ST MARY’S PARISH CHURCH, ALLITHWAITE

DESIGN AND ACCESS STATEMENT

APPLICANTS: RUSSELL ARMER LIMITED

APPLICATION FOR PLANNING AND LISTED BUILDING CONSENT FOR AN EXTENSION TO CHURCHYARD AND PROVISION OF FOOTPATH WITH BOUNDARY TREATMENTS

OUR REF: CNG/492/CSL

DATE: 28th NOVEMBER 2018

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1. DESIGN PRINCIPLES

1.1 For the change of use to the churchyard and the To provide boundary treatments that are suitable in the local context.

2. STEPS TAKEN TO APPRAISE THE CONTEXT

2.1 Site visit.

3. POLICY ADOPTED AS TO ACCESS

3.1 To provide the opportunity of an alternative pedestrian access from existing and proposed dwellings to the north.

4. CONSULTATION

4.1 Discussions have been held with the planning authority who have indicated that the churchyard extension should be dealt with as a separate planning application. The possibility of a possibility of creating a pedestrian link has been discussed with the planning authority to link to the adjoining proposed residential development.

5. ISSUES WHICH MIGHT AFFECT ACCESS TO THE DEVELOPMENT

5.1 There are no issues in this regard regarding the extension to the churchyard.

5.2 For a pedestrian link to have any purpose planning consent will need to be granted for the adjoining proposed residential development.
ST MARY’S PARISH CHURCH, ALLITHWAITE

HERITAGE STATEMENT

APPLICANTS: RUSSELL ARMER LIMITED

APPLICATION FOR PLANNING AND LISTED BUILDING CONSENT FOR AN EXTENSION TO CHURCHYARD AND PROVISION OF FOOTPATH WITH BOUNDARY TREATMENTS

OUR REF: CNG/492/CSL

DATE: 26th NOVEMBER 2018

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1. INTRODUCTION

1.1 The Heritage Statement has been prepared on behalf of Russell Armer Limited and forms part of a planning and listed building consent for an extension to the churchyard and footpath to school at the Church of St Mary, Allithwaite.

1.2 The application is partly a change of use and partly operational works in providing a footpath with a new wall, metal railings and gates.

1.3 There are two Grade II listed buildings to the south/south east of the application site and the proposed works would partly be within the curtilage of the Church of St Mary.

1.4 A separate application has been submitted for 23 dwellings on adjoining land to the north.

2. SITE LOCATION AND DESCRIPTION

2.1 The village of Allithwaite is located 3.4km from the main shopping area in Grange over Sands and 3.5km from the centre of Flookburgh.

2.2 The site forms part of an open field which is to form an extension to the Church’s grounds and partly existing Church grounds. A footpath is to be provided to enable a pedestrian link between the adjoining proposed residential development and the School.

3. LEGISLATION

4.1 The Planning (Listed Buildings and Conservation Areas) Act 1990, with regard to listed buildings, requires local planning authorities to have special regard to the desirability or preserving the building or its setting or any features of special architectural or historic interest which it possesses (Section 66).

4. POLICY CONTEXT

4.1 Core Strategy policy CS8.6 Historic environment indicates support for safeguarding and, where possible, enhancing historic environment assets, including their characteristic settings.

4.2 The National Planning Policy Framework (NPPF) (July 2018) indicates applicants should “189...describe the significance of any heritage assets affected, including any contribution made to 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...”

4.3 “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 ...”
4.4 Annex 2: Glossary provides a definition of the Setting of a heritage asset as:
“The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.”

4.5 The Glossary also provides a definition of “Significance (for heritage policy) as:
“The value of a heritage asset to this and future generations because of its heritage interest. The interest may be archaeological, architectural, artistic, or historic. Significance derives not only form a heritage asset’s physical presence, but also from its setting....”

5. SIGNIFICANCE OF HERITAGE ASSETS

5.1 There are two Grade II listed buildings to the south east of the application site – the Church of St Mary and Allithwaite Church of England Primary School Old School House.

5.2 Church of St Mary is described in Historic England’s List Entry Summary as follows:

LOWER ALLITHWAITE CHURCH ROAD SD 37 NE (West side) Allithwaite 5/65 Church of St Mary 25.3.70 G.V. II Church. 1865. By E.G. Paley. Rock-faced limestone with sandstone ashlar dressings and slate roofs. Nave, gabled south aisle, chancel and north vestry and organ loft. Sill courses, coped gables and diagonal buttresses. South aisle of 5 bays has 2 weathered buttresses and 2-light single-chamfered- mullioned plate tracery windows with hoodmoulds and decorative stops. Gabled porch has arch with corbelled shafts and gable cross; return quatrefoils. West and east ends have similar windows. Nave has west end breaking forward with diagonal buttresses; 2 lancets with sexfoil above are flanked by large buttresses supporting bell turret on segmental pointed arch, with weathered sides and top octagonal turret with quatrefoil openings, short spire with lucarnes and cross. North side has no sill course and no hoodmoulds to windows. 2-bay chancel has 3-light double-chamfered plate tracery east window and gable cross, cross also to nave gable. South side has 2-light windows as aisle; north side has similar 2-light window, no sill course. Vestry and organ loft of 2 gabled bays has west and east entrances and single-chamfered- mullioned straight-headed windows. Interior: 5-bay arcade has round piers and continuous hoodmould with head stops. Roof has arch braced collars and king posts. Plain square font on squat octagonal shaft with large capital. Chancel arch on paired short corbelled shafts. Chancel roof has paired arch braces to rafters. Pulpit boldly carved, with corbelled triangular arches. Late Cl9 stalls, reredos and altar rail probably by Paley and Austin, tracery panels and turned balusters; similar organ case. Sedilia and cupboard recess with tracery heads. Aisle has altar with rail similar to that in chancel.

