PLANNING SUPPORT STATEMENT

New 2FE Primary School
At
Radstone Fields Developed, Brackley, Northamptonshire
For
Northamptonshire County Council (c/o Lend Lease)
Prepared by
Peter Haddon and Partners Architects
July 2014

- First Issue 23/07/2014
- Second Issue 10/09/2014
- Third Issue 18/11/2014
- Fourth Issue 10/01/2014
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1. Introduction

1.1 This statement has been prepared by pHp Architects in support of a detailed planning application as the Agent of Northamptonshire County Council (NCC) (the Applicant) for the development of a 2 Form Entry Primary School and associated facilities on the Radstone Fields housing development. As the time of this report being issued a more accurate site address has not been created.

1.2 The site consists of land within the Radstone Fields housing development and will be a key building within the estate where outline planning consent has already been given for a primary school of this size. An earlier outline consent (application S/2010/0995/MAO) gave approval for existing trees, hedges and other key details to be managed or removed from site prior to the full application for the school being submitted. Construction of the housing development is currently in progress around the outside of the proposed site.

1.3 The development of the site will deliver approximately 45 (new) jobs for teaching and support staff, including cleaners, caterers and admin staff.

The Applicant

1.4 NCC is the Applicant and is responsible for providing education within the county of Northamptonshire, in which Brackley is located. pHp Architects from Milton Malsor, Northamptonshire are the Agent to NCC for this proposal.

The Determining Authority

1.5 NCC Planning Department (the Local Planning Authority or LPA) is the determining authority for this application. South Northamptonshire Borough Council (SNBC) planning officers have been consulted during the early design stage and assisted with a pre-application consultation for the scheme.

1.6 The content and requirements for the planning application has been developed and agreed with the LPA. This Planning Statement is part of a set of documents submitted and should be read in conjunction with these other parts.

The submitted documents include:

i) Application Form
ii) Statement of Educational Need (within the Planning Statement)
iii) Design and Access Statement
iv) Statement of Community Engagement (within the Planning Statement)
v) Framework Travel Plan (within the Planning Statement)
vi) Outline Planning Arbocultural survey
vii) Outline Planning Flood Risk Assessment

The submitted drawings include:

i) Existing Site Plan
ii) Proposed Site Plan
iii) Proposed Building Plans, Ground, First and Roof Levels
iv) Proposed Sections  
v) Proposed Elevations  
vi) Proposed perspective views  
vii) External Lighting location and type plans  
viii) External lighting levels plan

1.7 With the agreement of the LPA we refer your attention to the earlier outline application number S/2010/0995/MAO and documents contained within that application within this Full Application for the site. This only occurs where items have already been approved in full in relation to the overall Radstone Fields housing site for items including highways, flood risk, surface water drainage etc. When these references have been made, they are only done for items which are already approved and do need further investigations but more information may be sought.

1.8 A Pre-Application Consultation was conducted prior to the submission of this application with SNBC. Consultations have also taken place with the highways department, the environment agency regarding flood risk and the LPA.
2. Site Context

2.1 The site is a stretched letter ‘L’ shape and measures 1.13 Ha.

2.2 The site for the proposed school is an existing green-field site to the north of the town of Brackley, Northamptonshire.

2.3 The proposed site consists of land currently belonging to two developers: Taylor Wimpey and Barratt homes. The current anticipated hand-over of the site to Northamptonshire County Council is in September 2015. At the point of hand-over the site will have been cleared of vegetation, re-levelled and graded under the approval of the planning application for the over-all development and subsequent conditions. We ask that this application be considered from that point in time and not based on the site’s current condition; prior to any of the works to the school taking place, all works to the primary highways, archaeology, primary surface water drainage pipework and any works affecting flora or fauna on the school site will have been completed and are therefore not featured as part of this application, but are referred to in this document for clarity.

2.4 The site falls from the north-west to south-east across the site by approximately 6m in elevation.

2.5 There is to be a community centre and public park neighbouring the school with residential housing on all other edges.

2.6 There are new roads on the south-west and south-east side. The primary road to the south-west will have a site frontage of 98m. The secondary road to the south-east of the site will have a frontage of 76m.

2.7 The school is to be positioned along one edge of the public park as a key building to this public space.

2.8 Prior to the preparatory works by the Radstone Fields housing developers the site was of green field land use. The outline planning application submitted by the developer received outline consent to convert to a school. This full application is based on the principles establish by the outline application and the subsequently approved planning conditions which have created the surrounding site and context.

2.9 Vehicular access for staff is from the secondary road to the south-east, deliveries and waste collection will be from the primary road to the west of the site.

Surrounding Area
2.10 The site is located within the Radstone Fields housing development to the north west of Brackley. The development of 1000 new homes is one a number of developments in this area which will place a high demand on the existing schools in the area; this demand can be dealt with by the construction of a new school of this size. Radstone Fields will also include shops and other local amenities and a community centre.

Statement of Need
2.11 It is anticipated that the new housing estate will require a school of this size with the potential requirement for more school places in the future, as the text in section 4 of this document prepared by NCC explains.

2.12 Around the schools footprint there will be primarily housing on 3 sides with a community centre sharing one edge. The school building to the south of the site will have a road along its two main frontages which were designed to be street facing. To the south west of the site there is to be a public park. 3 football pitches along the north of the site will ultimately become part of the school but do not form part of this planning application which is for the school only.

2.13 The site will be well served by public transport with as yet un-built bus stops being anticipated near the school. The school will be approximately 1.2miles to the centre of Brackley via Radstone Road or Halse Road.
3  Planning History

3.1 The relevant planning history and application number for the site is listed below:

S/2010/0995/MAO; received by NCC on 16th July 2010

“An urban extension comprising up to 1000 new homes, including highway access arrangements from Halse Road and Radstone Road, local centre including community hall with uses within A1 - A5 inclusive (up to 1000 square metres), a site for a new primary school, open space and associated physical infrastructure. (Includes Environmental Statement)”

3.2 This outline planning consent identified the location and scale of the school. With this Full Planning application NCC are requesting that the additional detail be considered to determine the final appearance and size of the proposed school.
Proposed Development

4.1 The following text is a Statement of Need prepared by NCC in support of the creating of additional pupil places in Brackley.

**New primary school (two forms of entry) for Radstone Fields**

**Introduction**

Radstone Fields Primary School is a proposed new school being built to serve the major development of 1000 houses at Radstone Fields in Brackley. First occupation for the houses is expected in June 2014; the trigger for the new primary school to be opened according to the Section 106 agreement is occupation of the 300th dwelling, which indicates a target opening date of September 2016.

The Section 106 Agreement (signed June 2013) makes provision for a primary school site of 2.96 hectares. This includes 0.2 hectares which NCC needs to purchase to secure sufficient site area for the full two forms of entry. Cabinet approval was obtained in September 2013 to add the scheme to the provisional capital programme and to commence the site acquisition.

The new school will have the capacity to become two forms of entry (420 places), although the opening may be phased in terms of year groups and pupil numbers in each year. As a result of the Education Act 2011, the school will be operated as an Academy under the Government’s Academy Presumption arrangements. A report is due to go to Cabinet on 15th April 2014 for all the necessary approvals associated with establishing the new school.

<table>
<thead>
<tr>
<th>School Name</th>
<th>Published Admission Number</th>
<th>Year R</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
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<tr>
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<td>46</td>
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<tr>
<td>Brackley Junior</td>
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<td>31</td>
<td>40</td>
<td>36</td>
<td>39</td>
<td>27</td>
<td>34</td>
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**Demand for pupil places**

This size of primary school is being constructed to meet the pupil yield from both the Radstone Field development and also a number of other smaller housing developments to the north of Brackley (a further 800 houses) e.g. Foxhill, Sawmills, Turweston Road, Halse Road and two further proposed developments in Radstone Road. This equates to a pupil yield of approximately 450 to 500 pupils, which could be as much as 2.5 forms of entry into the primary phase. There are currently four schools in Brackley providing primary places, as per the table on the left (February 2014 data):

The closest school to the new development at present is Bracken Leas Primary School which is running at or near to its capacity in each year group. The only school with any significant surplus capacity at present is Southfield Primary in Banbury Road, which is at the south of the town, the furthest away from the new housing in the north. It is anticipated that the first housing completions will feed at least half a form of entry into existing Brackley schools before the new primary school is operational. The need to open the second form of entry at the new school will be reviewed to meet demand from housing completions in 2018 onwards.
The creation of the new housing development will introduce hundreds of children into the town's schools. A new school is required to provide the places needed by this new increase in pupils. The developer of the housing had a Planning Obligation imposed on them requiring them to provide land and capital to build the school.

Description

4.2 The proposed development comprises:

A new build 2FE (2 Form entry) primary and nursery school to include associated playgrounds, playing fields, car park and service/ delivery yard and ancillary sports changing building.

4.3 The new site will provide classrooms and associated teaching spaces for 420 primary and reception year students. The site will acquire 3 neighbouring football pitches which will be available for public use outside of school operating hours. The football pitches are not part of this application and are covered in planning application S/2014/1006/COND.

4.4 The proposed development is needed to provide the required class spaces for the homes on the Radstone Field estate. The existing schools in Brackley are unable to offer sufficient pupil spaces for the homes which received planning consent under application number S/2014/1006/COND.

Facilities

4.5 As well as the school and playground, there will be on-site car parking for staff, a large service yard for deliveries and a grass playing field.

4.6 Pedestrian entrances are located on the south-west and south-east of the site, with pupils entering on the south-east and visitors entering on the south-west opposite the proposed park.

4.7 Vehicle entrances are located at opposite sides of the sites. Delivery vehicles will access to the north-west away from the pupils entrance with the car park located on the south-east. Cycle parking is located next to the car park and will be accessed by the pedestrian footpath used by the pupils.

4.8 The sports fields are to be constructed by the developer of the Radstone Fields housing estate, and ownership then handed over to the school who will be responsible for management and maintenance of the site.
5 Planning Policy

5.1 Section 5 of this document summarises the planning policy context relevant to the Proposed Development. Section 6 provides a detailed assessment in the context of the relevant planning policies and the conclusions of the design and technical work undertaken in pursuit of this application.

5.2 The West Northamptonshire Joint Core Strategy Local Plan (Part 1) has been prepared by the West Northamptonshire Joint Planning Unit (WNJPU). The 2014 revision was approved and adopted in December 2014.

