of a planning application in which case the relevant surveyor must consult the planning policy and validation requirements.

DOCUMENT OVERVIEW

Chapter Three – Energy surveys

- Energy surveys assess the energy efficiency of the building and then evaluate the performance of improvement measures in terms of cost and carbon reduction.
- An energy survey should start with a simple assessment of the existing building in terms of its energy use, running cost and carbon emissions.
- Detailed heat loss surveys and thermal imaging are generally more complex than is required.
- An energy survey should propose suitable improvement measures such as insulation, clean electric heating systems, renewable energy generation, and ventilation.
- Energy surveys need to carefully consider the anticipated occupancy of the hall as this will affect the suitability of improvement measures.
- The impact of the improvement measures should be assessed and evaluated as individual measures and also as sensible complimentary packages.
- Payback periods should be calculated but treated with caution as they are produced using multiple assumptions and should not be the sole consideration in decision making.
- Different funding bodies have different priorities and therefore different ways of assessing energy surveys.
- Energy surveys can be carried out remotely but if you are serious about making improvements it is probably better to pay more for a comprehensive on-site survey.
- EPC and DEC certificates are generally too simplistic and don't provide the level of detail required.

Chapter Four – Engaging a surveyor

- It can be beneficial to safely undertake your own self-assessment of the building to help get to know it better and identify where improvements might be needed.
- Check with your local council and local ACRE member if any energy surveys are being arranged en masse as this may be cheaper and a bursary may be available.
- If you need to appoint your own surveyor, look locally, check their qualifications and competence, and talk to them in detail about what you think you need and why you need it.

Chapter Five – Guidance for Stakeholders

- It is vital that village hall committees commission the right type of survey, that provides them with the information they need.
- Funding bodies sometimes have differing requirements in terms of what they want to see in a survey which can make things difficult for village hall committees when making multiple applications.
- Surveyors need to talk to the village hall committee and find out exactly what they want to achieve, so that the survey is practical, proportionate, and helpful.

CHAPTER 1 : THE BENEFITS OF UNDERTAKING A SURVEY

Chapter One sets out;

- why surveys are needed;
- what a good survey should tell you;
- how many surveys you might need.

Why are surveys needed?

- Surveys provide information about the existing condition and performance of your building.
- They help ensure that the building is kept in a good condition, is safe to use, and performs sufficiently well to accommodate a range of activities.
- Surveys can also propose potential improvements and assess what impact those measures will have.

Good surveys are the starting point in helping to ensure that significant proposed works to the building are appropriate and beneficial. This is particularly relevant at the current time when many village halls are undertaking energy efficiency improvements, and it is important to ensure that these are carried out correctly and are suitable for the building.

If you are thinking of undertaking energy efficiency improvements it is important that you consider this as part of the overall condition of the building and avoid undertaking work on a piecemeal basis. If you are considering any significant investment, such as installing insulation, replacing windows, changing the heating system, or installing renewable energy technologies, an energy survey will allow you to consider the whole building and the most effective options available. Further information is also available in <u>ACRE's Net Zero Design Guide</u>.

What can a survey tell you?

In its most basic form, a survey will simply describe the existing situation, but it can also make recommendations in relation to works you could undertake, and sometimes also evaluate the proposals. Surveys are often only the starting point, after which more focussed design work will often be required if you are planning significant alterations or improvements.

1. "What have you got?"

Almost all surveys detail the existing situation, documented with descriptions, photographs and/or drawings. Depending on the type of survey, this may include:

- Observations about the general condition of a building
- Identification of hazardous materials such as the presence of asbestos
- Assessment of the building's structural capability
- A professional view on thermal performance, or the presence of damp.

Surveys which simply identify the existing situation are helpful, but unless they confirm everything is in good order, they are usually only the starting point for further action.

2. "What can be done?"

More detailed surveys may consider what work could be undertaken in order to put right any damage or degradation, or to improve performance. This will require the surveyor to analyse their initial findings and put forward recommendations. The level of detail into which the survey goes will depend partly on how straightforward the proposed solution is, but also what the surveyor has been asked to produce.

For example:

- Recommendations may be single sentence, or alternatively they could provide detailed information making it possible to obtain quotations from tradespeople.
- Capital cost estimates and running cost estimates might also be included if relevant, along with information such as the life expectancy of the proposals.

This is not always the case however, and an important part of commissioning a survey is agreeing with the surveyor beforehand how much detail will be provided.

THE BENEFITS OF UNDERTAKING A SURVEY

3. "What difference will the recommendations make?"

For more complex proposals, and where there are alternative solutions to consider, further assessment, evaluation, and calculations may be required.

The benefits and drawbacks of different options may need to be compared, for example in terms of:

- Capital and running cost
- Anticipated lifespan
- Environmental impact
- Suitability for the building.

The committee may wish to understand the ultimate benefit of a recommendation to justify the cost. In these situations, the surveyor will need to undertake assessments and calculations to help the committee, or others, reach a decision on whether to proceed with the work.

4. "How to do it?"

Most surveys can, if required, cover the above three steps. Explaining exactly how to do it is, however, usually beyond the remit of most surveyors as this tends to move beyond surveying and into designing and specifying.

Some surveyors may be happy to go further in this respect than others, but usually at this point the survey will direct you to an architect, engineer, builder / contractor, tradesperson or installer, and you will need to engage them to take things to the next stage.

It is possible, that if you are planning to undertake a lot of work that you might appoint an architect right at the start of the project, but the process of survey, recommendation and evaluation will still be the same, the main difference being that they can manage it for you.

How many surveys will you need?

- Avoid undertaking more surveys than you need.
- The number of surveys will depend on what you ultimately want to do.

If you are planning to undertake significant refurbishment, extend, or build a new hall, then you may need more than one survey to address the specific issues that your project faces. You will need to decide on a case-by-case basis whether you need additional surveys as the circumstances for every hall are different. If you were required to obtain planning permission, the conditions on the decision notice may also dictate what surveys you may need to commission.

Generally, we recommend commissioning as few surveys as possible. The reason for this is not only to save money, but also you may find that with multiple surveys you can end up with conflicting advice, as each surveyor will be looking at the building from their own perspective.

It is far better to have one good comprehensive survey which considers the building holistically rather than several specialist surveys, although sometimes these will be unavoidable.

Always keep in mind the ultimate purpose of a survey. Ask yourself what you need to find out from it and how that information will enable you to progress the project. If someone is advising you to undertake a survey but you don't know why, then ask them what purpose it will serve. This way you should only commission surveys which are relevant and useful.

Maintaining your hall day to day

Hall management committees need to fulfil various legal obligations and duties in the day to day running and upkeep of the building, so that it is safe for people to use. This includes health & safety audits, fire risk assessments, checking and testing gas and electrics, keeping water tanks chlorinated etc. These subjects are not covered in this guide however, and for more information please contact your local ACRE member or refer to ACRE's Village Hall Information Sheets.

HISTORIC & LISTED BUILDINGS

Is your hall historic or listed?

Good surveying is especially important for historic and listed buildings where interventions need to be carefully considered and evaluated by a professional. Old buildings of traditional construction, which may not be listed, may also require special attention.

You will therefore need to take extra care in selecting surveyors and ensure that they are competent, qualified, and experienced in working with historic buildings and that they understand their unique characteristics, such as the need for older structures to breathe.

Historic England has produced some useful publications which are free to download from their website.

- Click <u>here</u> for Historic England's technical advice.
- Click <u>here</u> for information on retrofit and energy efficiency in historic buildings.

You may find that you need to look a little further afield for the right type of surveyor and may need to commission additional reports to address special heritage issues. This will be an additional expense, but it is important that you get the right advice to avoid causing damage to the building.

To undertake most types of work to a listed building you will need to obtain listed building consent. As part of your application to the council, it is likely you will need to provide a historic building / heritage assessment. Be aware that if your hall is within the 'curtilage' of a listed building and built pre-1948 then works may also require listed building consent. Check with your local authority if you aren't sure.

We suggest that any surveyor undertaking a specialist assessment of a listed building is a member of one of the conservation accreditation schemes listed on Historic England's website, which you can access by clicking <u>here</u>.

If your building is listed and you are considering undertaking significant alterations, we suggest that you appoint a suitably experienced architect to advise you in relation to the whole project, and they will be able to advise on the types of survey that you need. You can add this cost to your fundraising bids.

CHAPTER 2: TYPES OF BUILDING SURVEY

The next two chapters explain the various types of survey that are available.

• This chapter covers most types of survey associated with the building but excluding those relating to energy use, which are covered in Chapter Three.

The term 'building survey' is very broad, and if you ask for one the reply will usually be, 'What type of building survey do you want?' This is because there are many types including:

- Condition survey & schedule of condition
- Maintenance survey & cycle report
- Asbestos survey
- Structural survey
- Damp survey
- Timber survey
- Drain survey
- Measured survey
- Ground condition survey
- Building services survey.

The list doesn't end here, and there can be a survey of almost anything in a village hall, but the above are those you are most likely to come across.

You should expect a surveyor to attend site for all the above surveys as it is important that they inspect the building in person, not remotely, or from photographs.

Homebuyer surveys

Before we get started it's worth briefly mentioning 'homebuyer surveys' as these frequently come up on internet searches, are a potential source of confusion and should be avoided.

There are three levels:

- Level one (condition report) is very basic and suitable only for conventional modern homes.
- Level two (homebuyers survey) suits a broader range of properties and broadly outlines remedial work that might be needed.
- Level three (full building survey) is a detailed assessment with advice on remedial work as well as maintenance.

However, these are all specifically for homes and so are not suitable for village halls.

