

# PROPERTY SERVICES GROUP

Shirehall, Abbey Foregate, Shrewsbury SY2 6ND



**GREENACRES FARM  
SUPPORTED LIVING SCHEME  
FEASIBILITY STUDY REPORT  
June 2020**

**Property Services Group**  
Shirehall,  
Abbey Foregate  
Shrewsbury SY2 6ND



## **GREENACRES FARM**

**FENEMERE LANE, BASCHURCH SY4 2JA**

## **SUPPORTED LIVING SCHEME**

## **FEASIBILITY STUDY REPORT**

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**Date: June 2020**

## 1.0 **PROPOSALS**

- 1.1 This report contains a feasibility assessment of a proposal being put forward by Adult Services for a new build development to provide an 8-bed accommodation unit for adults with disabilities and learning difficulties. The scheme aims to facilitate independent living for service users and also supports Shropshire's Learning Disability Service Plan/Strategy (2018).

The residents of the unit may have very complex needs which can make finding suitable accommodation difficult. There is a shortage of such accommodation in Shropshire which leads to individuals being located in accommodation that does not always meet their needs. It is also can result in having to source it out of area and away from friends and family. This new facility in the county would reduce outsourcing and will also offer potential cost savings to the service.

The Greenacres Farm is a Shropshire Council owned site that provides day service support to adults with learning difficulties. Locating the supported living unit close to the farm would provide additional support and opportunities for the residents.

- 1.2 Discussions with officers within Adult Services have established a preliminary schedule of accommodation. The development should provide:

- 6 self-contained single bed apartments.
- 2 self-contained 2-bed apartments to accommodate sleep-in carers.
- A private garden space to each apartment.
- Disabled access to all apartments.
- A communal laundry area with 3no. washers and dryers.
- A communal courtyard space for recreation and exercise.
- Staff facilities with 2 bedrooms, shower, common room, etc.
- High levels of security (i.e. perimeter fencing & access control).
- Car parking for staff (up to 12) and visitors.
- External amenity areas for exercise, gardening, etc.

- 1.3 Adult Services have prepared a business case to demonstrate the benefits and savings the scheme could provide.

It is proposed that the development will be built and paid for by Shropshire Council and then leased to a Registered Provider who will act as landlord/housing provider to the residents. The development will be classed as 'affordable housing'.

- 1.4 To secure funding the proposal will be submitted to Shropshire Council Senior Programme Officer Group (SPOG), before progressing to the Capital Investment Board and finally full council.

This report provides an assessment of the suitability, advantages and disadvantages of the Greenacres Farm site for the scheme.

## **2.0 INSTRUCTIONS**

2.1 Following discussions between Adult Services and PSG in early 2020, approval was given to proceed with a feasibility study for the project (ref. Peter Allen email to Catherine Ivory-Smith 3 February 2020).

2.2 The scope of the feasibility study is summarised below (ref. Lucy Fletcher email to Catherine Ivory-Smith 24 January 2020):

- 1) Meeting between PSG and Adult Services to develop the scope of works
- 2) Site visits to assess suitability
- 3) Feedback meetings / discussions
- 4) Desk top studies in relation to land use and historic constraints
- 5) Consultation with planning
- 6) Checking land ownership and any restrictive covenants
- 7) Topographical survey of the site
- 8) Indicative building plan and elevations
- 9) Highway and access arrangements
- 10) Service constraints
- 11) Cost appraisal
- 12) Sustainable enhancements
- 13) Indicative delivery programme

Delivery of the study was agreed to be by the end of June 2020.

## **3.0 SITE APPRAISAL**

### **3.1 ECOLOGY**

3.1.1 A planning application for a development on this site must be accompanied by an 'Ecological Impact Assessment' (EclA) performed by a suitably qualified consultant.

An Ecological Impact Assessment should consist of:

- A desk study of historical species records and local, regional or national wildlife designated sites.
- An initial habitat survey to identify significant biodiversity or geological features including species, habitats, designated wildlife or geological sites
- Supplementary detailed surveys should protected or priority species be identified (e.g. Great Crested Newts, bats, badgers, etc.).
- Evaluation of the importance of biodiversity or geological features present.
- Analysis of the direct and indirect impacts of the development.
- Any losses or gains to priority habitat.
- Proposed avoidance, mitigation or compensation measures.
- Legal implications such as the need for European Protected Species Mitigation Licenses.
- Proposed biodiversity or geodiversity enhancement measures.