5.3 Allithwaite Church of England Primary School Old School is described in Historic England’s List Entry Summary as follows:

LOWER ALLITHWAITE CHURCH ROAD SD 37 NE (West side) Allithwaite 5/66
Allithwaite C of E Primary School and Old School House G.V. II School and house. Probably 1860s, by E.G. Paley. Rock-faced stone with ashlar dressings and slate roofs; south facade of house roughcast. School of one storey and 3 bays, the 1st bay
recessed and lower, the house of 2 storeys and one bay. South facade has C20 extension to 1st bay; 2nd and 3rd bays have windows of 3 pointed lights and single-chamfered mullions, lateral stack with weathering and round shaft between. Gable end stack to 1st bay, bellcote to 2nd bay gable end; roof ventilator. House has 1st floor sill course. 1:2:1-light canted bay window with hipped stone roof and shouldered lintels; 1st floor has 2-light pointed window with blind tympanum. Lean-to re-entrant porch has 2-light window to return and pointed entrance with hoodmould and head stops. Left return has 3-light plate tracery window with hoodmould and headstops, and small-paned glazing. Right return has window of 2 lights to each floor, wing to rear has rainwater head. 2 cross-axial stacks. North facade has gabled wing to house, which has sashed windows with single glazing bars and flush relieving arches. Narrow bay to right has hipped roof, paired narrow sashes to ground floor and 1st floor casement. School has entrance and windows as to south but retaining original small-paned glazing; long C20 extension to end bay. Rear coped wall to yards to house and school interrupted by outbuilding with single-pitch roof.

6. ASSESSMENT

6.1 The application is partly simply a change of use so this can have no impact on the setting of the listed buildings. There will be a footpath, new wall, metal railings and metal gates. These works are considered to have but would have no detrimental impact on the listed buildings.

7. CONCLUSION

7.1 As Planning Practice Guidance indicates, substantial harm is a high test and does not arise in many cases. There are no works proposed to the listed buildings themselves. It is considered that there is no harm to the assets significance.
GREEN LANE –
ST MARY’S SCHOOL
ALLITHWAITE

Pre-development Arboricultural Report

Prepared for:
Russell Armer Ltd

On:
09 November 2018

By:
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HND (Urb.For.), RFS (Cert.Arb.), M.Arb.A.

Treeescapes Consultancy Ltd.

Reference No. AH/AILA/311018.2
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1 INTRODUCTION

1.1 Instruction
Russell Armer Ltd instructed Treescapes Consultancy to inspect a tree at St Marys Church, Allithwaite, Cumbria. The instruction includes providing a pre-development report on the arboricultural impacts of the development proposals.

We have compiled this report in accordance with the British Standard: BS 5837, *Trees in relation to design, demolition and construction – Recommendations* (2012) and where necessary, followed this guidance when suggesting solutions to implement the proposals.

1.2 Qualifications and Experience
We have based this report on our site observations and the information provided, and reached our conclusions in light of our experience. Appendix 1 lists details of our arboricultural experience and qualifications.

1.3 Documents and Provided Information
Russell Armer Ltd provided me with a topographic survey (Ref. No. JAUc) for the existing site layout and a plan of the proposed site layout (Ref. No. 16032 P201).

1.4 Development Proposal
The proposal is to create a linking footpath between the proposed residential development on the land to the west and St Mary’s School.

Plan 1 shows the existing site layout and Plan 2 shows the proposed site layout.

1.5 Report Limitations
This report:
- is only concerned with assessing the condition of the tree on the site affected by the development proposals;
- does not take account of whether the trees could affect the soil in the area and cause tree related subsidence damage;
- is based on the documents provided and the information collected during the site visit;
- contains recommendations concerning work that should be carried out to responsibly manage the risks posed to and by the trees, and where necessary, reduce those risks to an acceptable level. However, even after carrying out the recommended work, there is a risk failure could still occur, especially during extreme weather conditions and/or if there are major hidden defects;
- does not take into account the possibility of extreme weather events;
- cannot account for future outbreaks of pests or diseases;
- does not take into account mechanical operations carried out in the vicinity of the trees which could affect their health and stability; and
- does not contain data collected with technical decay detection equipment.
2 SITE VISIT AND OBSERVATIONS

2.1 Site Visit
We carried out a site visit on 31 October 2018. Our observations of the trees were from ground level, without detailed investigations and we estimated all dimensions unless otherwise indicated. We inspected the trees outside the site boundary in the same way as trees on the site. The weather during my survey was clear, dry, and still, with good visibility.

