HERITAGE STATEMENT INCORPORATING A BRIEF DESIGN & ACCESS STATEMENT

SITE: Kingswood, Kingsland Road, SHREWSBURY SY3 7AF



APPLICANT: MR & MRS CHARTERS

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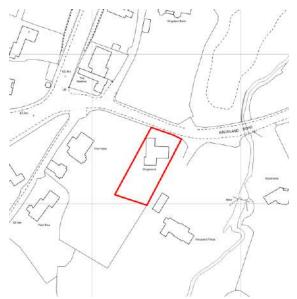
1.0 INTRODUCTION

- 1.1 Whether formally listed or not, there are many buildings and heritage assets across the country that are of local interest or significance. All Local Planning Authorities have a duty to ensure that the history of these buildings and impact on both designated and non-designated heritage assets is adequately understood before any planning permission is given.
- 1.2 To that end Ms Dyanne Humphreys (BA Hons MRTPI & Cert HED British Vernacular Architecture) has been appointed by Mr & Mrs Charters to prepare a D&A Statement to incorporate a brief Heritage Statement to accompany the planning application for this site at Kingswood, Kingsland Road, Shrewsbury.
- 1.3 The Heritage Statement will aim to identify the non-designated and designated heritage assets on or in the vicinity of the site, and discuss whether the development is likely to have any adverse impact on these assets, and if so what mitigation may be required.
- 1.4 The D&A Statement will provide an explanation as to how a proposed development is a suitable response to the site and its setting, and demonstrate that it can be adequately accessed by prospective users.

2.0 LOCATION

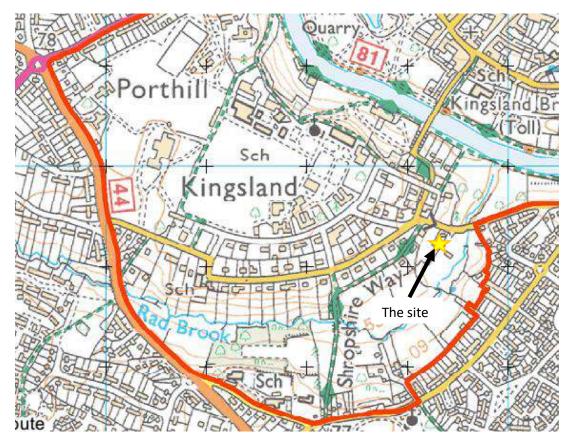
- 2.1 Kingsland is a suburb of the town Shrewsbury. It lies less than 0.5 miles to the southwest of the town centre of Shrewsbury across the River Severn by the Kingsland Bridge which was built in 1881.
- 2.2 The lands were originally waste ground granted by the Crown to the Corporation of Shrewsbury and formed part of the common pastures of the Borough. The name is assumed to come from their original ownership by the Crown.
- 2.3 From 1591 the fields were the site for the Shrewsbury Show. The trade guilds of Shrewsbury would parade to the grounds on the Monday after the feast of Corpus Christi.
- 2.3 The Show continued until the mid-19th century when visitor numbers swelled with the advent of rail transport to the town. This in turn led to complaints of rowdy behaviour and condemnation from clergy. A petition for its eventual abolition was enacted in 1875.
- 2.4 This measure was a precondition to the residential development of the area for homes of the wealthy, which grew after Shrewsbury School moved there. For the building of the houses, brickyards were set up at Copthorne which were linked to Kingsland by a tramline running along the line of Porthill Drive, Porthill Road, Roman Road and Kennedy Road.
- 2.5 The campus of Shrewsbury School occupies some of the land overlooking the River Severn. The main building was originally built in the 18th century as a foundling hospital, and was later a workhouse for Shrewsbury before the School moved into it from the town centre in 1882.
- 2.6 The area was largely developed during the 19th and early 20th Centuries. The design of many of the houses in Kingsland has a common theme, with much use of red brick, asymmetry, terracotta decoration and black and white gables: all common features of houses from the 1880s onwards and owing much to Norman Shaw; although the influence of Charles Voysey and Charles Rennie Mackintosh can also be seen.
- 2.7 Much use was made of local materials. Apart from the common bricks from Copthorne already noted, more significant materials included quality bricks and terracotta from Ruabon and the Lilleshall Company; encaustic tiles from Maw and Company or Minton; roofing tiles by Parson Smith and, of course, cast iron fireplaces from Coalbrookdale.
- 2.8 The area is predominantly residential in nature. The properties are large two or sometimes three-storey detached houses on substantial plots that benefit from well-established planting. There has been some limited "infilling" and some of the properties have been converted from single dwellinghouses into flats.

2.9 Kingwood is not contemporaneous with the general age of development within this sensitive setting. The house appears to date from the 1960s and was an "infill plot in the grounds of a large property known as The Fields. See location plan below:



Extract taken from Ordnance Survey Licence no. 100019311 purchased by Batch Valley Designs

2.10 The Shrewsbury Town Centre Conservation Area was originally designated in May 1970, in response to the Civic Amenities Act 1967 and since then it has subsequently been extended, importantly in this case, in 1981, to include Kingsland as well as other areas previously omitted. The extent of the designation can be seen in the plan below, together with the location of the site:



3.0 DESCRIPTION OF DEVELOPMENT

- 3.1 The submitted scheme seeks to remodel Kingswood, a 5 x bed detached house, to create a contemporary 4 x bedroomed family home suitable for modern living.
- 3.2 The proposed scheme involves remodelling the existing residential dwelling as well as some relatively minor increase in overall accommodation.
- 3.3 The principle footprint and position of the building will remain unchanged, with most notable alterations being the replacement of the existing pitched roofs with flat roofs and a new brick skin.
- 3.4 The proposed building will have a more contemporary aesthetic and by remodelling the roof structure, this reduces the overall height of the property, and thus reduces its visual mass within the street scene.
- 3.5 The coloured schematic images below provide an overview showing the additional proposed extensions, along with the positioning on the elevations and the respective floor-space of the respective extensions.