- 3.1.2 The first stage in the ECIA is a desk study and initial on-site habitat survey. This work has been commissioned, but the results are not available for this report.
- 3.1.3 Of particular concern is the presence of Great Crested Newts (GCN). These are an endangered species and are afforded high levels of protection by both UK and European law. The penalties for harming GCN or their habitat can be very high. Consequently, it is important to establish if they are present on any development site.

Great Crested Newts (GCN) were found on the Greenfield Farm site during the course of building work in 2018. It is highly likely that they are still present, but to confirm this sampling of ponds within 500m of the site is being performed. These initial tests will confirm the presence of GCN, and if positive, further testing and sampling will be required to estimate the size and distribution of the colony. These tests can only be carried out during specific times of the year and so this issue can affect project programme.

Should GCN be present it will be necessary to prepare reports, mitigation plans and Natural England License applications along with physical protection measures on site. These can all become very costly and depending upon the size of the site could run into tens of thousands of pounds.

The initial presence survey is underway and results are awaited.

- 3.1.4 The presence of other wildlife such as bats and badgers should also be expected on a rural site such as Greenacres. These too may affect the proposals and demand that some features are avoided (e.g. if a tree is used as a bat roost) or that other allowances are made.
- 3.1.5 While these factors complicate the use of the site for development they are not uncommon and can be managed. However, the cost and time implications should be underestimated by the project team.

## **3.2 HISTORIC ENVIRONMENT**

- 3.2.1 Records of archaeological sites, features, historic buildings, structures, etc. are held in Shropshire Council's Historic Environment Record (HER). Preliminary checks of the database do not show any features of archeological interest on the site.
- 3.2.2 Further enquiries have been made to Shropshire Council's Historic Environment Team to determine whether any further consideration or investigation should be made. Their comments are awaited.
- 3.2.3 Based on current information it is unlikely that the site has any historic features that will adversely affect the proposals.

### **3.3 FLOOD RISK**

- 3.3.1 The site is within an area designated by the Environment Agency as 'Flood Zone 1'. This is an area where there is a low probability of flooding.
- 3.3.2 Flood risk must be considered as part of a planning application. The site is larger than 1 hectare and developments of this size must have a full 'flood risk assessment'. This report will have to be prepared by a suitably qualified engineer. It will examine the risk of flooding on the site and the possible impact of the development on the flood risk to surrounding areas.
- 3.3.3 The flood risk assessment has not been commissioned yet. It is recommended that it is carried out should the project progress to the next funding stage.

### **3.4 GROUND INVESTIGATION**

- 3.4.1 Ground investigation will be needed to establish:
- The physical properties of the ground, load bearing capacity, soil type and variation
  - Drainage characteristics
- 3.4.2 The makeup of the soil will influence the design of the foundations of the building. The proposed development is for only a single-storey structure and traditional concrete strip footings may be adequate. However certain soil types may demand a different design is used such as a raft foundation.

As part of the investigation soil samples from across the site would be taken and subject to laboratory examination to accurately determine their properties. These will be used by the structural engineer when designing the foundations.

- 3.4.3 A 'percolation test' will be required to determine how well the soil will absorb water. This data is used to inform the design of soakaways on site. Some clay soil types do not absorb water well and managing storm water from the site can be more difficult.
- 3.4.4 The ground investigation works have not been commissioned yet. It is recommended they be carried out should the project progress to the next funding stage.

### **3.5 HIGHWAY AND ACCESS ARRANGEMENTS**

- 3.5.1 Enquiries have been made to Shropshire Council Highways to determine their views on the implications of the development.
- 3.5.2 Their comments will affect the location of the site access, design of visibility splays, etc. No significant obstacles are expected. Their comments are awaited.

### **3.6 TOPOGRAPHICAL SURVEY OF THE SITE**

- 3.6.1 A detailed topographical survey of the site will be required to inform more detailed design of the proposals. It has not been needed for work to date, but will be necessary should the project proceed.