While the content of the level three report may be similar to what you need, it is better to steer clear of this terminology and instead refer to the surveys described below and be specific about what you need when you talk to the surveyor.

CONDITION SURVEY

Condition Survey / Report

- A good condition survey is highly recommended as this will cover a wide range of issues and takes a holistic view of the building. If you are planning to undertake significant work then this should be your first port of call.
- If you are also thinking of undertaking energy efficiency improvement works it may be possible to commission a combined outline building condition and energy survey, but there appear to be few surveyors who can do this.

A condition survey / report is quite simply a visual inspection of the building, inside and outside, and usually forms a narrative comprising lots of photographs with short descriptions under headings such as external walls, roof, floors, windows, building services, drainage etc.

A condition survey simply describes the existing situation and identifies areas of the building that may require remedial work such as leaking gutters, missing roof tiles, broken windows, areas of damp, and so on. These will be basic items that are required for the building to function in its current state, ensure it is safe, and avoid deterioration.

What's the difference between a condition survey and a maintenance survey?

These surveys are related, and they will sometimes be undertaken together because they are both concerned with the general condition of the building.

The difference is that the condition survey assesses only the current situation of the building and can tell you how to repair existing defects. A maintenance survey (or plan or cycle report) looks forward and tells you what you will need to do over a future period to maintain the condition of the building and prevent defects from arising.

Usually, a condition survey is needed before a maintenance plan can be put in place as the hall will need to be first brought up to a good condition before it can be maintained that way. If the hall is already in good condition however, a rolling maintenance plan can help keep it that way.

Schedule of Condition (with repairs)

As previously explained, a survey which simply describes the situation may be of some use, but usually you will want to know how to act on the findings. If you therefore ask for a Schedule of Condition 'with repairs', you will also get suggestions for remedial action that can be taken to put defects right. Often this is presented in the form of a table detailing all the items which require attention, such as below; You could pass this schedule to a contractor who may then be able to undertake the repair work, but depending on the complexity of the repairs, the contractor may require further information from an engineer or an architect.

For example, if a wall is severely cracked, the schedule of condition will usually only note this and state that it should be repaired. It won't usually diagnose why the wall has cracked or state how to repair it because this is a specialist area which may require the input of a structural engineer. For simpler repairs however, such as replacing gutters or repairing windows, the surveyor will usually be able to make more specific recommendations.

Element	Comments	Condition	Notes	Urgency	Cost
Rainwater goods – gutter	Section above kitchen flat roof sagging, allowing water to pour onto poor condition covering. Photo 18 Recommend – renew section of guttering and fix to create proper fall to outlet.	Bad		= 0-1 years	£100

MAINTENANCE SURVEY

Maintenance Survey / Cycle Report

 A maintenance survey or cycle report sets out what work you need to undertake on a short, medium and long-term basis to keep the building operating to a good standard. Every hall should have one, but they only need updating every 5 to 10 years.

How much detail should the condition and maintenance schedules contain?

It is essential that you speak to the surveyor and be clear about what you need the survey for and how much detail you need, such as whether you would like cost estimates. Don't assume they will automatically know what you want.

This type of report will explain what action you need to take on a regular basis to ensure good upkeep of the building. It may suggest a strategy for tackling the defective items noted in the condition report.

A 10-year maintenance cycle will often be specified, including:

- Urgent items to be undertaken in the first year
- Medium-term items in the next 2 to 5 years
- Long-term items between 6 and 10 years.

After this you should probably consider getting the report updated and doing so may be a requirement of your building insurance.

RICS (Royal Institution of Chartered Surveyors) has published a professional standard called "Planned Preventative Maintenance" (PPM) which can be read by clicking <u>here</u>.

Section 6 of the standard is the most helpful and suggests a format for a PPM schedule.

It also defines:

- Condition ratings such as good, fair, and poor.
- Timeframes such as urgent, immediate, and short term.
- Risk / priority ratings such as essential and desirable etc.

You don't need to be fully familiar with this document, but you should explain to your surveyor that you would like the survey produced to this standard. You need to agree with the surveyor whether the condition and maintenance schedules will be sufficient for contractors to provide accurate quotations. If you would like the surveyor to provide their own cost estimates against items, then ask them to do so.

However, not all surveyors will be prepared to provide costs as they can be variable and depend on how the pieces of work are packaged up. For example, if one item requires scaffolding it would make sense at the same time to undertake all other works for which scaffold is required.

Most surveyors ought to be able to manage this however, and if the surveyor is not prepared to provide cost estimates and you think these would be helpful then perhaps ask another surveyor.

If you request a costed condition/ maintenance survey, make sure you get two copies. One with the costs, and another without so you can send the blank version to contractors, so that they don't see the surveyor's estimates. Confirm with the surveyor whether VAT is included in the costs and be aware they will also be subject to inflation, and most likely will not include contingency or professional fees.

CONDITION & MAINTENANCE SURVEYORS

If you share with the surveyor what the purpose of the report is and what your overall plans are, they will be better placed to give you the level of information you need.

- If you are undertaking the report because your insurers asked for it, then tell the surveyor.
- If you are thinking of undertaking a refurbishment, again tell the surveyor.

Don't assume you will get all the information you need without asking for it- agree this before the surveyor provides you with their quotation for the report. For a typical village hall, a condition survey and maintenance report around 30 to 40 pages long would be appropriate.

Why not ask a contractor for a cost estimate without having a survey?

There is nothing to stop you going direct to a builder and asking them for a cost estimate without having a survey, but the risk is that without being able to tell them exactly what to price they will make their own list, and it may not include the things you really need.

If you ask more than one contractor they will all make their own lists and so it will be difficult to compare like for like. Unless the works are small and simple we would always advise getting a proper survey so that an appropriate schedule of works can be drawn up and more accurate quotations can be obtained.

How to find a condition and maintenance surveyor

Most areas of England will have at least a few surveyors in the local area who are capable of undertaking these types of survey as they are very common and generally well understood. Often the surveyors may be sole traders or part of small companies.

Ideally, look for a surveyor no more than an hour's travel from your hall as above this the cost may increase. A local surveyor will also be more familiar with the traditional building types in the area and so will likely have a better understanding of your hall's construction.

Accreditations & Qualifications

Most building condition surveyors will be RICS (Royal Institution of Chartered Surveyors) registered, and while we would usually suggest seeking this accreditation, it is not essential and there will also be good surveyors with membership of other professional or chartered industry bodies such as CIOB (Chartered Institute of Building) and CABE (Chartered Association of Building Engineers).

There will also be competent surveyors without

membership of a professional body but in this case you will need to undertake your own due diligence to ensure they have the right qualifications, experience and expertise and also fulfil the requirements of the body requesting the survey, such as a funder or insurer.

How much should it cost?

A suitable condition survey including a schedule of repairs should cost around £1,000 to £1,250 + VAT for a typical village hall. Together with a maintenance cycle report the total will be around £1,500 to £2,000 + VAT. Surveyors will usually need to do the condition survey first so that they can base the maintenance report on its findings. (Prices as of 2024).

How long should it take?

Surveyors will usually need at least half a day, if not a whole day on site to inspect the building. The report should then take around a week to produce, although they may not be able to issue it that quickly if they have a lot of other business. Ask them to give you an indication of the time the survey will take when you first speak to them.

ASBESTOS SURVEY

- There are two main types of asbestos survey. One is a 'management survey', and it is effectively mandatory in law that every hall has one along with an asbestos register and management plan. The only exception being if the building was entirely constructed since the year 2000.
- The other is a 'refurbishment and/or demolition' (R&D) asbestos survey which you will require if you are planning to undertake major work.

An asbestos management survey identifies where asbestos containing materials (ACMs) in the building are located, how much there is, and the condition of the material. It is your legal duty to ensure that the asbestos register and management plan are accessible in the building and that recommendations such as labelling or protection are followed.

The other type of asbestos survey is a 'refurbishment and/or demolition' (R&D) survey which must be carried out before you undertake any 'major' work to the building. This type of survey will attempt to identify ACMs beneath the surfaces of the building which could be exposed during construction work. This type of survey is more intrusive and means the building must be vacated before the visit and confirmed as 'fit for reoccupation' afterwards.

Both types of survey will usually involve samples of materials being taken and sent to a laboratory for analysis. Further information is available from ACRE's Information Sheet no.14 and from the <u>Health and Safety Executive</u>.

As many asbestos surveying companies will also be able to undertake removal, it is likely that they will provide you with a quotation for remediation works. The cost for removing or controlling the asbestos will depend entirely on how much there is and what needs to be done, so you should obtain some comparative quotes.

How to find an asbestos surveyor

There are many asbestos surveyors and removal companies across England so you should find it relatively easy to find one. Check your local area first as reduced travel time should result in a lower cost. It is important to ensure that the surveyor is properly accredited and qualified.

Accreditations & Qualifications

UKAS (the United Kingdom Accreditation Service) is currently the sole recognised accreditation body in Great Britain for asbestos inspection bodies carrying out surveys and you should look for surveyors who have this.

As asbestos is regulated through the Control of Asbestos Regulations 2012 there is specific guidance set out for surveyors to follow in "Asbestos : the survey guide" available <u>here</u>.

How much should it cost: Expect to pay around £500 + VAT for an R&D survey, and slightly less for a management survey (as of 2024).

How long should it take: The survey should take a few hours for a typical village hall and the report should usually be issued within a week or two of the survey.

STRUCTURAL SURVEY

A structural survey is concerned with the structure of the building only. It is usually only required if a problem has been identified or if you plan to make changes to the structure.