3.6 SITE INFORMATION

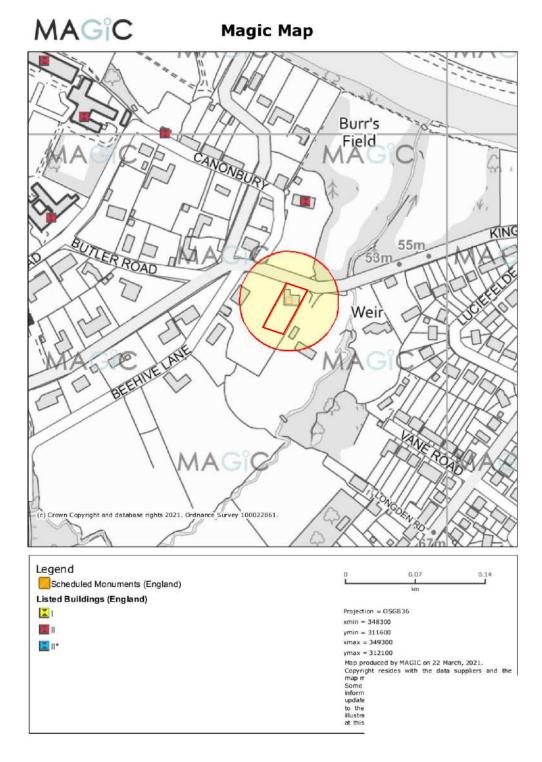
ASPECT	EXISTING	PROPOSED
Site Area	1166 m²	1166 m ²
Building Footprint	197 m²	220 m ²
Gross Internal Area	265 m ²	340 m ²
Maximum Building Height	7615mm	6500mm
Flat Roof Area	30%	100%
Pitched Roof Area	70%	0%
Visual Silhouette From Road	129 m ²	105 m ²
External Covered Amenity Space	0 m ²	12 m ²
Bedrooms	5	4
Permeable Area	652	809

3.7 Material to this application is the recent planning history relevant to Kingswood, this includes its demolition and replacement approved in 2004; see table below:

Description of Development	Ref. No.	Decision
Alterations and additions of a flat roof living	SA/82/0210	APPROVED
room extension, a 2 storey pitched roof side		
extension to provide kitchen, porch, wc, utility		
room, study with additional bedroom and		
bathrooms above and the erection of an		
integral pitched roof private double garage.		
Erection of a two storey and single storey side	SA/03/0309/F	APPROVED
extension and detached garage, following		
demolition of existing extension and integral		
garage		
Demolition of existing dwelling in Shrewsbury	SA/04/0134/CA	PP Not Required
Conservation Area.		
Erection of 1 no. 5 bedroom, 2 storey dwelling	SA/04/0133/F	APPROVED
following demolition of existing		

4.0 DISCUSSION

4.1 Kingswood is not a heritage asset, either statutory or non-statutory. Having performed a site check using Magic Map the Shrewsbury Town Centre Conservation Area (which includes Kingsland) is the only heritage asset identified within a 50 metre radius of the site – see below:



4.2 The Statutory designated heritage asset is therefore the Shrewsbury Town Centre Conservation Area. No non-statutory designated assets have been identified in proximity to the site.

- 4.3 Impact on the Shrewsbury Town Centre Conservation Area. The Planning (Listed Buildings and Conservation Areas) Act 1990 requires special attention to be paid to the desirability of preserving or enhancing the character or appearance of that area when considering planning applications.
- In this instance it is established that Kingswood is of no architectural merit or historic importance, nor does it make a positive contribution to the special character of the Conservation Area. As such there is no fundamental issue with the property being redevelopment; there is therefore a presumption in favour.
- 4.5 In terms of the scheme being presented it does not seek to be a pastiche of the predominantly high-Victoriana style, it is a high-quality bespoke design apropos to the C21st.
- 4.6 The scheme maintains the existing building footprint and as such its relationship with the street scene is only moderately altered. The reduction in overall height will introduce a change to the street scene, but that change is considered to be neutral; there is no identified negative effect.
- 4.7 The fenestration details have been kept simple in line with those already within the host property, but updated. This preserves the contemporary theme.
- 4.8 In terms of the external materials to be used, the external walls are to re-fenestrated to reinforce the contemporary design. The windows will be aluminium colour-matched to the brickwork which is an enhancement to the orange/light brown uPVC frames currently in situ.
- 4.9 The overall addition to the host property will significantly upgrade the fabric and enhance its external appearance. The property will be enlarged and as such there will be a change to the current street scene, but that change is not negative, it is an enhancement.
- 4.10 Taking into account the requirements of the legislation and the relevant development plan policy framework the proposed remodelling and extension to Kingswood is judged to be wholly in accordance with the requirements of both the legislation and the policy framework (see Appendix 1 Policy Framework).
- 4.11 The special character of the Shrewsbury Town Centre Conservation Area is therefore preserved and in some aspects of the scheme there are enhancements, such as the use of upgraded materials a materials schedule with images is provided at Appendix 2.

5.0 DESIGN AND ACCESS

- 5.1 DESIGN the design has been considered in detail. Kingswood does not conform to the prevailing architectural style being a later addition to the street scene. In considering the options a make-over to give Kingswood a pastiche Victorian façade was dismissed as being dishonest.
- 5.2 Kingswood is of no architectural merit, as evidenced by the 2004 consent to allow it to be demolished and replaced. This scheme seeks to up-date, extend and modernise the appearance of the property.
- 5.3 In revisiting the design the scheme has also taken into account the energy efficiency of the property. To this end the scheme has been designed to improve the Standard Assessment Procedure (SAP) rating for the family home.
- 5.4 SAP is a methodology that reviews and compares the amount of energy a house will consume when delivering a defined level of comfort and service provision; it effectively deals with conservation of fuel and power in a property.
- 5.5 The SAP calculations have been undertaken in connection with the existing property and the property once the scheme currently being proposed has been implemented. The results can be found in Appendix 3, but to summarise the energy consumption currently amounts to 9.16 CO² emissions t/year and would be significantly reduced to 4.95 CO² emissions.
- 5.6 Having established that the building itself is of no architectural merit or historic interest and having further established there is no resultant harm to the special character of the Conservation Area this approach is highly appropriate.
- 5.7 ACCESS the property benefits from existing established access off Kingsland Road. The vehicular access to the front is intended to be gated to increase security for the property and those within, and also privacy. The majority of properties along Kingsland Road are gated.
- 5.8 The property is not a public building and as such the laws do not require the building to be DDA compliant; that being said all current Building Regulations standards throughout the property will be met.
- 5.9 In terms of emergency vehicles requiring access to the site this remains unhindered.

6.0 CONCLUSION

"Conservation practice involves managing and maintaining places and buildings, and planning for their future. Heritage has cultural values associated with the past, but is also part of the infrastructure of modern society and a fundamental resource that underpins its sustainable future. Therefore, heritage is an economic resource in the present, with social, economic and environmental values.

The challenge for heritage professionals is to conserve cultural values whilst allowing places and buildings to adapt where appropriate or necessary, so that they remain fit-for-purpose, accommodating society's changing needs and demands.

