



## Forest School Camps future stores

Feasibility Study examining the current stores at Haddenham  
and options for the future



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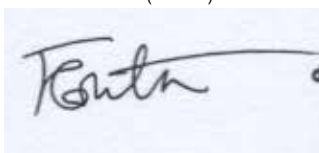
## Approvals

A draft version of this document was issued on 22nd December 2017. Subsequent comments and additions have been incorporated and agreed.

This version of the document has been reviewed by the following people who hereby approve its publication to Council, FSC members and others.

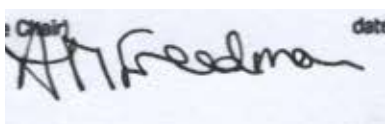
Feimatta Conteh (Chair)

date 21st February 2018



Andy Freedman (Vice Chair)

date 21st February 2018



Scarlett Du Tillieul McNicol

date

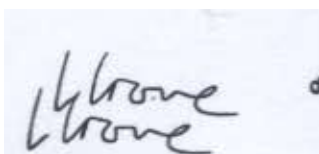
Rachel Young

date 23rd February 2018



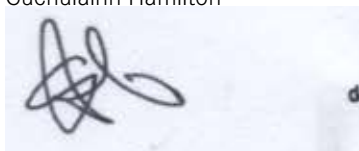
Llewe Gore

date 20th February 2018



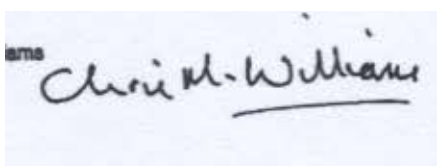
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date 20th February 2018



Chris Williams

date 19th February 2018







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\*Full Manual Handling Guidance is available on HSE website



## Executive Summary

A parent's view of Forest School Camps:

There is something greater than the sum of the parts, something intangible. It's about the philosophy, history, rhythms and processes of FSC - how they encourage you to connect to something deeper. This ageless connection to the earth - it's all true. And I was a cynic.

It's a connection that feels timeless and vital. They love the rituals, the singing - shockingly - and the sense of passing on a way of being that brings out the best in people. FSC gives my cool, clever, lovely boys the space to breathe. To think. To dream. And that, in this increasingly connected world - where so much exciting, seductive stuff competes for their attention - is priceless.

Forest School Camps is a children's camping charity that celebrated its 70th birthday in 2017. It is an organisation run entirely by volunteers, whose tireless passion and dedication organise and deliver camping experiences for over a thousand children each year.

One of the work streams is an ongoing cycle of unpacking, maintaining, storing and subsequently repacking equipment ready for the camping seasons; Easter, Spring and Summer. This work is carried out at its stores site, owned by FSC, near the village of Haddenham in Cambridgeshire.

From a practical point of view, FSC relies on the stores operation to provide camps with working equipment. As well as this the volunteer process of unpacking, cleaning and maintaining the equipment embeds knowledge and skills within the organisation and fosters respect, care and appropriate operation of the equipment.

FSC has a high retention rate with most children choosing to train to become staff when they turn 18. 'Ex Pathfinder' training occurs at Haddenham where the young people are introduced to their new role and encouraged to share the volunteer responsibilities involved both on and off camp.

This vital work and training is now under threat as the condition of the buildings at Haddenham are in an extremely dilapidated state, making it difficult for the volunteers to carry out their work effectively and leading to a decline in numbers. Not only is the accommodation cramped, but the operation of the kitchen, the electrical installation, gas installation and heating are all significantly below an acceptable standard. Although temporary measures are

being taken to continue the operation these are costly and difficult for the volunteers to manage. Taken altogether these factors are an immediate and ongoing threat to the organisation which could potentially mean some or all of the camps are cancelled in the near future.

Going forward Forest School Camps wishes to plan for its long term future and recognises that a comfortable, functioning stores base is essential; in terms of meeting statutory and regulatory requirements, to be able to effectively attract volunteers and to effectively introduce new staff to support the organisation.



FSC has therefore commissioned this feasibility study, carried out by ZCD Architects, alongside wider consultation exercises, to fully understand the needs of the organisation, the operation at Haddenham and the likely capital investment required.

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To carry out the work, FSC formed a steering group to develop a brief for ZCD Architects and provide input and feedback for the feasibility study. Further input has been received from a Structural Engineers and a Quantity Surveyor; Blue Engineering and Morgan Carr Surveyors respectively.

The steering group has explored three options which will provide FSC with the necessary evidence to make a decision as to how to move forward and give potential funders confidence that appropriate investment is being made to secure the long-term future of the organisation.

In terms of the consultation exercise, FSC involved the wider organisation in broader thinking about the future of FSC in order to begin a process of full involvement in the project. The results of the consultation exercise will be presented separately and have helped inform this process as well as allow FSC to look beyond the site at Haddenham to potential other locations to house the stores operation.

The three options explored in this feasibility report are:

#### **Option 1: Do nothing**

#### **Option 2: The minimum rebuild with some repair and refurbishment to existing buildings**

#### **Option 3: Full rebuild to maximise site potential and operation.**

*An option for relocating is beyond the scope of this report, however the study provides accommodation and briefing information which could support a review of a potential site.*

The 'do nothing' **Option 1** which, even with the best efforts of the volunteers to make do with the facilities, risks the operation being closed down for Health and Safety and Environmental Health reasons. The current condition of the buildings are contributing to dwindling volunteer numbers. There are also unnecessary equipment replacement costs.

The other two options explore the opportunity to rebuild and/or make improvements to the buildings and landscape. Both are potentially viable solutions given that the planning authority has confirmed that through the site's continued use by FSC it has become an 'established use' for 'storage, maintenance and occasional camping'. The local authority will therefore support new build and refurbishment proposals required to continue the stores operation at Haddenham.

**Option 2** proposes the least amount of rebuild; one new 'Social Building' which would significantly improve the experience for volunteers (shown on adjacent page) and a new storage building which will be fit for purpose and

protect the equipment from damp, mould and the affects of inclement weather.

The refurbishment of the remaining buildings could provide improved facilities for the repair and maintenance of the equipment as well as providing more WCs, showers, changing spaces and washing and drying areas for equipment.

Option 2 has been given a preliminary budget cost, including fees of £1,325,000 (exc VAT)

A more extensive **option 3**, of full rebuild offers the following additional benefits:

- A potentially reduced phasing programme
- Greater external space in the centre of the site
- Reduction of VAT due to all new build work

Option 3 has been given a preliminary budget cost, including fees of £1,752,000 (exc VAT)

This report and the steering group recommend that FSC proceed with securing funding to develop the scheme within the scope of **Option 2**; refurbish and rebuild.

The result of this capital investment, will create long term benefits for the organisation:

- Adequate accommodation space
- Increased volunteer numbers from improved facilities
- A more efficient process which could give time to carry out other activities such as additional training
- More inclusive and accessible environment
- Reduction in running costs
- Reduction in damage and loss of equipment
- Removal of dangerous asbestos
- Improvement of working conditions
- A pleasant and flexible space to meet and relax
- Space to engage, enjoy and learn about tools and equipment
- Long term security and sustainability for FSC to continue provide the same camping experience for 1000s of children over future generations

If Option 2 is pursued it will be possible to begin the work on site within 12 months, although this will be subject to securing funding as well as approvals and other organisational work streams within FSC.





Impression of a potential new building on the site at Haddenham providing social, kitchen, dining and training facilities

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# Steering Group and Design Team

## Steering Group

The steering group for the project was agreed by Council and met on several occasions, the members were:

Scarlett Du Tillieul Mcnicol: Environmental law advice

Rachel Young: Stores briefing

Llewe Gore: Stores briefing

Cuchulainn Hamilton: Consultation

Chris Williams: Planning advice

Further advice/overview and input was given by:

Bryson Gore: Chair

Andy Freedman: Vice Chair

Chrissie Wood Unwins: Finance

Ben McCarthy: Funding

## Design Team

Dinah Bornat and Sophie Fraser Hafter from ZCD Architects, worked with Steve Mardall from Ascent Architecture.

[www.zcdarchitects.co.uk](http://www.zcdarchitects.co.uk)  
[www.ascentarchitecture.com](http://www.ascentarchitecture.com)

Between them they brought experience in projects of this type as well as FSC camping, administration and Haddenham knowledge. All three have been campers since childhood.

ZCD Architects work on a variety of projects across the private and public sectors, offering a range of services from feasibility studies and urban design proposals to the delivery of small scale bespoke projects and larger new build developments. The practice has experience gaining planning permission on sensitive sites.

ZCD Architects design philosophy is to create materially appropriate buildings that are developed with a social purpose. They use research to support their work and have developed a particular interest in how children and young people use external spaces in their local neighbourhoods.

ZCD Architects projects from top to bottom:

1. Land End, Bucks. 19 houses for social rent around a communal garden (Completion date 2019). Client: Catalyst Housing
2. Penwortham Primary School year 6 block. BREEAM excellent. (Completed 2015) Client: Wandsworth Council
3. Extension to Cafe in Worthing. Locally listed building. (Planning permission 2015) Client: Coast Cafe
4. Site Gallery Sheffield. £1.5m refurbishment and extension to the gallery. Feasibility study and funding application. to ACE (2014)

ZCD Architects and Ascent Architecture provided their time at a reduced hourly rate.

### Other consultants

Engineer                      Blue Engineering  
 Cost Consultant            Morgan Carr

[www.blueengineering.co.uk](http://www.blueengineering.co.uk)  
[www.morgancarr.co.uk](http://www.morgancarr.co.uk)

Blue engineering provided their input for free. Morgan Carr's agreed to work at a reduced rate for FSC.





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# Introduction to the report

This report is a feasibility study looking at options for FSC's site at Haddenham and how it could be upgraded and made fit for purpose to support FSC's operation in future years. FSC has commissioned ZCD Architects, with the support of Ascent Architecture, to carry this exercise.

Additional input from Blue Engineering (structural engineers) and Morgan Carr (Quantity Surveyors) has been provided.

The report follows the format of Stage 1 activities, as set out in the RIBA Plan of work. As such it is an appropriate beginning for a capital investment project. It is intended to be read by members of Forest School Camps, young people, parents and potential funders.

The report is divided into the following sections:

- **Introduction**
- **Context**
- **Brief**
- **Options for the Future**





## Introduction

The introductory section begins with an explanation of FSC, its purpose to run camps for children as ‘an adventure in education’, how it operates and the way it makes decisions.

It explains the structure of the organisation and also looks at the experience that comes from camping, aiming to articulate a philosophy that can be used to underpin the brief and embody the less technical and more deep rooted aspects of FSC.

## Context

The context section provides the information about the site, its history, planning status, condition of buildings and the way in which the process operates to unpack, clean, mend, store and repack equipment throughout the year.

It sets out the regulatory requirements; flood risk; planning and environmental health aspects.

It makes reference to the consultation process, intended to gather as broad and inclusive a view as possible within the time frame, as a basis for understanding feelings about the future of FSC, the experience of Haddenham and the appetite for change.

## Brief

The brief describes the future requirements of an improved operation at stores that will be comfortable and attractive for volunteers and better support the running of FSC. It sets out an accommodation schedule, with a range of areas better sized to support the functions, also technical requirements such as manual handling, heating and social areas. The current operation has been reviewed by stores representatives to suggest a more efficient system of repacking in boxes ready for camp, to which the buildings should be designed accordingly in Stage 2 of the development of the project.

This section includes a brief for sustainable objectives, access requirements and design quality that will be further developed in Stage 2.

## Options for the Future

The feasibility report looks at three options for continuing with the stores operation at Haddenham.

- Option 1: ‘Do nothing’. This option looks at the minimum requirement to keep the stores operational at Haddenham using the current accommodation.
- Option 2: Refurbishment. This considers a combination of upgrading existing buildings and rebuilding where necessary to meet the legal and regulatory requirements and to create accommodation that is comfortable and fit for purpose.
- Option 3: Rebuild. This option considers the feasibility of rebuilding all of the buildings on site to create modern, fit for purpose facilities that will support the organisation in coming years.

Option 4: Relocation. This option is not considered in this report, however the contents in the brief section are intended to support a similar feasibility exercise on other potential sites.

Professional input in this section considers cost, potential funding streams, a programme and possible phasing and procurement options.

From the analysis of these options a series of recommendations are put forward that suggest the best way forward for the organisation on the site at Haddenham.

There are a number of pages in the appendix that have been used in the preparation of the report that may be useful in subsequent stages.

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# FSC: Purpose of the organisation

FSC is a children's outdoor education charity. It is a voluntary organisation whose primary focus is the provision of residential camps for children and young people across the UK and sometimes abroad. Its philosophy is 'an adventure in education'.

From the website:

*Our education is about discovering for oneself how to do something, rather than being told in the abstract. Children and staff find themselves in situations that encourage this; the outdoors demands and encourages learning.*

*We remove unnecessary authority and, with due regard for safety and legality, encourage children to take responsibility and to reach their own decisions on small and not-so-small issues, individually or as members of a group.*

*At camp we aim to teach ourselves how to live with independence and responsibility; concern and care for ourselves, other people and the environment; resourcefulness and self-confidence; tolerance and respect. FSC is determined that all people be treated equally regardless of age, gender, sexual orientation, ethnic origin, religion and disability. These are high ideals - we don't always succeed.*

In 2016 FSC ran a total of 37 camps, providing places for 1230 children and young people between the ages of 6½ to 18 years. Camps ran within a total eight week period during school holidays and weekends. They were:

- 29 children's camps
- 4 Associate camps
- 4 skills and conservation camps

FSC makes provision for children and young people with disabilities to attend specially organised and integrated camps.

Camps were staffed by a total of 598 voluntary staff, with varying staff to child ratios depending on the needs and ages of the children. These numbers remain broadly unchanged from year to year.

FSC's income is generated through campers' fees and it provides a number of free and assisted places each year for those cannot afford to pay. Youth members who are unable to afford the fees to attend the camps, or unable to provide suitable equipment for camps are encouraged to apply for assistance from the Fees Support ('Aid Fund'). The Aid Fund is supported by voluntary donations and the FSC's funds. No existing or new youth member is denied a place

because they cannot afford the fees.

2017 was the 70th anniversary of FSC. The charity relies entirely upon voluntary staff and continues to attract successive generations of young people who have been sufficiently enthused to continue, largely unchanged, the principles, purpose and practices of the organisation. Financially the organisation has remained self sustaining relying on campers' fees and small donations and has not sought support from charitable or governmental grants.

The voluntary nature of the organisation and its consensus based decision making traditions mean that it relies heavily on the staff being sufficiently inspired in future developments to continue to give their time freely.

## Structure of the organisation

The structure and decision making process within the organisation aligns with the structure that operates on its camps. On camp roles are divided up in a hierarchical but supportive fashion. The camp chief who offers to run the camp is supported by the organisation, an organiser and staff in the field. Camp chiefs and group chiefs tend to rotate their role and staff are encouraged to work with different age groups and abilities each time they camp. Roles on camp are:

- Camp chief/s
- Caterer/s
- Treasurer
- Group chief
- Group staff

The staff on camp lead a variety of activities and support the children through applying a 'learning by doing' philosophy. Further information can be found on the website [www.fsc.org.uk](http://www.fsc.org.uk) and in the programme which can be downloaded from there.

Children who camp with FSC are encouraged to remain in the organisation and become staff when they turn 18. Training before staffing is an integral part of FSC and continues on camp as staff develop.

The camps are made possible by a large voluntary body who carry out administrative tasks, maintain equipment and make necessary decisions about the running of the organisation. Administrative work, such as enrolment of staff and children, finances, putting together the camp programme and so on are divided amongst the following committees:

- Staffing: includes DBS checking and training
- Children: enrollment, safeguarding, reports, inclusion
- Camps: Sites and programme
- Finance: Budgeting and annual report



Rally and dining circle on camp. Image taken from the 2017 programme

- Stores: Maintenance of equipment
- Insurance

The secretaries of these committees meet monthly as an Executive Committee who report to Council. They are joined by the Chair and Vice Chair.

Council is the organisation-wide body, open to all members of staff, who meet seven times a year to discuss issues and approve decisions and the annual report. Members are elected at the AGM in June each year and have responsibilities similar to trustees of a charity board.

The equipment for the camps is stored at the property owned by FSC known as Haddenham, near the village with the same name, in Cambridgeshire. Volunteers attend weekends at Haddenham to unpack, clean, mend, store and repack approximately 1 tonne of equipment throughout the year. This is described in more detail in the following section.

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## FSC philosophy

FSC has established that it needs to consider upgrading its facilities or moving to another location in order to secure its long term future. This report looks at the feasibility of a capital build project on the site at Haddenham, which is likely to be a substantial investment for the organisation. Although FSC has a rather unique structure and processes for making decisions, to some extent it will need to adhere to traditional approaches to briefing, design and the procurement of an eventual construction contract in order to avoid unnecessary risks and to achieve an appropriate solution to support the organisation now and for future generations.

This introductory section, intends to set the scene by starting to express some of the unique physical and spatial elements that underpin the camping experience and resonate beyond the field. The intention is that these elements are essential for understanding what makes FSC special and will form a rich foundation for the briefing section of the project, in section three of this report. This ought to result in a bespoke but sustainable solution for the stores that will add depth to the experience of working at Haddenham for volunteers and trainees.

### Background and camp life

The traditions and rituals, as with similar organisations such as the Guides, Scouts or Woodcraft Folk, are part of what makes FSC special and why many campers and staff return again and again. In FSC, staff often meet up in a social capacity, enjoying each other's company, camping together and sometimes embarking on new endeavours. The strong and sometimes lifelong bonds that are formed are part of its enduring nature. What ties people together are some of the familiar rituals, some of which are picked out here to inform the feasibility study:

### The Lodge - greater responsibility and involvement

One of the central teachings in FSC is that actions and activities are not individual but part of the wider Lodge whether this be on camp or throughout the organisation.

On camp, the Lodge is everyone from the smallest pixie to the oldest elder. Within the wider organisation the Lodge is broader and includes people who choose to staff less often and provide support in other ways. The longevity and inevitable circle of life now means the organisation increasingly experiences farewells to life long campers.

FSC seeks to listen to all voices and to use the skills of everyone involved, as well as grow new ones. It is fitting

that FSC seeks to embrace this involvement and look for ways of including as many people as possible in the process of change that this development will bring about. FSC will draw on experts within the organisation who have design and construction experience as well as people who have other skills to offer.

FSC is interested in phasing and construction options which may involve a degree of self build, where appropriate. The benefits of a hands-on involvement would be to create a spirit of ownership and care, which will need to be balanced with the running of the stores, its long term management and any cost and health and safety risks.

### Camp equipment

Camp equipment and the way in which is laid out in the field is a reassuringly familiar aspect of camp, remaining largely unchanged for generations. There is catering equipment for cooking on open fires, tools for wood cutting and large canvases for basic shelter and storage. The simple nature of the equipment supports the philosophy of the organisation, helping it to stay in touch with nature and to achieve a unique and much loved experience for children and staff for many generations.

It is packed away in boxes on the last day, to a clear set of rules; everybody learns the process and understands the cycle. The reassurance and familiarity are an intrinsic part of camp and fit with the traditions and rituals that have developed over the last half century.

### Camp layout

The familiar layout means that the moment of arrival on camp can be a reassuring experience; one of many reasons why the activities run smoothly and staff can play an active and engaged role from the start.

The diagram to the right is based on a standing camp at Radnor in Wales in 2016, but could represent any standing camp:

Campers use two or three fields, distributing the five age groups around the site, each with their own circle of tents and fires. In the centre of the camp is the kitchen and dining circle. On this site the kitchen is close to the river, which means it is able to use the water for cooling food. There are a total of twelve circles on this site, accommodating different sizes of gathering at different times of day.

The scattered distribution over the site not only gives some privacy and autonomy to the separate groups, but also means the landscape has a profound impact on the daily life. Walking between group sites gives an opportunity for quiet contemplation and an appreciation of the setting, it gives space to play and to carry out activities comfortably.





### The circle

Although this distributed layout represents a standing camp, the principle of the circle is used on mobile camps and hike as well, where groups gather in the field and sit on the grass. On standing camps, logs are arranged to suit the number of people on that camp, so the dining circle will be large enough for all the campers to gather, with enough space to eat and relax. The fire circle might be tighter, to keep warm and to hear others singing.

The circle is a fundamental spatial aspect of FSC.

### Consensus

The arrangement of the circle supports a non-hierarchical discussion forum. FSC is committed to consensus making decisions, sometimes using the talking stick, or hands to help listen and understand each other. Decisions are made 'for the good of the Lodge', rather than individually.

### The environment and sustainability

The nature of FSC is to stay close to the ground and 'leave no trace'. For example on the final day, every inch of the ground is 'swept' by the eyes of the Lodge, as they walk through picking up stray litter. FSC shops locally and although cooking on wood fires, it seeks to reduce its carbon footprint. It is fitting that the any new building and any conversion should aim for low embodied energy, low energy in the construction stage and day to day use of the building.