### **3.7 LAND OWNERSHIP AND RESTRICTIVE COVENANTS**

- 3.7.1 Shropshire Council Estates department have confirmed that the site is entirely owned by Shropshire council.
- 3.7.2 They have also confirmed that no easements are known to exist over the site.

### **4.0 PLANNING CONSULTATION**

- 4.1 Preliminary discussions have already been held between Adult Services and officers from Shropshire's Development Control.

The proposals do not comply with Policy CS5 of the Shropshire Core Strategy. This policy clearly states that unencumbered new build dwellings in the open countryside will not be supported. The development would have to be a departure from the local plan.

- 4.2 A case is being prepared to justify the development on these grounds:
- The dwellings would be affordable housing.
  - The residents would benefit from the support of the Greenacres Farm service.
  - There is a shortage of similar suitable accommodation in Shropshire.
  - Savings to Shropshire tax payers by avoiding sourcing accommodation out of county.
- 4.3 Adult Services will continue to develop a case for the development. Comment and support will need to be sought from the local member, parish council and wider local community.

### **5.0 INDICATIVE BUILDING PLANS**

- 5.1 PSG have investigated the options offered by the site and developed initial proposals to conform with the requirements of the client as discussed at Project Board meetings.
- 5.2 The proposals are more detailed than strictly necessary for a feasibility study, but will be useful to promote feedback and discussion to assist with development of the scheme.

- 5.3 For details see attached drawings (Appendix 1):
- 106-010-000-A-001 Location Plan
  - 106-010-000-A-002 Site Plan Overview
  - 106-010-000-A-004 Floor Plan
  - 106-010-000-A-005 Site Layout Options

## 6.0 **SERVICES**

### 6.1 Electricity Supply

The mains distribution runs down the road to a pole transformer which feeds the buildings (ex. chicken farm) behind the site. This has a 3-phase supply to it which could supply the development, however the transformer would probably need to be changed to a larger capacity unit for the additional load, especially since each apartment has its own cooking facility.

An application has been submitted to SP Energy Networks to establish the cost.

### 6.2 Foul Drainage

There is no public sewer and the distance and flatness of the ground across to the existing Greenacres site precludes connection of a foul drain because it would entail a pumping station, the cost of which is better spent on a local solution such as a bio-disc type treatment plant.

### 6.3 Storm Drainage

Mains storm drainage is not available.

Surface water will go to a soakaway, pending ground investigation and drainage design.

### 6.4 Water

There is no mains water supply in Fenemere Lane. The supply to Greenacres Farm and other nearby properties is all from a private supply that is already under-sized. It would not be adequate to also supply the new development.

The best solution is a new water supply taken from the mains supply in the Merrington Road some 800m away. There will be a significant cost to provide this connection.

### 6.5 Domestic Hot Water

A 'green' energy efficient solution would be central generation using heat from a 45kW air-to-water electrically powered 'heat pump' with pre-heating from a roof mounted solar thermal panel. This hot water would be circulated via a flow and return system around all the residences. A calorifier storage tank would also contain an immersion heater to "top-up" the temperature to achieve the 60°C necessary for circulation.

## 6.6 Space Heating

This can also be provided from the same heat pump that provided the hot water. It would be designed to cope with an external temperature of -5°C as CIBSE guidance with an electrical back up if required.

## 6.7 Cooling & Ventilation

Owing to the low occupation density and domestic nature, ventilation would be by trickle vents and openable windows for purge ventilation. Mechanical ventilation would only be provided to the kitchenettes and the bath/shower rooms and toilets.

## 7.0 SUSTAINABILITY

7.1 The project will have to comply with Shropshire Council's Sustainable Construction Policy. The cost of the development will exceed £1M and under the terms of the policy the project will have to undergo a BREEAM (Building Research Establishment Environmental Assessment Method) assessment.

The assessment will study the sustainability credentials of the project and will take into account a number of different factors including land use, ecology, building efficiency, access, along with many other criteria.

The policy states that a rating of 'excellent' should be achieved. This is a high standard and will require a genuine commitment from all members of the project team.