2.2 Tree Identification and Location
Plans 1, 2 and 3 show the locations of the significant trees on the site and on adjacent properties. Russell Armer Ltd have based their plans on a topographic survey carried out by Spatial Data Ltd. We have plotted the tree location using the Church as a datum.

These plans are for illustrative purposes only and not for directly scaling measurements. All the relevant information on the trees is contained within this report.

2.3 Tree Observations
I surveyed the trees and groups visually and recorded information on their species, dimensions, and condition, and made recommendations for any remedial actions.

Appendix 5 contains the schedule of the trees and groups.

3 REFERENCES, PLANNING POLICY AND GUIDANCE

3.1 National Policy
Section 197 in the Town and Country Planning Act 1990 makes it the duty of local planning authorities, ‘in the interests of amenity,’ to protect trees, when granting planning permission, by imposing conditions or serving Tree Preservation Orders (TPOs). Planning Policy Statements (PPS) also provide guidance on the acceptability of proposed development.

The British Standard: BS 5837, Trees in relation to design, demolition and construction – Recommendations (2012) contains guidance on how to assess trees in or close to proposed development sites and what information to include in a pre-development arboricultural report for submission with a planning application. Appendix 2 contains relevant extracts from BS 5837 (2012).

3.3 South Lakeland Local Plan 2006:
Policy C11 – Tree Preservation Orders
‘Development proposals which may cause significant damage or destruction to a tree or woodland protected by a Tree Preservation Order will only be permitted where:
(a) no alternative site is available;
(b) there is an overriding need for the proposal which outweighs the need to preserve the tree or woodland;
(c) mitigating measures are available to minimize damage and secure worthwhile replacement planting’
4 TREE CONSTRAINTS

4.1 Tree Retention Category – BS 5837 (2012)

Using the guidance given in Table 1 of BS 5837 (2012), we have assessed the quality of the trees for retention and recorded the results in the schedule at Appendix 5. Appendix 3 contains a copy of Table 1 from BS 5837 (2012).

The following colour scheme represents the tree retention categories on the Plans:

- **Red**: Retention Category U – Those trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
- **Green**: Retention Category A – Trees of high quality with an estimated remaining life expectancy of at least 40 years
- **Blue**: Retention Category B – Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
- **Grey**: Retention Category C – Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm

In the local area and in the wider environment, a large number of trees contribute to the landscape character of the area. This report does not have the capacity to discuss this treescape at length – it only includes those trees on or immediately adjacent to the site.

We surveyed 1 tree and a boundary hedgerow and assessed:

- 0 as Category A;
- 0 as Category B;
- 1 as Category C; and
- 0 as Category U

The trees assessed as categories A and B are of moderate to high quality and therefore should be considered a constraint to development. The low and poor quality trees in categories C and U should not constrain development.

4.2 Tree Constraints – Above Ground

Plan 1 shows the existing site layout, the locations of the trees and their crowns. If retained, tree canopies are the vertical constraints to development. Pruning in accordance with good arboricultural practice can sometimes provide adequate clearance to implement the development proposals.

4.3 Tree Constraints – Below Ground

Plan 1 also shows the root protection areas (RPAs) of the trees. This is the minimum area of soil required by the roots to maintain healthy growth and is a development constraint. In some locations, altering this area is necessary to reflect the topography of the site and the adjacent land.

Root damage is often not visible from the surface and can create safety issues with tree stability. Damaged roots and compacted soil can restrict the amount of moisture and nutrients available to the tree and possibly lead to a premature decline in tree health.
5 ARBORICULTURAL IMPACT ASSESSMENT

5.1 Above Ground – Tree Trunk and Crown Structure
Plan 2 shows the proposed layout, the locations of the trees and their crowns.
Part of the hedgerow is growing within the footprint of the proposed footpath.
The crown of the tree overhangs the footpath. Pruning in accordance with best practice can adequately provide sufficient clearance for footpath users.

5.2 Below Ground – The Roots and Soil
Plan 2 also shows the root protection areas (RPAs) and their proximity to the proposed layout.
The proposed footpath transects the calculated RPA for the tree. Following the guidance in BS 5837 (2012), using suitable ground protection measures we can effectively retain this tree as part of the proposed development.
Constructing the development without due regard to the RPAs of the retained trees could have a detrimental effect on their health and longevity.

5.3 Site Levels
Significant ground level alterations within the RPA of retained trees can detrimentally affect their health and longevity.

5.4 Site Access
Vehicles and plant equipment operating or parking on unprotected soil within the tree’s RPAs could compact and/or contaminate the soil. This could have a detrimental effect on the health and longevity of the trees. Vehicle movements under tree crowns could cause physical damage to trunks and/or branches, possibly creating a safety hazard.