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## Development philosophy for the Stores

These aspects of camp, set out in the previous pages embody some core principles. There are some additional points which are unique to the stores operations:

- Work is carried out through the year, sometimes in cold weather and in the dark winter months
- Road access is more regular and relies on a greater number of visits from across the UK
- There are only a small number of children and it is agreed that they are supervised by their parents or carers rather than the Lodge
- The buildings are fixed
- Power and heating is necessary

Despite this, it is essential that the spirit, traditions and cultures of FSC are celebrated in the new development, both in the process and in the final production of new and/or refurbished buildings, either on the site at Haddenham or elsewhere. Drawing from the previous page, these aspects are summarised, articulated at this stage to form the foundation of an appropriate brief for FSC at its stores:

### The Lodge: Access and inclusion

Access for all ages and abilities should be available to as many of the buildings as possible and will form part of the brief. There is also a need to recognise the wider Lodge and for an aspect of memorial and remembrance/celebration of life-long campers. The project should allow the traditions, history and rituals of FSC to be practiced and celebrated.

### The circle

Unlike on camp, where there are a fixed number of campers, Haddenham will need to provide flexible circle sizes for meeting, eating, socialising and sleeping. The building and site will need to offer ways to carry out these activities inside and outside, in fair weather and foul. Shelter from wind, sun and rain will need to be balanced with the experience of being close to the ground and close to nature which is at the heart of FSC.

### Appropriate landscape and setting

An understanding of the impact of location and landscape as a backdrop for FSC activity is essential. The desire for a more wild, beautiful and remote setting arises from the camp experience and is deep within the psyche of the organisation. For some there is an ongoing sense of loss, sometimes compounded by long travel distances, that Haddenham naturally creates.

Although the site to the north, known as Fenwood may partly 'heal' this loss for some, it can go as far as the setting will allow. There is an opportunity to improve the connection between the two sites in any new development.

### The environment and sustainability

The target for any new building or refurbishment will be to achieve a building of low embodied energy, with a low carbon footprint and a reduced life cycle cost. There is a cost premium associated with these objectives, which will need to be balanced with funding and fundraising opportunities. FSC wishes to obtain a budget price at this stage which represents a high level of sustainability which will support its volunteers in the long term. In stage 2 it will investigate what this might mean in terms of layout and uses across the site.

It may be appropriate to keep storage accommodation unheated. Weekend use of some of the spaces might mean a lightweight solution that heats up quickly.

### Consensus, consultation and co-production

To a greater or lesser extent, capital projects involve some degree of user involvement. FSC has a particular approach that needs to be understood in this respect, largely to do with the organisations structure and decision making process. For the project to be successful, these need to be widely agreed within the organisation, understood by consultants and carefully managed through the briefing, design, procurement and delivery process. Involvement of the wider organisation is essential, using existing skills and experience, as well as potentially allowing for a self-build element.

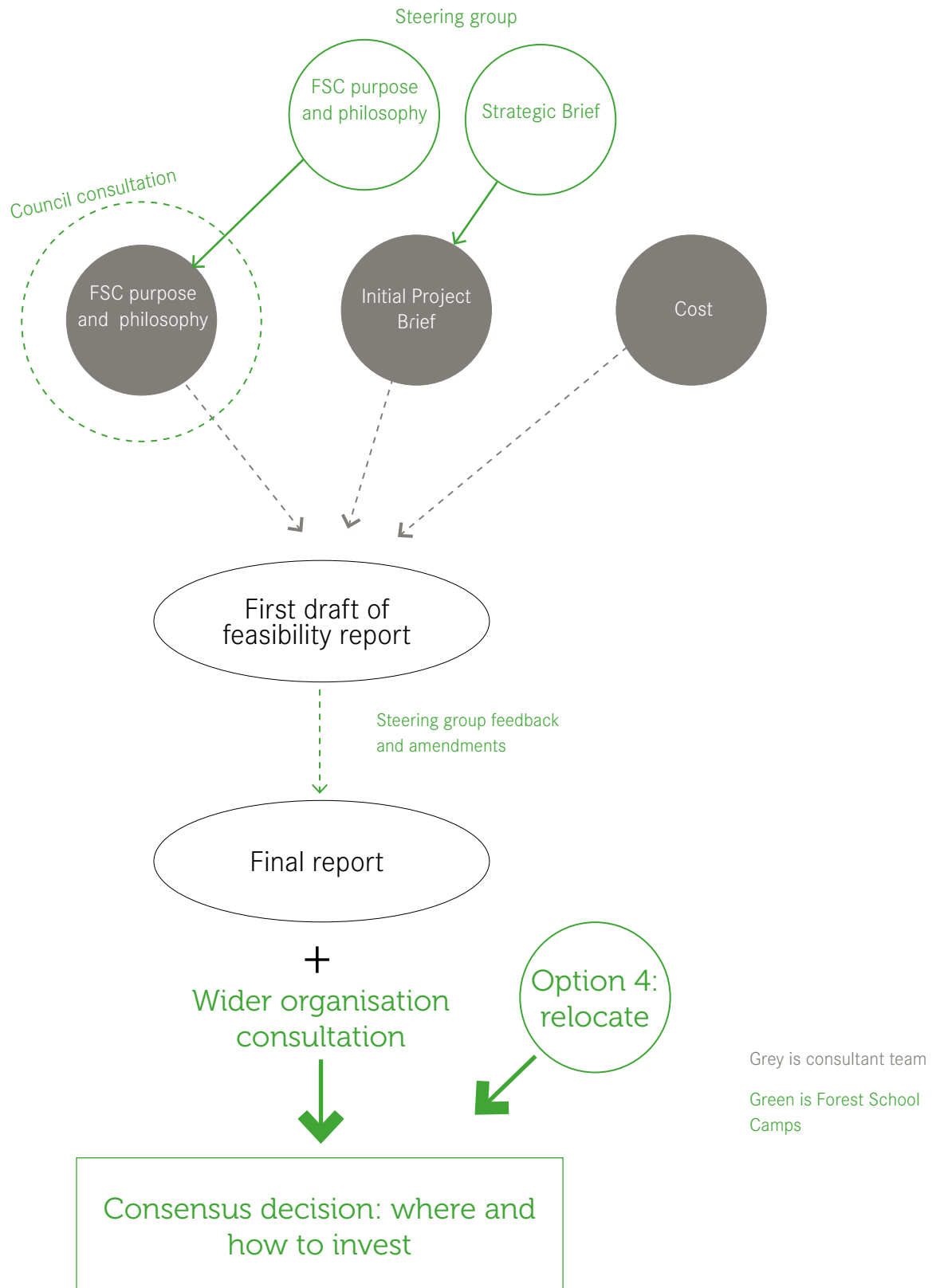
The diagram opposite describes the Stage 1 briefing and development process that has been employed during this feasibility study:

Once it was agreed to move forward with the project and to employ an architect team, Council set up a steering group. They were mandated to create the strategic brief and provide the feasibility study with as much information as possible. The steering group kept Council informed of progress and commented on the emerging report. Council input on the Purpose and Philosophy section.

ZCD Architects lead the production of the report, with input from Ascent Architecture and other consultants and advisors. ZCD created a first draft of information, options for the future and recommendations for the steering group to review. Dinah Bornat from ZCD Architects gave a number of updates and presentations.

Alongside this report the wider consultation and advice on relocation provided the organisation with the information they needed to make a decision on how to move forward with the project. The scene has been set for continued involvement and potential co-production throughout the project.

Co-production diagram for Stage 1



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## Location

The site is located on Hill Row, west of the village of Haddenham in Cambridgeshire. The full address of the site is:

Forest School Camps  
Hill Row  
Haddenham  
Cambridgeshire  
CB6 3PA

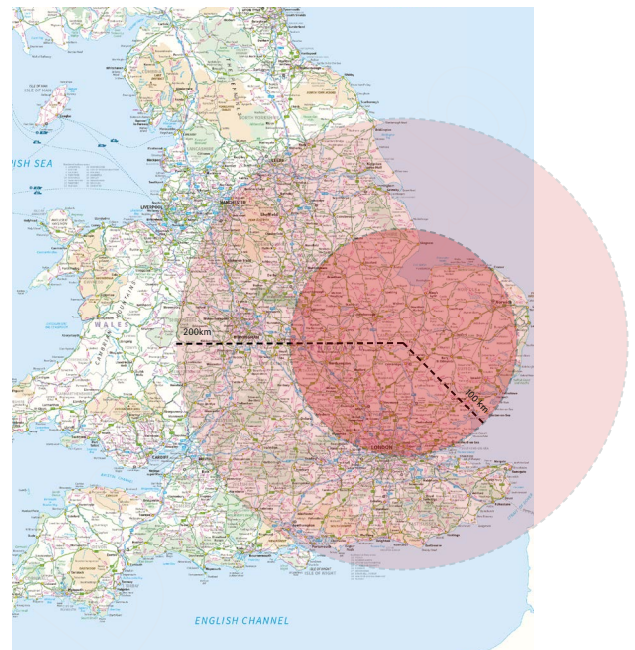
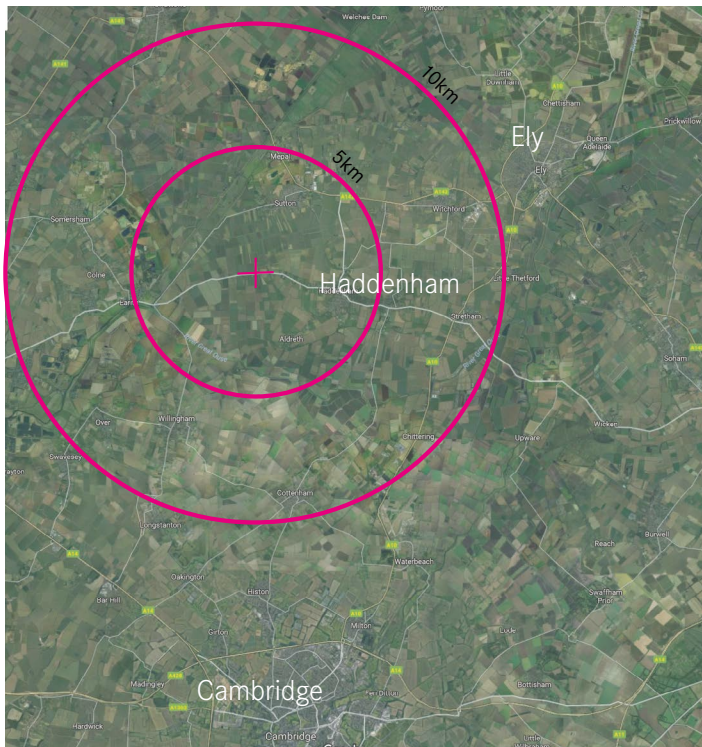
Haddenham is north of Cambridge and south west of Ely. The closest train station is Ely which is 9.5 miles away and takes 20 minutes to drive.

### Train times to Ely station

London Kings Cross: 1 hr 7min  
Bristol: 3 hr 51 min  
Birmingham: 2 hr 30min  
Manchester: 3 hr 30min  
Sheffield: 2 hr 25min

Most volunteers arrive by car or on a special coach from London, travel distances below (from AA website):

Central London:	120km/75 miles	(2 hours)
Bristol:	230km/180 miles	(3 hours)
Birmingham:	150km/95 miles	(1 hour 40 min)
Cambridge:	27km/17 miles	(35 minutes)
Manchester:	284km/177 miles	(3hrs 15 min)
Sheffield:	196km/122 miles	(2 hrs 20 min)





Fenwood

Bungalow



## Land at Haddenham

The stores at Haddenham occupy the south east corner of the site. To the north is the wooded area of Fenwood. The bungalow occupies the south west corner of the site and is currently lived in by Frances and Phil Rainford who act as caretakers for the site.

FSC purchased the site known as Haddenham in 1980. The purchase cost is thought to have been £12,000 to £14,000. When acquired by FSC the buildings on site were mainly used as pig pens with Hut 42, only partially roofed at the time, using for rabbit breeding.

FSC had been using a series of stable buildings at Horton Kirby in Kent but with an abrupt end to their tenancy had to move fast making the move and relocation over a single weekend.

Only minor refurbishment with some rebuild to Hut 42 has been carried out subsequently. This has been on an adhoc basis by volunteers, with the understanding that some more substantial work would need to be carried out a later date.

The original barns and outbuildings on the site have been added to, extended and partially refurbished. The bungalow has been extended, with planning permission, from a two bedroom to a four bedroom house and fitted with a new kitchen.

In 2006 FSC purchased the land north of Haddenham, known in the organisation as Fenwood, for £50,000. This was, and remains, agricultural land. FSC has planted trees in series of copses and maintains the site. It is used for occasional camping during the year.

The site has been recently valued by David Clark and Company at £450,000 to £500,000.

### Site areas:

Fenwood:	3.4 hectares	(8.4 acres)
Haddenham:	0.57 hectares	(1.5 acres)
Bungalow:	0.1 hectares	(0.2 acres)
Total:	4 hectares	(10 acres)

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# Site at Haddenham

## **Site survey**

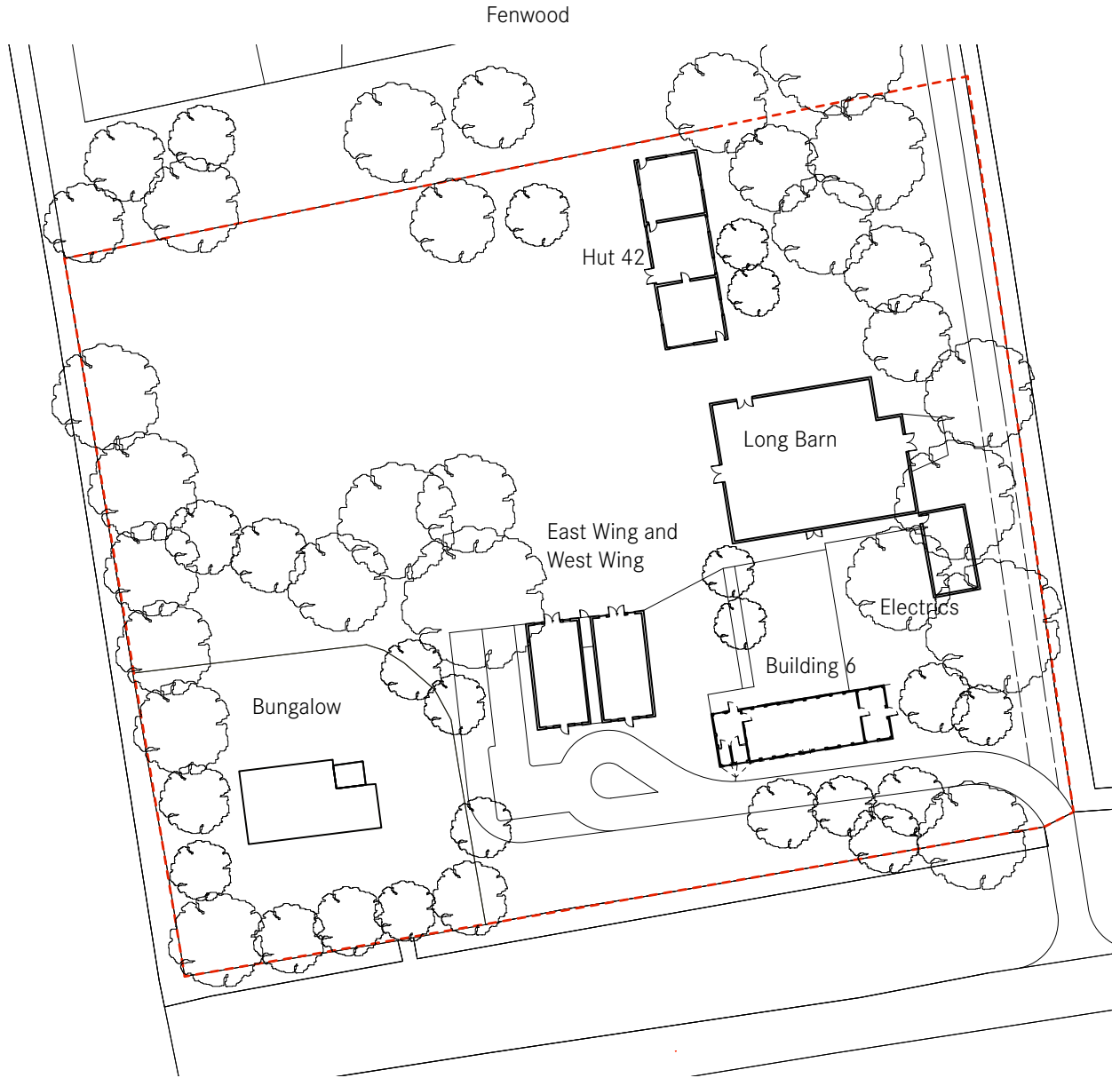
During Stage 1 of the project it is advisable to carry out a measured survey that show:

- Existing and proposed boundaries
  - Outline of existing buildings and road
  - Boundary fences, access ways, adjacent walls and their heights
  - Trees, species and spread
  - Ditches, ponds, waterways above and below ground
  - Wet or bad patches
  - Position of trial holes
  - Rights of way/access
  - Ground levels
- 
- Soil and surface water drains
  - Water mains
  - Electricity cables
  - Telecommunication cables
  - Gas mains (n/a)
  - any other services

This report has used an Ordnance Survey plan, with further information added. Once the decision on how to proceed has been made, the survey should be commissioned along with ground investigations and soil surveys. This may have implications on the build and therefore the budget costs.

## **Soil investigations**

Trial pits or boreholes will need to be commissioned (subject to structural engineer's advice) to establish the ground condition, which will assist in the design of foundations and ground slabs etc.



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## Current operation at Haddenham

The process of unpacking, drying, repairing, storing and then repacking the equipment is carried out by FSC volunteers at Haddenham on a number of 'stores' weekends spread out over the year.

It is a vital cog in the wheel for the organisation. For example, large canvases, tools and equipment require a certain knowledge that comes about through both use and its care and maintenance. FSC has been slowly replacing a number of the large canvas tents; reviewing their performance in extreme weather, how easy they are to pitch and then factoring in maintenance and repair. Equipment needs to be effective in its use and can be replaced once it has been decided it has outgrown its natural life. Sleeping bags, waterproof clothes, and warm jumpers are often donated and are received if they are in a good state.

The calendar opposite shows a typical year, co-ordinated to support the programme of camps. The majority of camps run during the summer, but the same equipment is also used earlier in the year at Easter, May Bank Holiday and spring (whitsun), meaning a rolling programme is necessary. In general, Haddenham holds one stores weekend per month, on the second weekend of the month, except April and August during camping sessions.

There are also site and buildings maintenance weekends, bringing the number of weekends to a total of 14 a year.

In addition to equipment maintenance, FSC holds training weekends for previous campers (children) who have turned 18 and would like to become staff. These are held alongside stores weekends, which gives the trainees insight into equipment use and maintenance and helps with recruitment of volunteers.

The adjacent site at Fenwood is also used for activities, such as a tree planting weekend in 2016 attended by 65 children where 1200 trees were planted. It was used for Pathfinder post-camps in 2017 (alongside a stores weekend), glee camp and other social and training activities.

During the week and on other weekends, the buildings are secured and the site remains vacant. The bungalow is occupied by Philip and Francis Rainford who provide a caretaker role. Phil is in charge of transport of the equipment to the campsites.

The table opposite shows average volunteer numbers, which include staff trainees as well as those attending for one day, rather than the full weekend. Volunteer numbers



are dropping, partly as life situations change but also because the environment at Haddenham is known to be uncomfortable, particularly but not exclusively, in the winter months.

Annual costs of running the site and buildings will follow in the next stage of the project, should the decision be made to stay on site. This will help inform a life cycle costing analysis.

Each weekend has specific tasks that need to be carried out in relation to the care of the equipment, with the first priority given to drying tents and personal equipment to minimise damage.

At present the process is managed in 'bays'; tent bay, catering bay and so on, where it is looked after and stored. Empty boxes are cleaned and stored empty, then repacked before each camp.

Traditionally work is carried out in these separate bays in the buildings and across the site. The arrangement within these buildings has been changed over the years in attempts to make the processes more efficient often requiring the spaces to be doubled up for multiple use.