Consequently, heritage professional practice is fundamentally about reconciling values, by addressing heritage values in the context of utility values, investment values, economic values, social values, environmental values, legislative requirements and the other requirements of those that occupy and use heritage. This takes place against the specific socio-economic context and within various legislative regimes.

To make good quality judgments regarding changes to heritage, it is essential to consider it against a wide social, economic and environmental context. Focusing only on 'significance' leads to poor quality, unsustainable decisions because it considers only a small part of a complex process, and in some instances can lead to heritage assets becoming non-viable, threatening their survival. Fundamental to this is the recognition that change created our historic environments and that change is an essential part of managing and developing those environments" — Institute for Historic Building Conservation.

- 6.1 Kingwood is a large detached house of no architectural or historic merit, in a predominantly Victorian suburb of Shrewsbury.
- 6.2 The proposed scheme seeks to modestly extend the property and re-fenestrate the exterior to bring it up to date. As a result there will be a change to the street scene and invariably, as with all development, there will be an impact. The issue is whether or not that impact is harmful to any identified heritage assets.
- 6.3 In this instance the heritage asset identified is the Shrewsbury Town Centre Conservation Area and its special character therein.
- 6.4 The changes proposed to Kingswood are not insignificant, however, that in itself is not a predetermining factor resulting in the scheme being harmful per se.
- 6.5 The primary legislation, being the Planning (Listed Buildings and Conservation Areas) Act 1990, requires the Local Planning Authority to have due regard to the desirability of preserving or enhancing the character or appearance of that area when considering planning applications.

- 6.5 In this instance a contemporary design was considered to be the most suitable and honest approach for the scheme creating a property relevant to, and clearly of the C21st. In so doing, modern materials are to be used for the fenestration. These materials are an up-grade to those already in situ, representing an enhancement.
- 6.6 It is established that Kingswood is of no architectural merit or historic interest. Furthermore, it is established that the proposal shall result in no adverse impact to the special character of the Conservation Area, being neutral overall, with some enhancement in terms of materials.
- 6.7 Therefore it is concluded that there is no conflict between this proposal and the National and Local Plan policies that aim to protect Heritage Assets and their settings.

APPENDIX 1

POLICY FRAMEWORK

NPPF – Section 16 Conserving & Enhancing the Historic Environment.

Conserving and enhancing the historic environment

- 184. Heritage assets range from sites and buildings of local historic value to those of the highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value⁶¹. These assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations⁶².
- 185. Plans should set out a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. This strategy should take into account:
 - a) the desirability of sustaining and enhancing the significance of heritage assets, and putting them to viable uses consistent with their conservation;
 - b) the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
 - the desirability of new development making a positive contribution to local character and distinctiveness; and
 - d) opportunities to draw on the contribution made by the historic environment to the character of a place.
- 186. When considering the designation of conservation areas, local planning authorities should ensure that an area justifies such status because of its special architectural or historic interest, and that the concept of conservation is not devalued through the designation of areas that lack special interest.
- 187. Local planning authorities should maintain or have access to a historic environment record. This should contain up-to-date evidence about the historic environment in their area and be used to:
 - a) assess the significance of heritage assets and the contribution they make to their environment; and
 - b) predict the likelihood that currently unidentified heritage assets, particularly sites of historic and archaeological interest, will be discovered in the future.

⁶² The policies set out in this chapter relate, as applicable, to the heritage-related consent regimes for which local planning authorities are responsible under the Planning (Listed Buildings and Conservation Areas) Act 1990, as well as to plan-making and decision-making.

⁶¹ Some World Heritage Sites are inscribed by UNESCO to be of natural significance rather than cultural significance; and in some cases they are inscribed for both their natural and cultural significance.

188. Local planning authorities should make information about the historic environment, gathered as part of policy-making or development management, publicly accessible.

Proposals affecting heritage assets

- 189. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.
- 190. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this into account when considering the impact of a proposal on a heritage asset, to avoid or minimise any conflict between the heritage asset's conservation and any aspect of the proposal.
- 191. Where there is evidence of deliberate neglect of, or damage to, a heritage asset, the deteriorated state of the heritage asset should not be taken into account in any decision.
- 192. In determining applications, local planning authorities should take account of:
 - a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
 - b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
 - the desirability of new development making a positive contribution to local character and distinctiveness.

Considering potential impacts

- 193. When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be). This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.
- 194. Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

- a) grade II listed buildings, or grade II registered parks or gardens, should be exceptional;
- b) assets of the highest significance, notably scheduled monuments, protected wreck sites, registered battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional⁶³.
- 195. Where a proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or total loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:
 - a) the nature of the heritage asset prevents all reasonable uses of the site; and
 - b) no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
 - c) conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible; and
 - d) the harm or loss is outweighed by the benefit of bringing the site back into use.
- 196. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.
- 197. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
- 198. Local planning authorities should not permit the loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.
- 199. Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible 64. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

⁶⁴ Copies of evidence should be deposited with the relevant historic environment record, and any archives with a local museum or other public depository.

⁶³ Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

- 200. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.
- 201. Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 195 or less than substantial harm under paragraph 196, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.
- 202. Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.

SHROPSHIRE COUNCIL CORE STRATEGY – adopted March 2011

Relevant generic policies are as follows:

- Policy CS1: Strategic Approach
- Policy CS2: Shrewsbury Development Strategy
- Policy CS16: Tourism, Culture and Leisure
- Policy CS17: Environmental Networks

These are essentially generic policies establishing a strategic approach and as such the text has not been reproduced in full but can be view at:

http://shropshire.gov.uk/planning-policy/local-planning/core-strategy/

SHROPSHIRE COUNCIL SITE ALLOCATIONS & MANAGEMENT OF DEVELOPMENT PLAN

Adopted Plan 17th December 2015

- MD2 Sustainable Design; and,
- MD13 Historic Environment

Shropshire Council Site Allocations and Management of Development (SAMDev) Plan Adopted Plan 17th December 2015

MD2 : Sustainable Design

Further to Policy CS6, for a development proposal to be considered acceptable it is required to:

- Respond positively to local design aspirations, wherever possible, both in terms of visual appearance and how a place functions, as set out in Community Led Plans, Town or Village Design Statements, Neighbourhood Plans and Place Plans.
- Contribute to and respect locally distinctive or valued character and existing amenity value by:
 - Responding appropriately to the form and layout of existing development and the way it functions, including mixture of uses, streetscape, building heights and lines, scale, density, plot sizes and local patterns of movement; and
 - Reflecting locally characteristic architectural design and details, such as building materials, form, colour and texture of detailing, taking account of their scale and proportion; and
 - Protecting, conserving and enhancing the historic context and character of heritage assets, their significance and setting, in accordance with MD13;
 and
 - Enhancing, incorporating or recreating natural assets in accordance with MD12.
- Embrace opportunities for contemporary design solutions, which take
 reference from and reinforce distinctive local characteristics to create a
 positive sense of place, but avoid reproducing these characteristics in an
 incoherent and detrimental style.
- Incorporate Sustainable Drainage techniques, in accordance with Policy CS18, as an integral part of design and apply the requirements of the SuDS handbook as set out in the Local Flood Risk Management Strategy.
- Consider design of landscaping and open space holistically as part of the whole development to provide safe, useable and well-connected outdoor spaces which respond to and reinforce the character and context within which it is set, in accordance with Policy CS17 and MD12 and MD13, including.
 - Natural and semi-natural features, such as, trees, hedges, woodlands, ponds, wetlands, and watercourses, as well as existing landscape character, geological and heritage assets and;
 - ii. providing adequate open space of at least 30sqm per person that meets local needs in terms of function and quality and contributes to wider policy objectives such as surface water drainage and the provision and enhancement of semi natural landscape features. For developments of 20 dwellings or more, this should comprise an area of functional recreational space for play, recreation, formal or informal uses including semi-natural

MD2: Sustainable Design

open space;

- iii. where an adverse effect on the integrity of an internationally designated wildlife site due to recreational impacts has been identified, particular consideration will be given to the need for semi-natural open space, using 30sqm per person as a starting point.
- iv. ensuring that ongoing needs for access to manage open space have been provided and arrangements are in place for it to be adequately maintained in perpetuity.
- Ensure development demonstrates there is sufficient existing infrastructure capacity, in accordance with MD8, and should wherever possible actively seek opportunities to help alleviate infrastructure constraints, as identified with the Place Plans, through appropriate design.
- Demonstrate how good standards of sustainable design and construction have been employed as required by Core Strategy Policy CS6 and the Sustainable Design SPD.

Explanation

- 3.6 Core Strategy Policy CS6 establishes the overarching aim that new development will be designed to a high quality using sustainable design principles. Achieving high quality sustainable design is a key planning objective which applies to all new development including alterations, extensions, conversions and replacements of existing buildings. advertisements and telecommunications infrastructure. Policy MD2 builds on Policy CS6, providing additional detail on how sustainable design will be achieved. In applying these requirements, consideration should also be given to more detailed national guidance on design set out within good practice. For development affecting the Shropshire Hills AONB, particular regard should be paid to the Shropshire Hills AONB Management Plan and supplementary guidance. Development proposals are required to demonstrate, through the use of detailed, clear and accurate drawings and a written statement (Design and Access Statements) how they successfully address CS6 and MD2, in addition to other local and national policy requirements relating to the site and its surroundings.
- 3.7 Delivering well designed places appropriate to the local context is a key part of creating sustainable communities. Shropshire's localised planning approach recognises that each place has its own characteristics not only visually in the built and natural environment but also in terms of how each place functions, which provides a local sense of identity. Understanding this local context and evaluating the constraints and opportunities that are present is an important part of the design process for any new development. Community led guidance needs to inform the design of development, ensuring that it appropriately maintains and enhances the location's sense of place and respond positively to local design aspirations, wherever possible.

Shropshire Council Site Allocations and Management of Development (SAMDev) Plan Adopted Plan 17th December 2015

- 3.8 To respond effectively to local character and distinctiveness, development should not have a detrimental impact on existing amenity value but respond appropriately to the context in which it is set. As such, new development should respect the existing pattern of development, both visually and in relation to the function of spaces, retain and enhance important views and landmarks and respond appropriately to local environmental and historic assets, in accordance with MD12 and MD13.
- 3.9 Utilising contemporary design solutions whilst respecting locally distinctive characteristics provides an opportunity for the development to reinforce and enhance an areas sense of place. Opportunities should be sought and utilised for sustainable design solutions, where possible, particularly where these help to address local aspirations set out in the Place Plans, in accordance with Policy CS8.
- All developments must include appropriate SuDS to manage surface water, in accordance with Policy CS18. Given the complexity and detail associated with this aspect of the Flood and Water Management Act 2010, a Shropshire and Staffordshire Sustainable Drainage Handbook is being produced to provide the detailed requirements for applicants on the design and adoption process for SuDS. Developed as part of the Local Flood Risk Management Strategy, the SuDS Handbook will provide information on the planning, design and delivery of attractive and high quality SuDS schemes which offer multiple benefits to both the environment and local community. Whilst an initial scope for the SuDS Handbook is included with Appendix A of the Local Flood Risk Management (Part 2), the SuDS Handbook itself is intended to coincide with the implementation, by DEFRA, of the National SuDS Standards. New development will be expected to adhere to the principles set out in this handbook, addressing the requirements, issues and opportunities for SuDS early in the design process, to inform the layout of buildings, roads and open space, to take account of the existing characteristics of the built and natural environment and to seek opportunities to provide the widest possible community benefit. Consideration must also be given to the maintenance requirements for SuDS, including the design of appropriate access to allow for ongoing maintenance.
- 3.11 Effective landscape design is key to high quality sustainable development and focuses not only on how a development looks but also how it functions including its relationship to the wider area. Landscape character, open space, biodiversity, heritage assets, and buildings need to be considered together and linked to the wider environmental network from the start of the design process in accordance with Policy CS17 and MD12 and MD13. A landscape design plan should be prepared at an early stage in the design of development and accompany the submission of a planning application, including outline planning applications. The landscape design plan should incorporate all landscape considerations and reflect on their interrelated nature in order to maximise the creation of multifunctional assets for the local community, in accordance with the Historic Environment SPD, Natural Environment SPD and Water Management SPD.