5.5 Storage of Materials and Equipment
Storing equipment and materials close to trees increases the likelihood of physical damage to trunks and branches. Fuel spillages and cement-mixer washings are detrimental to the soil and root systems. Storage of materials and plant equipment should be on existing hard-standing areas, ideally outside the RPAs. If there is no alternative, adequately protect any nearby trees and protect the soil to minimise any harmful impacts.

5.6 Activity under Trees
Activity under tree crowns, such as mixing cement, storing equipment, plant and materials, or lighting fires, may damage tree branches or stems, or could compact or pollute the soil.
6  RECOMMENDATIONS

6.1 General Precautions
The following general precautions should ensure the health and longevity of the trees. We suggest enforcing these general precautions within the RPAs during the construction phase and in locations where new trees are to be established:

- As little as possible soil disturbance, including compaction
- No change in the soil level, by stripping or filling, except as agreed with the project Arboricultural Consultant
- No excavation, without prior discussion with the Arboricultural Consultant and/or the Local Planning Authority
- As little as possible redirection of surface water runoff into or out of the RPAs
- No temporary buildings, sheds, or offices, without prior discussion with the Arboricultural Consultant and/or the Local Planning Authority
- No storage of materials or fuel
- No dumping of materials, whether into a skip or onto the ground
- No fires within 10m of the RPA or tree canopy, whichever is greater
- No vehicles, including parking
- No operation of plant equipment, without prior discussion with the Arboricultural Consultant and/or the Local Planning Authority
- No refuelling of mechanical equipment
- No storage or mixing of cement
- No washing of cement mixers within or uphill of the RPA
- Follow the guidance contained within the Street Works UK Volume 4 (Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees (Issue 2, 2007); www.streetworks.org.uk) when installing underground services within the RPA of a tree.

6.2 Tree Work Recommended for Construction
Appendix 6 contains a schedule of the recommended tree work.

6.2.1 Felling
Currently, to implement the proposals, the tree does not require removal.

6.2.2 Pruning
Currently, to implement the proposals, I recommend pruning the branches overhanging the proposed footpath to create a clearance of 2-2.5m.

Some further pruning work might be required if conflicting branches become evident as the construction work progresses.

6.2.3 Implementing the Tree Work
We recommend using a suitably qualified, competent, experienced, and insured contractor to carry out the tree work. The contractor should carry out their work in accordance with current industry safety standards and the recommendations contained in the British Standard – BS 3998, *Tree work – Recommendations* (2010) – as modified by research that is more recent.
Where necessary, we can organise prospective contractors to submit tenders for the proposed tree work. We can also provide a supervisory role to ensure the works comply with current safety standards and BS 3998 (2010) and current best practice.

6.3 Design and Construction Considerations

The construction process and site operations can adversely affect trees in many ways. Consequently, all members of the design team will need to be aware of the tree protection requirements and make provision for them throughout the development process. To avoid unnecessary damage to the retained trees during the construction process, we recommend involving the project arboriculturist during the architectural, engineering and landscape design processes.

6.4 Tree Protection Fencing – Construction Exclusion Zone

Erect protective fencing along the line of the construction exclusion zone (CEZ) shown in Plan 3. This will prevent construction activity that could cause damage close to the retained trees. No plant equipment or vehicles should operate within the protective fencing without suitable ground protection and authorisation.

The fencing must be robust enough to withstand impacts from machinery and plant equipment operating in the area. In areas where lighter plant and machinery (typically <2t) are operating, we recommend using either:

- 2 m tall welded mesh panels on rubber or concrete feet joined together using a least two anti-tamper couplers, installed so that they can only be removed from inside the fence. Support the panels on the inner side with stabilizer struts, secured with ground pins. Where the fencing is erected on hard surfacing or it is otherwise unfeasible to use ground pins, mount the stabilizer struts onto a block tray;
- wooden posts (Ø75-100mm x 1.8m) driven securely into the ground (300-500mm) every 2m, with top and bottom wooden rails (2m x 25mm x 100mm) attached securely to the posts to create a rigid structure and chestnut paling fencing (1.25-1.5m high) attached securely to the rails every 300-400mm; or, if ground conditions dictate, metal road-pins (1.2m) securely driven into the ground (200-300mm) at 2m centres, supporting orange mesh barrier fencing (1m high) securely attached to the pins using strong cable ties (4.8mm x 300mm).

In areas where large machinery and construction traffic (typically >2t) will operate, we advise using the fencing detailed in Appendix 7, the default specification recommended in BS 5837 (2012).

The protective fencing should be erected prior to any other development activity taking place and remain in place for the duration of the construction phase.

We recommend that suitable members of the project team, including the main contractor, engineer and arboricultural consultant, should prepare a definitive Tree Protection Plan showing the locations of temporary and permanent tree protection measures to be installed during the construction phase and prepare a method statement for their installation.

6.5 Footpath Construction

Protect the areas either side of the proposed footpath from construction debris and soil disturbance. Where the footpath crosses the RPA of the Rowan tree, manually excavate the turf layer (50-75mm). Backfill with MOT Type 1 sub-base aggregate and compact. Finish with a tarmac top dressing.
7 LEGAL CONSIDERATIONS

7.1 Protected Trees
I have not made enquiries with the Local Planning Authority (LPA) to establish if statutory regulations protect any of the trees on this site.