FSC has indicated that moving equipment and manual handling is problematic due to the layout of the building and the general lack of space. This results in tasks being more

complex and time consuming. Although there is a social element to the process, the work is hard and there are often not enough volunteers available to complete the jobs necessary. The tasks of drying, cleaning, mending, storing and packing are described here in more detail:

2016 /17 figures	Tasks carried out	Ideal number of volunteers	Av volunteer numbers
September	The large tents are unloaded and are sorted into damaged, damp and ok piles and aired and folded as needed. Additional various smaller kit is also sorted on this weekend – for example Perishables.	90	50
October	General unpacking and sorting.	90	50
November	This is the most popular month as there are fireworks and many camps arrange a reunion – this weekend is used to wash up all catering equipment.	100	70
December	General maintenance and repairing of kit	50	35
January	General maintenance and repairing of kit	50	55
February	General maintenance and repairing of kit	70	70
March	General maintenance and repairing of kit - Pack Easter and Whitsun camps Approx. 4	100	55
May	Unpack Easter, pack remaining Whitsun and mobile camps Approx. 4	120	65
June	Unpack Whitsun – Start packing Summer camps	130	80
July	Pack remaining summer camps	140	70



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## Drying process

Large tent canvases need to be dried completely before being stored. At present these are hung on drying lines, 20% inside, 80% outside. Tents typically take half a day to dry outdoors and two days to dry indoors. Given that work is carried out over the weekend, this relies on dry weather, which is often not the case. There have been years where two consecutive stores weekends were wet and equipment has been lost.

There is clearly an advantage to indoor drying, but currently not enough space to do so.



As well as the large canvases, other equipment that needs drying is:

- Small tents
- Sleeping bags
- Blankets
- Clothing

Blankets, clothing and sleeping bags need washing first. At present these are taken home in cars by volunteers and returned the following stores weekend. Ideally there should be appropriate washing machines and tumble dryers/ drying room on site. Tumble dryers help with 'reproofing' waterproof equipment and will also dry fibres of sleeping bags more effectively than line drying which improves their warmth.

## Cleaning

All non-fabric equipment needs unpacking and cleaning once it has been returned from camp. Much of this work is carried out outdoors, on the patio, on trestle tables, with water brought out in bowls. This can be difficult when the weather is cold and wet. As this work is often carried out in later in the autumn it can suffer from poor natural light levels outdoors. There is insufficient artificial lighting to support the task.



## Mending

Before storing or re-packing, any damaged or broken equipment that can be maintained will be mended as follows:

### Tents

All large tent maintenance is done in the tent bay area—where sewing up of holes/rips and repairing of any ripped guy ropes etc is carried out.

### Axes and Tools

Blades are sharpened, wooden handles are sanded or mended and tools are oiled.

### Catering equipment

General repairs of broken handles, dented pans etc.

### Pegs and Poles

There are maintained and cleaned and replaced where necessary.

### Tables and wooden boxes

General repairs

### Personal clothing and equipment

Labels and minor sewing (also washed and aired).

### Specialist mobile equipment such as stoves and bikes

Cleaned and repaired throughout the year.

## Storing

Once the equipment has been cleaned and dried it needs to be restored ready for the next camp. Storage is currently grouped according to type and typically stored close to where any maintenance is carried out, for ease of retrieval.

Current problems with storage include:

- Insufficient storage space
- Mice/rodent damage: Fabric equipment is susceptible to this. Mice can drill through a folded tent creating a series of holes.
- Damp and mold growth: All equipment is susceptible, including some catering equipment such as wooden spoons.
- Manual handling: Where possible heavy items are not stored above 1.5 metres. All heavy items are stored on heavy duty shelving.

Some effort has been taken to alleviate some of these problems, such as mouseproof storage and organising of equipment to meet manual handling guidance. However, storage remains an ongoing problem and contributes to loss of equipment and unnecessary expenditure for the organisation.

## Packing

Before each camping period, equipment taken from its place of storage and packed into plastic boxes. Packing is designed so that the maximum load of each box is 50kg. Packing weekends are arranged to suit the camping programme as follows:

- September (minor packing for one or two camps)
- March (before Easter and May camps)
- May (before Whitsun camps)
- June (start summer camp packing)
- July (remaining summer camps)

Packing is generally organised in teams, ideally with volunteers from each camp present. There is a general list to suit the numbers of campers with tailored items to support special needs or specific requirements of the site or camp programme.

Packing and its associated negotiations between the camps, takes up a good deal of space. Ideally it occurs outdoors when the weather is fine. It needs a clear layout and good level of lighting.



## Other maintenance

Maintenance of the buildings and site is carried out throughout the year. Minor work is carried out as follows:

Gutter and roof minor repairs, inside and outside plastering, repairing and mending of broken benches/chairs/lights etc, repainting of buildings, repairing of slabs and concrete etc

## Training

FSC trains new staff, who were previous campers over five weekends of the year. Trainers and trainees use the training room and outside space to carry out discussions and practice Woodcraft skills such as fire lighting and axing.

On average FSC trains 40-50 Pathfinders over three to four weekends in the year.

## Buildings and their current useage

The previous section looked at the general operation, this section describes the different buildings and the spaces used to carry out the specific tasks required for maintaining the equipment.

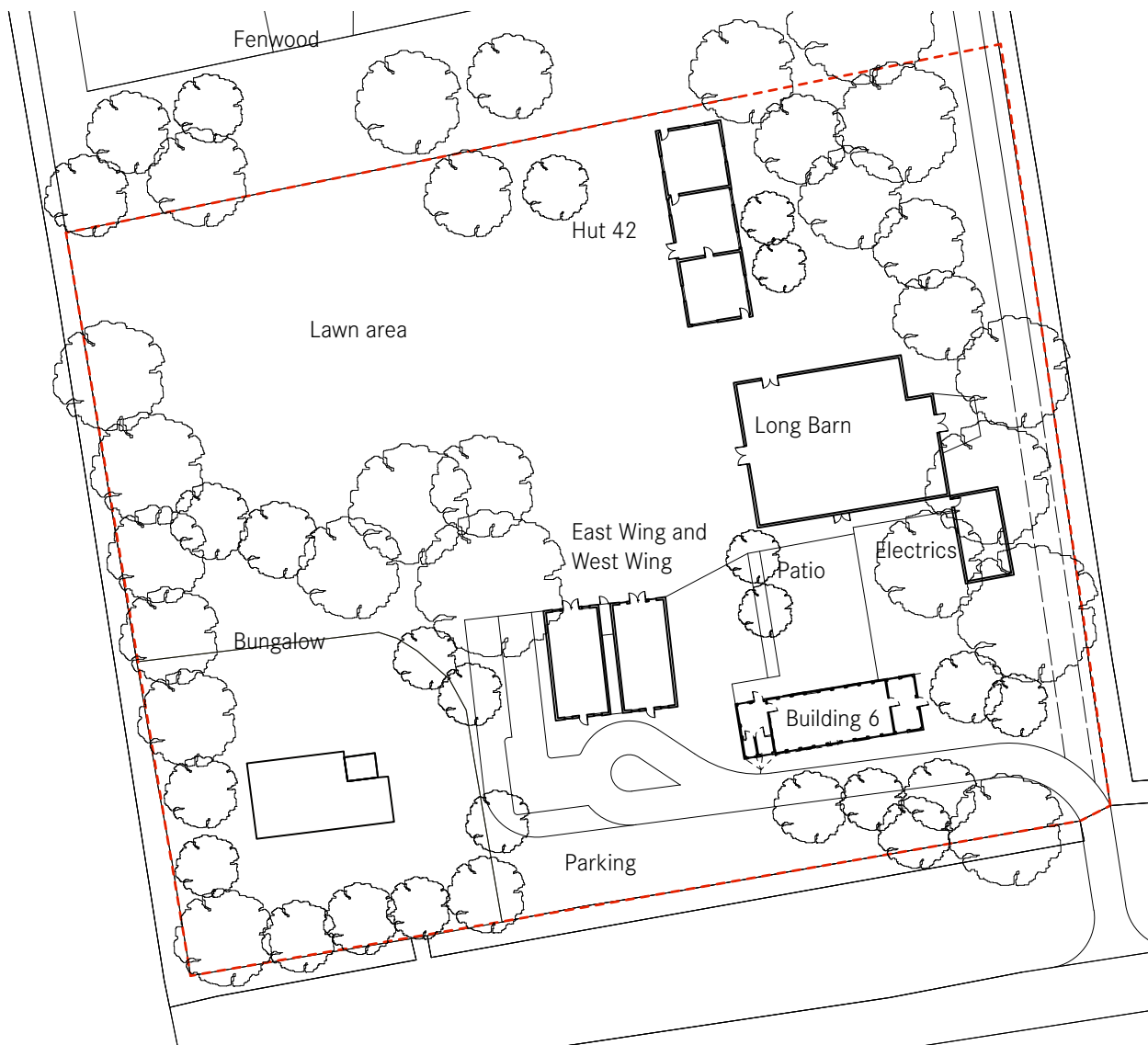
There are five main separate buildings at Haddenham that have a total internal area of approximately 709 sq metres.

When aquired by FSC in 1980 these buildings were mainly used as pig pens with Hut 42, partially roofed, using for

rabbit breeding.

These buildings are known as:

- Long Barn - used for large storage, drying of canvases, mending and several flexible uses
- Hut 42 - used for training and storage
- West End Workshop - metal workshop and storage
- East End Workshop - wood workshop and storage
- Building 6 - kitchen, dining, office and WCs/shower
- Patio - used for eating, meeting and at other times cleaning of equipment
- Lawn area - used for drying, packing, sometime camping and recreation.





Space	Area	Totals
Catering Bay	38 sq m	
Personal equipment	38 sq m	
Misc tent etc storage	76 sq m	
Tent hanging & Storage	92 sq m	
Tent mending	44 sq m	
Canoe bay	44 sq m	
Tools & storage west workshop	53 sq m	
Tools & storage east workshop	53 sq m	
Kitchen and Dining	64 sq m	<b>438 sq m</b>
Office	14 sq m	
Entrance & WCs	15 sq m	
Training Room	38 sq m	<b>131 sq m</b>
Total internal		<b>569 sq m</b>
External hard standing	140 sq m	



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# Long Barn

The largest of the buildings on the site, thought to be possibly 60 years old. It has been extended since purchase from the internal rectangle space, with added 'bays' one both lengths.

The building is a timber frame structure on a low blockwork plinth. Walls and roofs are corrugated asbestos cement sheets. It has an uneven concrete floor. Large double doors open onto the lawn area, where the packed boxes are loaded onto a flat bed lorry for transport to the campsites across the country. At the rear is hard standing for what was used as a loading bay.

The central area of the barn is flanked by separate smaller working areas. The building is used for storage, drying tentage, mending equipment and packing.

The large central area is adaptable for folding tents, storing sets of packed equipment and occasionally general work (i.e. sorting and washing up). This space is unheated. Around the central area are four smaller bays approx. 3m x 6m each.

## Central Area: 100 sq m (open plan)

Tent Storage – Approx. 70 No. large military style canvas tents are folded and stored on heavy duty, Dexion shelves, appx 2.5m in height.

## Tent bay 32 sq m (enclosed)

Tent bay is a mending area with some storage. It houses five industrial sewing machines; three large sail machines with large built around tables and two smaller industrials with standard in built tables. There is also limited storage for unused tents. This area is heated with three halogen bar heaters and one electric heater. It is cramped and uncomfortable to work in.

Storage:

- Large wooden box for old canvas fabric
- Large wooden box for large tent bags
- Small metal box with small tent fabric
- 2 cubby holes approx. 30cm X 30cm for small storage
- 7 Large Deep wooden drawers for eyelets and guys
- 1 large Dexion Storage 6 shelves

## Small Tent bay and Canoe bay: 36 sq m (enclosed)

This bay holds smaller plastic tents and poles in approx. 35 medium plastic boxes. At the back of this bay and are 18 canoes and approx. 25 buoyancy aids

## Box bay: 32 sq m (open plan)

This bay stores empty plastic and wooden boxes before they are packed:

- Approx. 110 large plastic packing boxes
- Approx. 30 old large wooden packing boxes.

## Hose/hoes and Tarps bay: 76 sq m

This bay is split in two for hose and tarps

- Approx. 30 bundles of 50m garden hose for drinking water supply on camps
- Approx. 120 Tarpaulins of various sizes

In addition:

- A large amount of hessian of various sizes
- ½ various tools and 'other' kits
- Fenwood tool bay
- Fenwood tools – example hoes, coppicing tools
- Non standard large tents e.g. Geo-domes

## Advice

The survey of 1997 suggested that with a 'proper' maintenance programme the building had potentially 'an additional 15 to 20 year life span, possibly more'.

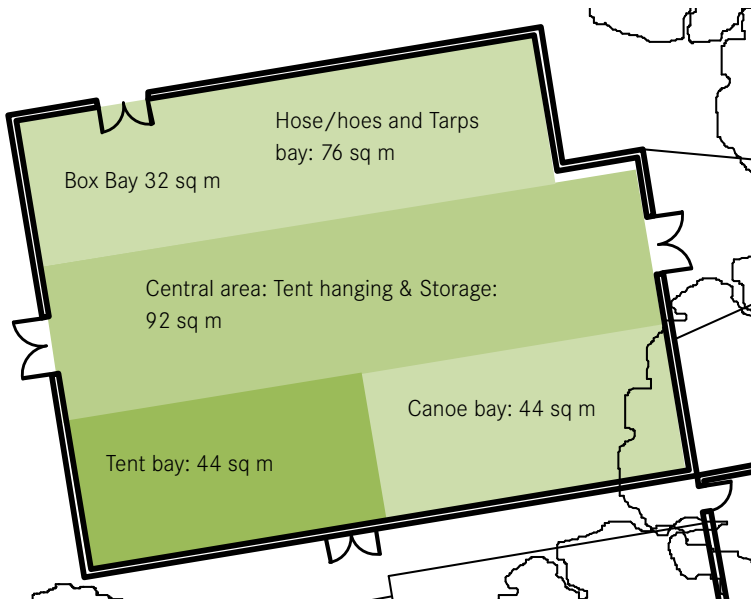
The structural engineer's report 2017 (Appendix 2) advises that the Long Barn be demolished as it is no longer fit for purpose. It states that the structure is liable to disproportionate collapse and the structural upgrades required would be prohibitively expensive.

In addition, maintenance and repair of asbestos buildings puts people carrying out work in danger. It is now, and has been for some time, illegal to use asbestos for repair of buildings. HSE guidelines also state 'If asbestos is present and can be readily disturbed, is in poor condition and not managed properly, others who may be occupying the premises could be put at risk'.

The engineer's report does suggest that the ground bearing slab, though cracked, could be salvaged, and used as the new hard standing for the next structure. This should be considered in future design stages and value engineering exercises.

## Recommendations

Given the condition of the structure and the asbestos cladding we recommend demolishing the building down to the ground floor slab and constructing a purpose built storage and drying space on the same or similar footprint. The building could be unheated if mending areas are relocated elsewhere.



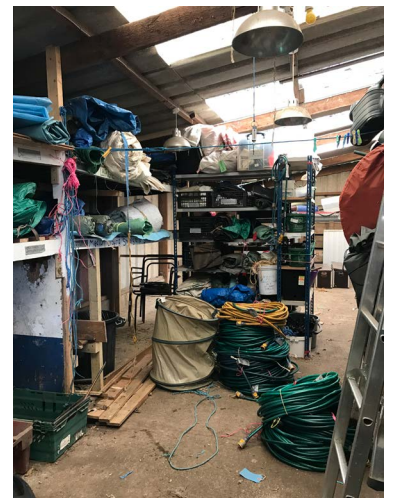
Front entrance (loading is carried out from here)



Boxes in central area



Mending tents in the Tent Bay



Storage in central area



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# Hut 42

Hut 42 is located at the north of the site. The construction is 6" solid blockwork on a concrete slab. The roof is a lightweight timber frame clad with a single layer of profiled steel sheeting. It is uninsulated. The walls and roofs of the original building were demolished and rebuilt by FSC volunteers in the 1980s.

It is divided into three rooms each with their own entrance.

## Training room

At the north end of the building is a training room which is used mainly for new staff and fits groups of approximately 18. There is also filing storage for the FSC archive of financial records and documents. The room contains:

- Approx. 20-25 chairs.
- Approx. 20 large boxes of blankets

This room has a number of plug-in electric radiators.

## Catering bay

Catering bay is in the centre of the building and contains four sets of high shelving that stores all catering equipment for camps. There is one very small workbench with rudimentary metal working tools for minor repairs. There is an interconnecting door to the personal equipment room.

The room contains:

- Approx. 60No. 6 Gallons (large metal army surplus 6 gallon rectangular cooking pots.)
- Approx. 20No. large metal tea urns.
- Approx. 200No. plastic washing up bowls

This room has a wood-burning stove

## Personal Equipment and First Aid

At the south end of the building, this room stores clothing, rucksacs and blankets for children who are not able to supply all of their personal equipment on camp.

To prevent rodent damage as best as possible, clothing is stored in internal full height, walk-in polythene sheathed cupboards. There are additional floor standing metal cupboards and boxes.

The protection prevents some damage, but is not completely rodent proof.

Personal equipment (appx numbers)

- 60 foam sleeping mats in plastic boxes
- 130 sleeping bags in metal cupboards
- 97 rucksacks in polythene cupboard
- 132 waterproof jackets in polythene cupboard
- 121 waterproof trousers in polythene cupboard
- 150 fleeces in metal cupboards

- 10 pairs walking boots in polythene cupboard
- 120 pairs Wellington boots in metal cupboards & plastic boxes

First Aid:

- 30 2kg margarine tubs full of loose first aid equipment
- 9 metal first aid boxes (for camp use) – approx. 450x250x250mm
- 6 larger metal boxes for storing of loose first aid equipment
- 2 medium floor standing plastic boxes for storing of loose first aid equipment

Some further loose stock on shelves

## Advice

The engineer's report says:

This building is generally in fine condition and could be upgraded to increase its usefulness and longevity. The following works are recommended:

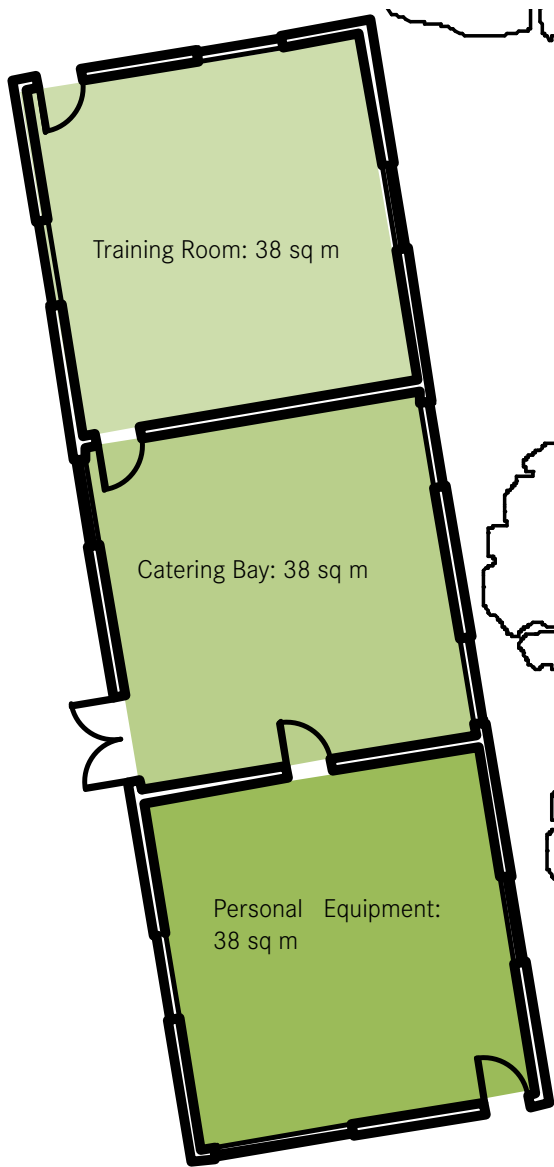
- Assess and repair any guttering and roof drainage to ensure it discharges through downpipes.
- Install a soakaway to which the downpipes can discharge to.
- Install a French drain around the perimeter of the building and keep all vegetation away from the building.
- Make good the cracks with resin bonding and see if they reappear after the drainage works have been completed.

The building could be upgraded to meet the current Building Regulations. The amount being stored in the building would need to be reduced to aid volunteers to work properly within as repair/maintenance happens in the room also. Space heating and insulation would not be difficult to install. The building could be converted to cavity wall construction giving insulation and further structural robustness.

## Recommendations

The building is uncomfortable to use at present, but could be improved by insulating and installing an adequate heating system. The layout, storage and functions could be altered to fit with an updated process and more efficient systems. Partition walls could be removed if layout dictates.





Catering Bay



Hut 42



Clothing storage

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## East End and West End

The workshops at East End and West End are woodwork and metalwork respectively. The buildings, thought to be built in the 1960s, are concrete slab bases with cavity brick walls and timber frame roofs covered in asbestos sheeting.