7.2 To further align with the Council's zero-carbon agenda a 'Passivhaus' approach could be taken with the project. This methodology is more focused on the design and construction of the building. It relies on good planning to take advantage of solar gain, very high levels of insulation, extreme attention to detail to restrict air loss and very efficient M&E services. Renewable energy systems such as photovoltaic cells to generate electricity, solar thermal systems to pre-heat water and electric 'heat pumps' would, in all likelihood, also be employed.

The result would be a property with very low running costs and excellent air quality.

7.3 The BREEAM process should assist the project in meeting the Council's requirements in terms of climate change and reaching a carbon neutral stance by 2030. PSG propose to aspiring to meet the Passivhaus standards, but as a minimum will be aiming for a BREEAM rating of Excellent with an EPC (energy performance certificate) rating of B and enhanced thermal performance with a 10% increase in the U value under the Building Regulations.

7.4 The cost and effort necessary to enhance the sustainability of the project will be significant, but the results will be of benefit to the service users, the Council and the wider community

## **8.0 COST ESTIMATE & PROCUREMENT**

8.1 £ 3,125,669.40 excl. VAT, (incl. all professional fees, planning and building regulations fees, BREEAM and Passivhaus uplift, etc.)  
See attached estimate (Appendix 2) for full details and exclusions

8.2 The scheme will be procured by competitive tender through Property Services Groups (PSG) current contractor framework using a JCT form of contract.

Either a 'traditional' (full in-house design) or 'design and build' (some design input by the contractor) approach could be taken. This will be subject to further discussion.

## **9.0 MAINTENANCE AND PROGRAMMED MAINTENANCE**

9.1 Like any property the site will need a budget to cover maintenance cost for wear and tear, breakdowns, and damage, both accidental and deliberate. There will also be on-going servicing costs for mechanical systems, fire alarms, electrical equipment, etc.

9.2 In the first few years the costs should be relatively low, but will increase over time. PSG would suggest a working figure of £5,000 per annum is allowed.

## **10.0 PROGRAMME**

10.1 Draft programme dates are suggested as below. These dates are considered realistic, but they are dependent on a number of factors including ecology issues, receipt of instructions to proceed, planning permission, meeting stage sign off dates, utilities suppliers, successful 'in budget' tender returns, etc.

10.2	• Feasibility Report & estimate	June 2020
	• SPOG meeting	9 July 2020
	• Capital Investment Board	22 July 2020
	• PSG topographic surveys	August 2021
	• Full Council meeting	24 September 2020
	• PSG appointment & consultation	October 2020
	• Scheme plans sign off by:	December 2020
	• Planning application submitted:	January 2020
	• Planning permission granted by:	March 2021(10 weeks)
	• Invitation to tender:	April 2021
	• tender return:	May 2021
	• tender reported:	May 2021
	• appoint contractor:	June 2021
	• Contractor mobilisation & design	June – August 2021 (10 weeks)
	• start on site:	August 2021
	• practical completion by:	May 2022 (10 months on site)

## **11.0 FURTHER SITE INVESTIGATION**

11.1 Should the project proceed to the next stage the following will be required to further inform and develop the scheme design:

### **11.2 Ecology**

- Assess results of GCN survey and take advice on next steps.
- Assess results of initial ECIA survey.
- Commission further ecology works as necessary.

Cost: TBC.

### **11.3 Flood Risk**

- Proceed with flood risk assessment.