Where a Tree Preservation Order protects these trees, or they are located in a conservation area, or protected by planning conditions, it will be necessary to obtain permission from the LPA before carrying out any work. Certain exemptions require five days notification to the LPA apart from in extremely dangerous circumstances.

Full planning consent allows the minimum work required to implement the development proposals to be carried out to protected trees.

7.2 Wildlife Conservation Legislation
Most birds’ nests have legal protection while in use; also, bats and their roosts have legal protection whether in use or not. Tree surgeons should be aware of their duties under the legislation to protect wildlife and should carry out their site assessment and work accordingly. If you suspect bats use the area, consult English Nature.

The Forestry Commission produce a useful leaflet called: Woodland Management for Bats. This document is available to download from www.forestry.gov.uk/forestry/INFD-6K3CXY (viewed 09/11/18).

Page 14 of this publication states:

‘The Wildlife and Countryside Act 1981 makes it an offence to disturb, damage or destroy bats or their roosts (even if bats are not present in the roost at the time of any incident). The Act applies in both England and Wales, and requires consultations with the appropriate Statutory Nature Conservation Organisation [English Nature or The Countryside Council for Wales] before carrying out activities which might harm or disturb bats or their roosts (even if unoccupied).’

‘The Act is amended by the Countryside and Rights of Way Act 2000 in England and Wales. This adds ‘reckless’ to the offence of damaging or destroying a place a bat uses for shelter or rest, or disturbing a bat while using a roost. Under EU Regulations damaging or destroying a breeding site or resting place is an absolute offence, regardless of whether the act of doing so may be considered reckless or deliberate.’

7.3 Neighbouring Trees
We understand that under common law branches from trees on adjacent properties that extend over boundaries, and roots that extend under them, can be pruned back to the boundary line without the permission of the owner. However, the material belongs to the tree owner and the same guidance on statutory controls apply as discussed above. We also understand that people who carry out work to trees growing in neighbouring properties may be held liable for harm caused if they subsequently fail due to the work.

Owners of trees growing in adjacent properties have a duty, in so far as is possible, to prevent them causing harm.

We suggest contacting a legal advisor to confirm your rights and responsibilities concerning trees and neighbouring properties.
8 CONCLUSIONS

Based on the above discussions, and provided all the technical recommendations in this report are followed, I consider the proposed development can be carried out in accordance with the guidance in the British Standard: BS 5837, *Trees in relation to design, demolition and construction – Recommendations* (2012), with a minimal impact on the retained trees.

I recommend involving the project arboriculturist during the architectural, engineering and landscape design processes to minimise the impact on the retained trees.

Alistair Hearn  HND(Urb.For.), Cert.Arb.(RFS), M.Arbor.A.

9 REFERENCES


BS 5837:2012, *Trees in relation to design, demolition and construction - Recommendations*

BS 3998:2010, *Tree work - Recommendations*
Native Species Hedge C

1x Rowan C1

NOTES:
This is a colour drawing. Black and white reproductions might be difficult to interpret.

Treescapes Consultancy plotted the location of the tree with a laser rangefinder using the adjacent building as a datum. We are not qualified land surveyors so cannot guarantee the positioning accuracy. Check all dimensions on site.

Plan 1 - Tree constraints plan showing the existing site layout
Extended site reprofiled to suit existing levels in churchyard[topsoiled and grass seeded

Native Species Hedge

1x Rowan

C1

Root protection area (RPA) line calculated in accordance with Section 4.6.1 of BS 5837 (2012).
Where necessary the circle is altered to take into account adjacent barriers that are likely to restrict root growth.

Tree location and approximate crown spread, labelled with reference number and retention category.

High Quality Trees
Green = Category A
Blue = Category B

Low Quality Trees
Grey = Category C
Red = Category U

Legend

NOTES:
This is a colour drawing. Black and white reproductions might be difficult to interpret.

Treescapes Consultancy plotted the location of the tree with a laser rangefinder using the adjacent building as a datum. We are not qualified land surveyors so cannot guarantee the positioning accuracy. Check all dimensions on site.

Plan 2 - Tree constraints plan showing the proposed site layout
**FOOTPATH CONSTRUCTION**

Protect the areas either side of the proposed footpath from construction debris and soil disturbance. Where the footpath crosses the RPA of the Rowan tree, manually excavate the turf layer (50-75mm). Backfill with MOT Type 1 sub-base aggregate and compact. Finish with a tarmac top dressing.

**Tree location and approximate crown spread, labelled with Reference number and retention category.**

- **High Quality Trees**
  - Green = Category A
  - Blue = Category B
- **Low Quality Trees**
  - Grey = Category C
  - Red = Category U

**Construction exclusion zone (CEZ). Line of protective fencing**

**Trees proposed for removal to facilitate the proposed development**

**NOTES:**

This is a colour drawing. Black and white reproductions might be difficult to interpret.