5.3 The Government Policy Statement (Department of Communities and Local Government, August 2011) explains that:

The Government believes that the planning system should operate in a positive manner when dealing with proposals for the creation, expansion and alteration of state-funded schools, and that the following principles should apply with immediate effect:

- There should be a presumption in favour of the development of state-funded schools, as expressed in the National Planning Policy Framework.
- Local authorities should give full and thorough consideration to the importance of enabling the development of state-funded schools in their planning decisions. The Secretary of State will attach significant weight to the need to establish and develop state-funded schools when determining applications and appeals that come before him for decision.
- Local authorities should make full use of their planning powers to support state funded schools applications. This should include engaging in pre-application discussions with promoters to foster a collaborative approach to applications and, where necessary, the use of planning obligations to help to mitigate adverse impacts and help deliver development that has a positive impact on the community.
- Local authorities should only impose conditions that clearly and demonstrably meet the tests set out in Circular 11/95. Planning conditions should only be those absolutely necessary to making the development acceptable in planning terms.
- Local authorities should ensure that the process for submitting and determining state-funded schools' applications is as streamlined as possible, and in particular be proportionate in the information sought from applicants. For instance, in the case of free schools, authorities may choose to use the information already contained in the free school provider's application to the Department for Education to help limit additional information requirements.
- A refusal of any application for a state-funded school, or the imposition of conditions, will have to be clearly justified by the local planning authority. Given the strong policy support for improving state education, the Secretary of State will be minded to consider such a refusal or imposition of conditions to be unreasonable conduct, unless it is supported by clear and cogent evidence.
- Appeals against any refusals of planning permission for state-funded schools should be treated as a priority. Where permission is refused and an appeal made, the Secretary of State will prioritise the resolution of such appeals as a
matter of urgency in line with the priority the Government places on state education.

- Where a local planning authority refuses planning permission for a state-funded school, the Secretary of State will consider carefully whether to recover for his own determination appeals against the refusal of planning permission.

5.4 National Planning Policy Framework Paragraph 72 states that:

The Government attaches great importance to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities. Local planning authorities should take a proactive, positive and collaborative approach to meeting this requirement, and to development that will widen choice in education. They should:

- Give great weight to the need to create, expand or alter schools; and
- Work with schools promoters to identify and resolve key planning issues before applications are submitted.

5.5 The NPPF sets out the Government’s planning policies and how they expect these to be applied.

5.6 In paragraph 6 it states that the purpose of the planning system is to contribute to the achievement of sustainable development.

5.7 It identifies at paragraph 7 that there are three dimensions to sustainable development: economic, social and environmental and that the planning system must therefore perform a number of roles:

- An economic role in contributing to building a strong, responsive and competitive economy;
- A social role in supporting strong, vibrant and healthy communities;
- An environmental role in contributing to protecting and enhancing our natural, built and historic environment.
<table>
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<tr>
<th><strong>Sustainable Development</strong></th>
<th><strong>Benefits of the Proposed Development</strong></th>
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| **An Economic Role**        | - A capital investment in excess of £5m.  
|                             | - Creation of 45 new and part time jobs. 
|                             | - Greater passing trade to local shops.  |
| **A social role**           | - Creation of a new primary school.      
|                             | - Provision for new publicly accessible amenity and sports facilities to be part of, and managed by the school. 
|                             | - Establishment of a key frontage facing the neighbouring park and main road. 
|                             | - Additional local football support and competitors will help to sustain and enhance shops and services in the centre of Radstone Fields. |
| **An Environmental role**   | - Encouraging walking, cycling and use of public transport in a highly populated urban environment. 
|                             | - The close proximity to a high number of homes reduces the road miles that pupils would otherwise need to make to get to and from the other closest schools. 
|                             | - All development is outside of any floodplain or flood risk area. |
6  Assessment of the Proposed Development

6.1 In the following sections we have assessed the proposed development against different requirements, including planning guidance/ local documents, community and sports requirement, highways and transport, flood risk, archaeology and ecology.

6.2 We have extracted the key sections from the planning guidance documents and justified how each item has been achieved.

6.3 We believe that where possible we have conformed to relevant requirements listed in the following documents.

- **WNJCS-West Northamptonshire Joint Core Strategy Local Plan (Part 1)**
  Adopted, December 2014
- **NPPF-National Planning Policy Framework, March 2012**
- **Brackley Masterplan, Adopted January 2011**
- **NSPfS-Northamptonshire strategic plan for schools 2010 – 2021, November 2010**
Principle of development

6.4 In compliance with Paragraph 18 of the NPPF, the school will create jobs and support economic growth by providing 45 new jobs and significant capital investment in materials and labour to build the school, much of which will come from the UK:

The Government is committed to securing economic growth in order to create jobs and prosperity, building on the country’s inherent strengths, and to meeting the twin challenges of global competition and of a low carbon future.

6.5 The above statement is echoed further in the below policies:

- **WNJCS POLICY S7 – PROVISION OF JOBS**
  Provision will be made for a minimum net increase of 16,000 jobs in the period 2010 - 2026 in order to maintain a broad balance over time between homes and jobs and to maintain adverse economic base.

- **Brackley Master Plan-Employment**
  1008 Provide a range of employment options focusing mainly on B1, B2 with some B8 uses, together with hotel, retail, leisure, recreation, health and education uses.

Good Design

6.6 The proposed building in intended to follow historic details and the material palette of buildings from within the town to maintain the vernacular style and use materials appropriate for the geographic location.

- **WNJCS POLICY BN5-THE HISTORIC ENVIRONMENT**
  Be sympathetic to locally distinctive landscape features, design styles and materials in order to contribute to a sense of place.

6.7 A Design Code has been used to form the design of the buildings on the Radstone Field site. The school design conforms with this code with great attention to using the local vernacular design and material palette.

- **NPPF Paragraph 56.**
  The Government attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people.

6.8 In compliance of Paragraph 59 of the NPPF, the early outline design of the school was included in the SNC Planning Design Guide for Radstone Fields. The developed and submitted design has adhered to the design guidance to contribute to the sense of place of the new development.

Local planning authorities should consider using design codes where they could help deliver high quality outcomes. However, design policies should avoid unnecessary prescription or detail and should concentrate on guiding the overall scale, density,
massing, height, landscape, layout, materials and access of new development in relation to neighbouring buildings and the local area more generally.

6.9 To comply with NPPF paragraph 62, a consultation was held with South Northants council and feedback received on the design which was reviewed by the design team and a more appropriate design created based on these comments.

- **NPPF Paragraph 62:**  
  *Local planning authorities should have local design review arrangements in place to provide assessment and support to ensure high standards of design. They should also when appropriate refer major projects for a national design review. In general, early engagement on design produces the greatest benefits. In assessing applications, local planning authorities should have regard to the recommendations from the design review panel.*

6.10 There is no established local community so consultation with teachers, students and local residents has not been possible, but on-going consultation has been achieved with the planning department and their design review group and the project was developed and refined on the principles as set out by these consultees.

- **NPPF Paragraph 66:**  
  *Applicants will be expected to work closely with those directly affected by their proposals to evolve designs that take account of the views of the community. Proposals that can demonstrate this in developing the design of the new development should be looked on more favourably.*

6.11 As previously noted the feasibility study for the school, both responded to and influenced the Radstone Fields Design Guide. The submitted design has, evolved in response to comments made by SNC in a pre-application process.

**NPPF Paragraph 188.**  
*Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community.*

6.12 The building is intended to be distinct in its own right and within the wider development by means of quality and appropriate historic detailing. The building will stand at the top of a hill and will be visible from multiple directions so it is important that we create something that has the strength to stand on its own.

- **Brackley Master Plan-407**  
  *New developments within Brackley will be expected to be of the highest quality and meet these standards, to ensure that they are well integrated into the existing town, and meet all material planning considerations. Development will be locally distinctive*
and create a sense of place. In particular, careful attention will be paid to character, scale, form and architectural style/detailing in any new building designs.

Community and Sports

6.13 Sports pitches: Under the Section 106 agreement the developer will be providing 3 football pitches which will be managed and maintained by the school proposed in this application. These pitches will be available for use by the school during school hours and for use by the local community at other times. The pitches are to have a drained surface to avoid ponding and flooding. The provision of the football pitches should meet and exceed the requirements from Sports England for sports facilities for a primary school. In addition to the football pitches there are proposals for a Mixed Use Games Area (MUGA), hard surfaced playground and grass covered playing field.

6.14 Under a separation planning application by the developer of the Radstone Field Site, 3 full size football pitches are proposed to adjoin and be accessed via the school site. The changing facilities for these pitches form part of this application as part of the school buildings.

- Brackley Master Plan-Leisure and Recreation

317 There are a wide variety of active sports and social clubs across Brackley which play an important part in enhancing the sense of community within the town, driving perceptions of the town as a family orientated and safe place to live. A number of the clubs use the local facilities. However, many clubs are facing pressures to expand in order to meet growing demand, but the absence of suitable facilities in and around the town is currently limiting these group’s aspirations.

6.15 The school will be a key element of the Radstone Fields housing development and help the development to be a viable community in compliance with the Brackley Master Plan section 902-H6 housing.

- Brackley Master Plan-Housing

902 H6 Provide the relevant physical and social infrastructure to complement the residential development.

Heritage

6.16 Although the proposed school is not part of the existing town centre, the aesthetics and use of metal railings and related details have been transferred to this new site with multiple precedents and case studies coming from the town’s historic buildings. It is hoped this will help to create an identity which is in keeping with the local vernacular.

- Brackley Master Plan-Conservation and Heritage

321 A number of other features contribute to the quality of Brackley. The materials, urban grain, historic plan form, mature vegetation and ornate railings, together with other features contribute to make Brackley unique and special. Public realm and street furniture improvements have taken place in Market Square in recent years and include new stone paving, new benches and street furniture.
Transport and infrastructure

6.17 The details of the Radstone Field site transport strategy have been resolved under application S/2010/0995/MAO with consideration to items including road layouts and capacities, road junctions and public transport strategy. Site specific details of access, parking and service yard capacity and turning circles were discussed with the councils Highways Officer in February 2014 and the design amended to their satisfaction.

6.18 The proposed school is intended to provide school places to the increased number of children in the area due to the new houses surrounding the school site. The majority of pupils should be travelling to the site from the immediate area with journey times of no more than 10 minutes walking or cycling which should reduce the amount of car journeys to the site. The school will have a maximum 245 children, so it should be assumed that between the hours of 8:30 and 9am there will be in the region of 300 people movements, including staff, with the same number between 3:30 and 4pm. The proposed opening times for the school are not currently known.

6.19 The school is central within the Radstone Fields Development which is essential to minimise travel distances for the children who live on the estate. The school is on the bus and cycle routes through the development and cycle parking is located along the entrance path at the rear of the school where all children will enter.

- **WNJCS POLICY C2 - NEW DEVELOPMENTS**
  
  Development will be required to mitigate its effects on the highway network and be supported by a transport assessment and travel plan prepared in accordance with current best practice guidelines as issued by the department for transport or the relevant local authority.
  
  Sustainable urban extensions, as allocated within this plan, will additionally be required to:
  
  - Provide access via walking, cycling and public transport routes to a mix of uses including local employment, housing and retail facilities;

6.20 The school is part of a large residential development and will be a school to serve the surrounding area.

- **WNJCS POLICY INF1 - APPROACH TO INFRASTRUCTURE DELIVERY**

  New development will be supported by, and provide good access to, infrastructure, including physical, green and social elements. It should seek to integrate with and complement adjoining communities.

6.21 This school is a contribution to the local infrastructure of the area as a result of the funding which has come from the developer through a planning obligation which is paying for the building of this new school.