Whereas a condition survey is concerned with the whole building, a structural survey is limited to an assessment of parts of the building that make up its structure, including foundations, the loadbearing walls and columns, and the roof. The survey will focus on these areas in greater detail than a condition survey and may also propose structural remedial works if you ask for this and they are required.

A structural survey must only be undertaken by a qualified structural engineer who has professional indemnity insurance.

You would not usually commission a structural survey unless either the condition survey identified a potential structural problem, or you had concerns about the structural performance of the building perhaps due to visible defects, or because you are considering making changes to the structure of the building. If you speak to the structural engineer about what you want to do, and why you think you need a report they will be able to advise you further.

Accreditations & Qualifications

As the structural performance of a building is very important and can be highly technical, a structural survey should only be undertaken by a qualified structural engineer with membership of either ISE (Institution of Structural Engineers) or ICE (Institution of Civil Engineers).

How much should it cost?

A local structural engineer should be able to visit site and produce a suitable report for around £500- £700 + VAT (as of 2024). This will include an inspection and diagnosis of any problem with a brief statement of what needs to be done. A full design with drawings and / or specification would not be included in this fee however and the cost for this would depend on what the report identified.

How long should it take?

Surveyors will usually need up to around half a day to inspect the building. The report should then take two or three days to produce, although they may not be able to issue it that quickly if they have a lot of other business.

DAMP SURVEY

A good building condition survey should usually be sufficient to address dampness in a building but there are situations where a more detailed approach may be required, such as if your hall is historic or if you plan to install insulation.

A general building condition survey undertaken by a competent surveyor should identify areas of damp and be able to suggest appropriate remedial measures, and in the majority of cases this should be sufficient, as most village halls are relatively straightforward buildings.

Specialist damp surveys which use more sophisticated methods of measuring are usually unnecessary, and we would only suggest getting one if you have been advised to by a professional such as a condition surveyor.

How, and whether, you treat damp in a building varies greatly depending on the age, location, and building construction. In Cumbria for example, many village halls are built from stone and rubble in-fill and it is inevitable but also relatively harmless if some of the walls are slightly damp as long as the ventilation is good, the building can breathe, and gutters etc are well maintained so there are no leaks. In other parts of the country where buildings may be timber or brick then a different approach will be needed. The method of addressing damp is therefore specific to the type of building, how it is used, and how it is heated and ventilated.

When might a more in-depth damp survey be needed?

If your building is historic or listed, then you need to be extra careful and get specialist advice that you can trust. The Royal Institute of Chartered Surveyors (RICS) together with Historic England and the Property Care Association (PCA) have written a joint position statement (Sept 2022) about moisture-related issues in traditional buildings which is relevant to many village halls, not only those with listed status. Further information is available by clicking <u>here</u>.

Similarly, if you are planning to install insulation to the roof, walls or floor, you need to be certain that the fabric of the building is dry, and will remain dry throughout the year to avoid potentially trapping moisture within the wall which could cause damage to the building and be costly to repair. In these circumstances you may need a more detailed survey.

Types of damp surveyor

 You can either pay an independent specialist damp surveyor or go directly to a repair / treatment company, but some caution is required here.

There are two main types of damp surveyor. One is a fully independent surveyor who you will pay for their impartial advice and report. The drawback with using an independent damp surveyor is that while their analysis may be more sophisticated, their proposals for how to rectify defects may not be any more detailed than the recommendations in a decent building condition survey and still leave you needing to contact a treatment / repair company to undertake the work.

The other type is a surveyor affiliated with a treatment / repair company who may offer a cheap or even free inspection but this will likely result in advice which is not truly independent and may involve some sales tactics. At worst there are companies who may sell you a solution which is inappropriate for your building and potentially cause longterm damage. This is a particular concern if your building is historic or listed and in recent years there have been problems with unsuitable chemical treatments and modern cementitious products being applied to cure 'rising damp' in buildings where they can do more harm than good.

In summary, we would therefore recommend that initially you obtain the opinion of an independent professional, probably as part of a wider building condition survey for reasons of cost-efficiency, and then contact the treatment / repair company. You will broadly know from the independent survey what the issues are so will be better informed to deal with the treatment / repair company. If you have a good relationship with your independent surveyor you might be able to ask them to look over the quotations you receive from the treatment / repair companies and for an additional fee the surveyor may also be prepared to comment on the proposals and even review their work on site.

TIMBER SURVEY

How to find a damp surveyor

As explained above, we advise that damp is initially assessed as part of a wider building condition survey. If you need further specialist advice, we suggest you find a RICS surveyor with expertise in damp, or if your building is historic or listed you find a surveyor who is a member of one of the conservation accreditation schemes on Historic England's website <u>here</u>.

The PCA (Property Care Association) also has a directory of members but this organisation is very much focussed on homeowners and so you may end up with the wrong type of survey. If you come across PCA / RICS 'damp and timber' surveys do not instruct one as these are pre-purchase surveys for homebuyers and mortgage lenders.

Accreditations & Qualifications

There are no formal accreditations or qualifications that a damp surveyor legally needs. You may see qualifications such as 'Certificated Surveyor of Timber & Dampness in Buildings' (CSTDB), formerly CSRT, or 'Certificate in Remedial Damp Surveying (CRDS)' but these are run by the Property Care Association and are more relevant to the homeowner / mortgage lender market and so not a requirement for village halls.

How much should it cost?

A damp survey by a local independent surveyor should cost around £300 + VAT (as of 2024).

How long should it take?

The survey itself should take a couple of hours, and the report should usually take a few days to write although it may be a week or two before it is issued depending how busy they are. A timber survey will assess the condition of the timber construction for decay or degradation. A good building condition survey can cover this, but sometimes further specialist investigation may be needed.

As with a damp survey, a general building condition survey undertaken by a competent surveyor should identify areas of timber decay and be able to suggest appropriate remedial measures.

- Timber surveys are sometimes grouped together with damp surveys and referred to as 'timber and damp' surveys but don't instruct one of these, as they are prepurchase surveys for homebuyers and mortgage lenders.
- While there is some logic in considering timber and damp together because moisture can lead to decay, the two subjects are different and a timber survey doesn't only consider dry rot and wet rot, but also beetle and fungal infestation as well as other forms of deterioration unrelated to moisture.

You will probably only need to commission a timber survey or treatment if you have been advised to by a professional such as the condition surveyor or structural engineer. The results of the survey would usually advise you to either replace parts or all of the affected timber, or to treat it. If the damage is extensive or fundamental to the structure then you may also need to engage a structural engineer for further advice.

Extra care must be taken if your building is historic or listed and, in these cases, find a surveyor who is a member of one of the conservation accreditation schemes listed on Historic England's website, accessible by clicking <u>here</u>.

Apart from conservation specialists, there are very few surveyors that are independent timber specialists, and you will usually be best to approach a treatment / repair company directly. Just bear in mind that they will not be truly independent and their advice will not be totally impartial, but there are fewer opportunities for mis-diagnosis with a timber survey than with a damp survey.

Be aware that entering 'timber survey' into most internet search engines will return results almost entirely for PCA / RICS 'timber and damp' surveys which are for homeowners and so not suitable.

OTHER SURVEYS

The surveys below are required less often and if they are required it would be usual for you to already have an architect, surveyor, or project manager on board who can assist you or commission the surveys on your behalf.

Drain Survey

A drain survey will record the condition of the drainage below ground level and is usually only needed if you are planning on building over it or changing it.

A drain survey usually comprises a video recording of the drainage system below ground level. A small camera is placed in the pipes and is remotely controlled between the manholes so that the video footage can be assessed for damage or blockages.

You would only require this if there was a problem such as waste regularly backing up, if a problem was highlighted on the building condition survey, or if you were planning to undertake an extension or build a new hall and an in-depth understanding of the existing system was required.

Lots of companies around England offer this service and it should cost no more than a few hundred pounds for which you will receive a report including basic diagrams of the pipe runs, photographs, a brief commentary on significant findings, and the video footage.

The survey should take around an hour on site, and the report is likely to be received a week or two later. If the drains are blocked then the survey may not be possible and the drains will need to be unblocked and jet-washed first so that they are clear for the camera.

If you are asking for a survey and suspect that the drains are blocked, tell this to the surveyor when you first contact them so that they can be prepared and do everything in one visit.

Measured Survey

A measured survey will result in a set of drawings; plans, elevations, and sometimes a section (a cutthrough), and is only required if you are planning extensive work.

Don't commission a measured survey unless you have been asked to by a professional, and in these situations ask the professional to obtain quotations on your behalf as they will already have suitable contacts and can ensure the survey is provided in the correct CAD format.

These drawings will accurately show the dimensions of the building, including doors and windows, stairs, kitchens, toilets, basins, services, finishes, and fixtures and fittings, except free standing furniture.

An architect may ask for one if you are proposing to have extensive work undertaken as they will use these drawings as the basis for their own. For simple buildings however, the architect may themselves take measurements and produce their own drawings.

OTHER SURVEYS

Ground Condition & Soil Contamination Survey

A ground condition survey will tell you about the composition of the ground and is required if you are proposing a substantial extension or a new hall or if you have been advised to by a structural engineer or architect.

 A specialist company will drill one or more boreholes, and perhaps dig some trial pits, and then analyse the soil for various information including its loadbearing capacity, the height of the water table, and evidence of potential contamination. Ask your professional adviser to obtain quotations on your behalf and manage the process for you.

Be aware if you live in a part of the UK that has naturally high levels of radon in the ground, this can affect radon levels in the building.

 You don't need to commission a specialist to undertake a radon survey but if your village hall is in such an area there is government information available <u>on this link</u>. If you are planning to build an extension or a new hall and are in an area of high radon potential you may need to undertake additional work under the Building Regulations.