### West End Workshop: 53 sqm

West End stores tools for camp, stoves and paraffin lanterns. It is also a small metal workshop. In the centre is a work bench and various metal working tools. The room is heated by a wood burning stove

Storage:

- Approx. 40 paraffin lanterns
- Approx. 50 camping stoves

Metal working tools:

- 2 pillar drillers
- 1 lathe/sander
- 1 Axe Grinder

### East End Workshop: 53 sqm

Within East End is a small woodwork shop with a woodworking bench and various tools. The room is also a storage for pegs, poles, folding trestle tables, OS Maps and a few bicycles. The space is heated by wood burning stove

- Wooden pegs are kept in 100 royal mail bags with approx. 30 various sized wooden pegs in each (3000 in total)
- Poles – approx. 100 sets of poles each approx. 2m long in bundles.
- Tables – 25 wooden folding tables.

### Advice

The structural engineer's report states:

The buildings are structurally sound subject to some repair works. The ground conditions suggest that the founding strata would have volume change potential which could cause settlement or heave of shallow foundations. The cracks in the facades are not due to thermal movement. It is likely they are caused by a combination of vegetation growing nearby, poor drainage of the roof and shallow foundations.

The building does not need to be demolished – It could be repurposed as a repair/maintenance area or made good for storage. The following works would need to be undertaken:

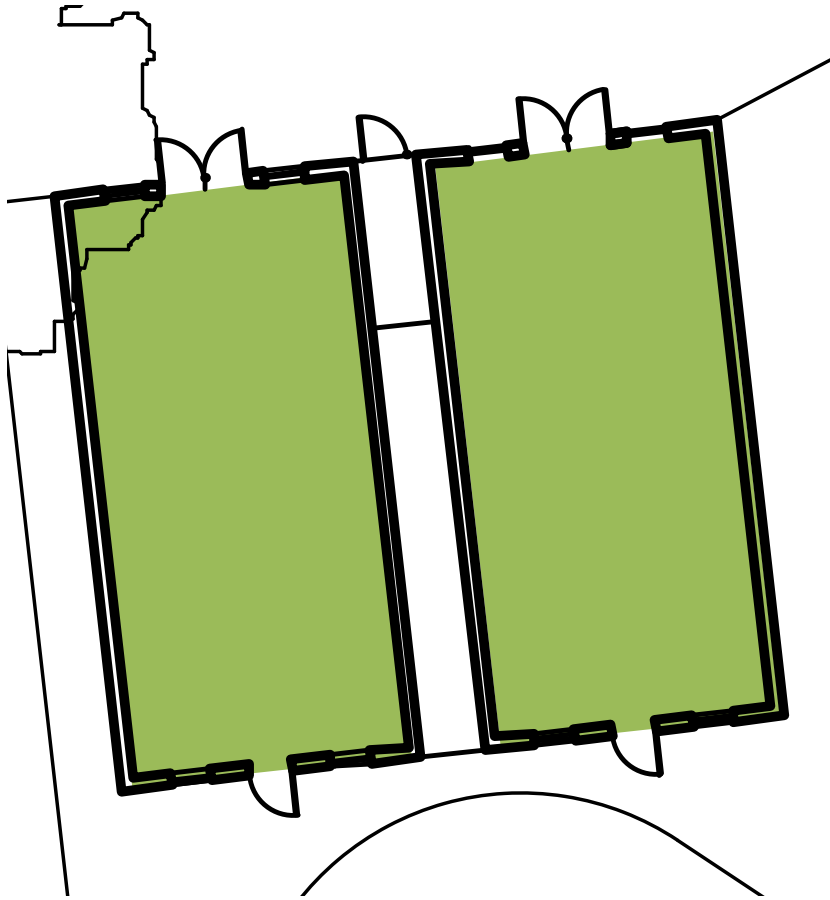
- New roof sheeting
- New timber rafters and trusses.
- New guttering with downpipes to soakaways
- Remove all vegetation within five metres or so save for low level planting.

- Install a French drain running the perimeter of the buildings.
- Repair the existing large crack and install a movement joint.
- Make good all other minor cracks.

If it were to be used for a working area, the building could be overclad with insulation and raised access flooring installed. Given maintenance is only carried out 20 days per year, simple space heating would then be adequate.

### Recommendations

As with Hut 42, the buildings could be reused. Again they are uncomfortable at present, but could be improved to be made fit for purpose. As well as the structural advice they would be improved by insulating and installing an adequate heating system. The asbestos roofing should be removed and replaced with a lightweight insulated roofing construction.



East End hut in foreground



West End metal workshop

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# Building 6

Building 6 houses the kitchen, two WCs, communal eating space and a small office.

The building is a single skin brick, with intermediate piers, on a concrete slab and screed. There appears to be no damp proof membrane or damp proof course. Due to the use, cooking and social, it suffers internal damp and condensation. Again the roof is lightweight timber truss with asbestos sheeting. The report from 1997 discovered some splaying to the roof structure.

## Lobby and WCs

The entrance lobby has two wash hand basins. There is a landline phone in the lobby.

There are two WCs leading from the lobby area, one of which is wheelchair accessible.

## Kitchen

The kitchen consists of a large wooden food preparation island often also used for food serving. Including:

- Three large sinks with crockery storage above.
- Industrial water heater with additional domestic kettles.
- Six ring gas range with storage below.
- Two cupboards for food storage.
- Domestic fridge.

## Dining/communal area

The communal area has a wood-burning stove in the centre and simple seating around the edges seats 10. There are approx. 18-20 chairs/stools and armchairs. The dining area regularly hosts more volunteers than can be comfortably seated.

## Office

The office houses a small desk some small office storage with labels and forms etc. It is a room that is rarely used. It also contains a freezer and six to ten large boxes that hold excess canned food.

## External area

The area between Hut 6 (Kitchen etc.) and the long barn is referred to as the Patio. This is multi use-concreted area approx. 10mX10m this is used for mealtimes, socialising and general kit maintenance (for example washing up)  
Permanent seating/Benches for 30 people Max  
Temporary chairs – Approx. 50-60

## Advice

Environmental health agents regularly inspect the food preparation area, most recently in September 2015.

Amongst good practice identified with storage and food handling, there were many areas were identified as cause for concern. These included

- Holes and gaps in the building's structure which will lead to pest entry.
- Dilapidated floor and walls surfaces that are difficult to clean
- Damaged fixed work units that are difficult to clean

In general the kitchen does not meet environmental health standards. There is also inadequate space in the building to accommodate volunteers in the preparation and serving of food, in the dining area and with WC provision. It is generally felt to be one of the least favourite spaces on site and gives a very negative image of the operation at Haddenham, potentially contributing to lower volunteer numbers.

In terms of the structure of the building, the structural engineer's report states that the following works undertaken to ensure structural longevity:

- Replace the roof sheeting
- Repair and replace guttering and roof drainage to ensure it discharges through downpipes.
- Install a soakaway to which the downpipes can discharge to if there is no sewer to discharge to in this area.
- Remove all vegetation within two meters of the perimeter of the building.
- Batter back the ground along the entrance drive by 45 degrees to ensure the walls are not surcharged.
- Install a French drain around the perimeter of the building and keep all vegetation away from the building.
- Make good the cracks with resin bonding and see if they reappear after the drainage works have been completed.

With the above structural works, it could be used for storage of equipment if the security of the building was upgraded.

## Recommendations

Although the engineer's report states that it could be used for storage, if improvements works were carried out, it may also be possible to upgrade with insulation, install a heating system and use the building for maintenance and mending work, as elsewhere. This should be explored in the next stage.





Patio



Kitchen



Entrance lobby and WCs

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# Statutory Requirements and Submissions

This section looks at the following statutory requirements and submissions:

- Town Planning
- Flood risk
- Building Control
- Environmental Health
- Construction Design and Management (CDM)

## Town Planning

Haddenham is in the area covered by East Cambridgeshire District Council 'the Council'. It is outside the village of Haddenham, an area recently identified for additional residential development by the Council as part of their housing supply programme.

A full planning application will be required for any new build elements on the site. This typically occurs in Stage 3 of the project, with pre-application advice beforehand advisable in order to gauge the local authority's views on any potential scheme.

Dinah Bornat attended a pre-application meeting on 26th October 2017 with the planning officer Oli Haydon. Dinah gave some background to FSC and the site, explaining that some potential rebuild and new build was being considered on the site. An existing and potential proposed plan (similar to Option 2) was presented.

The planning officer explained that the council would be supportive of this or a similar scheme as FSC is a business operating in the countryside with an 'established use'. He said the development would likely improve the aesthetic of the site.

Other points that were discussed:

- The use category for the Haddenham and bungalow site is likely to be Sui Generis, this means 'without category'. FSC believes it to be *storage, maintenance and occasional camping*.
- Some landowners choose to seek planning permission for residential use, thus increasing the value of the land before sale. However, the site is unlikely to be given permission for residential use as it is situated in flood risk zone 3.
- Proposing a classroom element and/or use of the site beyond FSC could be problematic and would

be best sought once planning permission has been received, if at all.

- The planning officer had no particular opinion on the materials that should be used for any new building, or the siting of any building as it is both screened from the road and would also be appropriate for the existing use.
- If any trees were being felled, then replacement planting would be expected
- The determination period for a planning application is currently 6-8 weeks and the Council do not typically have a heavy workload which would miss this target

Other than the points mentioned here, the planning officer, Oli Haydon sent these points in an email following the meeting:

- An application should include a design and access statement (or a statement outlining the proposal and the rationale), a landscaping scheme (as the site is so open from afar), a tree survey and protection plan (Dinah informed me that the site is full of large trees), and foul and surface water drainage scheme (as the proposal looks to be upgrading and increasing the built footprint on the site and also introducing more users to the site);
- A parking provision will need to be provided in line with Local Plan Policy COM8 and the Parking Provision standards on Page 180-183 of the Proposed Submission Local Plan (attached).

The town planning strategy will be developed further in Stages 2 and 3 to provide a comprehensive list of documents for submission.

## Planning Policy

East Cambridgeshire Local Plan was adopted in 2015. Current policy relevant to the development is:

### EMP2: Extensions to existing businesses in the countryside

Proposals to expand existing businesses in the countryside will be permitted where:

- The proposal does not harm the character and appearance of any existing buildings or the locality
- The proposal is in scale with the location, and would not (by itself or cumulatively) have a significant and adverse impact in terms of the amount or nature of traffic generated
- The extension is for the purpose of the existing business; and
- Any intensification of use will not detract from the residential amenity

Full justification for the proposals should be submitted with a planning application



The emerging local plan was approved for consultation in October 2017 and as such will carry weight. Relevant policy is:

#### Part F: Non residential development in the countryside

Proposals for non-residential developments in rural areas will be supported, in principle, provided that:

1. The rural location of the enterprise is justifiable to maintain or enhance the rural economy or the location is justified by means of proximity to existing established businesses or natural features
2. The location of the enterprise is suitable in terms of accessibility
3. The location of the enterprise would not result in conflict with neighbourly uses
4. The development is of a size and scale commensurate with the proposed use and with the rural character of the location

#### Flood risk

A flood risk assessment will need to be submitted as part of the planning application. This will need to be carried out by a flood risk assessor during Stage 2.

Risk of flooding is from nearby rivers and the site is in flood risk zone 3.

### Building Control

A full plans submission to comply with building regulations will occur in Stage 4 of the project. This will include aspects of compliance with environmental health with any new food storage and preparation areas. The relevant building regulation sections are listed below and will need input from different consultant team members.

Part A: Structure  
 Part B: Fire Safety  
 Part C: Site preparation  
 Part F: Ventilation  
 Part G: Sanitation and water  
 Part H: Drainage  
 Part J: Combustible appliances  
 Part K: Protection from falling  
 Part L: Conservation of fuel and power  
 Part M: Access  
 Part N: Glazing  
 Part P: Electrical

## Construction Design and Management (CDM)

### Construction Design and Management (CDM) regulations 2015

*The aim of the CDM Regulations 2015 is to make Health & Safety an essential and integral part of the planning and management of projects and to make sure that everyone works together to reduce the risk to the Health & Safety of those who work on the building or structure who may be affected by these works, or who will use it as a place or work once it's completed.*

From The Association for Project Safety (APS) 'CDM 2015: what commercial clients need to do'.

The CDM 2015 regulations place a number of specific duties on clients for all construction projects whether altering, extending or demolishing an existing building or structure or erecting a new one.

Under the regulations FSC is a 'Commercial Client' i.e. 'an organisation or individual for whom a construction project is carried out', 'where the project is associated with a business or other undertaking (whether for profit or not).'

The regulations require that Commercial clients must:

- Make suitable arrangements for managing their project, enabling those carrying it out to manage health and safety risks in a proportionate way. These arrangements include:
  - Appointing the contractors and designers to the project (including the principal designer and principal contractor on projects involving more than one contractor) while making sure they have the skills, knowledge, experience and organisational capability. The principal designer and principal contractor each have their own roles and responsibilities under the regulations and must be appointed in writing.
  - Allowing sufficient time and resources for each stage of the project.
  - Making sure that any principal designer and principal contractor appointed carry out their duties in managing the project.
  - Making sure suitable welfare facilities are provided for the duration of the construction work.
- Maintain and review the management arrangements for the duration of the project
- Provide pre-construction information to every designer and contractor either bidding for the work or already appointed to the project
- Ensure that the principal contractor or contractor (for

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single contractor projects) prepares a construction phase plan before that phase begins

- Ensure that the principal designer prepares a health and safety file for the project and that it is revised as necessary and made available to anyone who needs it for subsequent work at the site

For notifiable projects (where planned construction work will last longer than 30 working days and involves more than 20 workers at any one time; or where the work exceeds 500 individual worker days), commercial clients must:

- Notify HSE in writing with details of the project
- Ensure a copy of the notification is displayed in the construction site office

Given the complexity of the project and that FSC is not an experienced construction Client, the organisation would be advised to appoint a CDM Adviser to help manage these client duties under the regulations.

If an element of self-build is included in the project, it will likely add a layer of complexity in regards to the roles and responsibilities under CDM 2015. FSC would probably have to take on the role of Principal Contractor and would then be required to demonstrate the 'skills, knowledge, experience and organisational capability' to carry out building work and carry out the other PC duties. This is somewhat of a grey area but a CDM Adviser could help advise on the best way to include self-build.

The Association for Project Safety (APS) have produced a free guide, 'CDM 2015: what commercial clients need to do', which provides a more detailed overview of commercial clients roles and responsibilities under the regulations.

## Consultation



FSC wishes to involve as many of its members as possible throughout the project and is committed to a thorough consultation process. The introductory section sets out the process that has been used in this first stage, which is mainly concerned with gathering evidence, opinion and feeling about the future of the organisation and how the stores operation fits within that.

Involvement is being set at a high level, to what could be described as co-production. However, this does not mean that every member of staff will be involved in great detail throughout the project; instead the organisation should develop a consultation/co-production plan for the project incorporating the following:

- Opinion and information gathering in early stages
- Agreed briefing process
- Agreed approval processes
- Presentations, feedback and wider dissemination
- Expertise and advice

### Opinion and information gathering in early stages

A parallel exercise of information, opinion and visioning is being carried out during the Stage 1 process. A series of workshops with 'Open Space' thinking has been used to allow people to highlight important issues, discuss around these and record the discussions for wider dissemination. The result of the consultation will help guide Council's decision about the best way to move forward as an organisation.

### Agreed briefing process

The steering group helped develop the brief with ZCD Architects. It was mandated, by Council, to make decisions

about the feasibility report and was able to look in detail at the operation processes at Haddenham and suggest new systems.

In Stages 2 to 3, up to planning, the steering group will need to work with the Design Team in more detail and help guide the process on behalf of the organisation.

### Agreed approval process

There is a balance to be struck between the legal and regulatory responsibilities and a wider involvement of the organisation. The first decision that Council made was to commission this feasibility study. Members of Council are acting on their duty to respond to the

Environmental Health report and its wider responsibilities to its staff and the longterm sustainability of the organisation.

The steering group have signed off the report and now Council will now need to act on the results of this study, along with the consultation and make a decision as to how to move forward. How it approves any decision in Stage 1 and subsequent stages needs to be clearly laid out so that the wider organisation is comfortable with the process and consultants have a clear route forward.

### Presentations, feedback and wider dissemination

Part of an effective consultation includes making sure as many people in the organisation know about what is happening and are able to feedback into the process. FSC has begun to use annual events where staff meet up, to start this process and may continue to share the emerging proposals and designs at these events. At this stage discussions are verbal, but will need to start including documents and drawings.

### Expertise and advice

FSC can draw on professionals and advisors from its staff who are able to advise and support the project.



## Overview

FSC has celebrated its 70th birthday and would like to look forward to another 70 years, with a happy healthy functioning stores base. Whether this is on the site at Haddenham, or otherwise, there are a number of issues that need to be satisfied.

The organisation recognizes that the current conditions of the buildings at Haddenham do not support the long term sustainability of the organization and therefore pose a threat to the continued delivery of high quality camping that FSC currently offers.

The operation at Haddenham is predominantly a process of unpacking, cleaning, drying, mending and repacking of equipment. The brief is to provide accommodation that allows this to happen in a safe and efficient manner and in a comfortable and attractive environment. Like on camp, it should be straightforward for volunteers to engage in activities; the new layout, arrangement and signage should all support this.

In terms of setting objectives for a capital investment project, success of the completed project will be measured by:

- A more appropriate layout and design embodying FSC's principles, strengthening the ethos within the organization and looking forward for the next 70 years.

- More efficient use of volunteers' time; leading to a more attractive offer for busy volunteers and/or opportunities for more staff training staff at weekends.
- A more attractive working environment; leading to a potential increase in volunteer numbers, as well as more enjoyment and ownership of the Physical Base
- Reduction in equipment replacement costs
- Opportunity to run more camps in the future and grow the organization if required

In Stage 1 of the project the steering group produced a Strategic Brief, which was developed by ZCD Architects and the steering group into an Initial Project Brief. This brief section includes the following:

- Overview
- Accommodation
- Health and Safety
- Access
- Technical Requirements
- Sustainability and life cycle costs
- Quality
- Growth

The requirements, set out in the brief are relevant for a feasibility test on alternative sites.





## Philosophy

The introductory section outlined the philosophy of the project. The main points to take from the is section are:

### The Lodge: Access and inclusion

Allow for:

- The traditions, history and rituals of FSC to be able to be practiced and celebrated.
- An aspect of memorial and remembrance as well as a celebration of the wider lodge and life long campers.

### The circle

Allow for:

- Flexible circle sizes for meeting, eating, socialising and sleeping, both inside and outside.
- The experience of being close to the ground and close to nature

### Appropriate landscape and setting

- Improve connection between Haddenham and Fenwood
- Work with the natural setting and improve the experience for volunteers as far as possible
- Create spaces to work and socialise outside.

Consensus, consultation and co-production are dealt with in the previous section.

## Accommodation

The brief for accommodation has been developed to create a more efficient way of working for volunteers. FSC is considering replacing the 'bay' system of storage and maintenance, with a new process of repacking back into boxes and storing these boxes ready for their next camp.

This new system means storage could be separated from the cleaning and mending spaces and left unheated throughout the year. An adequate space for drying all canvases internally is required.

Proposed accommodation across the site is divided between Social spaces and Equipment, within Equipment is storage and mending.

## Equipment areas

Equipment areas are divided into storage, fabric workshop, metal and wood workshops (see table).

## Social spaces

The social areas require the following:

- WC and shower facilities
- Kitchen, dining, training rooms and offices

The minimum number of WC and shower facilities are

calculated on occupation by 60 volunteers. This figure may be adjusted to suit male/female or unisex arrangement, so that both sexes are adequately catered for.

This number also governs the size of the kitchen and dining areas.

Although volunteer numbers can rise to up to 120 it is suggested that the additional WC capacity could be taken care of with the four external composting toilets (located in Fenwood).

Kitchen, dining, WC and washing facilities for the volunteers need to be of an appropriate size and layout to support up to 60 volunteers in an internal space, with more space outside on peak days.

In terms of dining areas there should be an external covered seating and potentially overspill into the mending spaces as currently occurs across the site.

	Area (m2)
<b>Equipment</b>	
Storage - internal	260
Mending - tents	55
Mending - woodwork	40
Mending - metalwork	40
Cleaning - internal	10
<b>Total</b>	<b>405m2</b>

Capacity 60 persons	Number of	Total area (m2)
<b>Social Spaces</b>		
Kitchen	1	40
Dining	1	60
Meeting rooms (25 people)	2	80
Office	1	20
WCs	5	inc below
Wash basins	5	30
Wheelchair accessible (inc shower)	1	3.5
Showers	3	10.5
<b>Total</b>		<b>250m2</b>



### General equipment storage

Total area required: 300 sq metres

#### Boxes

FSC now mainly uses plastic boxes (shown above). These are easy to clean and are loaded to not exceed 35kg per box. There are remain a number of wooden boxes for tools, these weigh more.

The boxes need to be emptied, cleaned, restocked and lifted back into place onto shelving. Shelving heights need to be flexible (?), or take a variation of box sizes. Boxes need to be stored at the correct height (see manual handling guidance). Solutions for safe movement of boxes should be explored.