- **WNJCS POLICY INF2 - CONTRIBUTIONS TO INFRASTRUCTURE**

  Requirements new development will only be permitted if the necessary on and off-site infrastructure that is required to support it, and mitigate its impact, is either
already in place, or there is a reliable mechanism in place to ensure that it will be delivered.

6.22 The project is not in the town centre, but we have provided 32 covered cycle bays to encourage staff and students to cycle.

- Brackley Master Plan-Transport and Access

807 TM6 Provide covered, visible and secure cycle racks in the town centre.

Sustainability

6.23 The proposed school is located within the Brackley North extension as named in the below document.

- WNJCS POLICY S5 – SUSTAINABLE URBAN EXTENSIONS
  Outside the existing urban areas development will be focused on sustainable urban extensions to the urban areas.

6.24 The school is set to provide a minimum of 10% energy from renewables onsite include solar panel and air source heat pumps. Natural ventilation has been maximised with the use of roof lights were possible, but the required traditional design has restricted the potential, but design solutions have been found to overcome most issues.

- WNJCS POLICY S10 – SUSTAINABLE DEVELOPMENT PRINCIPLES
  -Achieve the highest standards of design including in relation to safety and security,
  -Be located where services and facilities can be easily accessed by walking, cycling or public transport
  -Maximise use of solar energy, passive heating and cooling, natural light and ventilation
  -Generate a minimum of 10% of its energy needs from decentralised and renewable or low carbon sources
  -Maximise water efficiency

6.25 The proposed school is the school named in the below document.

- WNJCS POLICY B3 – BRACKLEY NORTH SUSTAINABLE URBAN EXTENSION
  The boundary of the Brackley North sustainable urban extension is shown on the proposals map (figure 5). The development will provide:
  • 1380 dwellings;
  • New primary school;

6.26 The previous Outline permission for the whole Radstone Fields Development has established the framework for the school to meet paragraph 38 of the NPPF.

- NPPF Paragraph 38.
For larger scale residential developments in particular, planning policies should promote a mix of uses in order to provide opportunities to undertake day-to-day activities including work on site. Where practical, particularly within large-scale developments, key facilities such as primary schools and local shops should be located within walking distance of most properties.

Ecology and Arboriculture

6.27 Under the outline planning application number S/2010/0995/MAO for the housing development a number of reports relating to Ecology and Arboriculture were submitted in support of the application. The application identified that the existing trees and hedges on the school site would be removed to make way for the development. This action is expected to be performed by the residential developer prior to the hand over to Northamptonshire County Council.

6.28 Application S/2010/0995/MAO details the results of multiple surveys for bats, reptiles and amphibians and other flora and fauna. The Environmental statement identifies that bats are present on the Radstone Field site, but with negligible effects upon them and that there are no protected species of amphibian or reptiles present.

6.29 All proposed lighting to the site will be designed to be bat friendly. Lighting will only be installed where necessary for fire escape and safety purposes, which is immediately around the school building, car park, service yard and playground areas. Lighting will be run from an electric timer and will only be used when the building is occupied, with a short over-run to allow people to exit the building safely. All fitting will only project light down to the ground to omit light pollution and all fittings will be LED.

6.30 There will be no artificial lighting to the MUGA, football fields or grass playing field.

6.31 The design of the soft landscaping for the school site is to be resolved at a later date. We appreciate that the planning officer may choose to place a condition on any planning consent regarding this item.

6.32 The external design for the lighting has been created to mitigate light pollution and create a bat friendly environment. We have no information available that says that bats are present within the footprint of the proposed school site, but we have still allowed for the potential in our lighting design. All external fittings are to be LED with a suitable hood and spread of light to keep light on the ground and not spilling into the air.

- NPPF Paragraph 125.

By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.
Archaeology

6.33 Below the football pitches to the north of the school site and beyond there is an area of archaeological interest which has been under investigation prior to the construction of the school and new homes. The southern-most point of this investigation area enters the site covered by this planning application to a total area of approximately 11m². Investigation has been concluded in this area as the site was signed off on 12th September 2014 so no further archaeological investigation is required on this site.

Flood risk

6.34 The flood risk assessment from application S/2010/0995/MAO has been submitted with this application to clarify the site conditions to show that there is no flood risk on this site.

6.35 The Environment Agency’s flood map identifies the site as being in flood risk zone 1: flood risk is very unlikely.

6.36 The proposed school is to be on a flood risk vulnerability zone 1; flood risk for this site is in the lowest risk category.

- WNJCS POLICY BN7 - FLOOD RISK
A sequential approach will be applied to all proposals for development in order to direct development to areas at the lowest probability of flooding unless it has met the requirements of the sequential test and exception test as set out within table 6.

6.37 The site is in Flood Risk zone 1 so is considered to be minimal risk for flooding.

- NPPF Paragraph 100.
Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk, but where development is necessary, making it safe without increasing flood risk elsewhere.

6.38 Surface water drainage across the site is to be drained to rainwater attenuation ponds within the larger developer of Radstone Fields. The school is located at a high point on the site and therefore is positioned to be appropriately flood resilient.

- NPPF Paragraph 103.
When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere and only consider development appropriate in areas at risk of flooding where, informed by a site-specific flood risk assessment following the Sequential Test, and if required the Exception Test, it can be demonstrated that:
- Within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and
- Development is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be
safely managed, including by emergency planning; and it gives priority to the use of sustainable drainage systems.

Education

6.39 The proposal is for a new school which will offer 245 new places to primary and nursery age students.

Brackley Master Plan-Education

313 Opportunities to review the level and location of education provision have arisen as a result of the aspirations of the educational establishments and from the proposed urban extension to the north of the town at Radstone Fields.

6.40 The provision of a 2FE school will provide places for the new community.

- NPPF Paragraph 72.

The Government attaches great importance to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities.

6.41 The submitted proposal is for a new school to help increase the number of school places available while meeting the requirements as stated above for safety, playing fields and early years learning.

NSPfS 4. Duty to secure sufficient school places

4.1 The Council has a statutory duty under the Education Act 2006 to secure sufficient school places in its area to provide primary and secondary education between the ages of 5 and 16.

4.2 There is also a duty under the School Standards and Framework Act 1998 to provide part-time early years places in respect of all children aged 3 and 4 whose parents wish to take up places.

8.3 The Plan reports that 25% of the population (173,000) are children and young people aged 0 – 19. Northampton Borough has twice as many children and young people compared with any other borough or district in the county. Over the period from 2010 to 2021, the children and young people’s population is predicted to grow to approximately 203,000, an increase of 17%. The anticipated expansion will require considerable investment in provision for children and young people, including health centres, children’s centres, schools, libraries, leisure and recreation facilities, and the full range of other activities.

24.8 In addition, the Council has a number of other policies regarding new school sites:

- All new school sites should meet the Team Game Playing Field regulations to support the PE curriculum and Healthy Schools agenda
- All new schools should address safeguarding issues in terms of site security, secure “air-locks” and privacy measures to ensure child protection.
- Consideration is given to the need for specialist SEN provision
Page 59:

**Brackley** – Although there is unlikely to be an overall increase in the requirement for places, the new development at Radstone Fields is likely to require some re-organisation of primary provision as there will be an excess of places in the south of the town and insufficient places in the north. A site for a 2 f.e. primary has been reserved. There are a number of alternative options including the relocation of an existing school to Radstone Fields.

6.42 The proposed school will be meeting the needs of the above requirement as a primary school with 3 football pitches which will be under the management of the school.

- **Brackley Master Plan-Education**

1305

**ED1** The Radstone Fields development is to provide a new primary school as part of the Brackley North SUE and financial contributions towards secondary school provision.

**ED3** New educational facilities should include the provision of indoor and outdoor leisure facilities that can also be used by the wider community.

6.43 The proposed school is the result of the previous requirement placed upon the housing developer through Section 106 agreement to provide a site sufficient to build a primary school on the Radstone Fields Site.

**Brackley Master Plan-Other Infrastructure**

1721 Larger developments, in particular those for the urban extensions to Brackley, will be expected to provide planning obligations:

A new primary school within the Brackley North SUE and contributions towards secondary school provision.
7  Section 106 Agreement

7.1 The construction of the new school will be funded by Section 106 financial contributions from all of the developments, in accordance with the projected pupil yield from each. Children moving into the first completions will be accommodated within the capacity of existing Brackley primary schools.

7.2 The housing development at Radstone Fields received Reserved Matters planning in November 2013 for phase 1 of the development. The County Council is involved in detailed discussions regarding the site boundaries, road access and layout, boundary fences and acoustic treatment, service connections and drainage. The County Council is liaising with South Northamptonshire Council on the other housing developments that are coming forward in Brackley.

7.3 The Section 106 Agreement makes provision for the County Council to procure the school building and changing facility and for the developer to provide the outdoor facilities, including the three pitches that will be the subject of a joint use community agreement. Appendix 6 of the Agreement also includes the design parameters and layout of the new school, which has involved detailed liaison with South Northants Council and adherence to the Design Code.

8  Mechanical Plant

8.1 The details of the roof plant to the school are currently unknown. All external plant other than the proposed photo voltaic panels will not be visible from the surrounding streets as it will be positioned in an area enclosed by walls on all sides with an open top for ventilation. The details of the external plant can be confirmed at a later date at the request of the appointed Planning Officer to provide detail of final locations, sizes and noise generated.
9 Conclusion

9.1 Within this document we have identified the planning policies which justify a project of this scale and use type and the clear and apparent need for a school in this location.

9.2 The proposed development is detailed in outline planning application S/2010/0995/MAO which has been granted consent.

9.3 The proposed school is identified in the Section 106 agreement for the above outline planning application, and is to be part funded by the contribution by the developer of the residential properties.

9.4 The site is a major site in the centre of the Radstone Fields residential development and will provide the pupil places required by the new homes on the estate.

9.5 The town will benefit from the creation of 45 new jobs.

9.6 The building was identified in the Design Code for Radstone Fields and the materials and design appearance reflect the requirements of this document.
1.0 Introduction

This Design and Access Statement is submitted in support of a full planning application for a new school designed to be a stand-alone new school offering all the facilities, teaching areas, external play areas etc required to service the new housing development.

The new site will provide classrooms and associated teaching spaces for 420 primary and reception year students. The site will provide space for 3 football pitches which will be available for public use outside of school operating hours. The football pitches are not part of this application and are covered in planning application S/2014/1006/COND.

The use of the green field site as a housing development and the school location was approved separately under planning application S/2010/0995/MAO on 21/06/2013.

Please read this document in association with the other reports, forms and drawings which form part of this submission.

The Design and Access Statement has been prepared by Peter Haddon and Partners (pHp), Northampton.

pHp is a modern architectural practice with a broad range of expertise developed over four decades. pHp are experienced in the delivery of large commercial, residential and educational projects.
2.0 Proposed Site Plan - Arrangement, surface treatment and access

Access Routes shown dashed
1) YELLOW - Football pitch visitors.
2) RED - Route for arrival and departure of pupils.
3) LIGHT BLUE - School visitors and staff.
4) GREEN - Deliveries
5) ORANGE - Refuse collection
6) DARK BLUE - Vehicle access to pitches, maintenance etc.