Building Services Survey

A 'building services' survey will assess the electrical systems providing lighting and power, the heating and hot water systems, mechanical ventilation, and plumbing systems etc.

This will rarely be needed as most village halls have simple systems which can be adequately assessed as part of the overall building condition survey, and if required further specific investigation can be undertaken by a heating engineer or electrician.

In some circumstances it may be worth having an assessment of an existing large piece of equipment such as a boiler or air handling unit, but in these cases you will need to be guided by the specialist engineer. If you are asked to undertake one, be sure to ask exactly why it is needed and what it will tell you that you need to know.

You may be thinking about your heating and hot water system because you are considering making your hall more energy efficient, in which case read the next chapter as this subject should be covered by an energy assessment of your building.

SURVEYS FOR PLANNING APPLICATIONS

Sometimes the Local Planning Authority (LPA) will require surveys to accompany a planning application, or to be submitted in order to discharge a condition on a planning consent. Where this is the case surveyors must consult the LPA's validation requirements and planning policy to ensure the correct information is provided.

The LPA can request surveys and reports in addition to the application form and drawings. Whether these are required depends on the nature and scale of the proposal and the sensitivity of the area. Each LPA will decide what they require and publish a list of 'planning validation requirements' on their website. Below is a list of some of the surveys that might be required.

- Tree or arboriculture survey or impact assessment
- Transport assessment
- Car parking survey
- Travel plan
- Ground contamination assessment
- Flood risk assessment
- Fire safety statement
- Sustainable drainage assessment
- Ecological / Biodiversity assessment
- Bat / habitat survey
- Heritage assessment
- Archaeological assessment
- Sustainability assessment
- Energy statement

CHAPTER 2 - TYPES OF BUILDING SURVEY

CONTENTS

- BREEAM assessment (sustainability certification)
- Noise assessment
- Air quality assessment
- Circular economy / whole life cycle assessment
- Daylight assessment

The LPA could also request other reports not listed here, but this would be unusual. It is unlikely that you will need many or perhaps even any of the above, particularly if the proposed works are modest, but the construction of a new village hall for example, may necessitate several surveys.

- You will probably notice that some of the reports have similar names to the surveys previously mentioned, but this does not mean they will be the same, as the LPAs require specific information.
- If you need to commission a report required by the LPA for a planning application or to discharge a condition, explain this to the person producing the report. They must check the precise requirement on the LPA's website and ensure that their report is compliant.
- If you don't know who your LPA is you can find out by clicking <u>here</u>.

CHAPTER 3 - ENERGY SURVEYS

Chapter Three provides information on:

- what an energy survey is and what it should include;
- what the initial assessment of the building should cover;
- detailed heat loss surveys and thermal imaging;
- recommendations a report should make and the process by which these should be assessed and evaluated;
- payback periods and the requirements of funding bodies;
- remote surveying, a brief explanation of EPCs and the government's PAS frameworks;
- how to choose an energy surveyor.

What is an energy survey?

- Energy surveys and audits for buildings ultimately do the same thing; they assess the energy efficiency of the existing building and then evaluate the performance of different improvements in terms of energy use, cost and carbon emissions.
- The length, detail and content of an energy survey can however vary greatly, and unfortunately the format is not always suitable for a village hall.

Due to the growing awareness of climate change and the increasing cost of energy, there are now many types of audit and assessment available. They often have different names for the same or similar type of survey (or the same name for a different type!), and it is easy to be confused by terms such as 'energy audit', 'energy assessment', 'environmental audit', 'carbon audit', and 'emissions assessment' etc.

Despite the different names, in essence all energy surveys in relation to buildings follow the same process and try to establish:

- how much energy the building uses;
- how much this costs;
- what the consequent carbon emissions are;
- what could be done to reduce these figures and how successful would this be.

The standard to which the reports are produced, the level of detail, the methodology, and the metrics used however, can vary. Many funding bodies now require evidence that new technologies will have appropriate payback periods and want to know that the proposed installations will be suitable for the building, and due to their differing priorities they may require different information.

We have heard of village halls being charged anywhere between a few hundred and many thousands of pounds for an energy survey, for anything from one page of text to a document with hundreds of pages. While there is a British Standard for energy audits of buildings (BS EN 16247-2:2002) this is a generic document which applies to a wide range of building types and so is not specific to village halls. In this section we therefore set out what information should be included in an energy assessment for it to be proportionate to the needs of a village hall.

What's the difference between an energy survey and an environmental audit?

An energy survey is about how much energy a *building* consumes, the related carbon emissions and the financial cost. An environmental audit (or carbon audit) has a wider scope and considers all the ways that your organisation has an impact on the environment including how people travel to the hall, sustainable procurement, recycling, water usage, and biodiversity etc. It will also usually include, often in a simplified version, the building energy survey as this too forms part of the organisation's overall impact.

This guidance document focuses only on energy surveys directly in relation to the building as these are more complex and often require professional input. A basic environmental audit, suitable for a village hall, can usually be undertaken without professional assistance. Ask your local ACRE member as they may have a template or other useful information.

EXISTING BUILDING ASSESSMENT

Existing building assessment

- An energy survey should begin with an assessment of the existing building in terms of its energy use, running cost, and associated carbon emissions.
- Existing energy use can be found on bills from the last 12 months but be careful if this figure is used to calculate the performance of improvement measures as it can be misleading and industry benchmark figures may be more accurate.
- Detailed heat loss surveys and thermal imaging will probably not be appropriate for most village halls unless there are special circumstances.

Calculating existing energy use

Calculating existing energy use is simple enough in itself, but can lead to misleading results when the figures are used to calculate the potential performance of improvement measures, so care is required here.

As a starting point the existing energy use should be calculated using energy bills from the last 12 months, but importantly the timetable of occupation for the building over that period must be recorded alongside. It should also be stated whether the hall was actually heated to comfortable levels during this period. The reason for this is that the figures for existing energy use in community buildings are often quite low, because cold halls may be rarely used and when they are the heating may be kept low due to cost concerns.

Against this figure it can therefore be difficult to show performance improvements because when the hall is heated properly and more regularly it is possible that it will use more energy despite being much more efficient. Occupancy and comfort therefore need to be factored into the calculation to give a more accurate picture but there is no established method for doing this.

The alternative to using existing energy use data is to use an industry benchmark figure. CIBSE TM46 for example provides a benchmark figure of 125 kWh/m2/year for a village hall in "intermittent" use (category 16) and 190 kWh/m2/year for a "seasonal use" community centre (category 17). These figures are likely higher than the actual existing energy use of most village halls but will give a better indication of the amount of energy the hall might be using were it heated to comfortable levels for say 30 to 40 hours per week.

To help resolve this problem we suggest the surveyor speaks to a person who is familiar with using the building. The assessment should then comment on the current energy use in relation to the building as well as the nature of its use and determine whether the existing energy demand is a helpful benchmark to use.

The ultimate intention of the energy survey must be to put forward genuinely effective improvement measures which are appropriate for the building and the way it will be used.

It is therefore essential that the calculations supporting decision making are accurate and genuinely reflective of the situation, which may mean sometimes using the CIBSE industry benchmarks. If this is the case it would be helpful for the surveyor to be open and transparent and state why they have taken such an approach.

An energy audit should:

- Include an assessment of the existing building which we would expect to contain photographs, plans, diagrams and written text.
- Describe the construction of the building's fabric and windows.
- Assess the thermal performance, and identify where heat loss may be occurring.
- Include a basic assessment of the existing heating and hot water system in terms of its efficiency, its running and maintenance costs and its carbon impact.
- Comment on the adequacy of the building's ventilation.

This part of the report may comprise paragraphs such as the below;

6.4 - Fabric improvement - WINDOWS

Glazing is mainly double-glazed (DG) uPVC casement windows of 16/20mm gap and 4mm glass (4-16-4/4-20-4). These are <u>fairly modern</u> and in fair condition. Even the high-level gable window into the main roof space is DG uPVC. Though they will not be to current thermal standards, they should be achieving decent U-values of c. 2.5 - 3.0 W/m²k.

Single-glazing appears to be restricted to vision panels in timber doors with U-values around 5-6 W/m²k. Could be improved if doors are renewed.

THERMAL ASSESSMENTS

Heat loss surveys & thermal modelling

Some energy assessments will include a basic heat loss survey and peak heat loss calculations. This data can be used to assess the performance of improvement measures such as installing insulation or a heat pump through basic thermal modelling. This need only involve a simple broad-approach software, and as long as it is not too complicated or expensive then it is generally worth having.

Thermal imaging

Sometimes a heat loss survey is supported by a thermal imaging survey which uses a camera to identify heat loss in the fabric. If you already know that the building has little or no insulation, then there is probably relatively little to be learnt from a thermal imaging survey.

In a partly or fully insulated building however, if you want to identify specific areas where the fabric is not performing, perhaps due to water ingress or the absence of insulation, then this can be useful.

If your building is historic or listed you may be advised to undertake this type of survey which may be justifiable due to the increased sensitivity of older buildings. Some councils and organisations have thermal imaging cameras to borrow for free so it may be interesting to try one out if it doesn't cost anything.

Keep things simple!

If it is suggested that you undertake a detailed heat loss survey or a thermal imaging survey, ask what specifically is to be learnt from it and ask how that information will affect what you propose to do. That will help you to decide whether it is worth paying for. Most village halls are quite simple buildings, which can be adequately assessed with simple methods, and for which simple solutions will often be most appropriate and there is no reason to over-complicate matters.