- 3.12 New planting of trees, woodland and hedges should be incorporated to reinforce existing landscape features and will be particularly favoured in publically accessible or visible locations within the site. Consideration should be given to the appropriate use of trees and plants, reflecting the character of the site and its context, including the use of native trees and provision of long lived, large canopied trees. Sufficient space should also be provided to safeguard existing vegetation where possible. Where the layout, density or design of development results in the loss of existing vegetation, suitable mitigation measures should be put in place on site, in the first instance, or through off site compensation measures where this is not possible, in accordance with the principles in Policy MD12 Natural Environment.
- Adequate open space is set at a minimum standard of 30sgm per person (equivalent to 3ha per 1,000 population). For residential developments, the number of future occupiers will be based on a standard of one person per bedroom. For non-residential development, open space provision should be design-led, informed by the character and context of the development proposed, together with any requirement identified in the relevant Place Plan and the environmental networks approach set out in Policy CS17 and the Natural Environment SPD. For developments of 20 dwellings and more, the open space needs to comprise a functional area for play and recreation. This should be provided as a single recreational area, rather than a number of small pockets spread throughout the development site, in order to improve the overall quality and usability of the provision. On very large sites, it may be appropriate to divide the recreational open space into more than one area in order to provide accessible provision across the development. In such instances it is important that each recreational area is of a sufficient size to be functional. The types of open space provided need to be relevant to the development and its locality and should take guidance from the Place Plans. The ongoing needs for access to manage open space must be provided for and arrangements must be in place to ensure that the open space will be maintained in perpetuity whether by the occupiers, a private company, a community organisation, the local town or parish council, or by Shropshire Council.
- 3.14 Whilst national policy protects internationally designated wildlife sites from development which would damage their special interests, planning proposals may still lead to indirect effects on such sites. The HRA for the Plan identifies those internationally protected sites which could be affected by development and Policy MD12 provides for mitigation measures to remove the impact. This policy (MD2) sets out those measures necessary to mitigate the effect of increased recreational pressure. These may include an increase in the amount of open space provided by a development over and above the 30sqm per person with a significant proportion of this being semi-natural. Additional mitigation measures may include developer contributions in line with Policy MD12.
- 3.15 Developments must be designed so they do not result in an unacceptable adverse impact on local infrastructure, for example adequate onsite car parking should be incorporated within a development site to ensure that cars

do not overspill onto surrounding roads and therefore negatively impact on the local road network. Consideration should also be given to safeguarding existing infrastructure, in accordance with Policy MD8, so as to maintain continued operation and provide opportunities for expansion of infrastructure, where appropriate, to meet local needs. Wherever possible, development should add value by considering the opportunities or benefits that can be provided through design to help meet local community aspirations or contribute to addressing local infrastructure constraints identified within the Place Plans.

3.16 The sustainability checklist and accompanying Sustainable Design SPD provide more guidance on the sustainable design and construction principles that must be incorporated and how they will be applied to different types and scales of development. Further guidance on the balance to be struck between development viability and policy requirements is included within Policy CS11, Type and Affordability of Housing SPD and Developer Contributions SPD.

Key Evidence:

- 1. Shropshire Adopted Core Strategy, (Shropshire Council, 2011);
- National Planning Policy Framework, (Department for Communities and Local Government, 2012);
- Supplementary Planning Document SPD: Sustainable Design, Part 1 (Shropshire Council, 2011)
- 4. PPG17, Open Space Sport and Recreation Study PMP (2009);
- 5. Shropshire Historic Environment Record (ongoing);
- Shropshire Landscape Character Assessment (Shropshire County Council 2006 and as updated);
- Shropshire Historic Landscape Character Assessment (Shropshire County Council, 2004);
- Shropshire Historic Farmstead Characterisation Project (Shropshire Council 2010);
- Shropshire Hills AONB Management Plan 2009 2014 (Shropshire Hills AONB Partnership, 2009);
- 10. Shropshire Water Cycle Study (Halcrow 2009/10);
- By Design: Urban Design in the Planning System: Towards better practice (CABE, 2000)
- Safer Places: The Planning System and Crime Prevention (Office of the Deputy Prime Minister, 2004);
- Strategic Stone Study, A Building Stone Atlas of Shropshire (English Heritage, 2012).

Shropshire Council Site Allocations and Management of Development (SAMDev) Plan Adopted Plan 17th December 2015

MD13: The Historic Environment

In accordance with Policies CS6 and CS17 and through applying the guidance in the Historic Environment SPD, Shropshire's heritage assets will be protected, conserved, sympathetically enhanced and restored by:

- Ensuring that wherever possible, proposals avoid harm or loss of significance to designated or non-designated heritage assets, including their settings.
- Ensuring that proposals which are likely to affect the significance of a designated or non-designated heritage asset, including its setting, are accompanied by a Heritage Assessment, including a qualitative visual assessment where appropriate.
- 3. Ensuring that proposals which are likely to have an adverse effect on the significance of a non-designated heritage asset, including its setting, will only be permitted if it can be clearly demonstrated that the public benefits of the proposal outweigh the adverse effect. In making this assessment, the degree of harm or loss of significance to the asset including its setting, the importance of the asset and any potential beneficial use will be taken into account. Where such proposals are permitted, measures to mitigate and record the loss of significance to the asset including its setting and to advance understanding in a manner proportionate to the asset's importance and the level of impact, will be required.
- 4. Encouraging development which delivers positive benefits to heritage assets, as identified within the Place Plans. Support will be given in particular, to proposals which appropriately conserve, manage or enhance the significance of a heritage asset including its setting, especially where these improve the condition of those assets which are recognised as being at risk or in poor condition.

Explanation

- 3.131 Whilst this policy is closely related to sustainable design (CS6 and MD2) and the conservation of Shropshire's natural environment (CS17 and MD12) it sets out specific guidance on the protection of Shropshire's historic environment, including the requirements that need to be met for those development proposals which are likely to have an impact on the significance, including the setting, of a heritage asset.
- 3.132 Heritage assets are buildings, monuments, sites, places, areas or landscapes that merit consideration as part of the planning process. The term includes all designated and non-designated assets. Designated assets comprise Listed Buildings, Conservation Areas, World Heritage Sites, Registered Parks and Gardens, Registered Battlefields and Scheduled Ancient Monuments.
- 3.133 Non-designated heritage assets include structures, features or deposits with archaeological interest, historic buildings, historic farmsteads, the historic character of the landscape as expressed in the patterns of fields, woods and

heathlands and the locally distinctive character of settlements. The latter includes locally derived building materials and the distinctive forms, details and design of buildings. Policy MD2 requires new development to respect, enhance or restore the historic context of buildings. The Shropshire Historic Environment Record sets out Shropshire's non-designated heritage assets.