School Buildings
Playing fields - Grass
Permeable boundary surface or planting
Ecology zone

Hard paved asphalt, parking, playground and service yard
Hard paved asphalt footpaths
Hard paved asphalt Mixed Use Games Area (MUGA) asphalt finish

Football pitches (not forming part of this planning application)
Proposed covered play area to reception classrooms showing timber cladding and sloping roof

Rear junction of modern and traditional structures

Front of school showing the vernacular stone elevations- Planting beyond site boundary shown indicative only as final design is unknown
3.0 Assessment

3.1 Physical Context

The proposed site is an existing green field site to the north of Brackley. A separate planning application for the development of the land has already received consent.

The site falls from the north west to south east across the site by approx 6m in elevation. There is to be a community centre and public park adjoining the school with residential housing on all other edges. To two sides there are new roads on the west and south side.

The school is to be along one edge of the public park as a key building to this public space as a key building.

The project has been developed using the Radstone Fields design code. The primary elevation at the front of the school has been taken from the design code and developed to make improvements.
3.2 Economic Context

This is a new build school which will necessitate the employment of at least 45 new members of staff including teachers, support staff, cleaners, caretakers and admin staff. This recruitment will need to happen before the school is able to operate.

3.3 Social context

New primary school (two forms of entry) for Radstone Fields

Introduction

Radstone Fields Primary School is a proposed new school being built to serve the major development of 1000 houses at Radstone Fields in Brackley. First occupation for the houses is expected in June 2014; the trigger for the new primary school to be opened according to the Section 106 agreement is occupation of the 300th dwelling, which indicates a target opening date of September 2016. The Section 106 Agreement (signed June 2013) makes provision for a primary school site of 2.96 hectares. This includes 0.2 hectares which NCC needs to purchase to secure sufficient site area for the full two forms of entry. Cabinet approval was obtained in September 2013 to add the scheme to the provisional capital programme and to commence the site acquisition.

The new school will have the capacity to become two forms of entry (420 places), although the opening may be phased in terms of year groups and pupil numbers in each year. As a result of the Education Act 2011, the school will be operated as an Academy under the Government's Academy Presumption arrangements. A report is due to go to Cabinet on 15th April 2014 for all the necessary approvals associated with establishing the new school.

<table>
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<tr>
<th>School Name</th>
<th>Published Admission Number</th>
<th>Year R</th>
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<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
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</tr>
<tr>
<td>Brackley Junior</td>
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<td>-</td>
<td>-</td>
<td>45</td>
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<td></td>
</tr>
<tr>
<td>Southfield Primary</td>
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<td>40</td>
<td>36</td>
<td>39</td>
<td>27</td>
<td>34</td>
</tr>
</tbody>
</table>

3.3 continued.

Demand for pupil places

This size of primary school is being constructed to meet the pupil yield from both the Radstone Field development and also a number of other smaller housing developments to the north of Brackley (a further 800 houses) e.g. Foxhill, Sawmills, Turweston Road, Halse Road and two further proposed developments in Radstone Road. This equates to a pupil yield of approximately 450 to 500 pupils, which could be as much as 2.5 forms of entry into the primary phase. There are currently four schools in Brackley providing primary places, as per the table on the left (February 2014 data):

The closest school to the new development at present is Bracken Leas Primary School which is running at or near to its capacity in each year group. The only school with any significant surplus capacity at present is Southfield Primary in Banbury Road, which is at the south of the town, the furthest away from the new housing in the north. It is anticipated that the first housing completions will feed at least half a form of entry into existing Brackley schools before the new primary school is operational. The need to open the second form of entry at the new school will be reviewed to meet demand from housing completions in 2018 onwards.

Section 106 Agreement

The construction of the new school will be funded by Section 106 financial contributions from all of the developments, in accordance with the projected pupil yield from each. Children moving into the first completions will be accommodated within the capacity of existing Brackley primary schools.

The housing development at Radstone Fields received Reserved Matters planning in November 2013 for phase 1 of the development. The County Council is involved in detailed discussions regarding the site boundaries, road access and layout, boundary fences and acoustic treatment, service connections and drainage. The County Council is liaising with South Northamptonshire Council on the other housing developments that are coming forward in Brackley.

The Section 106 Agreement makes provision for the County Council to procure the school building and changing facility and for the developer to provide the outdoor facilities, including the three pitches that will be the subject of a joint use community agreement. Appendix 6 of the Agreement also includes the design parameters and layout of the new school, which has involved detailed liaison with South Northants Council and adherence to the Design Code.
4.0 Site

4.1 Amount

The loss of greenfield land is regrettable, but to meet the needs of the growing local population this new school is required as part of the residential development. The building has been sized to accommodate the space and functions required for it to perform adequately with all available external spaces utilised for playground/playing fields for the children.

4.2 Layout

The primary elevation of the school faces onto the main road as part of a collection of public use buildings. This is the elevation that most viewers and local residents will see as they drive or walk past the site. The site is a combination of buildings, hard paved playground, car park and grass/planted area.

By orientating the building along the two adjoining roads, the risk of overlooking from the school buildings is eliminated.

The site has 4 entrances,
- Main school entrance for visitors
- South-east pedestrian access for pupils and parents and walking/cycling employees
- South-east vehicle access for the staff car park; no parent parking/drop off is proposed on-site
- South-west service yard entrance for all deliveries and rubbish collect etc. This is located next to the bin store/kitchens to isolate this access point away from the pupils entrance due to the large vehicles that will potentially be entering the site.

The cycle parking is located next to the car park/pupil & parent entrance to allow all cycles to be decanted to the racking at the point of entry into the school.

4.3 Landscaping

The playground to the rear of the school will be finished with a suitable asphalt material to provide a smooth play surface for the children. The Mixed Use Game Area (MUGA) will be a coloured tarmac to provide a hard sports surface in addition to the grass areas which make up a very large proportion of the site.

A line of trees is proposed along the edge of the playing fields to shield the neighbouring houses from overlooking and to some extent noise containment.

A permeable surface is proposed along the two street facing boundaries between the stone boundary wall and the school building. Please refer to the site plan in section 2.0 for locations of the different site finishes and refer to other relevant drawings for more landscaping details.

4.4 Scale

The proposed buildings are all of a scale which is proportioned to the location and the neighbouring buildings. The two storey building is believed to be relevant and in context to the domestic properties around the development.

Along the front of the school, there is a central 2 storey block flanked by shorter single storey buildings. This stepped formation lessens the impact of the school and results in boundaries with other buildings being along these single storey zones.

At the point of submission of this document for planning consideration, the forms and heights of the neighbouring buildings is not known, so we have designed the school based on worst case arrangements of these neighbouring structures, which is of single storey structures.
5.0 Appearance

The positioning and street frontage of the building gives the potential to create a school which is prominent both visually and in status as a key element to the housing development.

The design is based on two key styles; the front of the building which is designed as a building of historic origin built from local ironstone with stone window surrounds and other façade detailing, a slate roof with metal half round gutters and historically appropriate brick chimneys. The materials are taken from the palette used elsewhere on the housing development and the design is intended to follow the traditional vernacular of Brackley and the surrounding area, reflecting a quality building which implies status and importance within the development while equally matching the look and style of the surrounding properties. The rear single storey classroom block is intended to be a modern addition to the older building using a modern metal standing seam roof with a corresponding square profile gutter, all in a grey finish to reflect the slate roof of the main building. Large metal frame windows are used in place of the smaller stone mullion windows from the main building and full height sloping ceilings that let in more daylight to create a spacious bright environment for teaching. Red brick can be found on extensions to stone buildings in the Northamptonshire area and would be similar, but not identical to the red brick chimneys. We have added timber cladding to break up the massing of the brick and to add a visually and physically softer, more tactile material. The timber species will be Siberian Larch, which was selected for its longevity and appearance. When first installed it will be light in colour with a very distinct grain, but as it ages it will fade to a consistent silver grey. The boards will be fitted vertically with concealed fixing, displaying a 100mm board face and a 15mm recess spacing.

Context

The building’s context is widely unknown. At the time of submission of this planning application the design of the community centre to the north-west and the location of the housing on all other sides is unknown. In order to ensure the design will fit in most contexts the sides of the school building are lower than the main central body to avoid overshadowing/ domination and assists in softening the edges of the site. We have followed or exceeded the historic detailing of the Design Code which we have tried to show in this document with the window, door and wall detailing.
5.1 Precedents and Inspiration

While developing the design we sought precedent images of buildings for the modern and traditional elements in the building to help guide us along a suitable design path. The images below show some of the proposed elements we are incorporating, including the locally sourced iron stone, slate roofing and the brickwork for the modern elements in the building. A selection of these images are below to show our design intent and direction.

The image on this page and the last show a number of properties that we used to acquire forms and details to create our design, including doors, windows, roof copings and slopes, gutter details and window detailing.

Stone
The Ironstone selected for the building is found in the Great Tew quarry in Oxfordshire and is featured in a number of buildings in Brackley. Winchester House School uses a combination of ironstone and a lighter coloured limestone. The ironstone is a relatively soft limestone meaning it would historically be used for window surrounds and other detailed work due to the ease of cutting and shaping.

We intend to use the ironstone in a rough ‘tumbled’ finish which will be smooth on its cours ed faces and rough on its front exposed face. 4 different sized course heights will be used, 65, 90, 115 & 140mm. These will be in various lengths from 250mm to 500mm long.

Windows
The proposed window surrounds, will be in a cast stone which is much more economical and quicker to produce. We are proposing a light grey colour, similar to a Bath Stone to match the lighter coloured limestone used around Brackley town centre. The contrast of the ironstone and light buff or grey limestone is used frequently around Northamptonshire. One key example is the Triangular Lodge at Rushton which uses banding of the two materials. Across Northamptonshire there are greatly contrasting beds of limestone with varying colours, tones and densities so a combination of stone colours is common. This is shown to great effect in the village of Blisworth 14 miles to the north east where the local overlap of stone below the ground have resulted in the use of banding in buildings of ironstone and a light coloured limestone.

Roofing
The traditional roof is to be a natural slate with a blue-grey colouring. The final type and source country is to be determined.

Chimneys
2 brick double chimneys are proposed to the traditional building. These are to be tall with a square plan rotated 45 degrees to reflect the design of a historically accurate design.
6.0 Evaluation – Design

The design has been created to follow the Radstone Fields Design Code, to include the selection of materials and feature elements. In some situations the materials have been upgraded, to include the use of cast iron gutters and down pipes rather than uPVC, and polyester powder coated aluminium windows are proposed rather than the uPVC in the design code.

In order to create a building which appears to be traditional but is not as expensive as a truly authentic structure we have needed to make a few adjustments, with a leading influence being the need to meet the current building regulations, but to also ensure that the children who use the school are studying in a modern, well ventilated and well illuminated environment.

6.1 Materials and finishes

Please refer to the drawings and CGIs for further information.