#### Canvas

Large canvases need to be dried and then stored away from risk of vermin attack. Storage solutions should avoid vermin attack and mold. Canvases could be permanently hung within the storage area to overcome this. Alternatively they should be stored at low level to avoid manual handling problems.

#### Miscellaneous internal

Other equipment, such as poles, pegs, hose will be stored loose on shelving. The table shows the total equipment storage area necessary.

#### External

Wheelbarrows are stored externally



### Equipment mending

Total area required: 135 sq metres

Equipment mending is divided into fabric workshop, metal and wood workshops. These spaces will need heating and power. They will require storage for repair equipment and space to temporarily store equipment before mending.

#### Fabric workshop

55 sq metres

- Working table not connected to tables similar to pattern cutting table with suitable chairs and standing space on all sides
- Alternative for raised table/flooring as per sail making style arrangement (see option 3)
- Larger big tables around the industrial sewing machines
- Sweep-able and easy to clean floor
- Larger doors capable for two people moving a tent
- Zig Zag industrial Sewing machine

#### Metal

40 sq metres

- Workbench
- Shelving

#### Woodwork

40 sq metres

- Workbench
- Shelving



## Equipment Cleaning

Total area required: as existing patio

Cleaning and draining of equipment is best carried out externally and will require adequate drying space and drainage back to a soakaway on the site.

- Approximately six no. trough style sinks with drainers should be provided in a covered external space. These should be supplied with hot and cold water.
- Industrial sized washing machines and tumble dryers, two of each, located in an internal space with adequate drainage to septic tank and soakaway.



## WC and shower facilities

Total area required: dependent on arrangement

- To accommodate 60 people

## Kitchen, dining and training rooms

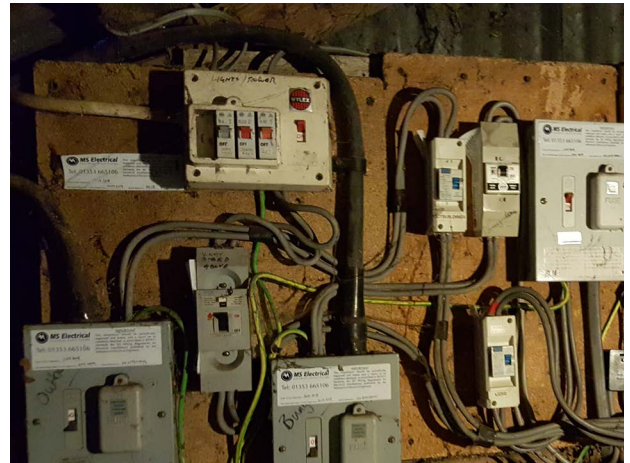
Area required:

- Lobby/entrance area
- Internal dining space for up to 60 people
- Kitchen and food storage area
- Two training rooms
- One office

Additional external seating space should be provided adjacent the dining area to allow outdoor socialising and eating, particularly on warmer and dryer days.

Ideally these spaces would be flexible so that a large circle and/or smaller circles could be accommodated inside to outside.





## Health and Safety Requirements

FSC stores equipment that can be very heavy which can be a physical risk for volunteers. **Appendix 5** contains guidelines for lifting heights for various loads for men and women. Maximum lifting loads should be designed for women, so that they are compliant for all volunteers. High level storage, above eye height, should be avoided unless mechanical systems are employed. Storage should be carefully considered so that heavier items are located at the correct height.

Currently the heaviest plastic box is 40kg, which requires lifting by two people. The heaviest wooden boxes are 50kg (20kg unpacked). These weights are not ideal and FSC is aiming to reduce down to 32kg, which will require additional storage space.

The brief is for the majority of equipment to be stored in one building/area. This will allow safe working space and circulation. Solutions for easy maneuvering of equipment should be considered. Signage and guidance should be incorporated and flexible to allow for changes.

## Access

The kitchen, dining and training rooms should be fully accessible as well as the WC and shower facilities. Other areas for mending and storing should allow as much access as practicable, given an efficient and safe working environment.

## Technical requirements

- Heating
- Gas
- Drainage
- Small Power and Comms
- Photovoltaics
- Lighting
- Ventilation

### Heating

It is likely that areas that need to be heated will require heating on approximately five weekends during the year (given monthly sessions), which is a total of 10 days. On those days the spaces where mending and repair is carried out will need to heat up quickly to a comfortable working environment. Input from a Services (M&E) Engineer will be required, who will need to explain how heating systems can achieve a range of temperatures and whether any back-up system may be appropriate given that very cold days may make work difficult. All internal spaces used for working should achieve a minimum of 16 to 30 degrees C in accordance with a comfortable working environment. Heath reclamation, such as Mechanical Ventilation Heat Recovery (MVHR) or Ground Source Heat Pumps (GSHP) should be investigated. And/or low carbon heating solutions such as pellet stoves.

### Equipment storage

No heating should be required to storage area as it is envisaged that people will spend as little time as possible here and that as the activity is mainly lifting and moving of boxes and canvases.

### Equipment mending

These areas should be heated, see above.

### Equipment cleaning

Washing of equipment should be carried out in covered external areas. Washing machines and tumble dryers can be located in heated or unheated buildings. A drying room or area may be necessary. This should be determined in the next stage.

### WC and shower facilities

These areas should be heated.

### Kitchen, dining and training rooms

These areas should be heated.

### Gas

The site has no gas supply. Ovens and cookers currently use LPG. It is likely that this will be maintained as the source for cooking.

### Drainage

The site has no mains drainage. The bungalow uses a recently installed filtration system, the remainder of the buildings use a septic tank and soakaway which may be insufficient for additional load. An alternative tank and/or location may be required.

### Small power and comms

Power to the site arrives in a small building to the south of the Long Barn, from where it is distributed to other buildings across the site. This will need to be upgraded to the current standards. Power requirements - mains supply, no equipment requires a 3 phase source.

### Photovoltaics

FSC has installed a PV array on the Fenwood site which is sold back to grid. Ideally this could help supply the new development.

### Lighting

Natural lighting should be exploited wherever possible. All working areas will need to comply with relevant lighting requirements. As few different bulb types as possible would be preferential. External lighting will be required.

Harsh artificial light should be avoided in the communal areas, used for eating and socialising. Low level lighting should be available in the evening.

### Ventilation

Normal ventilation will need to be boosted to dry wet equipment. Canvas, clothing, sleeping bags and some catering equipment will attract mold growth. These items should be stored in a well ventilated space.



## Sustainability

The nature of the briefing process has not allowed a robust sustainability brief to be developed in Stage 1. It is proposed that in Stage 2 a range of sustainability options are presented to Council, along with costings, so that a clear brief can be set. Below are a broad set of objectives to be considered in the meantime:

The new or refurbished buildings should seek to improve the current energy performance and reduce the organisation's carbon footprint. Overall the buildings should achieve very high energy conservation levels and reduce whole life costing.

The design and layout of the buildings should seek to obtain maximum benefit from passive heating, ventilation and natural light. Overheating should be avoided.

Construction and materials should strike a balance between energy in consumption and use, with low construction waste.

## Design Quality

The design of the building must respond sensitively to the rural context and character. The design should celebrate the ethos and principles of FSC as an inclusive organisation. The buildings and landscape should feel welcoming to volunteers. Spaces should be legible; with clever solutions for clear signage and guidance to help support volunteers in their tasks.

Materials should be natural where possible, but the design should be contemporary, allowing for modern interpretations of vernacular styles and potentially exploring new ways of working with materials, such as employing rammed earth techniques. The image above is a rammed chalk wall on a house on the South Downs, by Dinah Bornat.

Other examples shown here suggest cost effective solutions,



innovative structures and opportunities for decorative input from FSC members.

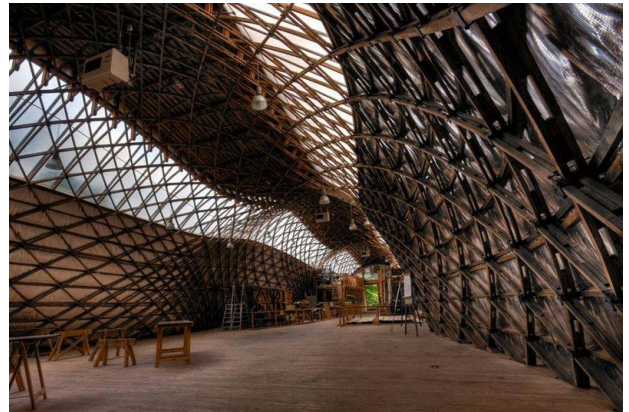
Materials should be robust and long lasting and require minimal maintenance. A degree of flexibility should be investigated, although it should not constrict the operation of the building.

Opportunities to meet and eat in a circle are very important. Place/s for children to play should be safe, well overlooked and car free. Children should be able to play unaccompanied.

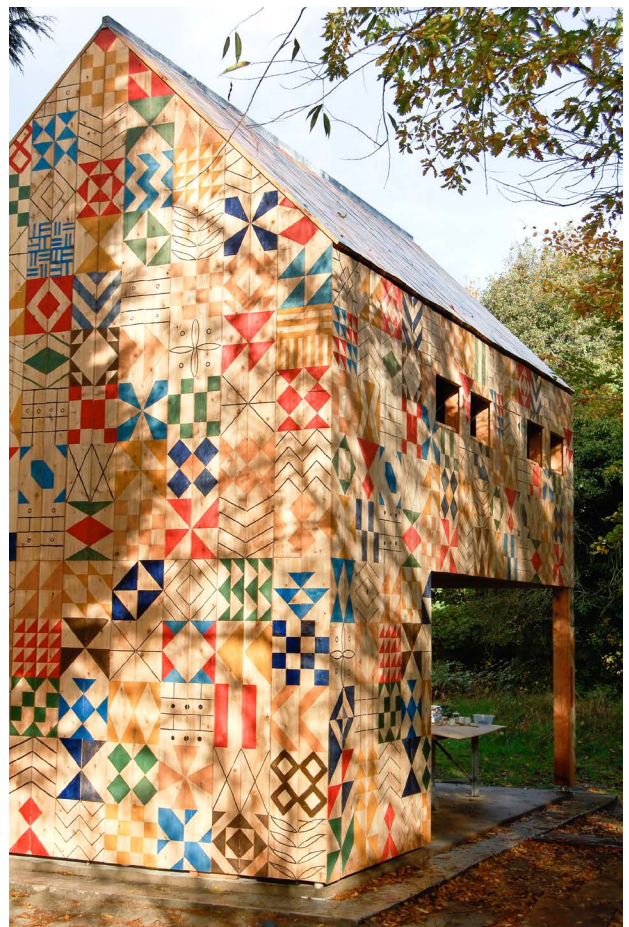
### Growth

Although FSC has no intention to grow its operation at Stores, the number of children requiring personal equipment may increase if the organisation decide to provide additional places for children requiring financial support.

For this reason it is suggested to add on an additional 10% to the equipment storage areas to give the flexibility for this to occur in the future. In particular this should be focused on the personal equipment area.



Weald and Downland Gridshell by Edward Cullinan Architects (now Cullinan Studio)



Ecology of Colour by Studio Weave



Shatwell Farm by Hugh Strange Architects



### Introduction

This section looks at three options for the site and buildings at Haddenham.

Option 1, 'do nothing' is not considered to be feasible as it does not support the ongoing operation, volunteers or the long term sustainability of the organisation.

Options 2 and 3 look at the minimum degree of rebuild with refurbishment and a full rebuild respectively.

Both propose a new Social Building to meet the kitchen and dining requirements and provide volunteers with a comfortable meeting and socialising space at meal times and in the evening, shown as an idea on the image below.

At this stage this is an idea of what might be achievable on the site; a new timber building with lightweight roof providing (L to R):

- New meeting spaces and office
- An entrance lobby leading through to Fenwood in the north
- Kitchen
- Inside dining area
- External (covered) dining area with fire site and chimney above

Concept design occurs in Stage 2, once the scope, brief and feasibility of the project has been fully understood.

This image suggests that there is potential to create an appropriate building on the site to meet volunteer requirements and as such contributes to the feasibility of the project at this stage.

The overall brief is to provide total accommodation of 645m<sup>2</sup>. Options 2 and 3 propose an increase in floor area to meet this brief as well as the full removal of asbestos from the site.

At this stage the accommodation areas are not fixed but are provided to compare budget, phasing and general compliance with the brief. Floor areas will be explored in more detail in Stage 2.

#### Option 2

Provides a range (depending on the extent of refurbishment of the existing buildings) of 695m<sup>2</sup> to 798m<sup>2</sup>

#### Option 3

Provides total new build area of 700m<sup>2</sup>.

**The recommendation is for Option 2, which is explained in more detail at the end of the chapter.**



New Social Building: Meeting/training rooms, entrance foyer, kitchen, dining and external covered seating/fire site area





### Option 1

Option 1 is the 'do nothing' option. This option looks at the minimum requirement to keep the stores operational at Haddenham using the current accommodation.

#### Statutory requirements

General repair and maintenance of the buildings would not require any planning permission, flood risk assessment, building control submission, or fall under the CDM regulations. Upgrading Building 6 to meet Environmental Health requirements will be an inefficient use of money as structure and construction of the building is in a poor state and will continue to be costly to maintain. It is not a good solution in the short or medium term. It is also not of sufficient size to accommodate more than 30 volunteers, which makes it unsuitable for operations. Two WCs is sufficient for up to 15 people only.

#### Brief

The extent to which a 'do nothing' approach can meet the individual aspects of the brief is assessed below:

#### Accommodation

The current accommodation is not large enough to support the volunteers at Haddenham. Whilst an upgraded kitchen may be compliant, there is insufficient space to eat and socialise throughout the year, which will continue to make it cramped and unpleasant.

#### Operational health and Safety

Operational health and safety issues are concerning. Whilst FSC is maintaining its obligations, there are manual handling issues that should be addressed which cannot be improved given the current size and layout of the buildings.

In addition the asbestos is likely to be reaching the end of its life, a 2013 report has suggested that it has a further life span of only 10 years.

#### Access

Improving access for people who are less able will not be possible given the already stretched accommodation.

#### Technical Requirements

Options for improving the heating, small power, lighting and ventilation are possible. However, the equipment will remain at risk from mould growth and damage by vermin.

#### Sustainability and life cycle costs

Improving the thermal performance of the buildings through internal lining may reduce the heating costs; a cost benefit analysis would be useful if this options was chosen.

#### Quality

With this option the building fabric will remain largely untouched, which will mean the asbestos cladding and roof covering will remain in place. This is not recommended,

given the dangers of the material and the organisation should seek to remove asbestos as soon as is practicable.

#### Growth

Given that the accommodation is overcrowded already, it would not be possible to obtain any growth opportunity from this option.

#### Conclusion

This option, to 'do nothing' will not support the organisation in its operation. There are falling numbers of volunteers at Haddenham and it is proving very difficult to attract people given its current state.

Environmental health improvements will be difficult and costly in a dilapidated building; the accommodation size will remain inadequate which will hamper the process and require equipment replacement from mold growth and vermin damage; operational health and safety will not be improved which will continue to make it uncomfortable for volunteers and puts the organisation at risk; there is no opportunity for growth should additional space be required for equipment storage, which has been identified as a potential requirement.

For the above reasons the 'do nothing' approach which means the organisation continues to operate the stores in its current state is not feasible for FSC as it fails to meet its needs now and in the future and has the potential to put the organisation at risk.

## Option 2

Option two is a combination of refurbishment and rebuild. It aims to work with as much of the existing buildings as possible, whilst recognising some of the more serious limitations; asbestos, environmental health and vermin egress. To alleviate this, two new buildings are proposed; a social space for staff and adequate long term protection of the equipment to reduce unnecessary replacement costs.

The total area proposed is a range from 685 m<sup>2</sup> to 798 m<sup>2</sup>, depending on the extent of refurbishment of the existing buildings.

A new staff support or 'Social Building' is proposed in the north west corner of the site, of adequate size to accommodate 60 people comfortably. This building contains a kitchen, dining area, two meeting rooms, an office and an entrance lobby.

A new storage building is proposed on the site of the Long Barn which can adequately dry and store all of the camping equipment, in boxes and loose.

Refurbishment of the remainder of the buildings is proposed, with asbestos roofing materials fully removed.

The work is carried out in phases, with operations maintained throughout.

### Statutory requirements

All rebuild and refurbishment will meet current regulatory standards. The new staff building will meet environmental health requirements. Some flood measures may be required. This will be looked at in more detail in the next stage.

### Brief

The extent to which Option Two is able to meet the individual aspects of the brief is assessed below:

### Accommodation

The total accommodation required by the brief is 645m<sup>2</sup>.

It would not be necessary to refurbish all of the buildings to meet this accommodation size. The suitability for refurbishment of each of the buildings should be considered in more detail in the next phase. It may be advisable to for one building to remain vacant to allow future expansion. The table shows gross internal areas (GIAs) for new build and refurbishment of existing buildings which result in a range of accommodation.

The total proposed accommodation is as follows:

	Refurb or new build	Gross internal area
Social Building	New Build	200 m <sup>2</sup>
Storage Building	New Build	262 m <sup>2</sup>
Electrics	New Build	35 m <sup>2</sup>
East Wing	Refurb	51 m <sup>2</sup>
West Wing	Refurb	51 m <sup>2</sup>
Building 6	Refurb	86 m <sup>2</sup>
Hut 42	Refurb	113 m <sup>2</sup>

**Total GIA with Building 6: 685 m<sup>2</sup>**  
**Total GIA with Hut 42: 712 m<sup>2</sup>**  
**Total GIA with Building 6 & Hut 42: 798 m<sup>2</sup>**

The relocating of the staff facilities will free up space in the smaller buildings so that they can accommodate all the other facilities required.

WCs, showers and washing/drying facilities could be located in East and West wing. The example layout provides enough space for male and female facilities, with a shared accessible WC. The shower areas would be sufficient to provide changing facility space and are comfortably housed within the internal floor area of the building, taking into consideration increased wall thickness from internal insulation and lining.

A new unheated storage building is proposed over the hard standing at the base of the existing Long Barn, once it has been demolished (subject to further structural engineer's tests). This building will be sized to allow generous storage shelving and adequate hanging space for all canvases at the same time. A loading bay, with turning circle for a flat bed vehicle, is provided at the rear of the building.

Building 6 and Hut 42 remain available for mending of canvases, wood workshops and metal workshops. They can be upgraded to meet comfortable standards, with new electrics, heating and lighting and where necessary new windows and doors. Roofs will be replaced and/or repaired, gutters cleaned and foliage removed so that soakaways can work properly, removing damp from the external walls. This work could be carried out with help from volunteers if appropriate.

Other layouts can be explored in Stage 2, using the same floor areas proposed in this option.

### Operational health and Safety

This option includes the removal of all asbestos from the site.

Movement of equipment around the new storage building could be helped by providing mobile tables with roller tops, so that lifting is minimised. An adequate quantity of

# Section 4: Options for the future at Haddenham



shelving will be provided to allow storage at correct lifting heights.

### Access

Once completed, there will be sufficient space and to provide better access to all areas. The social building will be designed for wheelchair access and the WC block will contain a wheelchair accessible WC with shower.

### Technical Requirements

#### Heating

An efficient and low energy heating system, such as a ground source heat pump could be fitted to supply the heating for the Social Building. There is sufficient space on the site to lay a heat pump array in the ground.

The refurbished buildings will need a quick response heating system that will allow the buildings to reach a comfortable temperature for the days they need to be heated.

It is thought that the storage building will not require any heating. Frost control may be necessary.

Heating will be considered in more detail in the next stage of the project.

#### Small power

All buildings can be fully rewired to meet current standards.

#### Lighting

All refurbished buildings can have good levels of lighting to work to. Low energy fittings to be installed throughout. Including safety lighting.

#### Ventilation

Adequate ventilation as well as mechanical extract in kitchen and in WC/shower and drying rooms.

### Sustainability and life cycle costs

The new social building can be built to a high level of sustainability to ensure a very low cost in use. FSC will need to determine the precise brief for this.

All refurbished buildings will set out to reduce their annual heating and electricity bills.

A whole life costing analysis should be carried out in the next stage by the energy consultant to agree the whole life cost

### Quality

The new social building has the opportunity to create a special building for FSC using robust and good quality materials.