Treescapes Consultancy plotted the location of the tree with a laser rangefinder using the adjacent building as a datum. We are not qualified land surveyors so cannot guarantee the positioning accuracy. Check all dimensions on site.

**Plan 3 - Tree protection plan showing the proposed site layout**
Appendix 1

Alistair Hearn – Experience and Qualifications

QUALIFICATIONS

- In 2001, the Royal Forestry Society awarded Alistair the Certificate in Arboriculture, from the National School of Forestry at Newton Rigg, Penrith.
- In 2004, Alistair passed a Higher National Diploma in Urban Forestry, from the National School of Forestry at Newton Rigg, Penrith.
- In 2005, Alistair became a Professional Member of the Arboricultural Association.

PRACTICAL EXPERIENCE

Alistair has been working and studying within the field of arboriculture for over 20 years, first as a tree surgeon and latterly in an advisory capacity. Until July 2004, Alistair worked within the practical field of arboriculture, carrying out tree surgery for local and national clients. Since August 2004, Alistair has been working as an arboricultural consultant with Capita Symonds Ltd. This work involved various large-scale tree condition and safety surveys, along with carrying out detailed tree inspections. More recently, he concentrated on trees in relation to construction and the planning system. This involved providing the relevant tree surveys, implication assessments and protection plans for development applications. Alistair also provided Salford City Council with advice on tree preservation orders, trees in conservation areas and trees in development applications. While acting as an arboricultural consultant he has been involved with a number of commissions covering a variety of different aspects of arboriculture:

- surveying and making safety recommendations for trees on school sites in Cumbria;
- putting tree work out to tender and managing the resulting contracts;
- evaluating tree quality on development sites, assessing the impacts of development proposals on those trees to be retained, making recommendations, advising on protection methods, and outlining mitigation measures; and
- involved with carrying out a ‘drive-by’ scoping survey of 2500 miles of highway for Lancashire County Council

CONTINUING PROFESSIONAL DEVELOPMENT

Alistair Hearn attends conferences, seminars and workshops run by forestry and arboricultural organisations, colleges and universities.

RELEVANT EXPERIENCE

Alistair Hearn has spent many years working with trees, some of which he considers to pose a high level of risk. This has informed his decision making process for judging how much risk the trees pose and the remedial work required to make a tree safe.

MEMBERSHIP OF PROFESSIONAL ORGANISATIONS

In addition to being a Professional Member of the Arboricultural Association, Alistair Hearn is a member of the Royal Forestry Society of England, Wales, and Northern Ireland.
Appendix 2


TREE CATEGORISATION

The trees have been categorised as recommended in Section 4.5, Tree categorization method and Table 1 of the standard (BS 5837, 2012). A copy of Table 1 is included as Appendix 3.

TREE CONSTRAINTS

Section 5 of BS 5837 recommends producing a tree constraints plan (TCP) showing the trees and an area around them referred to as the root protection area (RPA). The RPA is a calculated area of soil sufficient to provide enough water and nutrients for the tree to remain in a healthy condition. The RPA is equal to the area of a circle with a radius 12 times the diameter of the trunk measured 1.5m above the ground. Alternatively, for multi-stemmed trees with more than five stems, the RPA is equal to the area of a circle with a radius equal to 12 times their mean trunk diameter measured at 1.5m above the ground level.

In Section 5.2.3, the Standard states:

‘The following factors should also be taken into account during the design process:

a) the presence of tree preservation orders, conservation areas or other regulatory protection;

b) potential incompatibilities between the layout and trees proposed for retention;

c) the working and access space needed for the construction of the proposed development;

NOTE This might involve access facilitation pruning, or the use of a height restriction bar to prohibit tall vehicles accessing a site containing trees with low canopies.

d) the effect that construction requirements might have on the amenity value of trees, both on and near the site, including the effects of pruning to facilitate access and working space;

e) the requirement to protect the overhanging canopies of trees where they could be damaged by machinery, vehicles, barriers or scaffolding, where it will be necessary to increase the extent of the tree protection barriers to contain the canopy;

f) infrastructure requirements in relation to trees, e.g. easements for underground or above-ground apparatus; highway safety and visibility splays; and other infrastructural provisions, such as substations, refuse stores, lighting, signage, solar collectors, satellite dishes and CCTV sightlines;

g) the proposed end use of the space adjacent to retained trees;

h) the potential for new planting to provide mitigation for any losses.’

TREE PROTECTION

The RPA forms the basis for a construction exclusion zone (CEZ) and requires protection during the development by means of barriers and/or ground protection fit for ensuring the successful long-term retention of the trees. Section 6.2.1.1 of the standard states:

‘All trees that are being retained on site should be protected by barriers and/or ground protection (see 5.5) before any materials or machinery are brought onto the site, and before any demolition, development or stripping of soil commences. Where all activity can be excluded from the RPA, vertical barriers should be erected to create a construction exclusion zone. Where, due to site..."
constraints, construction activity cannot be fully or permanently excluded in this manner from all or part of a tree’s RPA, appropriate ground protection should be installed.’