Cost: approx. £1,500 + VAT

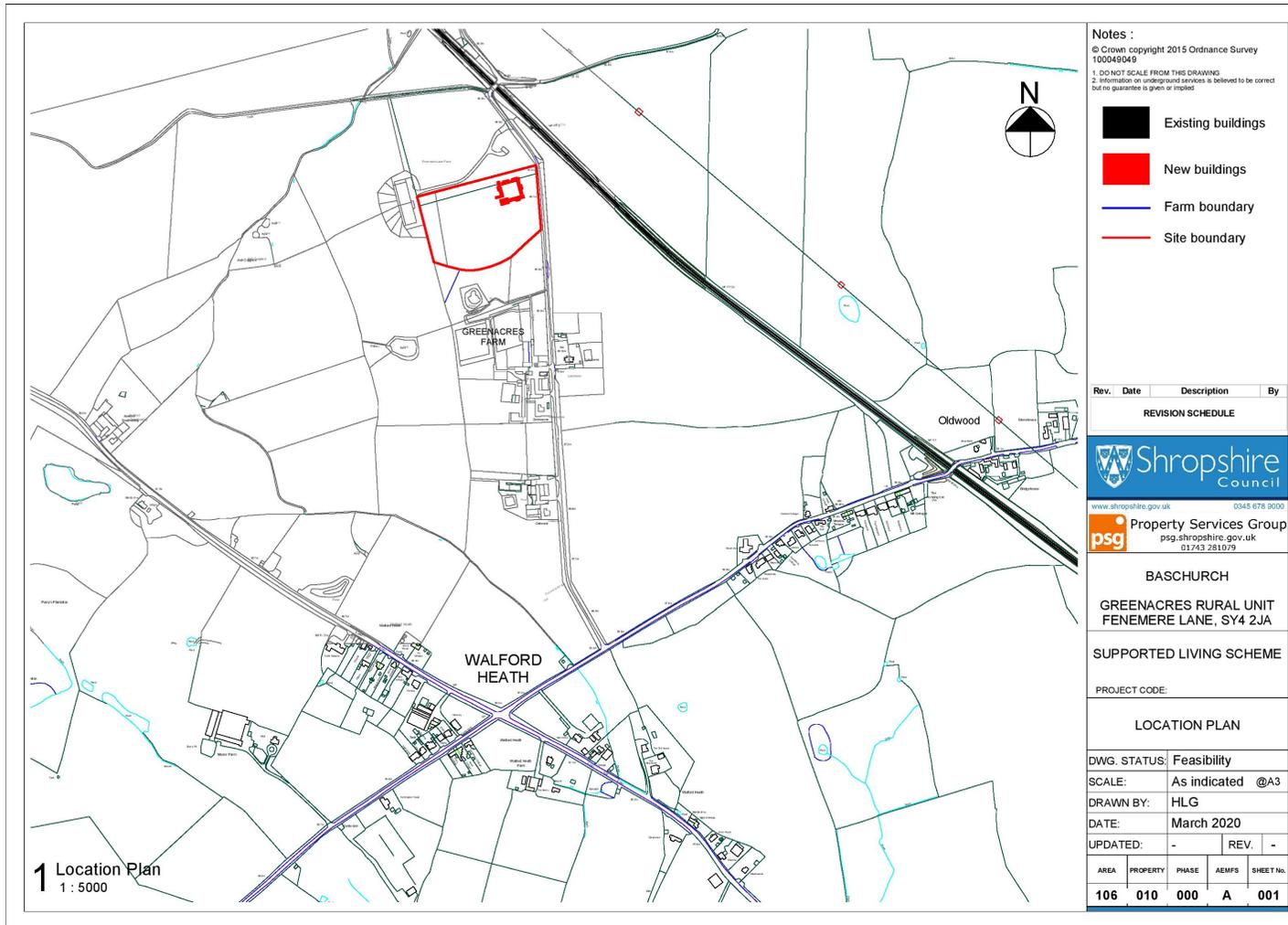
### **11.4 Ground Investigation**