### Cost

The budget cost is:

£1,324,830 to which should be added VAT where applicable

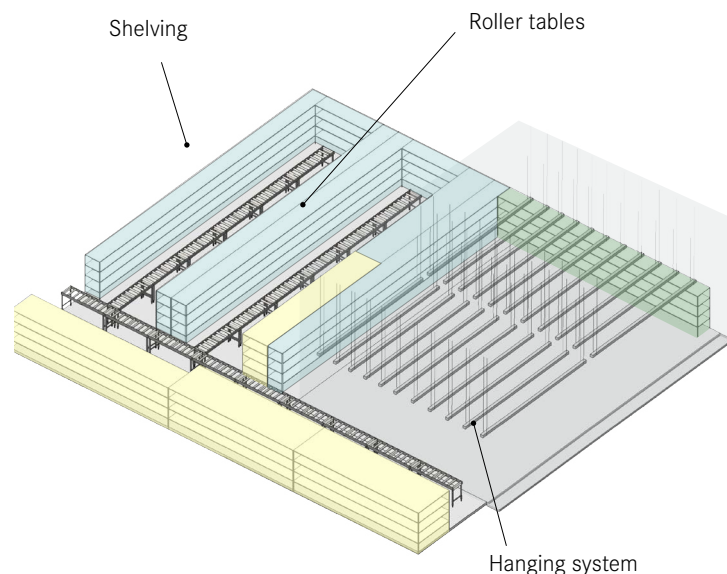


Diagram showing Storage building.

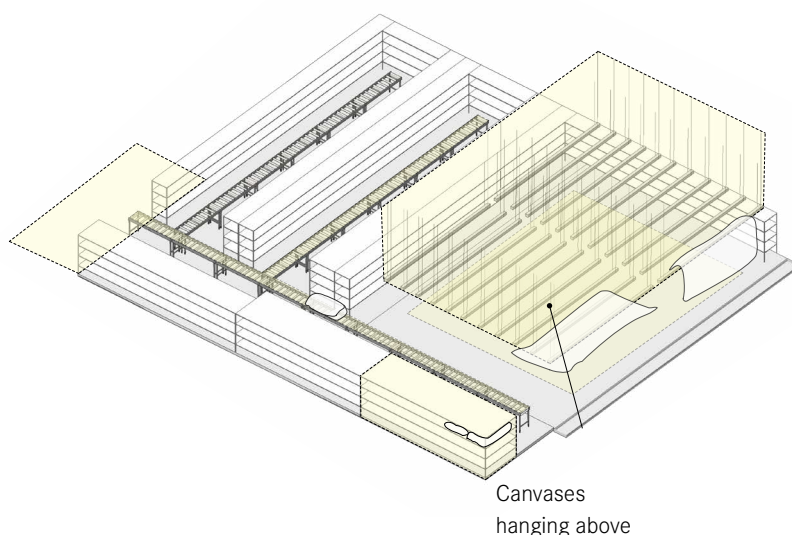


Diagram showing Storage building, with canvas hanging

### Growth

There is sufficient space to allow growth and flexibility of use of the buildings should the organisation require more space or to increase the maintenance and storage on site.

### Conclusion

Option 2 seeks to improve the buildings and site so they are comfortable and fit for purpose. This option meets the brief.



### Phasing

A suggested phasing of build would allow the current operation to continue to run.

#### Phase 1a:

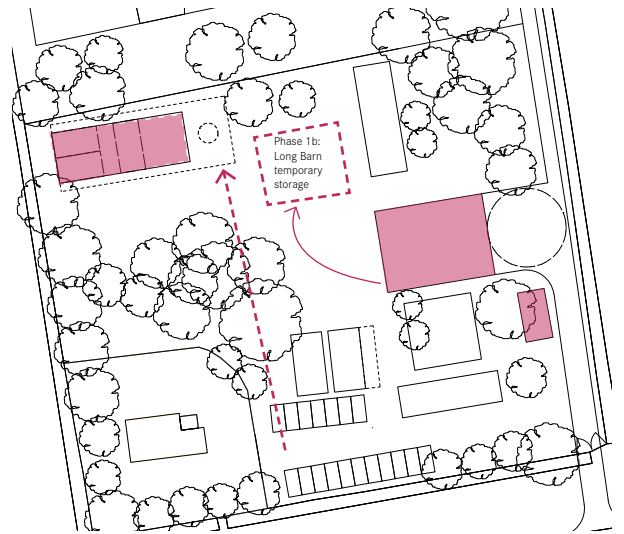
- Rebuild electricity building
- Construction of Social Building. Site access would need to be provided.
- New septic tank and soakaway.
- Building 6 remains operational. WCs potentially remain in operation once occupation of Social Building is complete.

#### Phase 1b:

- Temporary storage for Long Barn equipment
- Demolition of Long Barn

#### Phase 1c:

- Construction of new storage on site of Long Barn



#### Phase 2a:

- Training room moves to new social building and catering and personal equipment moves to new Storage Building.
- Woodwork and metal workshop moves to kitchen/dining area of vacant Building 6.

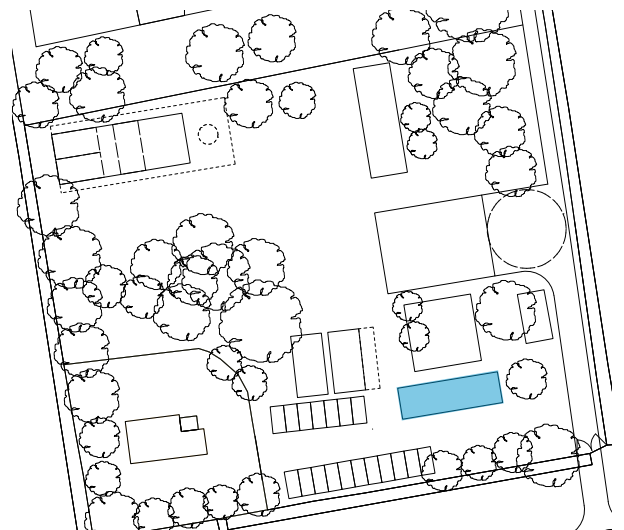
#### Phase 2b:

- Hut 42 refurbished to create new workshops and mending areas.
- East End and West End refurbished to provide WCs, showers and washing area.



#### Phase 3:

- Refurbishment of Hut 6 and completion of all landscaping and external works.



## Option 3

Option 3 is the most extensive and makes a balance between maintaining operations, creating a more efficient layout and providing more space in the centre of the site. This option is a phased and full rebuild of the buildings on the site. As with Option 2 it proposes a new Social Building, a new storage building (on new slab and foundations) to the south of the Long Barn and a new maintenance, mending, WC and shower block to the north of the site.

The total new build size is 700m<sup>2</sup>, see table below for breakdown.

The work is carried out in phases, it is likely to need less input from volunteers during the build.

### Statutory requirements

All rebuild and refurbishment will meet current regulatory standards. The new staff building will meet environmental health requirements. Some flood measures may be required. This will be looked at in more detail in the next stage.

### Brief

The extent to which Option Two is able to meet the individual aspects of the brief is assessed below:

### Accommodation

The total accommodation required by the brief is 645m<sup>2</sup>. Total area provided is 700m<sup>2</sup>, see breakdown in table below:

	Refurb or new build	Gross internal area
Social Building	New Build	200 m <sup>2</sup>
Storage Building	New Build	262 m <sup>2</sup>
Electrics	New Build	35 m <sup>2</sup>
Maintenance and WCs	New Build	203 m <sup>2</sup>

### Operational health and Safety

This option includes the removal of all asbestos from the site.

Movement of equipment around the new storage building could be helped by providing mobile tables with roller tops, so that lifting is minimised (see option 2) . An adequate quantity of shelving will be provided to allow storage at correct lifting heights.

### Access

Once completed, all buildings will be fully accessible for wheelchair users throughout.

### Technical Requirements

#### Heating

An efficient and low energy heating system, such as a ground source heat pump could be fitted to supply the heating for the Social Building. There is sufficient space on the site to lay a heat pump array in the ground.

The new maintenance block could use a quick response heating system that will allow the building to reach a comfortable temperature for the days they need to be heated.

It is thought that the storage building will not require any heating. Frost control may be necessary.

Heating will be considered in more detail in the next stage of the project.

#### Small power

All buildings will be fitted to meet current standards.

#### Lighting

Low energy fittings to be installed throughout. Including safety lighting. Natural lighting can be exploited as far as possible in all new buildings.

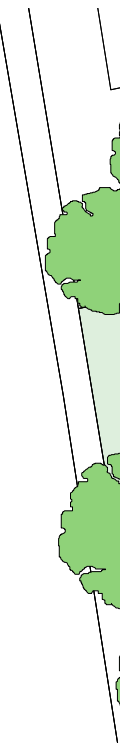
#### Ventilation

Adequate ventilation as well as mechanical extract in kitchen and in WC/shower and drying rooms.

### Sustainability and life cycle costs

All new buildings could be built to a high level of sustainability to ensure a very low cost in use. FSC will need to determine the precise brief for this.

A whole life costing analysis should be carried out in the next stage by the energy consultant to agree the whole life cost





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### Quality

With a full collection of new buildings there is the opportunity to provide an excellent level of quality using a range of appropriate and robust materials.

for the organisation by sizing and locating the buildings in the best places and designing each of them to meet the operational requirements from the outset. This option meets the brief.

Below are two examples of purpose built sail making repair workshops. This type of set up could be used for the canvas/tent repair areas as it would provide an improved working environment and allow a greater number of volunteers to be able to assist in the tent repair process.

### Cost

The budget cost is:

£1,752,000 to which should be added VAT where applicable

### Growth

There is sufficient space to allow growth and flexibility of use of the buildings should the organisation require more space or to increase the maintenance and storage on site.

### Conclusion

Option 3 seeks to provide the most suitable accommodation



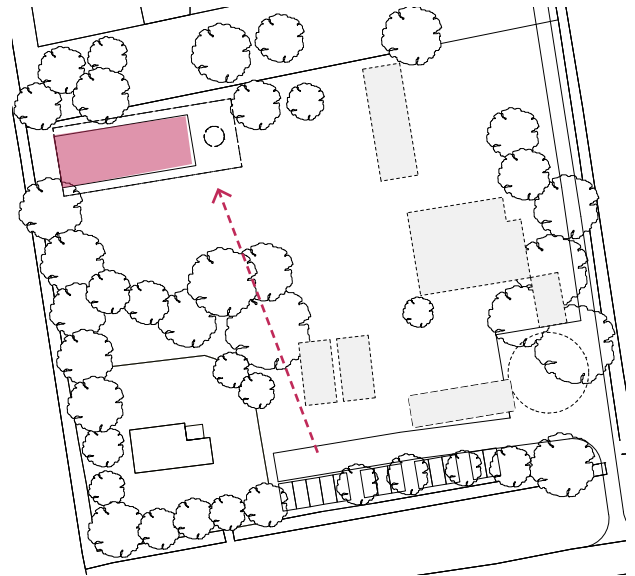


### Phasing

A suggested phasing of build would allow the current operation to continue to run. This option gets rid of requirement for temporary accommodation, the work is carried out in two phases which will make for a shorter programme.

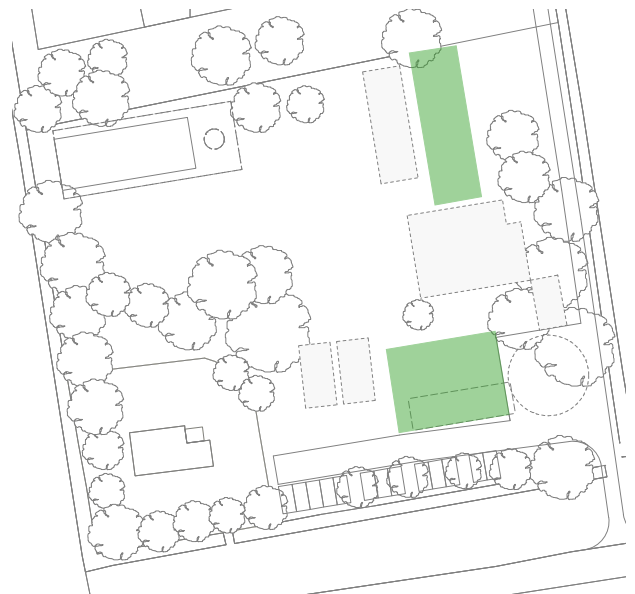
#### Phase 1:

- Rebuild electricity building
- Enabling work - new access carparking and loading bay.
- Construction of Social Building. Site access would need to be provided.
- New septic tank and soakaway.
- All other buildings remain operational



#### Phase 2:

- Once Social Building is complete, building 6 is demolished. New storage and maintenance/WC buildings are constructed, adjacent to existing buildings.



#### Phase 3:

- Demolition of all remaining existing buildings and completion of external landscaping work



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# Cost analysis

ZCD Architects approached Morgan Carr Quantity Surveyors who have a wide range of experience providing cost analysis. They have provided a breakdown based on the draft feasibility study issued to the steering group for comment in December 2017.

Notes from Morgan Carr:

At this stage there is a limited amount of information to be able to base our costings on. We have therefore allowed for costs based on a £/m2 rate to cover the assumed works required. In both options we have included the works described in the feasibility study together with items raised in the structural report. These high level costings can be refined and adjusted during further phases of the design process once more detailed information can be provided. We have included a percentage on top of the building cost to cover unforeseen risks and further design development of the scheme. We have also included a proposed sum to cover professional fees at a level which is consistent with other similar projects. None of the figures shown include VAT.

## 1.00 Option 2

The new construction and fit out level in this option has been assumed to be at the more functional end of the scale.

Building cost from breakdown	£1,074,830.00
Risk/design development allowance @ 10%	£108,000.00
Professional fees @ 12%	£142,000.00
<b>Total Option 2</b>	<b>£1,324,830.00</b>

## 2.00 Option 3

The new construction has been assumed to be at a slightly higher level than that of option 2.

Building cost from breakdown	£1,421,000.00
Risk/design development allowance @ 10%	£143,000.00
Professional fees @ 12%	£188,000.00
<b>Total Option 3</b>	<b>£1,752,000.00</b>

### OPTION 2

#### Social building

Proposed to the NW corner of the site, of adequate size to accommodate 60 people; comprising a kitchen, dining area, two meeting rooms, an office and entrance lobby; GIFA of 200m<sup>2</sup> given

200	m <sup>2</sup>	1,300.00	£260,000.00
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New septic tank and soakaway	1	item	10,000.00	£10,000.00
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#### Storage building

Proposed on the site of the Long Barn which can adequately dry and store all of the camping equipment in boxes and loose; GIFA of 262m<sup>2</sup> given

262	m <sup>2</sup>	1,300.00	£340,600.00
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Roller tables	1	item	17,500.00	£17,500.00
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Shelving	1	item	25,000.00	£25,000.00
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Drying facilities	1	item	10,000.00	£10,000.00
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Formation of loading bay	1	item	20,000.00	£20,000.00
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#### Electric building

New electrical building; GIFA of 35m <sup>2</sup> given	35	m <sup>2</sup>	1,250.00	£43,750.00
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#### Refurbishment of existing buildings

##### East wing

additional wall lining to increase thermal insulation; to include for WC's, showers and washing/drying facilities, changing space; GIFA of 51m<sup>2</sup> given

51	m <sup>2</sup>	750.00	£38,250.00
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New roof structure and coverings; GIFA 51m <sup>2</sup>	51	m <sup>2</sup>	150.00	£7,650.00
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New rainwater installation and soakaway	1	item	2,750.00	£2,750.00
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Installation of french drain to perimeter of building	1	item	2,500.00	£2,500.00
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Installation of movement joint and repairs to existing structure	1	item	1,250.00	£1,250.00
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##### West wing

additional wall lining to increase thermal insulation; to include for WC's, showers and washing/drying facilities, changing space; GIFA of 51m<sup>2</sup> given

51	m <sup>2</sup>	750.00	£38,250.00
----	----------------	--------	------------

New roof structure and coverings; GIFA 51m <sup>2</sup>	51	m <sup>2</sup>	150.00	£7,650.00
---	----	----------------	--------	-----------

New rainwater installation and soakaway	1	item	2,750.00	£2,750.00
---	---	------	----------	-----------

Installation of french drain to perimeter of building	1	item	2,500.00	£2,500.00
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Installation of movement joint and repairs to existing structure	1	item	1,250.00	£1,250.00
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##### Building 6

new electrical installation, heating and lighting, new windows and doors, new roofs, gutters cleared; GIFA of 86m<sup>2</sup> given

86	m <sup>2</sup>	750.00	£64,500.00
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New roof coverings on existing structure; GIFA 86m <sup>2</sup>	86	m <sup>2</sup>	70.00	£6,020.00
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New rainwater installation and soakaway construction	1	item	2,500.00	£2,500.00
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Battering back ground along the entrance	1	item	2,000.00	£2,000.00
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Installation of french drain to perimeter of building	1	item	3,000.00	£3,000.00
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Repairs to existing structure	1	item	750.00	£750.00
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*continues*

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Hut 42

new electrical installation, heating and lighting, new windows and doors, new roofs, gutters cleared; GIFA of 113m2 given	113	m2	750.00	£84,750.00
New roof coverings on existing structure; GIFA 113m2	113	m2	70.00	£7,910.00
New rainwater installation and soakaway construction	1	item	2,500.00	£2,500.00
Installation of french drain to perimeter of building	1	item	3,500.00	£3,500.00
Repairs to existing structure	1	item	750.00	£750.00

Abnormal costs

Removal of asbestos material (provisional)	1	item	30,000.00	£30,000.00
Demolition of Long Barn; approximate GIFA 276m2	1	item	15,000.00	£15,000.00
Landscaping	1	item	20,000.00	£20,000.00

**Total for Option 2**

**£1,074,830.00**

Notes & Exclusions

We have assumed all decanting of buildings and relocation will be carried out by the centre

We have assumed no abnormal ground conditions

Upgrading of existing services



### OPTION 3

#### Social building

Proposed to the NW corner of the site, of adequate size to accommodate 60 people; comprising a kitchen, dining area, two meeting rooms, an office and entrance lobby; GIFA of 200m<sup>2</sup> given:

	200	m <sup>2</sup>	1,750.00	£350,000.00
New septic tank and soakaway	1	item	10,000.00	£10,000.00

#### Storage building

Proposed on the site of the Long Barn which can adequately dry and store all of the camping equipment in boxes and loose; GIFA of 262m<sup>2</sup> given

	262	m <sup>2</sup>	1,750.00	£458,500.00
Roller tables	1	item	17,500.00	£17,500.00
Shelving	1	item	25,000.00	£25,000.00
Drying facilities	1	item	10,000.00	£10,000.00
Formation of access car parking and loading bay	1	item	45,000.00	£45,000.00

#### Electric building

New electrical building; GIFA of 35m <sup>2</sup> given	35	m <sup>2</sup>	1,250.00	£43,750.00
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#### Maintenance and WCs building

Proposed to the south of the Long Barn; GIFA of 203m <sup>2</sup> given	203	m <sup>2</sup>	1,750.00	£355,250.00
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#### Abnormal costs

Removal of asbestos material (provisional)	1	item	30,000.00	£30,000.00
Demolition of Long Barn; approximate GIFA 276m <sup>2</sup>	1	item	15,000.00	£15,000.00
Demolition of Building 6; GIFA 86m <sup>2</sup>	1	item	5,000.00	£5,000.00
Demolition of East Wing; GIFA 51m <sup>2</sup>	1	item	3,000.00	£3,000.00
Demolition of West Wing; GIFA 51m <sup>2</sup>	1	item	3,000.00	£3,000.00
Demolition of Hut 46; GIFA 113m <sup>2</sup>	1	item	10,000.00	£10,000.00
Landscaping	1	item	40,000.00	£40,000.00

**Total for Option 3**

**£1,421,000.00**

#### Notes & Exclusions

We have assumed all decanting of buildings and relocation will be carried out by the centre

We have assumed no abnormal ground conditions

Upgrading of existing services

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# Funding

FSC receives donations from requests and through its 'associate' membership. This helps support disadvantaged families by subsidising fees and providing personal equipment. FSC keeps its camping fees as low as possible and has the principle that no children should be prevented from camping for financial reasons.

The size of this project is significantly beyond FSC's annual budget and FSC recognises that funding will need to be secured from external sources.

There is funds available to develop the project to Stage 3 and to submit a planning application. By this stage the project will be advanced to such a stage that funding may be easier to secure.

FSC intends to reach out to its existing and associate membership and to other families whose children have camped in the past. It will also seek grant funding from appropriate organisations.

it might seem to be unusual to seek funding for what could be perceived as a storage facility and FSC will need to present a clear case for how this supports the delivery of camping experiences for disadvantaged children.

At present the general ratio of one third major funder: one third smaller grants/major donors: one third individual giving.

External grant funding are strictly time limited and will create necessary co-ordination and timings for the project. Once the preferred option has been selected a clear timeframe will need to be established to identify and implement the preferred timeframe. 8-12 months is not unrealistic.

The programme currently includes a 3 month period, which could be undertaken within the planning application period.

# Project Programme and Procurement

The work in stage 1 has been carried out by ZCD Architects, with help from Ascent Architecture. Consultant input from Structural Engineers and Cost input from QS. These are Blue Engineering and Mogan Carr respectively. The Steering Group has provided briefing material and feedback.

In Stage 2 a full design team and principal designer will need to be appointed (see next page). Appointment of this team will need to follow charity rules, note particularly if public funding is sought.

Concept, detail and technical design leads, carried out by the design team will lead to a set of information for tender and eventual procurement of a building contractor.