**TREE PROTECTION FENCES**

With regard to barriers erected to protect the retained trees, Section 6.2.2.1 of the standard states:

‘Barriers should be fit for the purpose of excluding construction activity and appropriate to the degree and proximity of work taking place around the retained tree(s). Barriers should be maintained to ensure that they remain rigid and complete.’

In addition, Section 6.2.2.2 states:

‘The default specification should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in Figure 2. The vertical tubes should be spaced at a maximum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed. Care should be exercised when locating the vertical poles to avoid underground services and, in the case of the bracing poles, also to avoid contact with structural roots. If the presence of underground services precludes the use of driven poles, an alternative specification should be prepared in conjunction with the project arboriculturist that provides an equal level of protection. Such alternatives could include the attachment of the panels to a free-standing scaffold support framework.’

Appendix 7 of this report is a diagram of a tree protection barrier based default specification shown in BS 5837 (2012).
Appendix 3

Extracts from the British Standard: BS 5837, *Trees in Relation to Design, Demolition and Construction – Recommendations* (2012): Table 1 – Cascade Chart for Tree Quality Assessment

### TREES UNSUITABLE FOR RETENTION (see Note)

<table>
<thead>
<tr>
<th>Category</th>
<th>Definition</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years</td>
<td>- Trees that have a serious, irredeemable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NOTE</strong>: Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7 below.</td>
</tr>
</tbody>
</table>

### TREES TO BE CONSIDERED FOR RETENTION

<table>
<thead>
<tr>
<th>Category and Definition</th>
<th>1. Mainly arboricultural qualities</th>
<th>2. Mainly landscape qualities</th>
<th>3. Mainly cultural values, including conservation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category A</td>
<td>Trees of high quality with an estimated remaining life expectancy of at least 40 years, or where the special quality necessary to merit the category A designation</td>
<td>Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features</td>
<td>Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)</td>
</tr>
<tr>
<td>Category B</td>
<td>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years, or where the special quality necessary to merit the category A designation</td>
<td>Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality</td>
<td>Trees with material conservation or other cultural value</td>
</tr>
<tr>
<td>Category C</td>
<td>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm, or unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories</td>
<td>Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits</td>
<td>Trees with no material conservation or other cultural value</td>
</tr>
</tbody>
</table>

BS 5837 (2012) Section 4.5.7 states:

‘Where trees would otherwise be categorized as U, but have identifiable conservation, heritage or landscape value, even though only for the short term, they may be upgraded, although they might be suitable for retention only where issues concerning their safety can be appropriately managed.’
Appendix 4

Data Schedule and Remedial Action Explanatory Notes

- **Mathematical abbreviations:** < = Less than, & > = Greater than, & ~ = Estimated
- **Compass Bearing:** N = north; NE = north-east; E = east; SE = south-east; S = south; SW = south-west W = west; NW = north-west.
- **ID No.:** This is the number used to identify the trees or groups on the plans and correlates to the ID No. in the Tree Data Schedule and Tree Works Schedule.
- **Species:** Common English name of what the tree appeared to be, based on observations at the time.
- **Trunk Ø:** The diameter of the trunk at 1.5m above ground level and recorded in centimetres measured with a diameter tape. If, for whatever reason, the height was measured at a different height above the ground, that height will be mentioned. If the diameter has been estimated an ‘E’ or ‘Est’ will appear in the column. For multiple stemmed trees, each significant stem diameter is recorded.
- **Height:** The height of the tree in metres, is measured with either; a Suunto clinometer; a Trupulse 200b, or Trupulse 360b laser rangefinder.
- **Crown Radius:** These measurements are taken at or some of the eight cardinal points of the compass. Measurements are in metres and if estimated an ‘E’ or ‘Est’ will appear in the column.
- **Health:**
  - Normal Vitality = normal growth and twig extension;
  - Moderate Vitality = reduced twig extension, but other than that few signs of ill-health;
  - Early Decline = reduced twig extension and some dead twigs in the outer canopy;
  - Mid-Decline = small internodes, the canopy may be thinning and contain dead twigs and/or branches in the outer canopy, older branch wounds that have not occluded may be decaying and forming cavities;
  - Severe Decline = sparse crown, numerous dead twigs and branches in the outer canopy, older branch wounds likely to be decaying and forming cavities;
  - Dead.
- **Age Class:** Assessed as either:
  - Sapling or newly established = recently planted; not fully established; a size that could be transplanted;
  - Semi-mature = prior to seed bearing age; establishing; usually good vigour; limited significance in the landscape;
  - Early Mature = early maturity, established; not fully grown but of seed bearing age; may have achieved mature height; normally vigorous; increasing landscape significance
  - Mature = fully established and fully grown, generally retaining good vigour and achieving full height but the crown is still spreading;
  - Old Mature = fully mature trees in last quarter of their usual life-expectancy; old for the species; vigour declining;
  - Ancient = exceptionally old for the species, possibly low vigour and in decline; the crown could be retrenching; likely to provide an important habitat; may include important Veteran Trees.
- **Defect & Observations:** The location, type, and detailed description of the defect. Information could include size, direction, or location etc.
  - Defect Significance. A subjective assessment of a combination of the likelihood of failure occurring. The defect is categorised as either: Minor, of little significance; Moderate, of some significance; or Major, a major defect that could cause failure at any time.
- **Recommended Remedial Actions:** This is a description of recommended work.
- **Work Priority:**
  - High priority – carry out this work as soon as possible;
  - Medium priority – this work does not need carrying out straight away, but these trees have significant defects and should be inspected every two years and after strong winds. If you decide not to carry out this work straight away, I recommend provision is made in future budgets to have it carried out at a later date.
  - Low priority – this work does not need carrying out straight away, but these trees have notable defects that could develop over time. I therefore recommend inspecting these trees every two years and after strong winds.
- **Work Category:**
  - Category 1 work is necessary to manage the risks posed by the trees.
  - Category 2 work is recommended to establish high levels of arboricultural and silvicultural management and not to abate safety concerns.
- **BS 5837 Retention category:** The retention category assessed using the guidance in the Tree Categorisation Table in BS 5837 (2012) in the Appendix.
  - U) (Red on plan) Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
  - A) (Green on plan) Trees of high quality with an estimated remaining life expectancy of at least 40 years
  - B) (Blue on plan) Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
  - C) (Grey on plan) Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm
- **RPA Radius:** The radius of a circular root protection area (RPA) in metres as specified using the guidance contained in BS 5837 (2012). For multi-stemmed trees, the mean diameter is calculated before calculating the RPA.
- **RPA Area:** The area of the root protection area (RPA) in square metres as specified using the guidance contained in BS 5837 (2012). For multi-stemmed trees, the mean diameter is calculated before calculating the RPA.
### Appendix 5