Windows
- Traditional
The stone mullion window surrounds will be recreated to be historically accurate, but modified to conform to current standards and regulations. The stone will be a cast stone that is created to look like real stone but with the added benefits of lower costs. The windows will be a modern aluminium window that is set behind the stone to give the impression of a thin framed metal window, but with the advantage of superior U-values.

- Modern
Polyester Powder Coated Aluminium with glazed upper and lower panels. Design to match the adjoining windows.

Doors
- Traditional
Oak finished doors. Front elevation to have 3 small high glazed panels with a single solid panel to the base. Door to the rear to be 4 panel oak finish doors with the two upper panels glazed to maximise incoming light and visibility for safety when opening doors.

- Modern
Polyester Powder Coated Aluminium with inlaid timber cladding panels below selected windows and to the north end of the building. The cladding is proposed to be vertical boards with hidden fixing in Siberian Larch.

Walls
- Traditional
Stone walling, 4 side cut ironstone tumbled finish, cast stone detailing, coping, quoins, window surrounds.

- Modern
Brick finish with inlaid timber cladding panels below selected windows and to the north end of the building.
Windows

Traditional and modern windows and doors
We are attempting to recreate traditional stone mullion window surrounds for the school that will conform to current regulations and standards. The images on this page show realistic computer generated images of the windows, including the stone surrounds, frame sizes and dividing lead bead. The windows are in a number a different sizes and shapes around the building, but all follow the same style, pattern and scale.
6.2 Roofs

There are 3 types of roofing proposed on the school.
1) Pitched slate to the two storey structure at the front of the site. This is to look traditional with eaves and guttering detail to suit the designed age of the building. The proposal is to use a natural slate which will offer a long life with no maintenance. The ridge of the roof will be capped in a dark coloured terracotta tile while is common on large buildings in the area.

2) Metal standing seam to the low pitched roofs to the single storey building at the rear of the school. An equally contemporary metal gutter and down pipes are proposed to maintain the visual appearance that the single storey elements are a new addition to an older two storey building.

3) Single ply flat roofing to concealed plant and maintenance access areas. None of the flat roofs are visible from the street. This will be in a dark colour to match the slate and metal standing seam roofing.

Design Details

<table>
<thead>
<tr>
<th>Traditional</th>
<th>Modern</th>
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<td>External Walls: Ironstone, tumbled, from the Great Tew Quarry</td>
<td>Natural Slate Roofing</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Red/Orange brickwork</td>
</tr>
<tr>
<td></td>
<td>Timber Cladding-Siberian Larch</td>
</tr>
<tr>
<td></td>
<td>Standing seam metal roof</td>
</tr>
</tbody>
</table>
**6.3 Boundary Treatment**

**South east and south west**

A stone wall is proposed along the street facing edges with regular stone piers and a black painted metal railing infill as required by the Radstone Field Design Code. An image in section 5.1 of this report shows the front elevation of Althrop House in Northamptonshire uses a similar arrangement. The pier caps on our project will not be as grand or delicate due to cost and the proximity to the public highway. The image at the bottom of the page in section 5.1 shows a building on Brackley High Street where a double cant coping is used below the railing. This will be adopted on the proposed school boundary.

The proposed high boundary stone wall, highway perimeter wall and service yard access gate.

Proposed perimeter wall with a nominal height of 1m at the centre line of the railings due to ground level changes and falls

**Boundary Treatments**

1) GREEN-Boundary with housing timber fencing by developer 1.8m (assumed).
2) PURPLE-Secure school boundary i weld mesh fence 2.4m
3) BLUE-Playing field/ sport area boundary i weld mesh 3m
4) ORANGE-School road perimeter i stone walling, averaging 2.1m
5) RED-Sports fields 4m high weld mesh containment fence
6) YELLOW-Public highway boundary wall
7) RED-1.8m timber fence within the site
6.4 Changing Block

The design for the changing block developed after the main school building had been formed and the design was informed by the shapes and masses used elsewhere on the site.

The brick relief patterns reflect those used on buildings throughout history, but the use of patterns from different brick colour and projections from the wall face are frequently seen in the Jacobean era as buildings became more ornate in their decoration through this period. The decoration of the main school is understated to imply a historic house of importance, which would sit comfortably in the middle rung of status and is not as flamboyant as some houses of the period which is quite appropriate for the local vernacular.

The image to the left are not local examples, but show brickwork samples from across the country.

The roof shape has been formed to create attractive and interesting slopes from all 4 sides and to avoid having one or more sides where there is little or no feature.
6.5 Evaluation – Design

The design has been created to follow the Radstone Fields Design Code, to include the selection of materials and feature elements. In some situations the materials have been upgraded, to include the use of cast iron gutters and down pipes rather than uPVC, and polyester powder coated windows are proposed rather than the uPVC in the design code.

The proposed school has been created with a mix of traditional materials and detailing and more modern elements. This helps to give support to the suggestion that the stone buildings facing onto the road are historic structures that have received new modern extensions to the rear.

7.0 Involvement – Design Process

7.1 Consultation with South Northamptonshire County Council Planning Department

Over the course of developing the design proposals for these works, we have liaised with representatives of the Planning Department to ensure there was appreciation and understanding of our design approach.

Design advice was received from a meeting on 17th January where feedback regarding the roof forms and other elements was received. The comments and suggestions were taken on board and processed with regard to our proposals and a formal pre-application enquiry was submitted on 7th February 2014. The Pre-Application reference number is P/2014/0053/PRW.

The design has evolved and grown thanks to the input from the two planning departments we have liaised with during the design stage. Advice on the positioning of the building, access points, extent of stone walling and other items have been discussed, revised and approved as acceptable as part of this process.

Highways Department

A consultation and feedback from the highways officer has been very useful to get advice on vehicle access and the size of vehicles that should be allowed for. The positions of gated entrances and setbacks from the highway were revised as part of this consultation.

7.2 Community Involvement

Community involvement has not been possible for this project as the site and surrounding area have not yet been developed and therefore there is no direct community to liaise with.

7.3 Student and staff Involvement

As with point 7.2 above there are no staff members or students to liaise with. The applicant of this planning application, Northampton County Council have shared their collective knowledge and experience in the building and improvement of schools with us in the development of the design to create a successfully and coherent design.
8.0 Ecology

The site as proposed forms part of the Radstone Fields residential development which has previously received planning consent. The previous application reports in detail the existing site ecology and for the purpose of this new application, the site ecology data is unchanged. A copy of this ecology survey forms part of this application.

9.0 Sustainability

The school is set to meet and exceed the requirements for the building regulations under which it was designed. This will include the thermal insulation of the building and therefore the energy required to heat and cool the building throughout the year along with the plant and services which will provide the heat.

Water saving taps and WCs will be selected prior to construction to reduce the buildings consumption of water.

Photovoltaic panels are proposed for the roof on the southern side of the building. The location of these panels allows us to minimise their impact on the traditional part of the building while maximising the light received and energy produced.

As detailed in the Access section below, cycling is being encouraged by conveniently situated cycle parking near the pedestrian access for staff and students. There is no dedicated secure cycle parking for daytime visitors after the side gate has been shut, but the railings to the front of the building would be quite adequate for securing a cycle.

10.0 Access

Across the housing development there are to be contiguous footpaths and cycle ways provided by the developer which will also pass along the front of the school. There are covered and secure cycle spaces for 32 bikes at the main site pupil site entrance next to the car park. It is assumed that the majority of students will come from the housing estate that surrounds the school, but there will be pupils who travel longer distances or be in a personal situation where walking is not an option. The developer has advised that Road 2 has been designed to be a suitable width to allow car drop off along the side of the school and the bus route will run along one of the roads next to the school, but the locations of bus stops are not yet determined.

There will be on-site parking for 46 standard car and 3 Accessible bays which will be for staff with the potential for some visitor parking by appointment to use the accessible parking bays as it is expected that the gates will be shut and locked during school hours.

All site deliveries are to be made to the dedicated service yard which is accessed from Road 1. This area will allow larger vehicles to manoeuvre and deliver loads in a safe and enclosed area away from the public highway.

Accessibility

The site and facilities are to be accessible to all site users. All door thresholds will be level, all access into and out the site/ car park will have direct step free access and a lift is proposed to access the first floor. Fully accessible toilets will be provided on all levels in the building. The sports changing block by the sports fields will have an accessible WC and shower and the main changing rooms will have door sizes suitable for wheelchair access.

11.0 Conclusion

With the development of this project we have worked to remain within Radstone Fields Design code with upgrades to some of the materials where possible to ensure a cohesive design which still allows for the creation of a modern practical school building.

The use of the natural stone and slate on the building provide a traditional building of status, while the brick and metal clad roof to the rear maintain a balance to provide a modern school to meet the needs of the children that will use it for many years to come.
1) Tumbled Great Tew Ironstone


3) Roof slate (natural slate) SSQ Del Carmen Ultra, Blue Black.
4) Brick, blues. Wienerberger Smooth Blue Solid.

5) Brick, Red to chimney and single storey rear building/ changing block. Ibstock Ravenhead Red Smooth

6) Standing seam roofing. Colour not as pictured. To be RAL 7015 (dark grey to match slates) by Euroclad Vio
7) Downpipes, cast aluminium heritage, black PPC by Guttercrest.

8) Timber cladding. Siberian Larch. Russ Wood Si-La range, untreated.
Radstone Fields, Brackley, Northamptonshire

Arboricultural Survey

23 March 2010

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Disclaimer

This report has been prepared by Waterman Energy, Environment and Design, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

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Findings of Arboricultural Survey and Tree Constraints Plan
(E10226-100-AA-77-0002 A01 Mar 2007 CAH/BS)

Tree Protection Plan
(E10226-100-AA-77-0006 A01 Mar 2010 CH/BS)
1. **Introduction**

1.1. Waterman Energy, Environment & Design Ltd (formerly Waterman CPM) has been instructed by Taylor Wimpey and Barratt Homes to update the previous arboricultural survey prepared in 2007 of trees within and adjacent to the wider development site at Radstone Fields, Brackley, Northamptonshire.

1.2. The object of the survey was to carry out a visual assessment of the trees’ principal features to determine their overall quality and value to the proposed development. During the update survey physical measurements were amended to reflect changes in size, for example through pruning or growth. Changes in health and condition were also noted, such as the development of defects or presence of fungal fruiting bodies.

1.3. Findings for each of the individual trees, tree groups and hedgerows surveyed are summarised on Findings of Arboricultural Survey and Tree Constraints Plan E10226-100-AA-77-0002 A01, at the rear of this report, and individually within the schedules in Appendix A. Any management recommendations for the trees, including tree surgery, removal etc., prior to development are not specifications for tree work and further advice should be sought from an approved arboricultural contractor prior to works commencing.

1.4. The locations of the trees included in the survey were taken from a topographical survey (Land Surveying Services, Topographical Survey drawing nos. S2164/01 – S2164/10 Jan 2007). Where trees were not shown on the survey, these have been shown approximately on Plan E10226-100-AA-77-0002 A01.