To calculate the size of a new heating system the heating engineer will run heat loss calculations, but they should include this as part of their installation service and so it is not a survey that you need to commission.

PROPOSAL & EVALUATION OF IMPROVEMENT MEASURES

- An energy survey should also evaluate the performance of different improvements in terms of their suitability, energy use, capital and running cost, and carbon emissions.
- Predicted occupancy is an important factor in accurately assessing the performance of improvement measures.
- There is no agreed standard method for undertaking this evaluation or whether improvements should be assessed individually or cumulatively.
- Ensure that the building's ventilation is fully considered as this is often overlooked but is very important to the comfort, health and wellbeing of the occupants.

The second part of an energy survey should consider the potential for improving energy efficiency. Having identified where the building is not performing well, the surveyor should then propose appropriate solutions which may include items such as the installation of insulation, replacement or upgrade of windows, replacement of the heating and/ or hot water system, installation of low energy lighting, and installation of appropriate renewable energy systems such as PV panels. Further information on improvements can be found in <u>ACRE's Net Zero Design Guide</u>.

The surveyor should be able to comment on the broad feasibility of each option and highlight if a measure is or isn't appropriate, or would be difficult to achieve in relation to the specific circumstances. If, for example, the roof of the hall doesn't face in the right direction for PV panels then the report should state this. This part of the report may comprise a table listing the various proposals such as below; Having identified which improvements may be feasible, the report should then assess the impact that each would have in terms of:

- capital cost
- running cost
- lifetime cost
- carbon reduction.

What sort of targets should be achieved?

The level of energy use and carbon reduction that you can achieve depends on what work you do, which in turn depends on the location of your hall, the building type, the size of the local population, your level of ambition, and your budget. There is no established target for a village hall in terms of energy efficiency, but various industry bodies suggest targets of around <55 kWh/m2/year total energy use for 'non-domestic' buildings which includes a maximum of 15kWh/m2/year for space heating. These are sensible figures to aim for and if your hall isn't used full-time you may be able to improve on these figures. With an efficient electric heating system such as a heat pump (no gas or oil) the corresponding carbon emissions will be low, and with renewable energy input you may be able to improve further still.

Measure	Detail/location	Notes	Cost	Carbon savings (to overall emission)	Cost savings
Solar PV array to E-facing roof	9.45 kWp array, 27 x 350W panels + inverter, estimated output 6,600 kWh per annum.	Smaller array may be more appropriate to Hall's seasonal demand.	£11,000	High – 1.28 T CO ₂ / year (total saving to Hall and grid combined)	Medium - high

INDIVIDUAL OR CUMULATIVE EVALUATION?

- Some improvement measures can be accurately evaluated in isolation but others impact on the performance of one another and can be evaluated together.
- In particular, the performance of insulation, electric heating systems, and PV panels are interconnected.
- We suggest that in proposing and evaluating options, the fabric-first methodology in ACRE's <u>Net</u> <u>Zero Design Guide</u> is followed.
- Sensible packages of improvement works should be assessed and evaluated holistically so that the overall costs and impact of each approach can be compared.

The performance of some improvement measures will vary depending on whether it is undertaken individually or together with other improvements. This is not true of all improvements; some, such as LED lighting, will be largely consistent regardless of any other work you are undertaking. In contrast, a large array of PV panels however will generally be more effective in a building heated electrically than it would in a building heated by oil or gas as the electricity generated can be used to power the heating.

Assessing the performance of some measures in isolation is sometimes therefore of limited use, unless it is likely that only one measure will be undertaken or the performance improvement is always consistent. As it is more likely that a combination of improvements will go forward, a cumulative assessment of the measures will generally be better and will give a more accurate picture of actual performance.

Remember also that performance can be measured both in terms of carbon reduction as well as energy cost, and different results may be found depending on what you are measuring. For example, the performance of a heat pump in an un-insulated building may be very good purely in terms of carbon reduction but in terms of running cost may be high.

Occupancy

The level of anticipated occupancy is very important in assessing the most suitable improvement measures and calculating their performance.

To run accurate calculations the surveyor needs to have some idea of the level of future occupancy as well as the type of activities that the hall will accommodate. While halls in larger villages may be looking to achieve almost full-time use, there will be halls in smaller villages where this level of occupancy won't be achievable, and they may only be used for a few hours each week. This will have a significant impact in terms of the suitability and the performance of the improvement measures and needs to be carefully considered and factored into calculations.

As most hall committees will be looking to increase occupancy as a result of the improvement work it would make sense to predict a realistic level of future use and base calculations for the improvement measures on this.

INDIVIDUAL OR CUMULATIVE EVALUATION?

ACRE's <u>Net Zero Design Guide</u> recommends following a three-step approach to making a hall more energy efficient; first reduce heat loss, then replace fossil fuel systems with electric, then generate renewable energy. We suggest that this broadly forms the basis for assessing the cumulative impact of improvement measures as set out below.

- Improving the fabric of the building through insulation and window repair / replacement is the starting point and as such these could be assessed as individual measures.
- Installing a heat pump however, is not something that we would generally advise doing in an uninsulated building, so we would caution against assessing the impact of this measure individually and suggest that it is evaluated in combination with the fabric improvements.
- Installing renewable energy generation such as PV panels is an improvement measure which may be worth assessing individually but we would also advise assessing this in combination with insulation improvements and a change to the heating system.
- The above are not the only improvements that can be made and other technologies such as 'far' infra-red heating panels and PV batteries can also be assessed, sometimes individually but more often cumulatively with other measures.
- How the measures are assessed therefore very much depends on the specifics of the individual hall, the anticipated level of hall occupancy, the level of ambition and budget for improvement work, and how it is intended that the work is undertaken such as whether it might be phased.
- For example, a hall may wish to install PV panels immediately, but insulate the building later, after they have raised funds. In this case, assessments for both phases should be provided.

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Village & Community Halls

A Net Zero Design Guide

You must speak to the surveyor and discuss your plans for the building with them and ask them to assess the impact of the measures not only individually, but also as a few sensible and appropriate packages of improvements that reflect the steps you are realistically likely to take based on your vision for the hall and how it will be used.

- The surveyor should present the results in a simple format in terms of the impact of each package on carbon reduction per pound spent, as well as running cost savings per pound spent. It may be helpful for the different packages to reflect different capital cost budgets, such as low/medium/high or to suggest a phased approach by which all or most of the measures might be achievable in the long-term.
- From this you will be able to identify the solution with the best value and biggest impact that reflects what you want to achieve, and from there you can start to prioritise and plan your next steps.

PAYBACK PERIODS

- The payback period is how many years' financial savings it takes to pay for a capital improvement.
- If the calculation is based on existing rather than predicted occupation this can lead to payback periods appearing to be longer than they really are.
- Payback periods become more complicated where they are assessed as part of a package of improvements rather than individually.
- Payback periods should not be the only consideration, and better decisions could be taken with a more holistic assessment and evaluation.

Each proposed measure will have a capital cost and usually a consequent reduction in running cost, and when over time the savings made have equalled the capital cost, this is the 'payback period'. In calculating this many assumptions need to be made, and while it is helpful to broadly indicate how successful a measure might be financially, it is not very precise and can be misleading.

One issue is that the future price of energy must be estimated as this will affect the running costs, and this is difficult to do with much certainty. Another issue is that payback periods are sometimes calculated based on the current energy use of the building. As explained earlier, many village halls are underused because they are expensive to heat and so their current energy use is quite low. Often, a major reason for undertaking the improvement work is to enable greater use of the building and include more regular groups, childcare services, birthday parties and weddings.

However, because of the low existing energy use, the resultant payback period can appear to be very long and may therefore not qualify for some grants. This is unfortunate because an increased use of the hall would reduce the payback period and a calculation based on this would be more realistic. Furthermore, some items assessed individually may not always justify themselves. Some types of insulation and new windows for example, can have very long payback periods. But reducing heat loss from a building is fundamental, as it is an investment which requires no maintenance and will benefit the building for multiple decades. It is also the starting point for being able to undertake other improvements such as installing a heat pump, and so to assess its value on a simple financial payback calculation underestimates the real value and fundamental importance of the improvement.

It appears that different funding bodies have different priorities and qualifying criteria for payback periods:

- Some will be happy to factor in the occupancy issue described above but others won't.
- Some prefer not to fund projects with very short payback periods because they consider this to be work that the hall could do without their assistance, and they prefer to focus on helping the hall achieve more ambitious proposals with payback periods up to 15 years.
- Others don't like to see long payback periods because they consider this to be uneconomical and may limit this to 7 or even just 3 years.

There is no easy solution to these problems, and payback periods remain a key consideration in decision-making despite these limitations.

As explained earlier in relation to existing energy consumption, the use of the CIBSE industry benchmark figures may be a more accurate way to calculate payback periods if the existing energy use data is suspected to be unrealistically low. Predicted future occupancy needs to be factored in, and sometimes it may be better for packages of improvements to be assessed rather than the individual measures. These approaches might all result in the prediction of more accurate payback periods.

FUNDER REQUIREMENTS

Different funding bodies have different priorities and evaluate surveys in different ways, but ultimately, they all seek responsible and beneficial use of their contribution.

REMOTE SURVEYING

Remote or on-site surveying?

A remote survey may be a cost-effective way to get started but we recommend having an on-site or inperson survey if you are serious about undertaking work.

The priorities and requirements of funding bodies in relation to energy surveys vary in other ways, not only in terms of payback periods. Some have very specific criteria in terms of what they will fund and require surveys to support the proposals, while others will provide funding on the basis that other funding has already been secured. Some may simply ask for confirmation in writing that surveys requested by other funding bodies have been produced.