The draft programme, shown on page 72, is a typical programme based on working with an organisation that requires some input from a group of trustees, similar to Council.

However, it should be noted that Stage 1 of the project, largely completed within the feasibility project, should typically take 8 weeks and has in fact taken 12 months (February 2017 to February 2018). FSC is run by volunteers and it is therefore likely to take significantly longer than the projected 17 months to start construction on site and should take into account the following challenges which could pose an overall risk to the project, either as potential abortive work, cost overruns or as potentially leaving the organisation not able to commence and deliver the project:

- Approval to begin Stage 2 (likely to be later than April)
- Meetings and communication
- Briefing process
- Further stage approvals
- Consultation and co-design
- Funding

### Meetings and communication

To date the project has been lead by the Project Steering Group, who meet during the evening when convenient. This is likely to prove a challenge to a potential Design Team, who whilst may be able to meet outside working hours from time to time, may find it difficult to arrange evening times and are likely to attach a premium to their fee to cover for this.

### Briefing process

The Project Steering Group has helped create the Strategic Brief, which has been further developed by ZCD Architects into the Initial Project Brief, during Stage 1.

Stage 2 of the process will require more detailed development, with some clear guidance and fairly specific

decision making. Whilst Council has a role in this, it will be important to set up a process that works to progress the project in a linear and timely fashion, again to avoid additional costs and to meet expectations.

It may be advisable to appoint a project manager to help guide the project, to alleviate the pressure on the volunteer base and to ensure effective briefing and delivery of the project.

### Approvals

A good approval process means setting goals and deliverables that can be signed off, with comment before moving on to the next stage. The RIBA plan of work sets out what should be achieved at each stage. Outputs, such as reports, need to be clearly understood and agreed before commencing with the subsequent stage. This takes time and is likely to need to go in front of the appropriate committees, Executive and Council. Reports can be supported by presentations and visual aids, such as 3D drawings and models (as agreed in the schedule of services). It is good practice to 'sign off' the report in person at the time of presentation, keeping a copy of signed report and documents for record.

### Consultation and co-design

The brief for Stage 1 of the project has been to include an extensive consultation exercise with the wider organisation.

At this stage it is largely a fact finding exercise so the work has involved capturing broader feelings about the organisation, its future and the role of the stores and Haddenham within this. The results of the consultation are intended to allow Council to be able to reach a consensus decision on the future of the stores and to embark on the next stage of the project with the confidence that this is the appropriate decision to be made at this time for the good of the organisation. It is noted that this decision may take longer than the programme allows and so that start time will need to be amended accordingly.

In Stages 2 and 3, further consultation is anticipated. How this is planned and managed will have an impact on the programme, given the actual length of Stage 1 it is likely to take significantly longer than the programme shows. Managing expectations, communicating and involving the wider organisation will need to be carefully planned and mapped out. There is an opportunity for a degree of 'co-design' however, FSC will need to balance wide-scale involvement of the design with the rigour needed to overcome technical and regulatory requirements.

### Appointment of Design Team

This feasibility study can form the basis of an Invitation to Tender for a Design Team, formed of the appropriate consultants.

The process of appointing a design team requires some

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careful consideration in itself and will take time, depending on how much input Council and other members wish to have.

A project manager might be best placed to lead on this aspect. It is advised that the following design team members will need to be appointed at the beginning of Stage 2:

- Architect
- Landscape architect
- Structural Engineer
- Services Engineer/Environmental consultant
- Quantity Surveyor
- Flood risk Assessor

#### **Procurement of Contractor**

There are a number of options available for procuring a contract with a builder. Given the complexity of the project we would advise a traditional contract, whereby the design team remains employed by the client throughout the project.

An alternative Design and Build (D & B) contract is one where the design team passes responsibility for the design elements of the work over to a contractor team. The design team can be 'novated' by the contractor, to allow some advice to continue on site, but this will hold no weight in the process. D & B is seen to hold less risk and is often used on public contracts, as the contractor is obliged to complete the works at the agreed price, variations tend to be at the contractors expense. Although the level of detailed information can help secure a better designed

outcome, this method tends to lead to a poorer quality and no flexibility to amend the final product.

In order to ensure the greatest degree of cost certainty, a detailed package of information, drawings, specification and schedule of works, ought to be produced to enable a competitive tender and eventually a contract sum to be agreed before commencing work on site. This work is carried out in Stage 4 (or Stage 3+ if design and build), with input from the structural engineer, quantity surveyor and environmental consultant.

#### **Phasing of the construction work**

Once work starts on site it will be necessary for the operation at Haddenham to continue. Enabling works, such as temporary accommodation and a phasing plan will need to be established. This information will need to be included in the tender documentation.



### Recommendations

FSC has been using the site at Haddenham to maintain and repair its equipment for almost 40 years. It has taken a collection of storage buildings and with volunteer input and a limited budget has created a functioning operation with an established use that the local authority now recognise and can support.

The buildings are no longer fit for purpose and are in urgent need of refurbishment and rebuilding. Funds for carrying out this work will need to be sought externally, but it is necessary investment for the ongoing operation of the organisation and should be planned and carefully delivered to achieve that aim.

Considering the options, this report recommends proceeding along the lines of Option 2, whereby as many of the buildings as possible are maintained and new build is focused on achieving a low cost, comfortable set of new buildings that will house people and equipment in the manner in which they deserve.

With this, the report specifically recommends:

- Removal of all asbestos on site - roofs of East and West and Hut 6. Demolition of Long Barn.
- A bespoke consultation and co-design process is developed to inform the design and delivery of the project.
- A clear sustainability brief, setting out whole life costing options, heating, thermal performance and carbon emission targets.
- A traditional construction contract, maintaining design quality through to completion.
- An increase of 10% for equipment storage (as shown) to allow future flexibility and potential increase in numbers of disadvantaged children on camp.

		Apr '18				May '18				June '18				July '18				Aug '18				Sept '18				Oct '18				Nov '18				Dec '18										
		2-Apr	9-Apr	16-Apr	23-Apr	30-Apr	7-May	14-May	21-May	28-May	4-Jun	11-Jun	18-Jun	25-Jun	2-Jul	9-Jul	16-Jul	23-Jul	30-Jul	6-Aug	13-Aug	20-Aug	27-Aug	3-Sep	10-Sep	17-Sep	24-Sep	1-Oct	8-Oct	15-Oct	22-Oct	29-Oct	5-Nov	12-Nov	19-Nov	26-Nov	3-Dec	10-Dec	17-Dec					
<b>contract award/agreements</b>																																												
<b>RIBA Stage 1</b>	<b>2 weeks</b>																																											
- meetings																																												
- Client approval	2 weeks																																											
<b>RIBA Stage 2</b>	<b>8 weeks</b>																																											
- meetings																																												
- Client approval	2 weeks																																											
<b>Pre application</b>	<b>(4 weeks)</b>																																											
<b>RIBA Stage 3</b>	<b>10 weeks</b>																																											
- meetings																																												
- Client approval	2 weeks																																											
<b>Detailed planning application</b>	<b>3 months</b>																																											
Sourcing funding	3 months																																											
<b>RIBA Stage 4</b>	<b>18 weeks</b>																																											
- tender	6 weeks																																											
<b>RIBA Stage 5 (construction)</b>	<b>18 months</b>																																											
- enabling/temporary works	4 weeks																																											
start on site earliest date	17 months																																											

- Client project meetings**
- 1 Initial workshop with FSC steering group to introduce team, establish protocols and programme
  - 2 Project team meeting with steering group to discuss concept options
  - 3 Project presentation to Council
  - 4 Pre planning application meeting with Cambs
  - 5 Project team meeting to commence Stage 3
  - 6 Final draft planning application - presentation to Council
- Design team meetings**
- Design team meetings to be held in London
- Approvals**
- Stage report, with cost analysis etc
  - FSC approval (with conditions)

\*shortest possible programme time - allows for no holiday breaks, approval delays etc

# Section 4: Options for the future at Haddenham

	8	Jan '19	Feb '19	Mar '19	Apr '19	May '19	June '19	July '19	Aug '19	Sep '19	Oct '19	Nov '19	Dec '19
24-Dec													
31-Dec													
7-Jan													
14-Jan													
21-Jan													
28-Jan													
4-Feb													
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11-Nov													
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25-Nov													
2-Dec													
9-Dec													
16-Dec													
23-Dec													
30-Dec													
6-Jan													

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**STRUCTURAL APPRAISAL**  
FSC Stores, Haddenham, CB6 3PA  
Project Number: 3797

**Revision A**

Prepared by James Nevin  
18 September 2017

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Partnership No: OC366872 - Registered in England | VAT No: 119 413 233

**BLUE  
ENGINEERING**



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## **1.0 Introduction:**

Blue Engineering was appointed by Dinah Bornat working on behalf of the Forest School Camps. They are a charity organisation whose focus is to enable children to spend time in the outdoors to learn how to do things for themselves, build independence and encourage taking responsibility for decisions.

The buildings are a mix-match of types and ages. They are principally used for the storage of camping equipment during the winter months. The buildings also house areas to repair and maintain the equipment as well as providing meals and recreational facilities for the volunteers. The uses aside from storage are only used for approximately 20 days per year.

There is also a bungalow on the site where two live-in guardians provide protection and general maintenance of the site year-round. There is a stretch of land to the rear which people camp in whilst volunteering.

A basic site plan is appended for reference.

The buildings are beginning to deteriorate and the organisation wishes to understand the building's usefulness and structural soundness. The buildings do not currently meet their needs because:

- The storage quality is poor leading to accelerated degradation of the equipment.
- There is no drying area for the canvas.
- The repair/maintenance areas are cold, damp, poorly lit and disorganised.
- Vermin and other animals are able to access the storage spaces.
- The recreational areas do not meet current standards and do not house everyone in inclement weather.

It is noted that the organisation is run by volunteers and therefore it is important to ensure they are looked after during their visit to ensure they continue to volunteer and to enable new volunteers feel welcome.

The purpose of this structural appraisal is to assess the existing structural elements and recommend appropriate structural repair, upgrade or replacement.

The building was visited on 8<sup>th</sup> July 2017 by James Nevin, with Dinah Bornat present. It was a sunny day with the volunteers undertaking the preparations for the summer camping programme. A visual inspection of the buildings was undertaken where access was possible.

A building survey by Martin & Lacy (M&L), prepared in 1997, for the same buildings and most of the recommendations for repair/maintenance have not been undertaken since. This report assumes the original report has been read.

This report has been arranged by building as opposed to the traditional findings, discussion, conclusion, etc.

This report provides no guidance with respect to asbestos, an independent survey should be carried out.

## **2.0 West and East End Workshops**

These are single storey brick built structures with concrete floors and timber duo pitched roofs cement sheeting. It is believed the sheeting is asbestos.

The buildings are structurally sound subject to some repair works. The ground conditions suggest that the founding strata would have volume change potential which could cause settlement or heave of shallow foundations. The cracks in the facades are not due to thermal movement. It is likely they are caused by a combination of vegetation growing nearby, poor drainage of the roof and shallow foundations.

The buildings are currently used for storage and repair of metalwork/timber items.

The building does not need to be demolished – It could be repurposed as a repair/maintenance area or made good for storage. The following works would need to be undertaken:

- New roof sheeting
- New timber rafters and trusses.
- New guttering with downpipes to soakaways
- Remove all vegetation within five metres or so save for low level planting.
- Install a French drain running the perimeter of the buildings.
- Repair the existing large crack and install a movement joint.
- Make good all other minor cracks.

If it were to be used for a working area, the building could be overclad with insulation and raised access flooring installed. Given maintenance is only carried out 20 days per year, simple space heating would then be adequate.

### **3.0 Long Barn**

This building is no longer fit for purpose. The building is liable to disproportionate collapse and the structural upgrades required would be prohibitively expensive. The M&L survey reports favourably on this building but perhaps did not know that an original building was overbuilt, hence the mix match of structure.

This space currently houses the tents amongst other larger items. The maintenance and repairs are undertaken in here also.

This building should be demolished. The ground bearing slab, though cracked, could be salvaged, and used as the new hardstanding for the next structure.

### **4.0 Electric Shed**

This building is very old and in a state of disrepair. Given the limited current and potential use of this building, there is no need to demolish it. However, access to this building should be restricted to only the inhabitants of the bungalow (or with them in attendance) as they are the most aware of the state of the building. No volunteers or children should be allowed to enter this building.

The structural upgrades required to allow this building to be repurposed would be prohibitively expensive. Future planning in conjunction with the statutory undertakers (particularly the electricity supplier) should be undertaken to ensure a plan is in place should the building flood or collapse.

### **5.0 Hut 42**

This building has blockwork construction and likely proper foundation. The roof is a timber frame of some type with modern metal sheeting. The building has been zoned off to form storage areas for the kitchen equipment, clothing and first aid amongst other things. There is also a meeting room space to the rear.

The amount being stored is too much meaning the space cannot be used properly. Vermin are able to get in and attack/inhabit the storage items.

This building is generally in fine condition and could be upgraded to increase its usefulness and longevity. The following works are recommended:

- 
- Assess and repair any guttering and roof drainage to ensure it discharges through downpipes.
  - Install a soakaway to which the downpipes can discharge to.
  - Install a French drain around the perimeter of the building and keep all vegetation away from the building.
  - Make good the cracks with resin bonding and see if they reappear after the drainage works have been completed.

The building could be upgraded to meet the current Building Regulations. The amount being stored in the building would need to be reduced to aid volunteers to work properly within as repair/maintenance happens in the room also. Space heating and insulation would not be difficult to install. The building could be converted to cavity wall construction giving insulation and further structural robustness.

## **6.0 Building 6 – Mess room**

This building is in fair condition and will require maintenance. It is not currently fit for purpose but this is not due to the structural fabric. This building also forms a formal boundary between the entrance road and the site generally which provides security to the site. It has the only permanent toilets and wash facilities for the site for the volunteers, however it is located furthest from the camping area.

The building needs the following works undertaken to ensure structural longevity:

- Replace the roof sheeting
- Repair and replace guttering and roof drainage to ensure it discharges through downpipes.
- Install a soakaway to which the downpipes can discharge to if there is no sewer to discharge to in this area.
- Remove all vegetation within two meters of the perimeter of the building.
- Batter back the ground along the entrance drive by 45 degrees to ensure the walls are not surcharged.
- Install a French drain around the perimeter of the building and keep all vegetation away from the building.
- Make good the cracks with resin bonding and see if they reappear after the drainage works have been completed.

This building would likely be prohibitively expensive to upgrade for its current use as kitchen, toilets and recreational use and it would likely be cheaper to build a new structure. With the above structural works however, it could be used for storage of equipment if the security of the building was upgraded.

## **7.0 The future development of the site**

There are many factors determining the future development of the site. Below is summary of various strategies which could be adopted for the site from a structural perspective.

The long barn should be demolished and could be replaced with a new cheap storage facility which is dry, secure and pest free. My recommendation would be to purchase 40ft steel shipping containers as these would prove excellent for storage, could be sited on the long barn hardstanding and could be stacked two high with a central mezzanine level and an 'atrium' area which could have temporary covering during the time of drying of the tents post camping season. As the site develops, these could be repositioned on the site. They also hold their resale value and insurance costs for the storage items should reduce.

The Electric room should be locked off and have no other function for FSC.



Hut 42 and Building 6 can be used for storage of all other equipment.

The West and East End could be converted into the repair/maintenance zones with insulation and good lighting to enable easier working.

None of the existing buildings should be retained for use as welfare as the cost of upgrade is too high. Build a toilet block near the camping area with basic wash facilities. Either purchase or build a new kitchen and recreational building.

Shipping containers stacked two high would also be able to provide support to a significant awning which could provide a quick temporary covering for volunteers working outside during inclement weather. Alternatively, a permanent awning between two sets of shipping containers could prove a cost-effective way of providing covered space.

Also, given the space is only used by people for approximately twenty days per year, an erectable or inflatable structure for the weekends would be useful and could be re-purposed at other sites of FSC if ever needed. There are good examples of these types of structures at the summer festivals which are fully enclosed and could be heated for the colder days.

## Tents

Tent Name	Notes	Approx. Number	Dimensions			Weight	Current Storage
			width	depth	height		
First Aid Tent	Folded with Poles	12	737	483	178	26kg	Folded on Industrial Shelves
180	Canvas Only	10	762	864	356	31kg	Folded on Industrial Shelves
	Poles		0	0	0	24kg	Pegs and Poles bay
180 Fly	Canvas Only	10	940	559	178	21kg	Folded on Industrial Shelves
Emperors	Canvas Only	5	991	737	330	41kg	Folded on Industrial Shelves
Elf	With Poles in round bag	25	1346	381	381	17kg	Folded on Industrial Shelves
90lb	Canvas Only	12	737	813	406	19kg	Folded on Industrial Shelves
	Poles		0	0	0	6740g	Pegs and Poles bay
90lb fly		2	737	813	406	19kg	Folded on Industrial Shelves
Geodomes	Canvas Only	3	914	686	381	60kg	Folded on Industrial Shelves
	Poles		0	0	0		Pegs and Poles bay
MODS	Tent in Bag	6	914	686	381	41kg total	Folded on Industrial Shelves
	Straps in Bag		737	229	254		On Industrial Shelves
	Pegs in Bag		584	229	127		On Industrial Shelves
	Poles in Bag		1702	229	229		On Industrial Shelves

## Catering Bay equipment

Equipment Name	Notes	Approx. Number	Dimensions (mm)			Weight	Current Storage
			width	depth	height		
Bowls	Multicolored for coding and hygiene on camp	340	330	178	n/a	244g (1)	Stacked on side in wooden open shelves
Sharps Boxes		10	559	203	178		Stored on Shelving Empty
Teapot		10	305	254	229	850g	Stored on Shelving
Water Urn		10	279	381	457	4430g	Stored on Shelving
Tea Urn		10	330	356	762	11kg	Stored on Shelving
Dixie (Four Gallon)		20	419	394	267	11kg	Stored on Shelving
Double Boiler	Some variation shape and size	10	457	457	305	5270g	Stored on Shelving
6 Gallon		25/30?	419	267	394	19kg	Stored on Shelving

## Equipment stored outside

Equipment Name	Notes	Approx. Number	Dimensions			Weight	Current Storage
			W	D	H		
Fire Grid Large		10	1500	482.6	254	16kg	Outside long barn
Fire Grid Small		10	889	482.6	254	10kg	Outside long barn
Hot Tank		10	457.2	596.9	482.6	17kg	Outside long barn
Elf Bath	Plastic Rounded	10	355.6	558.8	558.8	3430g	Outside long barn
Tin bath		10	1219.2	558.8	558.8	3880g	Outside long barn
Water butt		10	965.2	533.4	533.4	4650g	Outside long barn
Hose	50M with connectors some variation	30	762	584.2	177.8	4900g	Water Bay
Table	Flat folding	30	1778	685.8	101.6	46kg	Outside long barn

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Forest School Camps Ltd  
Bungalow Farm  
Hillrow Causeway  
Haddenham  
Cambridgeshire  
CB6 3PA FAO Mr David Monk

*This matter is being dealt with by:*

Jenny Winslet

Telephone: 01353 665555  
E-mail: jenny.winslet@eastcambs.gov.uk  
My Ref: HA125/9999/1/034  
Your ref

10th September 2015

Dear Mr Monk

**THE FOOD SAFETY ACT 1990 (AS AMENDED)  
The Food Safety and Hygiene (England) Regulations 2013  
REGULATION (EC) NO 852/2004 ON THE HYGIENE OF FOODSTUFFS  
Re: Forest School Camps Bungalow Farm Hillrow Causeway Haddenham**

Thank you for meeting me on 8th September 2015 to discuss the food operations of Forest School Camps and inspect the storage and cooking areas at Bungalow Farm.

**Registration**

Having discussed the activities of Forest School Camps (FSC), I confirm that it is considered to be an "organised" activity and so food registration is required and you are a "food business". You amended the registration form that East Cambridgeshire District Council holds for the establishment whilst I was on site.

I gave you a copy of the Food Standards Agency 2013 Community and Charitable Food Provision: Guidance on the application of EU food hygiene law and explained that the current guidance is under review so that if you or any of your fellow directors would like to comment, please go onto the Food Standards Agency website at <http://www.food.gov.uk/news-updates/help-shape-our-policies/community-and-charity-food-provision>

The activity will be kept on the Council's food premises register but is excluded from the Food Hygiene Rating Scheme.

I learned that your volunteers come to the site approximately once a month to maintain equipment and that the organisation pays for the food that is eaten over the weekends but that the volunteers prepare it in turn. When camps are running, the organisation pays for the food which is sourced locally to that camp. You have written procedures in place for the purchase, preparation, storage and cooking of the food. You have written procedures for the cleaning and disinfection of equipment and colour-coding systems for the use of equipment. You explained the emphasis that the organisation and all of its volunteers place on thorough hand washing and showed me photographs of the manner in which hand washing is provided at camps.