**Tree Data Schedule**

<table>
<thead>
<tr>
<th>ID</th>
<th>Feature</th>
<th>Species</th>
<th>Trunk Ø (cm)</th>
<th>Height (m)</th>
<th>First Branch (m)</th>
<th>First Branch Dimension Estimated</th>
<th>First Branch Direction</th>
<th>Low Crown Height Dimension(s) Estimated</th>
<th>Low Crown Height N (m)</th>
<th>Low Crown Height E (m)</th>
<th>Low Crown Height S (m)</th>
<th>Low Crown Height W (m)</th>
<th>Crown Dimension(s) Estimated</th>
<th>Crown N (m)</th>
<th>Crown E (m)</th>
<th>Crown S (m)</th>
<th>Crown SW (m)</th>
<th>Crown NW (m)</th>
<th>Crown W (m)</th>
<th>Crown NE (m)</th>
<th>Crown SE (m)</th>
<th>Health</th>
<th>Age Class</th>
<th>Observations &amp; Defects</th>
<th>Life Expectancy</th>
<th>Recommended Work</th>
<th>Comments</th>
<th>Retention Category</th>
<th>RPA Radius (m)</th>
<th>RPA (m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tree</td>
<td>Ix Rowsan</td>
<td>43c m @ 1.5 m</td>
<td>9.6</td>
<td>Y 2</td>
<td>NW</td>
<td>Y</td>
<td>1</td>
<td>N 8</td>
<td>6</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td>6</td>
<td>Normal Vitality</td>
<td>Mature</td>
<td>• Crown is weight biased To NE - [Significance=Observation]</td>
<td>&gt;40 years</td>
<td>• Crown raise to create a 2-2.5m clearance over the proposed footpath. - [Priority=1] If permission is granted; Category=2</td>
<td>Tree in Church/School yard</td>
<td>C1</td>
<td>5.1</td>
<td>84</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Green Lane – St Mary’s Church – Pre-development Arboricultural Report
Prepared for Russell Armer Ltd
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Ref: AH/AIA/311018.2
09/11/2018
### Appendix 6

**Tree Works Schedule**

<table>
<thead>
<tr>
<th>ID</th>
<th>Feature</th>
<th>Species</th>
<th>Recommended Work</th>
<th>Retention Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tree</td>
<td>1x Rowan</td>
<td>• Crown raise to create a 2-2.5m clearance over the proposed footpath. -[Priority=If permission is granted; Category=2]</td>
<td>C1</td>
</tr>
</tbody>
</table>

|  |  |  |  |  |
Appendix 7


TEMPORARY GROUND PROTECTION

PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.

Side butted scaffold boards
100-150mm compressible layer eg. woodchip, etc
Geotextile material
Sharp sand used to form a level surface on top of the undisturbed ground level
Undisturbed existing ground level

NOTES: ONLY FOR PEDESTRIANS AND TRACKED MACHINERY UNDER 2 TONNES
ONLY USE SHARP SAND TO LEVEL UNEVEN GROUND

Wire mesh panels (Heras style) or similar are to be securely fixed to the framework with clamps or wire

Scaffold or timber vertical supporting posts are to be robust and driven into the ground
Scaffold or timber supporting struts are to be robust and well braced to resist impacts
Scaffold or timber horizontal framework posts are to be securely fixed to the vertical posts

Existing ground level

TREE PROTECTION BARRIER

Extent of the root protection area

Appendix 7

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