Funding bodies tend not to have specific lists of reports they require, as this will vary on a case-by-case basis. The National Lottery Community Fund, for example, is keen to ensure that surveys and reports are 'proportionate' to the project proposal, which is a sensible approach, but means that the requirements are flexible, and if a project is seen to be risky or complicated then more surveys may be required.

Funding bodies have different requirements for their reports:

- The report may have to contain specific information to be acceptable which can differ between funders; some more fastidious than others.
- The funding body may be interested primarily in financial savings, or
- Place a greater emphasis on the benefits of carbon reduction.

A single energy assessment needs to cover a lot of ground to achieve wide ranging success, and you may need to accept that sometimes it will not be possible to meet all the requirements of every funding body. Ultimately the funding bodies' aims are quite similar, in that they want to fund proposals which will have a positive impact and represent good value, will be suitable for the building and the community, and will align with their own aims and purpose. While all of the building surveys in Chapter Two need to be undertaken by a surveyor visiting site, it is possible that a basic energy survey can be undertaken remotely, and some companies such as Utility Aid offer this service. While we would usually recommend that a surveyor attends site in person there are circumstances where it may be beneficial to commission a remote survey, and the main advantage is the reduced cost. Utility Aid, for example, offer a remote energy survey for which you will receive a "Remote Discovery Document" with prices starting at £195 + VAT (as of 2024).

It works by a committee member on site using their mobile phone to live-stream a video to Utility Aid's surveyor, so the person on site must be comfortable installing the software on their phone, and there must be good connectivity. The report includes more detail than an Energy Performance Certificate but follows a similar structure. It also includes a subsequent online conversation with the surveyor to discuss the draft report before it is finalised, as well as an action plan.

For the price this is good value and may be a good way to get started, but remember that surveying remotely has its limitations and if you decide to progress with construction work we recommend that you follow this up with an on-site survey to confirm the findings.

EPC & DEC

PAS FRAMEWORKS

Energy Performance Certificates (EPCs) & Display Energy Certificates (DECs)

Most village halls will not have or need an EPC or a DEC, and there are better ways to assess the energy efficiency of a building.

Most people will be familiar with EPCs if they have sold or bought a house. Valid for 10 years, EPCs record the energy efficiency of a building, rated high to low, from A to G, and must be produced by a qualified energy assessor. They provide information about a property's energy use, typical energy costs and carbon emissions, as well as steps to improve energy efficiency in a recommendation report.

As EPCs are only needed when you are constructing, selling or renting a property it is likely that many village halls neither have nor need one.

EPCs have been subject to much criticism due to the limitations of the survey, and at best they form only a very basic assessment. If you want to properly understand the energy performance of your hall we would not advise having an EPC assessment and would instead suggest commissioning a more detailed energy assessment as previously described. As of January 2025, the government is undertaking a consultation intended to improve EPCs by adding further metrics. This may be introduced in the second half of 2026 and hopefully will make EPCs more useful.

Display Energy Certificates (DECs) are only required for public buildings with a total useful floor area over 250sqm (2,691sqft). They are also only for buildings occupied by a public authority such as a council, college or the NHS, and so in most situations will not apply to village halls.

PAS 2030, 2035 and 2038

- The PAS frameworks are mostly focussed on retrofitting domestic homes and not so suitable for village halls.
- Compliance is not a legal requirement and nor is it requested by any of the funding bodies we consulted.
- We recommend not pursuing formal compliance although the process which PAS 2038 sets out is helpful to be aware of.

PAS (Publicly Accessible Specification) 2030 was set up by the government in relation to the installation of energy efficiency measures in existing dwellings along with PAS 2035 which is the official framework for whole-house retrofit. These framework documents are both concerned with domestic houses however, not village halls, so you do not need this compliance.

There is also PAS 2038 – 'Retrofitting non-domestic buildings for improved energy efficiency' which sounds like it might be more appropriate, but due to differences in the procurement of domestic and non-domestic projects there has so far been little take up of PAS 2038 by the construction industry. The PAS frameworks were set up largely to cope with rolling out retrofit programmes at large scale nationally, and on projects where professional advice in the form of an architect or surveyor may not be available, so while this approach may be appropriate for domestic retrofit it is less so for buildings such as village halls.

The PAS frameworks introduce roles you may come across such as Retrofit Assessor, Retrofit Co-ordinator, and Retrofit Installer, but if you are not following the PAS framework you do not need your energy assessor to have these qualifications.

The information in PAS 2038 is helpful, and an energy surveyor should be at least familiar with the content, as it addresses the process of assessment, evaluation, improvement planning, design and specification, installation, handover and post-completion evaluation. Much of it is broadly relevant to village halls but we aren't aware of any funding bodies requesting compliance. Conformity may therefore introduce un-necessary complication, and it would be better to appoint a professional such as an architect or surveyor who is familiar with the framework and happy to follow the broad process while not being tied to formal compliance.

HOW TO CHOOSE AN ENERGY SURVEYOR

If you go on-line you will find many companies offering energy audits, reports, assessments, footprint calculators and toolkits etc. However, much of this information is in relation to energy surveys for homes and EPCs, and so not relevant to village halls.

You will also find numerous accreditation schemes, but these can be rather process-driven and intended for delivery in bulk at low-cost which is not always appropriate to a village hall where a more bespoke approach is required. All this can make it difficult to find the right kind of energy surveyor.

A criticism we have sometimes heard is that energy assessors often don't have sufficient knowledge of buildings and of the practical implications that installations such as new insulation will have on the fabric. For this reason, it would be beneficial if you were able to find a surveyor who can undertake both a condition survey and an energy survey together, as a more holistic approach can be taken.

For example, items such as ventilation are often ignored in energy assessments but are very important to the health of the users and the building, and these should be addressed even though they may not contribute directly or significantly to carbon reduction. We are aware however that few surveyors appear to be competent or keen to undertake both types of survey in this way and so it is likely in most cases that you will need to appoint separate surveyors.

Accreditations & Qualifications

Legally, there is no qualification or accreditation required for someone to call themselves an energy assessor or provide an energy report. There are qualifications required to provide some of the services in relation to EPCs and the PAS frameworks, but as we have explained these are not generally applicable to village halls. The previous section explains about the PAS 2030 / 2035 / 2038 frameworks and the various titles of 'retrofit assessor', 'retrofit co-ordinator' and 'retrofit installer' etc, but you don't need your energy surveyor to have these qualifications.

You may see other titles such as 'non-domestic energy assessor' which is the qualification needed by a surveyor if they want to produce an EPC. Likewise, there is a DEC (Display Energy Certificate) Assessor which a surveyor needs to produce a DEC assessment. As explained in the section on EPCs however, these are also not applicable to most village halls and so you do not need your energy surveyor to have these accreditations either.

Finally, you may also come across an ESOS Lead Assessor who can provide an ESOS audit. The ESOS (Energy Saving Opportunity Scheme) is a mandatory government scheme but which applies to companies with more than 250 employees or an annual turnover exceeding £44m. Needless to say, this is also not applicable to village halls!

This advice is not to undermine or de-value these schemes, but only to point out that they are not a requirement for village halls undertaking an energy survey, and so you do not have to appoint a surveyor with these accreditations. You may find that surveyors with these qualifications are more knowledgeable but make sure you don't find yourself drawn into a formulaic compliance framework that is not helpful to your project.

How much should it cost?

A remote survey by Utility Aid can be undertaken from £195 + VAT for a simple hall with toilets and a kitchen, up to £395 + VAT for a larger building. An in-person survey can be between £1,000 and £1,500 + VAT, and possibly more for a larger building. Prices as of 2024.

How long should it take?

The remote survey with Utility Aid takes around four hours. An in-person survey will probably take a similar length of time, up to a full day, and thereafter the report should take a few days to write, although it may take longer to issue if they are busy. Ask the surveyor when they provide their quotation what their turnaround period is.

CHAPTER 4 : ENGAGING A SURVEYOR

This chapter considers:

- undertaking your own self-assessment of the building
- group energy audits organised at a local level, for example by councils
- how to appoint your own surveyor.

Group energy audits organised at a local level

- Find out if there is a scheme or bursary in your local area for energy audits run by the Council or a community action group.
- If you use one, be aware that the survey produced may be to a pre-agreed format and so may not be to the satisfaction of all funding bodies.

Self-assessment

Assessing the building yourself is a worthwhile exercise as it will help you understand it, but funding bodies may require a professional survey for reassurance.

Self-assessment of the building in relation to general condition and energy performance is worth undertaking, and we would always encourage people to become as familiar as they can with their hall.

The Centre for Sustainable Energy (CSE) has produced a checklist which helps you assess energy performance, available to download<u>here</u>. This is a good approach because it helps you to understand your building and apart from your time doesn't cost anything. However, if you are considering undertaking significant work or require a survey for a funding application then you should still appoint a professional assessor.

Health & Safety!

You should be able to do a self-assessment simply by walking around. Don't go up ladders or try to enter areas which are closed off or difficult to access such as cellars, old plant rooms, and roof-spaces. There may not be a safe means of access, you may be at risk of falling through the ceiling, and asbestos may be present. Exercise caution and if there is any risk then leave it to a professional with the experience and equipment to do it safely. Consult the asbestos management plan so that you are aware of any asbestos risk in the building and if you don't have one then undertake this before you do your self-assessment. There are various schemes organised at county or district level whereby the council appoints one surveying company to undertake energy surveys on behalf of the village halls in the area, typically when there is also a bursary available. This offers many advantages; the council should be able to negotiate a better price per survey through buying in bulk, it should result in greater consistency across the surveys undertaken, and it should be easier for village hall committees to get one. If you are thinking you may need an energy survey then first contact the council or your <u>local</u> <u>ACRE member</u> to find out if they propose to run such a scheme.