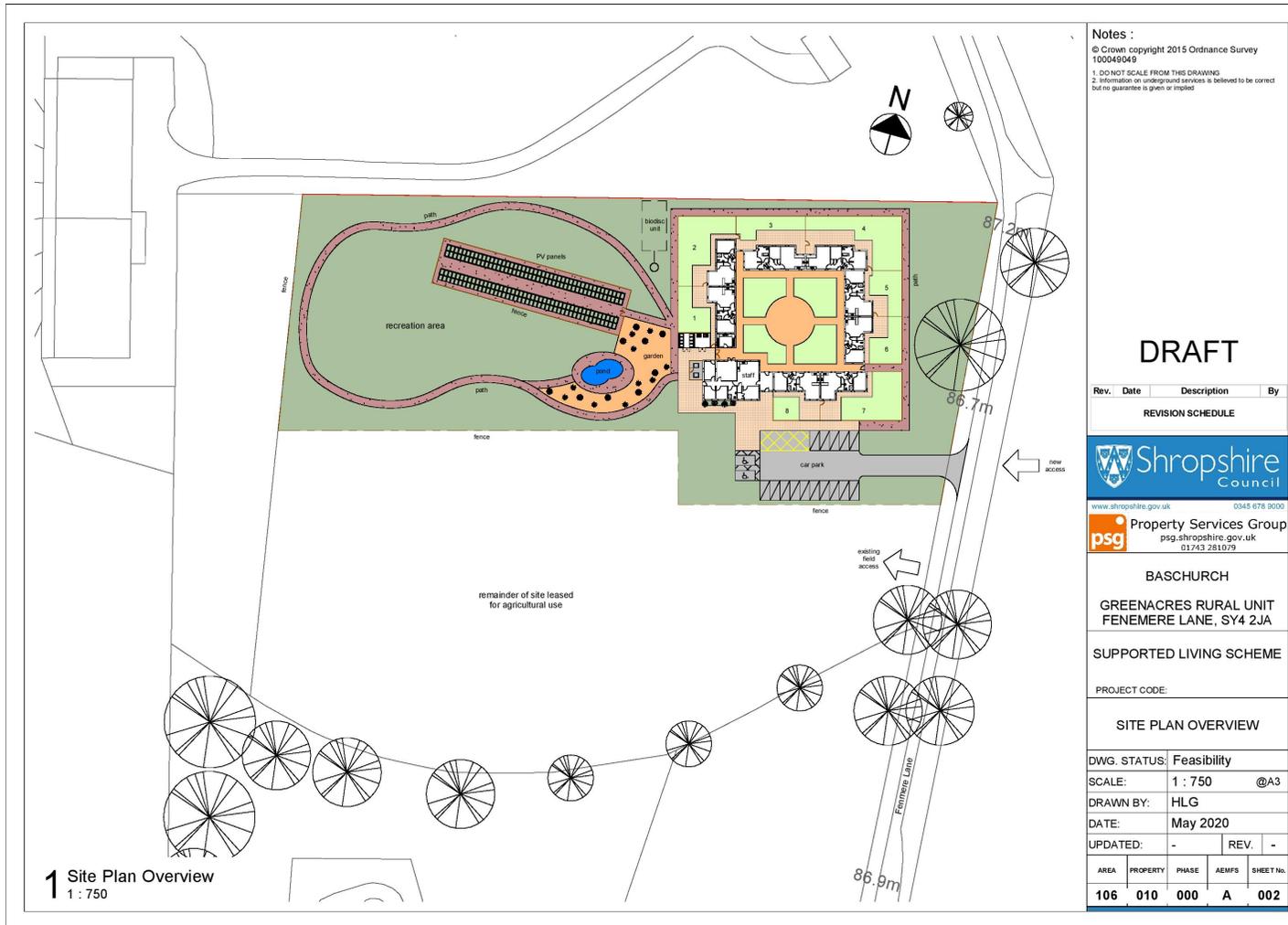
- Proceed with soil sampling and percolation tests.