- 3.134 Through their contribution to the character of the county, heritage assets play an important role in promoting economic regeneration and growth.
- 3.135 This policy is based on the following hierarchal approach:
 - i. wherever possible, avoid harm or loss to the significance of heritage assets, including their settings;
 - ii. where development proposals can be justified in terms of public benefits which outweigh the harm to the historic environment, provide mitigation measures for any loss of significance to the affected heritage asset, including the setting;
 - iii. where a development proposal results in the partial or total loss of significance to an asset, including the setting, record and advance the understanding of that significance.
- 3.136 In order that the degree of impact of a development proposal can be fully assessed it is essential that the significance of heritage assets including their setting, is fully understood. A Heritage Assessment is therefore required for any development proposals which is likely to affect the significance of a heritage asset, including its setting. Where necessary, the Heritage Assessment should include a qualitative visual assessment to show how the proposal affects the heritage significance of its surroundings. Heritage Assessments will be needed for any proposals within or affecting; the historic core of a settlement; a Conservation Area; a Listed Building; a Scheduled Ancient Monument; a World Heritage Site or a Registered Park and Garden; a Registered Battlefield and all non-designated heritage assets.
- 3.137 The Historic Environment SPD also sets out the level of detail that should be provided in a Heritage Assessment. This will be in proportion to the significance of the heritage asset and the scale of any impacts upon it. For assets with archaeological interest this may include a desk-based assessment and where necessary, a field evaluation carried out by an appropriate professional. Such assessments should be carried out well in advance and must be submitted with the planning application.
- 3.138 Heritage assets are a finite, non-renewable resource and great care must therefore be taken when determining applications which result in a loss of significance, either partial or total. Proposals adversely affecting either the significance or setting of heritage assets will therefore be rejected unless the harm to the significance of the asset is outweighed by the public benefits of the proposal. In making this decision the significance of the asset, its level of importance, the degree of impact and opportunities for a viable beneficial use of the asset will be taken into account. Proposals which would result in harm, or a loss of significance, to a designated heritage asset, including the setting, will be determined in line with national policy.

- 3.139 Where the public benefits of a proposal are deemed to outweigh the loss of significance, measures to mitigate the loss will be required. These may include but are not limited to, design or landscaping measures (in accordance with MD2) and/or the use of appropriate building materials or construction methods. The submission of additional information relating to these for prior approval may sometimes be necessary. In addition, the preparation of a comprehensive record of the asset by a suitable qualified person, in a manner proportionate to the significance of the asset and the impact of the proposal, may be required. A copy of the final report should be deposited in the Shropshire Historic Environment Record within an agreed time period, where it will be made publically accessible. When required a report should also be published in an appropriate manner. Any resulting archive should be deposited with the Shropshire Museum Service, again within an agreed timescale. Further guidance on mitigating measures and the recording of heritage assets is provided within the Historic Environment SPD.
- 3.140 Shropshire has a rich diversity of heritage assets, which make an important contribution to the county's character and local distinctiveness. Development proposals offer valuable opportunities to enhance the historic environment, including by achieving the aspirations set out within the Place Plans. This may involve improving the condition of heritage assets and their settings, and/or enhancing or better revealing their significance, particularly for those assets recognised as being at risk. Proposals should also seek to increase the connectivity between assets to provide benefits to both the natural and historic environment in accordance with Policy CS17.

Key Evidence:

- Shropshire Hills AONB Management Plan 2009 2014 and subsequent updates;
- Shropshire Environmental Network Map and guidance;
- 3. Shropshire Historic Environment Record;
- 4. Shropshire Historic Landscape Characterisation;
- 5. Shropshire Historic Farmsteads Characterisation Project.
- 6. World Heritage Site Management Plans

APPENDIX 2

MATERIALS SCHEDULE



Material palette and finishes relating to remodel of existing dwelling

To include photographic examples of:

- 1. Brick walls
- 2. Timber cladding / fin detail
- 3. Render panel's adjacent windows
- 4. Windows including cills
- 5. Parapet coping
- 6. Garage door
- 7. Front door
- 8. Timber finish (relating to the items above)
- 9. Pleached trees planted inside staggered height front wall

Brick Walls:









Timber cladding / Fin detail:







Render panels and windows inc. cills:



Kingswood, Kingsland Road, Shrewsbury, SY3 7AF



Parapet coping:





Garage door:





Front door:







Timber finish – all visible timber:





Pleached trees:





Un-structured roadside planting





APPENDIX 3

SAP CALCULATIONS



Property Reference	Kingswood E	visting					Issued	on Date	16/0	3/2021
	001	-XISCIIIB			Dro	op Type Ref	133464	on Date	10/0	3/2021
Reference	001				FIG	op Type Kei				
	Kingswood,	Kingsland F	Road, Shrewsb	ury, SY3 7AF						
SAP Rating			67 D	DER		N/A	TER			N/A
Environmental			54 E	% DER <t< td=""><td>ER</td><td></td><td></td><td>N/A</td><td></td><td></td></t<>	ER			N/A		
CO ₂ Emissions (t/year)	9.16	DFEE		N/A	TFE	E		N/A		
General Requirements Compliance			N/A	% DFEE<	TFEE			N/A		
			ayfield Morris	on Limited, To	el: 0174	13 340 714,	Asse	essor ID	593	2-0001
	@mayfieldn	norrison.co	.uk							
Client										
SUMMARY FOR INPUT D	ATA FOR: Ex	isting Dwe	elling							
Orientation		North								
Property Tenure		Owner-occ	cupied							
Transaction Type		None of th	e above							
Terrain Type		Suburban								
1.0 Property Type		House, Det	tached							
2.0 Number of Storeys		2								
3.0 Date Built										
3.0 Property Age Band		D 1950-19	66							
4.0 Sheltered Sides		0								
5.0 Sunlight/Shade		Average or	runknown							
6.0 Measurements										
				Heat Loss Per			Floor Area	a Ave	rage Store	-
		(Ground Floor:	57.00 r			.00 m ²		2.40 n	
			1st Storey:	43.00 r			00 m²		2.60 n	n
7.0 Living Area		37.00			n	n²				
8.0 Thermal Mass Paramete	er	Simple cald	culation - Mediu	m						
Thermal Mass		250.00			k	J/m²K				
9.0 External Walls										
Description	Type						/alue Gro /m²K)	oss Area (m²)	Nett Area (m²)	
External Wall 1	Cavity Wal	l 				0	.55 2	248.60	209.45	
10.0 External Roofs										
Description	Type						/alue Gro /m²K)	oss Area (m²)	Nett Area (m²)	
Main roof External Plane Roof						• •	•	98.00	98.00	
Flat roof	External Fla	at Roof				0	.45	37.00	37.00	
11.0 Heat Loss Floors										
Description	Туре	Co	onstruction					-Value	Area	
Hart Law El 4	C 1=1	6.41.1					•	//m²K)	(m²)	
Heat Loss Floor 1	Ground Flo	or - Solid						0.59	135.00	