In Rother, East Sussex, the council appointed a company called Laser Energy to undertake surveys for 39 halls, at a cost of around £1,000 per hall, paid for from a climate emergency fund drawn from CIL money. The fund covered two phases; first a survey, and subsequently implementation. Each hall received a report around 25 pages long including energy efficiency recommendations.

The village hall committees could then use the findings in the report to apply to the council for grants to fund the proposals. Similarly in County Durham, BEEP (Business Energy Efficiency Project) was set up to support SMEs across the county to generate financial savings and reduce their carbon emissions through energy efficiency. Energy audits for qualifying organisations were fully funded.

Such schemes are not immune to difficulties however, and whether the council is engaging a private company to undertake audits or using their own employees, it is still important that the information produced is comprehensive and accurate. In these situations you will not have the opportunity of choosing your own surveyor and the survey will only cover those aspects which the commissioning body have requested. Consequently, we have heard of such surveys not being accepted by other funding organisations because they did not contain all the relevant information, as the surveys had been tailored closely to the commissioning body's own requirements.

ENGAGING A SURVEYOR

It would be helpful if councils and other funding bodies, when setting up schemes, were to ensure that the surveys were not only suitable for their own needs but also those of other funding bodies, so that village hall committees could re-use the same survey for multiple applications. It is not an efficient use of money or time for village hall committees to commission a fresh energy audit for each application in order to pick up what may be small differences in methodology or presentation.

For group audits the surveyor or surveying company needs to be capable of assessing many different types of hall, of various age, and with different heating systems, and keep the approach simple and straightforward, with specific recommendations which are clearly justified.

Appointing your own surveyor

- Look for local surveyors as this will reduce travel time and cost and they will have valuable local knowledge and contacts.
- Make sure the surveyor has the required competence and/or qualifications and accreditation.
- Talk to the surveyor openly and clearly about what you think you need.
- Be aware of 'free inspections' as the advice will probably not be truly independent.

We always advise to first look locally. It's good to support the local economy and as the surveyor will need to travel this will reduce their time, cost and mileage.

Most surveys will usually take at least a couple of hours and so surveyors are generally prepared to travel for up to around one hour each way. Furthermore, it helps if the surveyor knows and understands the local building types as many village halls are of traditional construction.

For each of the survey types in the previous chapters we have suggested who you could approach, what qualifications and accreditations they should have, what the survey is likely to cost and how long it should take.

In summary;

- Whoever you approach we suggest that you always ask if they have worked for village halls or similar community organisations before. It isn't essential but their answer will give you a sense of whether they understand the sort of issues village halls face.
- It is worth speaking to more than one surveyor to help compare their respective experience and expertise and to ensure that they have the right fit and suitability.
- Make sure you are clear about what you want and why you think you need it. Explain if it is part of a wider project or if you have been asked for it by a funder or other organisation. Ask the surveyor for a sample of a similar report they may have produced so that you can see the typical length and detail.
- Don't forget to request a quotation for producing the report before work begins and check whether the fee includes VAT.
- Beware of free inspections as the advice given may not be impartial and you may have no recourse if you follow the advice and things go wrong. Some companies may offer good advice for free, but others may offer bad advice which could result in costly damage to the building.
- If you do seek free advice, be careful, don't be cajoled into paying to undertake further work, be suspicious if the quotation seems too high (or too low), and if in doubt seek genuine independent advice.

CHAPTER 5 : GUIDANCE FOR STAKEHOLDERS

Guidance for village hall committees

Surveys are a vital part of maintaining and improving your village hall, and when done well should provide you with helpful, professional advice which you can rely on, and use as a basis from which to move forward.

- It is vital that you commission the right type of survey and ensure that the surveyor provides you with the information you need.
- At the outset you may not know what this information is, but don't assume that the surveyor will either.
- Speak openly with the surveyor about what your ultimate plan is, why you think you need the survey, and what you hope it will enable you to do.
- Always agree the price of the surveyor before the surveyor starts work and whether the price includes VAT.
- Ask how long the survey and the report will take to issue. If you aren't happy with what they tell you then perhaps ask another surveyor so that you can compare.

When you receive the survey ensure it has a date, and be aware that it will have a shelf-life. Surveys more than two years old may be considered out-of-date by some funding bodies.

Guidance for funding bodies

Funding bodies naturally want to ensure the money they award is put to good long-term sustainable use, both for accountability to their own organisation, as well as to ensure that funding is beneficial to the recipient.

In speaking to different funding bodies it is clear that while the overarching intent is similar, the precise aims of each funder do not always align and so there is often different qualifying criteria.

In particular, the approach to payback periods appears to be an area where either greater flexibility or greater alignment would be beneficial.

- Two issues stand out, the first being the method of calculation for the payback period and whether for example this takes into account the changing level of occupancy that an improvement project will almost certainly entail.
- The second is what length of payback period is deemed acceptable. We understand that the payback period is an important measure, but there are so many assumptions to be made in calculating this, that to have a set figure which is a simple pass or fail mark can be too crude a method of evaluating the real long-term impact of the proposals.

It would be ideal if village hall committees could commission one survey which satisfied all funding bodies, and we have tried in Appendix A to establish a framework for this so that surveyors can produce consistent reports which can be reused for multiple applications. For this to be successful it does also require funding bodies, especially when setting up new application procedures, to be mindful of what information they are requesting, whether it might cause an applicant to require an entirely new survey, and how this could be simplified.

More funding of early-stage reports would also be beneficial as well-informed projects that are strategic and commence on the right foot are in everyone's interest.

GUIDANCE FOR STAKEHOLDERS

Guidance for surveyors

Village hall committees, like their buildings, come in many shapes and sizes. It is important to understand that most village halls are held on charitable trusts, managed by a committee of volunteers on behalf of the community. Some of those volunteers may have a lifetime of construction industry experience, whereas others may have none. We have found that what one committee might regard as a long and complex report, another may consider lacking in detail.

Before you start the survey

It is important therefore to speak to the committee before you start work and agree exactly what you will produce and how this will assist their project.

- Some committees may not know what sort of report they need as they may simply have been advised to 'get a survey'. If you feel this is the case then ask them what it is they ultimately want to achieve and what they need to know.
- Speak to the committee about their level of ambition before you start, and make sure your recommendations are practical, achievable and in line with their aims.
- If the village hall committee is seeking funding from a specific funding body, then ensure that you receive a copy of any specific funding requirements to help you to tailor your survey and support appropriately.

Be open and realistic about money

Some village halls may have little money and not be prepared to start a big fundraising campaign and so may be keen to know what they can achieve on a tight budget. Others however may be looking to commence an ambitious whole building retrofit.

 If cost estimates are provided they need to be realistic but don't always assume a hall won't be able to afford something as there may be grant funding available. We have heard that sometimes surveyors won't recommend certain technologies e.g. heat pumps or PV panels because they think they will be too expensive, but in fact halls may struggle in many funding applications if they are unable to present a low-carbon agenda.

The survey report

Some village hall committees may have a professional advising them, but others will be on their own, so the report needs to be written in language that everyone can understand.

- Recommendations should be simple, specific, and justified. Make sure recommendations are thorough, so for example if insulation is proposed make it clear whether this is to every room or only to the main hall. This kind of ambiguity and lack of detail was a common theme in feedback we received from committees.
- Avoid providing generic "copy-paste" content as this can be confusing. If there is relevant detailed supporting information you really feel is required then include it at the back as an appendix. A short, clear and concise report will be far more helpful.
- Allow some time, perhaps an hour or two, to explain the findings of the report to the committee face to face, particularly if you think they will have questions or options to choose from.

DEFINITIONS

There are some words frequently used in this guide that it would be helpful to define. The definitions are not intended to be dictionary quality, but rather explain in very basic terms what is meant in the context of this guide.

breathability - the ability for a wall or roof to let moisture pass through and so be able to dry out. This is very important for older buildings and many modern products prevent it.

capital cost – the upfront cost of installing a piece of equipment. See also 'running cost' and 'lifetime cost'.

carbon emissions – the amount (in kg or tonnes) or CO2e (commonly referred to simple as 'carbon') as a result of a process, such as heating a building.

carbon factor – a ratio that reflects the amount of CO2e that is generated as a result of producing energy. The lower the carbon factor, the less CO2e is produced and the cleaner the energy.

CO2e – essentially this is another way to write 'carbon emissions', CO2 meaning carbon dioxide and the small 'e' meaning equivalent such that it includes the effect of other harmful greenhouse gases too.

DEC – Display Energy Certificate – a certificate which is put on display in public buildings to show the energy use and carbon emissions from using the building.

EPC – Energy Performance Certificate – a certificate which shows the energy performance of a building.

fabric – the fabric of a building is its envelope; the walls, windows, doors and roof etc which contain the space.

fabric-first – an approach where the first step is to insulate the walls and the roof to reduce heat loss, before any other energy improvements are made.

'full building survey' or 'outline building survey'— these are the sort of phrases that can mean many things. You will need to be precise and clear about what is included if these terms are used.

'holistic approach' or 'whole building approach' – by this we mean strategies which consider the overall performance of the whole building. In contrast a 'piecemeal approach' involves considering things in isolation, and is less effective.

heat loss – the amount of heat that is lost through the fabric of the building. High levels of heat loss mean more energy will be required to keep the space warm.

heat pump – a renewable electric-powered system that is capable of providing hot water for the heating and taps, or hot / cold air for heating and cooling.

kW and kWh (kilowatts and kilowatt hours) – the amount of power used at any instant, and the amount of power used in one hour.

lifetime cost – the total cost of something at the end of its life, once installation, maintenance and running costs have been factored in.

low-carbon technology – efficient systems that are powered by and / or generate electricity, rather than using a fossil fuel such as oil, gas or coal.