### Tree Survey Methodology

1.5. The initial survey was carried out in February 2007 and updated in March 2010 in dry and bright conditions. The survey methodology followed the recommendations set out in BS5837: 2005 ‘Trees in Relation to Construction – Recommendations’. This involved collecting the following information in relation to all trees with a stem diameter over 75mm.

#### Tree Numbers

1.6. ‘T’ prefixes have been used to identify individual trees and commence with T1. Where trees have been grouped together ‘G’ prefixes have been used and hedges by ‘H’ prefixes.

#### Species

1.7. Species are listed by their common name, both in the schedule and in the report text.

#### Height

1.8. Tree heights are measured in metres.

#### Stem Diameter

1.9. The stem diameter of single stemmed trees is measured at 1.5m above ground level and given in millimetres. The diameter measurement of multi stemmed trees is taken immediately above the root flare and is indicated by the notation (MS). Where access to the trunk of a tree was not available, an estimation of the stem diameter has been made.
Branch Spread

1.10. Radial crown spread is estimated in metres and is listed for each of the four cardinal points. The canopy shape for surveyed trees depicted on the accompanying plans accurately represents the canopy spread as estimated on site. Elsewhere, canopy spreads of trees are represented as circles, the extent being an average of the four canopy spread measurements.

Height of Crown Clearance

1.11. This is the height above ground in metres of the attachment point of the first significant branch, or the height to which the lowest (living) branch reaches; whichever is the lower.

Age Class

1.12. The age of each tree is defined as follows:

- Young: within the first 1/3rd of life expectancy;
- Semi Mature: within the second 1/3rd of life expectancy;
- Mature: within the last 1/3rd of life expectancy; and
- Over Mature: Tree in decline.

Physiological and Structural Condition

1.13. The physiological and structural condition of each tree has been described highlighting specific features. Unless otherwise stated, trees were found to be displaying ‘normal’ characteristics for their species. For each tree, where appropriate, notes on the structural integrity are provided on form, taper, forking habit, storm damage, decay, fungi, pests, etc.

Estimated Remaining Contribution (ERC) in Years

1.14. The estimated remaining contribution for each tree, group of trees or hedgerows is based on species, existing and apparent physiological and structural condition of the tree, group of trees or hedgerows. The ERC may affect proposed development since the longer the tree is likely to live the greater the contribution it will make to a development and the greater the need for retention. The following age bands have been used:

- >10 years: Tree is dead or dying. Unsuitable for retention;
- 10 – 20 years: Short term longevity only;
- 20 – 40 years: Mid-term longevity; and
- 40+: Good longevity.

Category Grading

1.15. Each individual tree has been given a Category Grading in accordance with BS5837: 2005 to reflect the overall arboricultural value and retention category. The Category Gradings are defined in accordance with the following criteria:

- Category Grading A: Trees of high quality and value, which are in such a condition as to be able to make a substantial contribution from an arboricultural, landscape, or cultural perspective (a minimum of 40 years life expectancy is suggested). (Coloured green on Plan E10226-100-AA-77-0002 A01);
- Category Grading B: Trees of moderate quality and value, which are in such a condition as to make a significant contribution from an arboricultural, landscape, or cultural perspective (a
minimum of 20 years life expectancy is suggested). (Coloured blue on Plan E10226-100-AA-77-0002 A01);

- Category Grading C: Trees of low quality and value, which are currently in adequate condition to remain until new planting could be established (a minimum of 10 years life expectancy is suggested), or young trees with a stem diameter below 150mm. (Coloured grey on Plan E10226-100-AA-77-0002 A01); and

- Category Grading R: Trees which are in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management. (Coloured dark red on Plan E10226-100-AA-77-0002 A01).

1.16. These categories are further divided into sub-categories, as defined within BS5837:2005, contained at Appendix B.

**Preliminary Management Recommendations**

1.17. Any recommendations made for management of the trees (e.g. tree surgery) prior to development are not a ‘specification’ for tree work. These recommendations are proposed on the basis that they are undertaken by a qualified arboricultural contractor, such as those listed in the Arboricultural Association’s Approved Contractors Directory (Ref. www.trees.org.uk).

1.18. These recommendations are proposed on the basis that they are undertaken by a qualified arboricultural contractor. Any work undertaken by the contractor should be in accordance with best practice, such as the European Tree Pruning Guide, published in 2001 by the Arboricultural Association, or required by BS3998:1989 Recommendations for Tree Work.

**Limitations**

1.19. All trees have been visually inspected from ground level with no climbing, boring or core sampling undertaken. All measurements are metric and approximate.

1.20. The comments made are based on observable factors present at the time of inspection and are based on maximising the trees’ safe life expectancy given their current situation. It must be stressed that this survey and report are not a tree risk assessment.

1.21. Trees are living, dynamic structures that can be affected by external conditions. It is therefore not possible to state with any certainty that a tree is safe. During severe weather even healthy trees can suffer stem snap or wind blow. Although relatively rare, there is also a well-known tendency for mature trees to occasionally shed limbs, even on calm days, and this should be acknowledged as a risk that cannot be mitigated. A lack of recommended work does not imply that a tree can be considered safe and likewise it should not be implied that a tree will be made safe following the completion of any recommended work.

**Un-assessable Risks**

1.22. Due to the changing nature of trees and other site circumstances this report and any recommendations made are limited to a period of eighteen months. Any alteration to the application site or development proposals could change the current circumstances and may invalidate this report and any recommendations made.

1.23. Unless otherwise stated trees should be re-inspected annually, or directly proceeding heavy storms (i.e. force 6-7 and above on the Beaufort scale). Trees should be regularly inspected to satisfy the ‘Duty of Care’ owed under the Occupiers Act 1984.
1.24. The Wildlife and Countryside Act (WCA) 1981 (as amended) affords protection to wild birds, their nests and eggs and makes it an offence to disturb a badger or recklessly endanger a bat or its roost.
2. **Findings of Arboricultural Survey**

**General Description of the Site**

2.1. The site is located on the northern edge of Brackley and comprises both pasture and arable fields. Arable fields are located to the north-east of Brackley on the eastern side of Northampton Road, whilst the remaining land is all pasture and lies between Northampton Road and Halse Road.

2.2. The site is bisected by a disused railway line, which is now largely overgrown with scrub and comprises a steep embankment near to the site's northern boundary. To the east of the disused railway lie several fields of un-grazed pasture and a BP filling station located on the roundabout between the Northampton Road and the A43. The fields to the west are all grazed and all the fields within the site are bounded by hedgerows.

2.3. A stream forms the northern boundary of the site, with residential properties forming the southern boundary and agricultural land on the west and east boundaries. Old Glebe House, which is excluded from the assessment area, is located in the centre of the site.

2.4. The majority of the trees surveyed were hedgerow trees, with very few individual trees growing within the fields. The only open grown individual trees are located in and around the grounds of Old Glebe House.

2.5. A total of 105 individual trees, 11 tree groups and 37 hedgerows were surveyed. All the trees, groups and hedges surveyed were within the site boundary or located in such close proximity to the site boundary that they could potentially be affected by construction activity from the proposed development.

2.6. All trees surveyed are shown on Plan E10226-100-AA-77-0002 A01 Findings of Arboricultural Survey and Tree Constraints Plan and the findings for each individual tree, group of trees and hedges can be found in the schedules of Appendix A.

**Tree Preservation Orders**

2.7. None of the trees within the site boundary are subject to a Tree Preservation Order (TPO), however nine trees adjacent to the site (located within the Saw Mills Site, off Northampton Road) are subject to a TPO.

2.8. The TPO affords legal protection to all designated trees (under Part VIII of the Town and Country Planning Act 1990 and in the Town and Country Planning (Trees) Regulations 1999). This prohibits removal or any pruning works to protected trees without permission from the Local Planning Authority (LPA).

**Species Composition**

**Individual Trees**

2.9. Of the individual trees surveyed, the predominant species is Ash. Other species include Willow, Elder, Horse Chestnut, Sycamore, Hornbeam, Hazel, Field Maple, Oak, Alder, Lime and Beech. The hedgerow tree stock is typically native or naturalised tree stock, the only area of designed and formally planted landscape is surrounding Old Glebe House. Large, mature trees such as Horse Chestnut and Lime line the northern boundary of the garden to Old Glebe House and two groups of similar mature trees lie within the field to the north of the property.
Hedgerows

2.10. The hedgerows are predominantly Hawthorn, but also include Elder, Spindle, Ash, Bramble, Ivy, Field Maple, Rose, Blackthorn and Hazel. Mature Leyland Cypress hedges surround the boundary of Old Glebe House and Brackley Field Cottages.

Tree Groups

2.11. Of the 11 groups surveyed the species mix includes Ash, Hawthorn, Field Maple, Blackthorn, Elder, Beech, Spindle, Rose, Ivy, Dogwood, Scots Pine, Willow and Hazel.

Physiological and Structural Condition

2.12. The survey involved ground level visual examination of the external features of the trees. Growing conditions were noted together with the presence of dead branch wood, small branch die-back and any fungal fruiting bodies.

Individual Trees

2.13. Of the 105 individual trees surveyed, 34 were found to be in good condition, 52 in fair condition, and 19 in poor condition. Evidence of fungal fruiting bodies was found on several trees, including probable *Inonotus* and *Ganoderma* species. Overall, the general health of the majority of the tree stock surveyed is considered to be fair.

2.14. Full inspection of many of the trees was impeded by the growth of ivy surrounding the trunks and within the canopy. A provisional assessment of physiological and structural condition has been made in many cases. Further investigation of these trees is recommended following the removal of ivy.

2.15. Structurally, several trees were found to be collapsed, or suppressed by adjacent specimens. However, generally the structural condition of the majority of the tree stock is considered to be fair.

Tree Groups

2.16. In total 11 groups of trees were surveyed, nine of which were considered to be in fair condition, one in good condition and one in poor condition. The trees within the groups are all planted in close proximity to each other and are in competition with each other for light, nutrients and space, which is evident in their weaker growth and less substantial structure compared with the individual trees.

Hedgerows

2.17. A total of 37 hedgerows were surveyed and the majority (20 in total) were found to be in good condition with nine in fair condition and eight in poor condition.

2.18. The condition of trees, tree groups and hedgerows was evenly balanced across the site indicating that the growing conditions for the tree stock was similar throughout the proposed development site.

Age Class

Individual Trees

2.19. The majority of trees surveyed (71 in total) were assessed as mature trees, with 30 being classified as middle aged. Two trees were assessed as young and two as over-mature.
Tree Groups and Hedgerows

2.20. Six of the tree groups were assessed as mature, three as middle aged and two as young.

2.21. The majority of the hedgerows, (34 in total) were assessed as being mature and the remaining three as middle aged.

2.22. The only young trees found on site were recently planted buffer strips, one on the eastern edge of the site and one on the south boundary to the east of Radstone Road.

2.23. The majority of land consists of agricultural farmland and consequently there were no signs of natural regeneration in the open pasture, however there were some signs of natural regeneration on the banks of the disused railway line and along the stream edge.