Front door	Data Source SAP table	Type Solid Door	Glazing		Glazing Gap	Argon Filled	G-value	Frame Type	Frame Factor	U Value (W/m²K) 3.00
Side door	SAP table	Half Glazed Door	Double Low-E	Hard 0.2	12 mm	No	0.72	Wood	0.70	2.60
Windows	SAP table	Window	Double Low-E		12 mm	No	0.72	Wood	0.70	2.20
13.0 Openings										
Name O	pening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang		ight Count m)	Area (m²)	Curtain Closed
N Sc	lid Door	[1] External Wall 1	North	Type	Natio	Overnang	(,	,	2.00	Closed
N W	indow	[1] External Wall 1	North	None	0.00				7.60	
S W	indow	[1] External Wall 1	South	None	0.00				16.00	
	indow	[1] External Wall 1	West	None	0.00				3.75	
	alf Glazed Door	[1] External Wall 1	East						1.80	
E W	indow	[1] External Wall 1	East	None	0.00				8.00	
14.0 Conservatory		None								
15.0 Draught Proofin	g	100				%				
16.0 Draught Lobby		No								
17.0 Thermal Bridgin	g	Default								
Y-value		0.150				W/m^2K				
18.0 Pressure Testing	3	No								
19.0 Mechanical Ven	tilation									
Summer Overhea	nting									
Mechanical Vent	_									
	ntilation System F	Present No								
20.0 Fans, Open Fire	olaces, Flues	MHS	SHS		Other	Total				
Number of Chimr	neys	0	0	,	0	0				
Number of open	•	0	0		1	1				
Number of intern						0				
	nittent fans					U				
Number of passiv	e vents					0				
Number of passiv Number of fluele	e vents									
Number of fluele	e vents ss gas fires	No				0				
Number of fluele	e vents ss gas fires	No				0				
Number of fluele	e vents ss gas fires	No				0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal	e vents ss gas fires					0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number	e vents ss gas fires estem of light fittings	20				0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number	e vents ss gas fires stem of light fittings of L.E.L. fittings	20				0 0				
21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number	e vents ss gas fires stem of light fittings of L.E.L. fittings	20				0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number Percentage of External	e vents ss gas fires stem of light fittings of L.E.L. fittings	20 0 0.00				0 0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number Percentage of External External light	e vents ss gas fires stem of light fittings of L.E.L. fittings f L.E.L. fittings	20 0 0.00				0 0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal	e vents ss gas fires stem of light fittings of L.E.L. fittings f L.E.L. fittings	20 0 0.00 No Standard				0 0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number Percentage of External External light 23.0 Electricity Tariff 24.0 Main Heating 1	e vents ss gas fires stem of light fittings of L.E.L. fittings f L.E.L. fittings s fitted	20 0 0.00 No Standard SAP table				%				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number Percentage o External External light 23.0 Electricity Tariff 24.0 Main Heating 1 Percentage of He	e vents ss gas fires stem of light fittings of L.E.L. fittings f L.E.L. fittings s fitted	20 0 0.00 No Standard SAP table 100				0 0				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal	e vents ss gas fires stem of light fittings of L.E.L. fittings f L.E.L. fittings s fitted	20 0 0.00 No Standard SAP table 100 BGB				%				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Total number Percentage o External External light 23.0 Electricity Tariff 24.0 Main Heating 1 Percentage of He	e vents ss gas fires stem of light fittings of L.E.L. fittings f L.E.L. fittings s fitted	20 0 0.00 No Standard SAP table 100				%				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal	e vents ss gas fires stem of light fittings of L.E.L. fittings s fitted	20 0 0.00 No Standard SAP table 100 BGB				%				
Number of fluele 21.0 Fixed Cooling Sy 22.0 Lighting Internal Total number Percentage o External External light 23.0 Electricity Tariff 24.0 Main Heating 1 Percentage of He Main Heating SAP Code	e vents ss gas fires stem of light fittings of L.E.L. fittings s fitted	20 0.00 No Standard SAP table 100 BGB 102 84.0	nmer, room th	ermostat	and TRVs	%				





Delayed Start Stat	No	7
Sap Code	2106	Ī
Flue Type	None or Unknown	Ī
Fan Assisted Flue	No	1
Is MHS Pumped	Pump in heated space	1
Heat Emitter	Radiators	Ī
Flow Temperature	Normal (> 45°C)]
25.0 Main Heating 2	None	
Community Heating	None	
27.0 Secondary Heating	RCJ	
Secondary Heating	SAP table	
Description	House Coal RCJ Open fire in grate	
SHS efficiency	32.00	%
SAP Code	631	
HETAS Approved System	No	
Smoke Control Area	Unknown	
28.0 Water Heating	HWP From main heating 1]
Water Heating	Main Heating 1	
Flue Gas Heat Recovery System	No	
Waste Water Heat Recovery	No	
Instantaneous System 1		_
Waste Water Heat Recovery Instantaneous System 2	No	
Waste Water Heat Recovery	No	
Storage System		_
Solar Panel	No	
Water use <= 125 litres/person/day	No	
SAP Code	901	
29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Foam	
Insulation Thickness	50 mm	
Cylinder Volume	200.00	L
Pipes insulation	First 1m from cylinder insulated	
31.0 Thermal Store	None	
Recommendations		

Lower cost measures

Typical Cost

Typical savings per year

Ratings after improvement SAP rating Environmenta

C 69

£100 £105

5

Environmental Impact D 55

Further measures to achieve even higher standards

Low energy lighting for all fixed outlets



Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r17



Typical Cost £4,000 - £6,000 Solar water heating

Typical Cost

Solar photovoltaic panels, 2.5 kWp £3,500 - £5,500 **Typical savings** per year £50 **Typical savings**