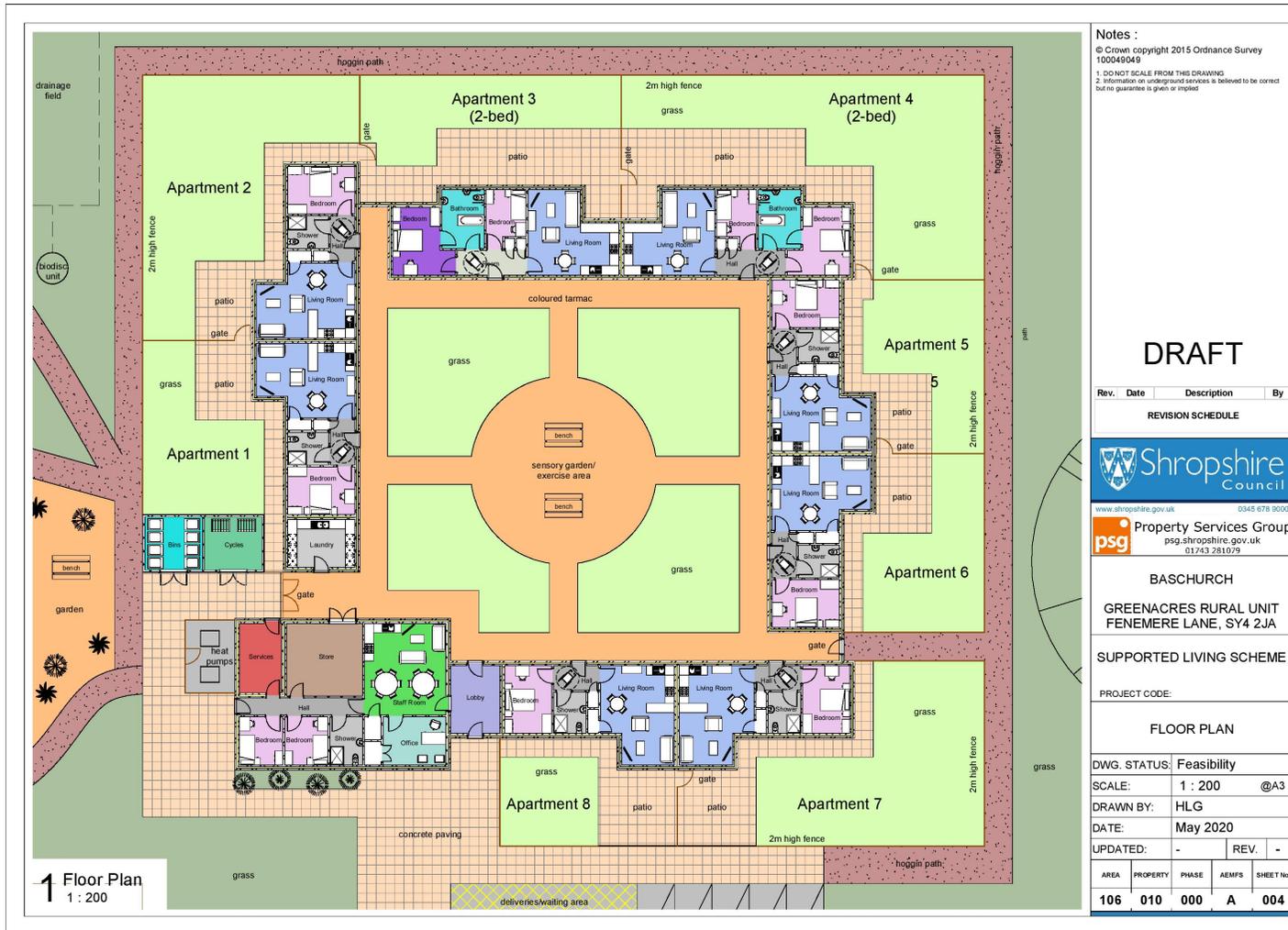
Cost: £2,955 + VAT

## **APPENDIX 1: DRAWINGS**

- 106-010-000-A-001 Location Plan
- 106-010-000-A-002 Site Plan Overview
- 106-010-000-A-004 Floor Plan
- 106-010-000-A-005 Site Layout Options









## **APPENDIX 2: COST ESTIMATE**



**Feasibility Estimate**

**Greenacres - Supported Living Scheme**

**June 2020**

**GREENACRES SUPPORTED LIVING**  
**FEASIBILITY COST - JUNE 2020**

**Introduction**

PSG have been requested to produce a Feasibility Budget for an updated scheme. Located at Greenacres Farm, Shropshire

The purpose of this report is to provide an estimate of cost for the proposed construction of a new standalone Supported Living located at Greenacres Farm, Shropshire.

The proposed development comprises the construction of a 6 one bedroom apartments, 2 two bedroom apartments, staff area with 2 bedrooms and associated common areas and external works.