Quality Class

Individual Trees

2.24. The individual trees have been allocated category grades to reflect their arboricultural value (see Appendix A and Plan E10226-100-AA-77-0002 A01). Of the trees surveyed, 56 were assessed as Category C, a further 31 were assessed as Category B, 12 as Category A and six as Category R.

Tree Groups

2.25. The 11 tree groups were all assessed as Category C, which reflects the juvenility of two of the groups (G4 and G11) and the poor quality of the remaining groups.

Hedgerows

2.26. Just under 50% of the hedgerows surveyed (18 in total) have been assessed as Category B and the remaining 19 as Category C. The hedgerows surveyed as Category B form strong visual filters and as such should be retained. The remaining hedges do form weaker visual filters and with further management and gapping up have the potential to make a greater landscape contribution.
3. Arboricultural Implications

Development Proposals

3.1. Development proposals for the site apply only to the central section of the area surveyed. The proposals include residential dwellings with associated access and public open space. Proposals extend between Halse Road and the disused railway, with main vehicular access provided from Radstone Road. The following assessment has been based upon layout proposals supplied by Barton Willmore (dwg no. 18101 9207 Rev B).

Consideration of Impacts

3.2. The development has been designed such that it is set back from all the major hedgerows within the site and consequently very few trees would require removal as a result.

3.3. Public open space is proposed largely along the northern boundary of the site, allowing trees along the stream course to be retained within open space and with minimal intrusion into their root protection zones.

3.4. Based on the detailed layout proposals, only one individual tree (T96, Category C) and one group of trees (G9, Category C) would require removal to accommodate the development (refer to Plan E10226-100-AA-77-0006 A01). In addition, it is recommended that T77 (Category R) is also removed from the proposed area of public open space for reasons of sound arboricultural management.

3.5. Several stretches of hedgerow would require removal to facility access into and around the site. The longest stretches of hedgerow loss are proposed along Radstone Road, where roundabouts would be created within hedges H23 and H10, both north and south of The Old Glebe. The short stretch of remnant hedgerow H9 would be removed in its entirety and small areas of vegetation would be removed where the site joins Halse Road to allow vehicular and pedestrian only access points. Within the site, several further short stretches of hedge would be removed to create pedestrian and vehicular circulation routes. However, the overall loss of vegetation is minimised across the site.

3.6. The removal of one tree, one group of trees and several stretches of hedgerow would be sufficiently mitigated by the substantial new tree planting and open space proposals included within the landscape scheme for the development. However, the implications on the tree stock may need to be re-considered once proposals are designed in detail.
4. Tree Protection and Arboricultural Method Statement

4.1. This section provides details regarding tree protection and a method statement for working within the vicinity of trees.

Recommendations for Tree Protection

4.2. Plan E10226-100-AA-77-0002 A01 indicates the theoretical rooting areas (known as RPAs) which should be left undisturbed around any retained tree to avoid damage to roots or the rooting environment. Any construction activities undertaken within this area have the potential to adversely affect the health of these trees.

4.3. It is recommended that appropriate measures be taken to protect trees to be retained. Plan E10226-100-AA-77-0006 A01 indicates the locations of proposed tree protection fencing to be placed around retained trees and hedges during the construction period. Tree protection fencing should be erected prior to commencement on site to protect the retained trees, together with the measures outlined below, with the aim of ensuring their survival in a healthy condition.

4.4. Trees T63a, T64 and T65 are large Category A and Category B trees which are to be retained within an open space in the centre of the development, between a proposed Play Area and a residential street. Protection fencing is proposed slightly within its Root Protection Area (RPA) to allow sufficient working area for installation of the proposed road and footpath to the south. However, there should be sufficient space within the public open space to the north to allow the protection fencing to be offset and for the appropriate rooting area to be maintained, offset to the north. This procedure is allowed for within BS5837:2005.

4.5. Excavations for any balancing ponds within the larger area of open space along the northern edge of the development should avoid root protection areas in order to retain the trees along the watercourse in a healthy condition.

Protective Fencing

4.6. Tree protection on development sites is of paramount importance if trees are to be retained successfully. The inevitable stress caused by development near the existing trees can, if provision for adequate protection is not made, be a strain that can severely damage the trees or even result in their death. Although the trees appear healthy during and on completion of the development, the full effects may not become apparent for some years.

4.7. Protective fencing should be erected before any other material or machinery is brought onto the site and before any demolition or development takes place. Where clearance work takes place prior to the establishment of protective fencing, clear signage should be in place to inform contractors which trees are to be retained/felled.

4.8. Fencing should be erected in accordance with the provisions of BS5837: 2005. This should consist of a scaffold framework, a minimum of 2.3m high comprising a vertical and horizontal framework, well braced to resist impacts, with vertical tubes spaced at a maximum interval of 3m. Onto this, weldmesh panels should be securely fixed with wire or scaffold clamps, all in accordance with BS5837:2005 (see Appendix 3 for example).

4.9. Site signage should be erected on the protective fencing at regular intervals to warn contractors with wording such as ‘Protected Area – Do not Enter’.

4.10. Unless otherwise specified, no excavations should take place within the construction exclusion zone created by the tree protection fencing. This area should remain totally undisturbed. Tree
protection should be regularly monitored by the Contract Administrator to ensure that all fencing is in its correct place and that trees are not being adversely affected by the works.

Tree Removal

4.11. Any tree removal and all tree works should be undertaken by a qualified arboricultural contractor who should be listed in the Arboricultural Association’s Approved Contractors Directory, all in accordance with the requirements of BS3998:1989 and BS5837:2005.

4.12. Trees to be felled or vegetation to be removed should be clearly marked. The work should be timed to avoid the bird nesting season and other potential ecological constraints (e.g. bats and dormice), subject to consultation with an ecologist. If required, tree surgery work on mature trees with deadwood should be carried out under an Ecological Watching Brief. Care should be taken not to damage any surrounding vegetation to be retained.

4.13. Where appropriate, major limbs should be lowered to the ground during felling in order to minimise the impact upon the adjacent retained trees. Stump removal should also be actioned at this stage. Retained trees should not be used as anchorages for equipment used in stump removal. Work should be undertaken by hand where necessary and sections of a root system should be left in-situ if it is felt that damage may be caused to the adjacent trees.

Arboricultural Method Statement

General Precautions when Working Near Trees

4.14. The part of a tree most susceptible to damage is the root system; especially as the majority of the sensitive feeder roots are located within the top 600mm of soil, extending radially for distances frequently in excess of tree height. The factors which most commonly affect oxygen diffusion, causing root damage (and therefore must be avoided) include:

- Compaction of the ground;
- Ground excavation and soil stripping;
- Poor alignment and implementation of service channels;
- A change in soil levels (even if temporary);
- Covering the root zone with impervious surfaces;
- A rise in the water table level or ground saturation; and
- Damage by the direct toxicity of some materials (petrol, oil and lime in cement can kill underlying roots).

4.15. The tree protection measures outlined above, using protective fencing, will help to prevent root severance and asphyxiation. However, any work that has to be undertaken in close proximity to trees (i.e. within RPAs) must be undertaken by hand, in order to minimise the risk of damaging retained trees.

4.16. In accordance with BS5837:2005, the following precautions should be undertaken to avoid damage to retained trees:

- No materials shall be stored under the canopies of retained trees;
- No oil, diesel, bitumen, cement, solvents or other material likely to be injurious to a tree shall be stored any closer than 5m from the edge of the canopy of any trees;
- Concrete or cement mixing shall not be carried out within 10m of a tree;
• Fires shall not be lit in a position where flames can extend to within 5m of the canopy of any tree;

• Trees to be retained shall not be used as anchorages for any equipment or construction activity;

• Notice boards, telephone cables or other services shall not be attached to any part of a tree;

• A banksman shall be employed when using cranes or similar equipment near the spread of the canopy of a tree; and

• Allowance shall be made for any slope of the ground so that damaging materials do not run towards trees.

Avoiding Damage to Stems and Branches

4.17. Access around the site area during any works shall be carefully managed to protect the existing trees to be retained. If there is insufficient space for standard vehicles between areas of protective fencing, smaller sized plant and vehicles will need to be used.

4.18. Care shall be taken when planning site operations to ensure that wide or tall loads or plant with booms, jibs, and counterweights, can operate without coming into contact with the trees. Such contact could result in serious or detrimental damage to a tree.

Utility Service Connections

4.19. Proposed service routes should be outside of the RPAs of the trees to be retained to avoid disturbance to the tree roots.

4.20. Where service runs do occur in close proximity to trees, all installations should be carried out in accordance with the guidelines set out in NJUG Publication 10. Great care should be taken to preserve and work around roots greater than 25mm in diameter, and clusters of smaller roots avoiding damage to bark. Where it is necessary to sever roots greater than 25mm in diameter, further arboricultural advice should be sought. Where smaller roots must be severed, they should be cut back cleanly using secateurs or a sharp pruning saw. Any services laid through protected areas should be installed at a depth greater than 600mm to preserve the maximum number of roots and avoid conflicts between the tree roots and utility service run.

4.21. Backfilling of trenches should be carried out using the excavated soil, which should be worked in and around the roots and lightly ‘tamped’, not compacted, while respecting the original soil profile. The topsoil should be left proud of surrounding levels to allow for settlement.

4.22. Trenches should not be left open overnight, and arboricultural supervision should be provided during excavation of trenches through protected zones, if required.

Siting of Temporary Offices, Toilets and Material Storage Compounds

4.23. Such locations to be outside of the tree protective fencing and remain in only those agreed locations throughout the construction phase.
5. **Conclusion**

5.1. A total of 105 individual trees, 11 tree groups and 37 hedgerows were surveyed, principally comprising a mix of middle aged and mature trees of largely native species, giving the local landscape a well vegetated appearance and character of maturity. The trees and hedgerows were located within an agricultural setting on the edge of Brackley, comprising mostly hedgerow trees or groups of trees lining a disused railway bisecting the site or a watercourse forming the northern site boundary.

5.2. Overall, the general health and condition of the majority of the tree stock was considered to be fair, although certain specimens were smothered by ivy and others showed evidence of fungal fruiting bodies. Twelve trees were assessed as Category A (high quality and value) and a total of 31 trees were assessed as Category B (moderate quality and value). These trees are of large stature or good form and offer visual amenity to the area. Six trees were assessed as Category R (dead or dying). The remaining 56 trees were assessed as Category C (low quality and value).

5.3. The 11 tree groups were all assessed as Category C, which reflects the juvenility of two of the groups and the poor quality of the remaining groups. Approximately half of the hedgerows surveyed were assessed as Category B and the remaining half as Category C. The hedgerows surveyed as Category B form strong visual filters, whilst the remaining hedges have the potential to make a greater landscape contribution through gapping up and strengthening.

5.4. Proposed residential development within the central section of the area surveyed has been designed such that it is set back from the hedgerows within the site. Public open space is proposed largely along the northern boundary of the site, allowing trees along the stream to be retained within open space and with minimal intrusion into their root protection zones.