per year £338

Ratings after improvement

SAP rating **Environmental Impact**

C 70

Ratings after improvement

SAP rating **Environmental Impact**

C 75





Property Reference	Kingswood	Proposed				Iss	ued on Dat	e 16/03/2	021
Assessment	001			Prop Type Ro	ef				
Reference									
Property	Kingswood	, Kingsland Ro	ad, Shrewsb	ury, SY3 7AF					
SAP Rating			82 B	DER	N/A		TER	N/A	Δ
Environmental		81 B	% DER <ter< td=""><td></td><td></td><td>N/A</td><td></td><td></td></ter<>			N/A			
CO₂ Emissions (t/ye	4.95	DFEE	N/A		TFEE	N/A	4		
General Requireme	nts Compliance		N/A	% DFEE <tfee< td=""><td></td><td></td><td>N/A</td><td></td><td></td></tfee<>			N/A		
Assessor Details	Mr. Karl Webb karl@mayfield			on Limited, Tel: 0	1743 340 714	,	Assessor ID	5932-00	001
Client	Kari@iiiayiicia	11101113011.00.01							
SUMMARY FOR INP	UT DATA FOR: E	xisting Dwelli	ng						
Orientation		North			1				
Property Tenure		Owner-occup	ied		j				
Transaction Type		None of the a			j				
Terrain Type		Suburban]				
1.0 Property Type		House, Detac	hed						
2.0 Number of Storeys		2]				
3.0 Date Built									
3.0 Property Age Band		D 1950-1966							
4.0 Sheltered Sides		0							
5.0 Sunlight/Shade		Average or u	nknown]				
6.0 Measurements									
		Gr	ound Floor:	Heat Loss Perime		al Floor 51.30 m		erage Storey Ho	eight
		dit	1st Storey:	60.35 m		19.67 m		2.40 m	
7.0 Living Area		22.10			m²				
8.0 Thermal Mass Para			ation Madiu]				
Thermal Mass	imeter	Simple calculation 250.00	ation - Mediu	m] kJ/m²K				
		230.00							
9.0 External Walls Description	Туре					J-Value W/m²K)	Gross Area (m²)	Nett Area (m²)	
Existing upgraded	Cavity Wa	all			,	0.30	163.11	127.45	
New timber clad	Cavity W					0.26	64.20	46.90	
New - Brick	Cavity Wa	all				0.26	70.00	56.13	
10.0 External Roofs									
Description	Туре					J-Value W/m²K)	Gross Area (m²)	Nett Area (m²)	
External Roof 1	External I	Flat Roof			(0.17	161.30	158.90	
11.0 Heat Loss Floors									
Description	Туре	Cons	truction				U-Value (W/m²K)	Area (m²)	
Heat Loss Floor 1 New/ upgraded		loor - Solid loor - Solid					0.40 0.14	135.00 88.00	



12.0 Opening Types

Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r17



Description Doors	Data Source Manufacture		Glazing		Glazing Gap	Argon Filled	G-val	ue	Frame Type	Frame Factor	U Valu (W/m²l
20013	r	30110 2001									1.40
Windows	Manufacture r	Window	Double Low-E	Hard 0.2			0.72	2		0.70	1.40
Rooflight		Roof Window	Double Low-E	Hard 0.2			0.72	2		0.70	1.40
L3.0 Openings											
Name	Opening Type	Location	Orientation	Curtain Type	Overhang Ratio	Wide Overhang	Width (m)	Heigh (m)	t Count	Area (m²)	Curtair Closed
N	Window	[1] Existing upgraded	North	None	0.00					1.66	
N		[3] New - Brick	North							2.00	
N		[3] New - Brick	North	None	0.00					3.00	
N		[2] New timber clad	North	None	0.00					2.00	
S		[1] Existing upgraded	South	None	0.00					18.60	
S		[2] New timber clad	South	None	0.00					15.30	
S		[3] New - Brick	South	None	0.00					6.00	
E		[1] Existing upgraded	East	None	0.00					5.80	
E		[1] Existing upgraded	East		0.55					1.80	
E		[3] New - Brick	East	None	0.00					1.20	
W		[1] Existing upgraded	West	None	0.00					7.80	
W Rooflight		[3] New - Brick [1] External Roof 1	West Horizontal	None None	0.00					1.67 2.40	
L5.0 Draught Pro L6.0 Draught Lob		100 No				%					
17.0 Thermal Brid	dging	Default									
Y-value		0.150				W/m²K					
18.0 Pressure Tes	sting	Yes									
Designed AP₅	0					$m^3/(h.m^2)$	@ 50 Pa	а			
Property Test						, , ,					
As Built AP ₅₀	.cu :	5.00				m³/(h.m²)	@ 50 Pa	а			
19.0 Mechanical	Ventilation										
Summer Ove	rheating										
Mechanical V	/entilation										
Mechanica	al Ventilation System P	resent Yes									
Approved	I Installation	No									
	cal Ventilation data 1	Type Database			=						
Туре			cal extract ver	centralised	=						
	ence Number	500402				=					
Configura		5				=					
· ·		0.35				Ħ					
						=					
Duct Type Rigid Wet Rooms 5											



Number of Chimneys

Number of open flues

Number of intermittent fans

Number of flueless gas fires

Number of passive vents

Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r17

0

1

0

1

0

0

0

0

0

0

0



21.0 Fixed Cooling System	Yes	
Cooled Area	83.00	m²
Data Source	SAP table	
Cooling Type	Split or Multi-Split	
Energy Class	А	
System Control	Modulating	
22.0 Lighting		
Internal		
Total number of light fittings	20	
Total number of L.E.L. fittings	20	
Percentage of L.E.L. fittings	100.00	<u> </u>
External		
External lights fitted	No	
23.0 Electricity Tariff	Standard	
24.0 Main Heating 1	Database	
Percentage of Heat	100	%
Database Ref. No.	18627	
Fuel Type	Mains gas	
Main Heating	BGB	
SAP Code	102	
In Winter	90.7	
In Summer	80.0	
Controls	CBI Time and temperature zone control	
PCDF Controls	0	
Delayed Start Stat	Yes	
Sap Code	2110	
Flue Type	Balanced	
Fan Assisted Flue	Yes	
Is MHS Pumped	Pump in heated space	
Heat Emitter	Underfloor	
Underfloor Heating	Yes - Pipes in Wood	
Flow Temperature	Normal (> 45°C)	
	None	
25.0 Main Heating 2	None	
Community Heating	None	
27.0 Secondary Heating	RWM	
Secondary Heating	Manufacturer	
Description	Wood Logs RWM Closed room heater	
SHS efficiency	75.00	%
SAP Code	633	
HETAS Approved System	No	
Smoke Control Area	Unknown	\exists
Test Method	BS EN 1266	
Manufacturer	?	
ATTATION COLOR	·	





Model Name	?	
28.0 Water Heating	HWP From main heating 1	
Water Heating	Main Heating 1	
Flue Gas Heat Recovery System	No	
Waste Water Heat Recovery Instantaneous System 1	No	
Waste Water Heat Recovery Instantaneous System 2	No	
Waste Water Heat Recovery Storage System	No	
Solar Panel	No	
Water use <= 125 litres/person/day	No	
SAP Code	901	
29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	300.00	L
Loss	2.30	kWh/day
Pipes insulation	Fully insulated primary pipework	
31.0 Thermal Store	None	

Recommendations

Lower cost measures

Further measures to achieve even higher standards

Typical savings Ratings after improvement Typical Cost per year **SAP** rating Solar photovoltaic panels, 2.5 kWp £3,500 - £5,500 £338 B 86



Regs Region: England **Elmhurst Energy Systems** SAP2012 Calculator (Design System) version 4.14r17

Environmental Impact