Whilst several aspects of your business were consistent with good practice, some Food Safety contraventions were noted during the inspection and these are detailed in the attached schedule.

I do not intend to re-inspect the premises as a result of this letter. You explained how you would send me the updated FSC food safety system, the first page of which is entitled "Please help stop people getting ill". I suggested that the proofing works be carried out as soon as possible and the remaining structural works need to be addressed before the next inspection.

Should you require any further information or advice or wish to discuss these matters, please do not hesitate to contact me on the details at the head of this letter. If you have any comments regarding the inspection or advice issued, please contact Liz Knox, Environmental Service Manager, on 01353 665555.

Yours sincerely

Jenny Winslet  
Senior Environmental Health Officer

Copy by email to Mr D Monk

Enclosures :Allergen information

## SCHEDULE

### PRMISES:

Forest School Camps Ltd

Bungalow Farm Hillrow Causeway Haddenham Cambridgeshire CB6 3PA

**Inspection date** 08 September 2015

Here is a list of legal requirements followed by the law concerned. Recommendations are not legal requirements and are marked as recommendations.

### Food hygiene and safety

1. I recommend that you view all food that is raw or unwashed as potentially contaminated and treat it as you would raw meat or raw poultry. In line with this, we now recommend that you store food equipment and any storage containers used for raw food separately and that you review the colour coding of boards and other equipment accordingly.

Please note that in line with Food Standard Agency (FSA) advice, it is not recommended to wash raw meat or poultry before use due to the potential spread of harmful bacteria onto hands; taps; sinks; food surfaces; equipment and or protective clothing. The FSA has run a campaign against the spread of Campylobacter this year that you will find details of on the FSA website [www.food.gov.uk](http://www.food.gov.uk)

2. If you are using the same cling film box for use with raw and with ready to eat foods, this would present a risk of contamination to food, hands and food equipment. I recommend that you keep used rolls for raw /unwashed foods and store them in a raw food handling area and then provide new, suitably labelled, cling film rolls and mark for use with ready to eat foods.
3. Cross-contamination can occur if food handlers handle both raw foods and ready-to-eat foods without adequate changing of aprons in between. It is recommended that any contaminated protective clothing (aprons) worn whilst preparing raw food e.g. unwashed vegetables, be changed before handling ready-to-eat foods. You may wish to consider using disposable aprons for different activities.
4. Volunteers should be 'fit for work' at all times. This means that they must not be suffering from, or carrying, an illness or disease that could cause a problem with food safety. People who are not 'fit for work' could spread harmful bacteria to food. Any volunteer who has diarrhoea and/or vomiting should report it to their supervisor immediately and either stay at home or go home straight away. People suffering from these symptoms often carry harmful bacteria on their hands/in their breath and can spread them to food or equipment they touch. Volunteers should not return to work until they have had no symptoms for at least 48 hours and should be reminded of this "48 hour rule".
5. I recommend that where possible, food containers are stored upside down to further prevent contamination during storage. I note your procedure to further clean and disinfect the food equipment prior to use.

### Structure

6. Food businesses must take all reasonable precautions to prevent food pests, namely rats, mice, cockroaches and flying insects gaining entry into food/equipment storage and preparation areas. This is to prevent the contamination of foodstuffs.  
There were a number of holes and gaps in the structure of room number 6 and 42 that would allow pest entry. Any gaps and holes to external doors, windows, pipes, drains etc. must be filled or covered with a solid, durable material in order to minimise pest entry points into food preparation and storage areas. Windows, doors and ventilation grilles must be screened



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against insects.

*Regulation (EC) No 852/2004 Annex II Chapter IX Para 4*

At this time of year, it is important to proof buildings against rodents seeking warm nesting sites. I recommend that you proof the buildings as soon as possible.

7. The floor and wall surfaces in room 6 were dilapidated with gaps and uneven surfaces that were difficult to clean. You need to carry out planned maintenance on the surfaces to ensure that they can be cleaned and maintained in a clean condition. Damaged, fixed work units (for example wooden benches) must be maintained in good condition so that the surfaces can be kept thoroughly cleaned (and disinfected where necessary).

*Regulation (EC) No 852/2004 Annex II Chapter I Para 1*

### **Confidence in management/control procedures**

#### **Food Safety Management systems based on HACCP procedures**

- 10 You have a document that is used both at Bungalow Farm and at camp sites in support of safe food preparation, handling and storage. It is now time to review that documentation as is required in law especially in line with the latest FSA guidance on the prevention of *E. coli* O157 (leaflet left on site). Changes to your food safety management systems must be drawn to the attention of your volunteers so that they can follow your procedures and in particular, new control and monitoring points.

*Regulation (EC) 852/2004 Article 5 Paras 2 & 4*

You are advised to follow the Food Standards Agency *E. coli* O157 Control of Cross-Contamination Guidance for food business operators and enforcement authorities and the Q&A Food Standards Agency Guidance: Controlling the risk of cross-contamination from *E. coli* O157. You will find this at <http://www.food.gov.uk/business-industry/guidancenotes/hygguid/ecoliguide>

#### **Hygiene Training**

- 11 It is recommended that volunteers who handle food should receive instruction from a competent person on the following matters within 4 weeks of starting work:
  - (a) temperature control;
  - (b) food poisoning;
  - (c) personal health and hygiene;
  - (d) cross contamination;
  - (e) food storage;
  - (f) waste disposal;
  - (g) foreign body contamination;
  - (h) awareness of pests.
- 12 I recommend that you keep records on the hygiene qualifications of your volunteers, several of whom work in the food industry and will be familiar with the law on hygiene training. This will enable you to ensure that suitably trained supervised and instructed volunteers are in a position to support safe food preparation at each camp and activity.

#### **Allergen Information**

- 13 For your information, I attach correspondence that you should have received in late 2014 in line with the new Consumer Information and associated regulations. We did not discuss this at our meeting. Please read this carefully and ensure that you have identified allergens in any foods offered to volunteers or children, noting that product ingredients can change, sometimes you may need to substitute brands with different ingredients and if you are using food that was packed

before the regulations came in (for example, long life foods, canned or frozen goods) that allergens in the lists of ingredients may not be highlighted on the labels as is now required.

You must ensure that volunteers give consistent, accurate and verifiable advice to other volunteers and children about allergens.

*Regulation (EU) No 1169/2011 Article 44 and Food Information Regulations 2013 Regulation 5*

I recommend that volunteers undertake the on-line allergen training so that all food handlers are instructed in the new allergen information rules. For more information, please see <https://www.food.gov.uk/science/allergy-intolerance#toc-2>



RIBA  
Plan of  
Work  
2013

RIBA

The RIBA Plan of Work 2013 organises the process of briefing, designing, and construction into a number of key stages. The content of stages may vary or overlap to suit a project and should be used solely as guidance for the preparation of detailed professional contracts.

	0	1	2	3	4
<b>Stages</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Tasks</b>	<b>Strategic Definition</b>	<b>Preparation and Brief</b>	<b>Concept Design</b>	<b>Developed Design</b>	<b>Tender and Construction</b>
<b>Core Objectives</b>	Identify client's <b>Business Case</b> and <b>Strategic Brief</b> and other core project requirements.	Develop <b>Project Objectives</b> , including <b>Quality Objectives</b> and <b>Project Outcomes</b> , <b>Sustainability Aspirations</b> , <b>Project Budget</b> , other parameters or constraints and develop <b>Initial Project Brief</b> . Undertake <b>Feasibility Studies</b> and review of <b>Site Information</b> .	Prepare <b>Concept Design</b> , including outline proposals for structural design, building services systems, outline specifications and preliminary <b>Cost Information</b> along with relevant <b>Project Strategies</b> in accordance with <b>Design Programme</b> . Agree alterations to brief and issue <b>Final Project Brief</b> .	Prepare <b>Developed Design</b> , including coordinated and updated proposals for structural design, building services systems, outline specifications, <b>Cost Information</b> and <b>Project Strategies</b> in accordance with <b>Design Programme</b> .	Prepare <b>Construction Programme</b> in accordance with <b>Design Programme</b> . Prepare <b>Construction Programme</b> in accordance with <b>Design Programme</b> . Prepare <b>Construction Programme</b> in accordance with <b>Design Programme</b> .
<b>Procurement</b> *Variable task bar	Initial considerations for assembling the project team.	Prepare <b>Project Roles Table</b> and <b>Contractual Tree</b> and continue assembling the project team.	The procurement strategy does not fundamentally alter the nature of the design or the level of detail prepared at a given stage. <b>Information Exchanges</b> will vary depending on the selected route and <b>Building Contract</b> . A bespoke <b>RIBA Plan of Work 2013</b> will identify when the specific tendering and procurement activities that will be undertaken at each stage in relation to the chosen procurement route.		
<b>Programme</b> *Variable task bar	Establish <b>Project Programme</b> .	Review <b>Project Programme</b> .	Review <b>Project Programme</b> .	The procurement route may dictate that stages overlapping or being undertaken in parallel. A bespoke <b>RIBA Plan of Work 2013</b> will clarify the stage content for the specific stage design.	
<b>(Town) Planning</b> *Variable task bar	Pre-application discussions.	Pre-application discussions.	Planning applications are typically made using the Stage 2 <b>Concept Design</b> . A bespoke <b>RIBA Plan of Work 2013</b> will identify when the application is to be made.		
<b>Suggested Key Support Tasks</b>	Review <b>Feedback</b> from previous projects.	Prepare <b>Handover Strategy</b> and <b>Risk Assessments</b> . Agree <b>Schedule of Services</b> , <b>Design Responsibility Matrix</b> and <b>Information Exchanges</b> and prepare <b>Project Execution Plan</b> including <b>Technology</b> and <b>Communication Strategies</b> and consideration of <b>Common Standards</b> to be used.	Prepare <b>Sustainability Strategy</b> , <b>Maintenance and Operational Strategy</b> and review <b>Handover Strategy</b> and <b>Risk Assessments</b> . Undertake third party consultations as required and any <b>Research and Development</b> aspects. Review and update <b>Project Execution Plan</b> . Consider <b>Construction Strategy</b> , including offsite fabrication, and develop <b>Health and Safety Strategy</b> .	Review and update <b>Sustainability</b> , <b>Maintenance and Operational</b> and <b>Handover Strategies</b> and <b>Risk Assessments</b> . Undertake third party consultations as required and conclude <b>Research and Development</b> aspects. Review and update <b>Project Execution Plan</b> , including <b>Change Control Procedures</b> . Review and update <b>Construction</b> and <b>Health and Safety Strategies</b> .	Review <b>Sustainability</b> and <b>Construction</b> and <b>Risk Assessments</b> . Prepare <b>Construction Programme</b> and any other submittals. Review <b>Construction</b> and <b>Health and Safety</b> strategies.
<b>Sustainability Checkpoints</b>	<b>Sustainability Checkpoint – 0</b>	<b>Sustainability Checkpoint – 1</b>	<b>Sustainability Checkpoint – 2</b>	<b>Sustainability Checkpoint – 3</b>	<b>Sustainability Checkpoint – 4</b>
<b>Information Exchanges</b> (at stage completion)	<b>Strategic Brief</b> .	<b>Initial Project Brief</b> .	<b>Concept Design</b> including outline structural and building services design, associated <b>Project Strategies</b> , preliminary <b>Cost Information</b> and <b>Final Project Brief</b> .	<b>Developed Design</b> , including the coordinated architectural, structural and building services design and updated <b>Cost Information</b> .	Completion of the <b>Construction Programme</b> .
<b>UK Government Information Exchanges</b>	Not required.	Required.	Required.	Required.	Not required.

\*Variable task bar – in creating a bespoke project or practice specific RIBA Plan of Work 2013 via [www.ribaplanofwork.com](http://www.ribaplanofwork.com) a specific bar is selected from a number of options.

designing, constructing, maintaining, operating and using building projects overlap to suit specific project requirements. The RIBA Plan of Work 2013 defines professional services contracts and building contracts.

[www.ribaplanofwork.com](http://www.ribaplanofwork.com)

	4	5	6	7
	<b>Technical Design</b>	<b>Construction</b>	<b>Handover and Close Out</b>	<b>In Use</b>
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100	Prepare <b>Technical Design</b> in accordance with <b>Design Responsibility Matrix</b> and <b>Project Strategies</b> to include all architectural, structural and building services information, specialist subcontractor design and specifications, in accordance with <b>Design Programme</b> .	Offsite manufacturing and onsite <b>Construction</b> in accordance with <b>Construction Programme</b> and resolution of <b>Design Queries</b> from site as they arise.	Handover of building and conclusion of <b>Building Contract</b> .	Undertake <b>In Use</b> services in accordance with <b>Schedule of Services</b> .
11	Typically alter the progression given stage. However, the selected procurement <b>Plan of Work 2013</b> will set out activities that will occur at each element route.	Administration of <b>Building Contract</b> , including regular site inspections and review of progress.	Conclude administration of <b>Building Contract</b> .	
12	The client may dictate the <b>Project Programme</b> and may result in certain activities being undertaken concurrently. A bespoke <b>RIBA Plan of Work</b> may dictate the stage overlaps. The <b>Project Programme</b> will set out specific stage dates and detailed programme durations.			
13	Following the Stage 3 output, confirm when the planning application is submitted.			
14	<p>Review and update <b>Sustainability, Maintenance and Operational and Handover Strategies</b> and <b>Risk Assessments</b>.</p> <p>Prepare and submit Building Regulations submission and any other third party submissions requiring consent.</p> <p>Review and update <b>Project Execution Plan</b>.</p> <p>Review <b>Construction Strategy</b>, including sequencing, and update <b>Health and Safety Strategy</b>.</p>	<p>Review and update <b>Sustainability Strategy</b> and implement <b>Handover Strategy</b>, including agreement of information required for commissioning, training, handover, asset management, future monitoring and maintenance and ongoing compilation of <b>'As-constructed' Information</b>.</p> <p>Update <b>Construction and Health and Safety Strategies</b>.</p>	<p>Carry out activities listed in <b>Handover Strategy</b> including <b>Feedback</b> for use during the future life of the building or on future projects.</p> <p>Updating of <b>Project Information</b> as required.</p>	<p>Conclude activities listed in <b>Handover Strategy</b> including <b>Post-occupancy Evaluation</b>, review of <b>Project Performance</b>, <b>Project Outcomes</b> and <b>Research and Development</b> aspects.</p> <p>Updating of <b>Project Information</b>, as required, in response to ongoing client <b>Feedback</b> until the end of the building's life.</p>
15	<b>Sustainability Checkpoint – 4</b>	<b>Sustainability Checkpoint – 5</b>	<b>Sustainability Checkpoint – 6</b>	<b>Sustainability Checkpoint – 7</b>
16	Completed <b>Technical Design</b> of the project.	<b>'As-constructed' Information</b> .	Updated <b>'As-constructed' Information</b> .	<b>'As-constructed' Information</b> updated in response to ongoing client <b>Feedback</b> and maintenance or operational developments.
17	Not required.	Not required.	Required.	As required.

# Manual handling at work

## A brief guide



This is a web-friendly version of leaflet INDG143(rev3), published 11/12

### Introduction

**This leaflet describes what you, as an employer, may need to do to protect your employees from the risk of injury through manual handling tasks in the workplace. It will also be useful to employees and their representatives.**

**The Manual Handling Operations Regulations 1992, as amended in 2002 ('the Regulations') apply to a wide range of manual handling activities, including lifting, lowering, pushing, pulling or carrying. The load may be either animate, such as a person or an animal, or inanimate, such as a box or a trolley.**

### What's the problem?

Incorrect manual handling is one of the most common causes of injury at work. It causes work-related musculoskeletal disorders (MSDs) which account for over a third of all workplace injuries. (For the latest statistics, visit the HSE web page, [www.hse.gov.uk/statistics/causdis/musculoskeletal/index.htm](http://www.hse.gov.uk/statistics/causdis/musculoskeletal/index.htm).)

Manual handling injuries can happen anywhere people are at work – on farms and building sites, in factories, offices, warehouses, hospitals, banks, laboratories, and while making deliveries. Heavy manual labour, awkward postures, manual materials handling, and previous or existing injury are all risk factors in developing MSDs. There is more information and advice on MSDs on the HSE website, including advice on managing back pain at work.

Taking the action described here will help prevent these injuries and is likely to be cost effective. But you can't prevent all MSDs, so it is still essential to encourage early reporting of symptoms.

### What should I do about it?

**Consider** the risks from manual handling to the health and safety of your employees – this guidance will help you to do this. If there are risks, the Regulations apply.

**Consult and involve** the workforce. Your employees and their representatives know first hand what the risks in the workplace are. They can probably offer practical solutions to controlling them.

The Regulations require employers to:

- **avoid** the need for hazardous manual handling, so far as is reasonably practicable;
- **assess** the risk of injury from any hazardous manual handling that can't be avoided; and
- **reduce** the risk of injury from hazardous manual handling, so far as is reasonably practicable.



## How do I know if there's a risk of injury?

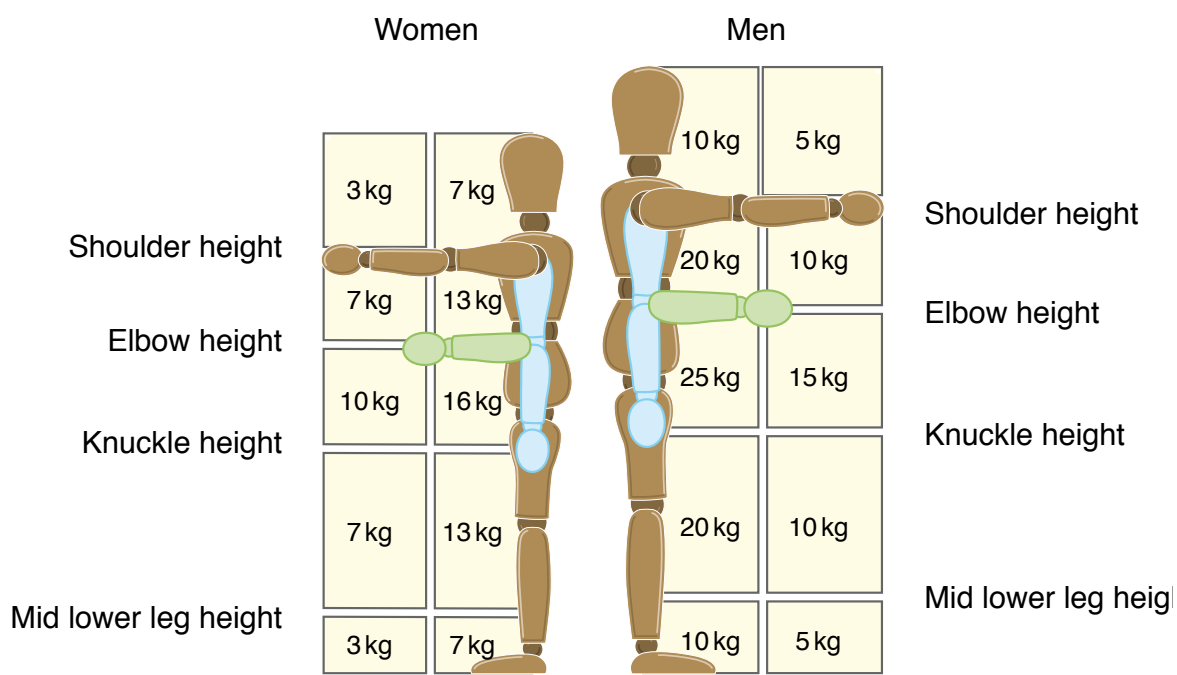
It's a matter of judgement in each case, but there are certain things to look out for, such as people puffing and sweating, excessive fatigue, bad posture, cramped work areas, awkward or heavy loads or people with a history of back trouble. Operators can often highlight which activities are unpopular, difficult or hard work.

It is difficult to be precise – so many factors vary between jobs, workplaces and people. But the general risk assessment guidelines in the next section should help you identify when you need to do a more detailed risk assessment.

## General risk assessment guidelines

There is no such thing as a completely 'safe' manual handling operation. But working within the following guidelines will cut the risk and reduce the need for a more detailed assessment.

- Use Figure 1 to make a quick and easy assessment. Each box contains a guideline weight for lifting and lowering in that zone. (As you can see, the guideline weights are reduced if handling is done with arms extended, or at high or low levels, as that is where injuries are most likely to happen.)
- Observe the work activity you are assessing and compare it to the diagram. First, decide which box or boxes the lifter's hands pass through when moving the load. Then, assess the maximum weight being handled. If it is less than the figure given in the box, the operation is within the guidelines.
- If the lifter's hands enter more than one box during the operation, use the smallest weight. Use an in-between weight if the hands are close to a boundary between boxes.
- The guideline weights assume that the load is readily grasped with both hands and that the operation takes place in reasonable working conditions, with the lifter in a stable body position.



**Figure 1** Lifting and lowering