MCS – a certification scheme for installers of low-carbon technologies such as PV panels and heat pumps. You should always seek this accreditation.

net zero – the point at which your village hall has zero carbon emissions.

occupancy – the number of people that use your hall and the amount of time they use it for.

payback period – the length of time it takes for the cost savings to pay for the installation costs.

PV panels – we use this phrase as shorthand for solar photovoltaic panels which generate electricity, not to be confused with hot water panels.

renewable energy technologies – efficient systems which generate more electricity than they use to operate.

retrofit – the process of making an existing building more energy efficient, usually including adding insulation among other improvements.

running cost – the amount of money it costs to run a piece of equipment, such as a heating system, usually expressed as a yearly figure. See also 'capital cost' and 'lifetime cost'.

thermal performance – how well the building performs in terms of retaining heat.

typical village hall – by this we mean a single-storey building with one large meeting space, perhaps one or two other smaller rooms, a kitchen, toilets, and some storage space.

u-value – a number which reflects the performance of a material or build-up of materials such as a window, the wall or the roof, in terms of how much heat is lost through it. The lower the number the better the performance.

USEFUL DOCUMENTS

Below are some documents you may find useful. Please don't feel that you need to read all these as many are highly technical. They are listed here in case you need to find out about something in greater detail, and just so you are aware that these documents exist.

Documents downloadable for free;

ACRE – <u>Net Zero Design Guide</u>
ACRE- <u>Information Sheets</u>
CSE – <u>Community Building Energy Survey</u>
Historic England – <u>Various technical guidance</u>
Historic England – Energy Efficiency and Retrofit in Historic Buildings
HSE – <u>Duty to manage asbestos in buildings</u>
HSE – Asbestos : <u>The survey guide</u>
RICS / PCA / Historic England – Investigation of moisture and its effects on traditional buildings
RICS Professional Standard – <u>Planned Preventative Maintenance</u>
RICS Guidance Note – <u>Surveying assets in the built environment</u>

Documents downloadable at a cost;

The below documents cost money to download but you should never need to read them as they are highly detailed and intended for professional use. They are listed here for your information however as they may be mentioned by your surveyor.

BS 6576:2005 – Code of practice for diagnosing rising damp in walls and buildings and installation of damp-proof courses
BS 5250:2011 – Code of practice for managing moisture in buildings
BS 7913:2013 – Guide to the conservation of historic buildings
BS EN 12831-1 – Energy performance of buildings.
BS EN 16247- Energy Audits (-1:2022 General requirements – 2:2002 Buildings,-3:2022 Processes,-5:Competence of energy auditors)
CIBSE TM 46 – Energy Benchmarks
ISO 50001 – International standard for Energy Management Systems

ISO 50002 – International standard for Energy Audits

A combined building condition and energy survey can be very helpful. This is because the condition of the building and the opportunities for energy efficiency improvements are related. Care must be taken before undertaking energy efficiency improvements to ensure that the condition of the building is good, such as the structure is sound with no damp areas or leaks. Likewise, if you need a building condition survey because you are considering repair or maintenance work it might make sense at the same time to consider opportunities for making the building more energy efficient. As our research suggests that few surveyors can provide this combined survey, we have set out below a broad template which might encourage surveyors into this role. Simply because the survey is covering both issues does not mean it must be long and detailed. In fact, a clear and concise report of perhaps 30 or 40 pages will probably be more helpful. This way the building will be assessed holistically, and the energy efficiency recommendations will be made from an informed position in relation to the whole building, including its structure, fabric, services, condition and occupancy.

INTRODUCTION

- Who is undertaking the survey.
- Summary details of the site location and building type.
- Why the survey is being undertaken.
- What is included and excluded from the scope of the survey.
- State areas to which access was not possible.

Executive summary

- Simple summary of the existing building.
- Broadly describe its overall condition and any recent work.
- Comment on the existing services and heating system.
- Summarise the existing energy use, cost, and carbon emissions.
- Summarise the improvement measures that could be undertaken and how these align with the priorities of the village hall.
- One or two easy-to-read pages with bullet points will be appropriate for this section.

Summary of recommendations

- Provide a table with recommendations on each row and columns for lifespan, capital cost, potential savings (low-mediumhigh), and estimated payback period.
- State where further investigation is required in relation to a recommendation.
- State if repairs or maintenance work will be required in order to implement a recommendation.
- A simple traffic light system can make this easy to understand.

EXISTING BUILDING ASSESSMENT

Building overview

- A basic but comprehensive overview of the existing building based on visual observation.
- Include estimated age, brief history, condition, layout, construction.
- Mention any improvements, modifications or extensions made since first built.
- Comment on the existing services and heating system.

Outline Building survey

- Describe all the major elements of the building inside and outside.
- State the condition rating of each, and specific defects of note.
- Use a table format with columns for the item, condition, suggested repairs, urgency, cost estimate, and other comments.
- Externally, assess the roofs, walls, rainwater goods, fascia boards and soffits, doors and windows, steps, and drainage.
- Internally, assess the walls, floors, ceilings, kitchen and toilets, doors and decoration.
- This need not be a detailed building survey but must be suitable and proportionate to the building and the anticipated energy efficiency improvements.

Current energy use

- State and analyse current energy usage based on energy bills over the latest 12-month period.
- State the fuels in use such as oil, gas, electricity etc, and for each the amount of energy, the financial cost with reference to the various tariffs, and the carbon emissions.
- State and comment on the level of occupancy of the existing building (number of people for number of hours per week) in relation to the energy use.

- Refer to CIBSE industry benchmarks if the existing energy use figures are very low due to low occupancy.
- Include details of any actions already taken to reduce energy use.

PROPOSAL AND EVALUATION OF ENERGY EFFICIENCY IMPROVEMENT MEASURES

Building fabric

- Assess potential improvements to the roof, walls and floor in terms of construction and thermal performance.
- Compare new estimated u-values with u-values for the existing, as well as minimum u-values for a new village hall.
- If different types of wall or roof exist include estimates for both.
- Assess potential improvements to the existing windows and doors, and any other areas of potential air leakage or heat loss.
- Detailed heat loss calculations may be provided but are not always required.
- Take care if specifying insulation to ensure that moisture is not trapped and that condensation problems are not created.
- Assess the walls and comment on any work that is needed to make them suitable for the installation of insulation and advise on any risks to be addressed.

Energy systems

- Describe and comment on the existing space heating system and hot water system in terms of age, likely lifespan and performance.
- Provide and assess options for replacing or improving these systems to reduce carbon emissions and running costs.
- Comment on the suitability of the systems in relation to the building and its users.
- Consider anticipated occupancy levels and types of activity in this evaluation.
- Assess the building's ventilation, water use, electrics and lighting, along with options for improvement.

Renewable energy generation

- Evaluate opportunities for renewable energy generation.
- Include calculations and estimates in terms of performance based on location and site-specific factors.
- Include potential output as well as cost and carbon savings with the calculations, assumptions and methodology explained.
- Provide basic but broadly accurate figures for the likely performance.
- For PV panels consider the angle of the sun, the space available, the angle and orientation of the roof, and shade factor.
- Assess the potential for battery storage and the impact it would have.

Supporting Calculations

- For each section above (building fabric, energy systems, renewable energy), support options and recommendations with commentary on suitability, capital cost, and performance, including figures for energy reduction, carbon reduction and running cost.
- State an estimate of the payback period.

- Express energy savings in kWh per annum.
- Express carbon reduction in kg CO2e per annum, with the carbon factor stated.
- Express running costs in £ per annum, with estimated cost per kWh stated.
- Divide energy use and carbon emissions by the area of the building to express the amount per sqm per year.
- Calculations must be transparent, with all factors, assumptions and estimates clearly stated.
- Provide sufficient evidence to support the conclusions.
- Clarify whether calculations are based on actual consumption or benchmark data.
- Note that some funding bodies want evidence of at least two months actual energy consumption data.
- Assess recommendations in isolation where appropriate.
- Also assess sensible and complimentary packages of improvements together so that overall impact and cumulative benefits can be evaluated and considered.

Electric vehicle charging

- Consider opportunities for installation of electric vehicle charging points.
- Consider site layout, power supply, and synergy with any renewable energy generation and / or battery storage being considered.

APPENDICES

Site photographs

Include;

- Exterior and interior rooms of the building.
- Key features such as windows, doors, the roof space, the heating system, light fittings.
- Any existing insulation and potential defects such as gaps or poor installation.
- For a typical village hall, we would expect around 30 to 50 photos.
- Some surveyors can use a drone to take aerial photographs of the roof.

Basic drawings / diagrams

- Simple diagrams etc. are not essential but helpful if they can be included at low cost.
- Basic block plans of the building are very helpful to broadly show the layout and rooms.
- Include key features such as radiator positions, the boiler, windows and doors.

While every effort has been made to check the accuracy and quality of the information provided in this guidance, neither ACRE nor Stagg Architects accept any responsibility for the subsequent use of this information, for any errors or omissions that it may contain, or for any misunderstandings arising from it.

Village hall committees and others undertaking projects should always do their own research and due diligence, obtain competitive quotations, and seek professional advice where needed. In particular, committees are advised to seek further advice in relation to health & safety matters, fire safety legislation, and their duties under the CDM Regulations.

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