**Feasibility Cost Summary**

	£	£ / m <sup>2</sup>
New Build	1,182,315.00	1,587.00
External Works	315,985.00	424.14
Drainage	220,000.00	295.30
Services	338,100.00	453.83
<b>Total Build Cost: (Exc Prelims, Contingencies, Design Fees &amp; VAT)</b>	<b>2,056,400.00</b>	<b>2,760.27</b>
Preliminaries @ 10%	205,640.00	276.03
Contingencies @ 5%	102,820.00	138.01
<b>Total Construction Cost (Exc Fees):</b>	<b>2,364,860.00</b>	<b>3,174.31</b>
PSG Professional Fees	212,837.40	285.69
Planning Fees	20,000.00	26.85
Building Regulation fees	10,000.00	13.42
Utility survey fees, GI etc	10,000.00	13.42
BREEAM Cost uplift @5%	118,243.00	158.72
Passivehaus cost uplift @15%	354,729.00	476.15
Ecology Surveys	10,000.00	13.42
Great Crested Newts	25,000.00	33.56
<b>Total Feasibility Cost (Exc VAT)</b>	<b>3,125,669.40</b>	<b>4,195.53</b>

The above initial feasibility costs (based on a gross floor area of 745m<sup>2</sup>) equated to:-

Cost per square meter ( Total build cost only)	£2,760.27/m <sup>2</sup>
Cost per square meter ( Construction Cost)	£3,174.31/m <sup>2</sup>
Cost per square meter (Feasibility Budget Cost)	£4,195.53/m <sup>2</sup>

## **GREENACRES SUPPORTED LIVING**

### **FEASIBILITY COST - JUNE 2020**

#### **Basis of Report**

##### **1.0 Information Used/ Assumptions**

- 1.1 Harvey Gould Areas sent by e-mail totalling 743m<sup>2</sup>
- 1.2 The work will be undertaken in a single continuous uninterrupted operation (i.e. without the need for the works to be phased).
- 1.3 The Contractor's working areas will be vacant when he is undertaking the works.
- 1.4 The proposed works will be competitively tendered.
- 1.5 A provisional allowance of £80,000 has been included for photovoltaic panels located on the
- 1.6 A provisional allowance of £80,000 has been included for a new sewerage treatment plant
- 1.7 A provisional allowance of £35,000 has been included for a new mains water connection
- 1.8 The specification assumes that that building will achieve a BREEAM rating of 'Excellent'.

##### **2.0 Inclusions**

The following items are included in this estimate of costs:

- 2.1 PSG Design, Project Management, Quantity Surveyor, M&E Engineer and Principal Designer Fees
- 2.2 BREEAM Consultant Fees included in BREEAM uplift
- 2.3 A percentage cost to achieve the following:- BREEAM Excellent 5% uplift allowed, Passivehaus 15% uplift

##### **3.0 Exclusions**

- 3.1 Allowance for increased costs beyond the date of this report.
- 3.2 Removal of any contaminated material off site
- 3.3 Abnormal ground conditions
- 3.4 Diversion of any existing foul and storm water drains and flood alleviation works and services
- 3.5 Gas Connection charges
- 3.6 Ecological works (anything extra over the Newts)
- 3.7 Alterations to the existing drainage
- 3.8 Alterations to the existing Electrical Supply
- 3.9 Land purchase costs and associated acquisition/legal costs
- 3.10 VAT
- 3.11 Inflation (increase in building costs) past 4Q2021
- 3.12 Diversion of any existing foul and storm water drains and flood alleviation works
- 3.13 Internal and external CCTV
- 3.14 Works to neighbouring properties/boundary wall/rights of way/easement agreements
- 3.15 Any legal fees
- 3.16 Any marketing costs
- 3.17 Any extensive Acoustic requirements
- 3.18 Archaeology survey and impact on the programme of any finds
- 3.19 Obstructions in the ground
- 3.20 Temporary works and approvals
- 3.21 Excavating through rock
- 3.22 Ground improvement works

**GREENACRES SUPPORTED LIVING**

**FEASIBILITY COST - JUNE 2020**

**3.0 Exclusions (Cont'd)**

- 3.23 Ground water - dewatering and pumping
- 3.24 Section 104, 106 and 278 design and applications/payments
- 3.25 Highway improvement works
- 3.26 Secure by Design
- 3.27 Design and access statements and transport and traffic reports
- 3.28 Any infrastructure works (roads, drainage, main services etc) outside the boundary of the site
- 3.29 Enhanced specifications to comply with any onerous Planning Conditions.