5.5. Based on the detailed layout proposals, only one individual tree (T96, Category C) and one group of trees (G9, Category C) would require removal to accommodate the development, along with removal of the Category R trees for reasons of sound arboricultural management (T77 is the only Category R tree within the development area).

5.6. Several stretches of hedgerow would require removal to facility access into and around the site, the longest being along Radstone Road where roundabouts would be created within hedges H23 and H10 north and south of The Old Glebe. Areas of vegetation would be removed where the site joins Halse Road to allow vehicular and pedestrian access points, along with the remnant hedge H9. Within the site, several further short stretches of hedge would be removed to create pedestrian and vehicular circulation routes. However, the overall loss of vegetation is minimised across the site.

5.7. Trees and hedges to be retained within and around the development are to be protected by fencing in accordance with BS5837:2005. Trees T63a, T64 and T65 may require protection fencing to be offset slightly to the north to allow for suitable access to dwellings north of The Old Glebe.

5.8. The removal of one tree, one group of trees and several stretches of hedgerow would be sufficiently mitigated by the substantial new tree planting and public open space included within the landscape proposals for the development.
APPENDICES

A. Arboricultural Survey Table
<table>
<thead>
<tr>
<th>Tree/Group No.</th>
<th>Species</th>
<th>Height</th>
<th>Stem Diameter</th>
<th>Crown Spread</th>
<th>Height of Crown Clearance</th>
<th>Age Class</th>
<th>Physiological Condition</th>
<th>Structural Condition</th>
<th>ERC</th>
<th>Category Grading</th>
<th>Observations and Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Ash</td>
<td>15m</td>
<td>680mm</td>
<td></td>
<td></td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>20-40 years</td>
<td>C</td>
<td>Ivy growing well into canopy of tree - unable to make complete inspection. Minor deadwood throughout canopy, lower limbs torn. Recommend severing ivy at base of tree and crown clean.</td>
</tr>
<tr>
<td>T2</td>
<td>Ash</td>
<td>14m</td>
<td>450mm</td>
<td></td>
<td></td>
<td>Mature</td>
<td>Poor</td>
<td>Fair</td>
<td>20-40 years</td>
<td>C</td>
<td>Ivy growing well into canopy of tree - unable to make complete inspection. Several large dead branches. Recommend severing ivy at base of tree and crown clean.</td>
</tr>
<tr>
<td>T3</td>
<td>Ash</td>
<td>9m</td>
<td>410mm</td>
<td></td>
<td>1.5m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T4</td>
<td>Ash</td>
<td>16m</td>
<td>1050mm</td>
<td></td>
<td>2m</td>
<td>Mature</td>
<td>Poor</td>
<td>Fair</td>
<td>40+</td>
<td>A/B</td>
<td>Old hedgerow tree now growing as individual tree. Fine spreading form. Lost central limbs. Evidence of fungal fruiting brackets - probably <em>Inonotus hispidus</em> (causing localised brittle fracture of limbs).</td>
</tr>
<tr>
<td>T5</td>
<td>Ash</td>
<td>16m</td>
<td>620mm</td>
<td></td>
<td>2.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Remove hanging (15cm) branches from crown of tree. Fine spreading old hedgerow tree growing out of coppiced stool - single stemmed.</td>
</tr>
<tr>
<td>T6</td>
<td>Ash</td>
<td>8m</td>
<td>270mm</td>
<td></td>
<td>1.5m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of trunk. Spreading form. Remove Hawthorn to base.</td>
</tr>
<tr>
<td>T7</td>
<td>Lime</td>
<td>14m</td>
<td>380mm</td>
<td></td>
<td>1m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Sever ivy at base of trunk (preventing inspection). Fine spreading hedgerow tree.</td>
</tr>
<tr>
<td>T8</td>
<td>Ash</td>
<td>10m</td>
<td>220mm</td>
<td>3.5</td>
<td>3.5</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None. This tree has good spreading form.</td>
</tr>
<tr>
<td>T9</td>
<td>Ash</td>
<td>8m</td>
<td>210mm</td>
<td></td>
<td>1.5m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree trunk.</td>
</tr>
<tr>
<td>T10</td>
<td>Ash</td>
<td>10m</td>
<td>175mm</td>
<td></td>
<td>1m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>One branch previously removed.</td>
</tr>
<tr>
<td>T11</td>
<td>Ash</td>
<td>8m</td>
<td>Multi-stemmed tree 260mm</td>
<td>3.5</td>
<td>3.5</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Remove stake to the west of the tree which is tied on to a dead branch. Sever ivy at base of trunk.</td>
</tr>
<tr>
<td>T12</td>
<td>Elder</td>
<td>6m</td>
<td>Multi-stemmed tree 760mm</td>
<td>4</td>
<td>4</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40 years</td>
<td>C</td>
<td>Recommend recopicing this Elder - deadwood in crown and damage to many of the branches to gain access to a man hole.</td>
</tr>
<tr>
<td>Tree/Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age</td>
<td>Class</td>
<td>Physiological Condition</td>
<td>Structural Condition</td>
<td>ERC</td>
<td>Category Grading</td>
</tr>
<tr>
<td>---------------</td>
<td>---------</td>
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<td>---------------</td>
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<td>--------------------------</td>
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<td>-------</td>
<td>-------------------------</td>
<td>---------------------</td>
<td>-----</td>
<td>-------------------</td>
</tr>
<tr>
<td>T13</td>
<td>Ash</td>
<td>18m</td>
<td>610mm</td>
<td>3 3 3 3</td>
<td>12m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40 years</td>
<td>R</td>
<td>Evidence of fungal fruiting bodies at the base of the tree. Few branches remain healthy. Recommend removal.</td>
</tr>
<tr>
<td>T14</td>
<td>Ash</td>
<td>18m</td>
<td>720mm</td>
<td>3 3 3 3</td>
<td>4m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>&lt;10 years</td>
<td>R</td>
<td>This tree has lost two of it's main leaders - evidence of fruiting bodies around the fallen branches. Recommend removal.</td>
</tr>
<tr>
<td>T15</td>
<td>Ash</td>
<td>20m</td>
<td>710mm</td>
<td>5 5 5 0</td>
<td>8m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40 years</td>
<td>C</td>
<td>Large branch to the west broken off. Deadwood in the remaining canopy. Recommend crown clean to remove torn branches and deadwood, sever ivy at base of trunk - possible fungal infection?</td>
</tr>
<tr>
<td>T16</td>
<td>Ash</td>
<td>20m</td>
<td>920mm</td>
<td>9 9 9 9</td>
<td>5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Fine hedgerow tree with good spreading form. Recommend crown clean to remove hangers, deadwood within crown and sever ivy at base.</td>
</tr>
<tr>
<td>T17</td>
<td>Ash</td>
<td>10m</td>
<td>Multi-stemmed tree 985mm</td>
<td>3 3 3 3</td>
<td>0.5m</td>
<td>Young</td>
<td>Good</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Tree has congested branch structure. Recommend thinning branch structure within canopy by 10%.</td>
</tr>
<tr>
<td>T18</td>
<td>Lime</td>
<td>11m</td>
<td>450mm</td>
<td>4 4 4 4</td>
<td>1m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T19</td>
<td>Ash</td>
<td>12m</td>
<td>390mm</td>
<td>4 4 4 4</td>
<td>1.5m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T20</td>
<td>Ash</td>
<td>11m</td>
<td>280mm</td>
<td>3 3 3 3</td>
<td>1m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T21</td>
<td>Sycamore</td>
<td>10m</td>
<td>520mm</td>
<td>5 5 5 5</td>
<td>0.75mm</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T22</td>
<td>Ash</td>
<td>8m</td>
<td>270mm</td>
<td>3 3 3 3</td>
<td>1m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T23</td>
<td>Lime</td>
<td>12m</td>
<td>290mm</td>
<td>4 4 4 4</td>
<td>2m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Good spreading form.</td>
</tr>
<tr>
<td>T24</td>
<td>Sycamore</td>
<td>14m</td>
<td>400mm multi stem</td>
<td>4.5 4.5 4.5 4.5</td>
<td>2.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of trunk.</td>
</tr>
<tr>
<td>T25</td>
<td>Ash</td>
<td>14m</td>
<td>Multi-stemmed 795mm</td>
<td>4 4 4 4</td>
<td>2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T26</td>
<td>Ash</td>
<td>9m</td>
<td>650mm</td>
<td>6 6 6 6</td>
<td>1.75m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Fine spreading tree. Minor deadwood. Recommend crown clean</td>
</tr>
<tr>
<td>T27</td>
<td>Sycamore</td>
<td>16m</td>
<td>1025mm</td>
<td>7 7 7 7</td>
<td>3m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Remove hanging branches and tree house from canopy.</td>
</tr>
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<tbody>
<tr>
<td>T28</td>
<td>Willow</td>
<td>9m</td>
<td>Multi-stem approx 1m (edge of stream)</td>
<td>7 7 7 7</td>
<td>2m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Dead branches at base of trunk to be removed. Tree is of good spreading form. Possible fungal fruiting bodies.</td>
</tr>
<tr>
<td>T29</td>
<td>Hazel</td>
<td>7m</td>
<td>Multi-stem 395mm</td>
<td>3 3 3 3</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair (est)</td>
<td>Fair (est)</td>
<td>40+</td>
<td>C</td>
<td>Ivy growing into canopy. Recommend sever ivy at base.</td>
</tr>
<tr>
<td>T30</td>
<td>Ash</td>
<td>14m</td>
<td>Approx 850mm (at edge of stream)</td>
<td>6 6 6 6</td>
<td>3m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Evidence of fruiting bodies at base of trunk. Further investigation recommended.</td>
</tr>
<tr>
<td>T31</td>
<td>Field Maple</td>
<td>10m</td>
<td>350mm</td>
<td>6 6 6 6</td>
<td>1m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T32</td>
<td>Field Maple</td>
<td>10m</td>
<td>350mm</td>
<td>6 6 6 6</td>
<td>1.5m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T33</td>
<td>Willow</td>
<td>7m</td>
<td>1250mm</td>
<td>2 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Remove torn hanging branches. Further investigation recommended.</td>
</tr>
<tr>
<td>T34</td>
<td>Not used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T35</td>
<td>Not used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T36</td>
<td>Not used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T37</td>
<td>Ash</td>
<td>14m</td>
<td>415mm</td>
<td>5 5 5 5</td>
<td>5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>T38</td>
<td>Willow</td>
<td>14m</td>
<td>455mm</td>
<td>4 4 4 4</td>
<td>3m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T39</td>
<td>Willow</td>
<td>15m</td>
<td>Multi-stem 875mm</td>
<td>5 5 5 5</td>
<td>4m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T40</td>
<td>Ash</td>
<td>16m</td>
<td>Multi-stem 1050mm</td>
<td>6 6 6 6</td>
<td>3m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T41</td>
<td>Ash</td>
<td>16m</td>
<td>680mm</td>
<td>6 6 6 6</td>
<td>6m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T42</td>
<td>Ash</td>
<td>16m</td>
<td>Multi-stem 1050mm</td>
<td>7 7 7 7</td>
<td>4m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree.</td>
</tr>
</tbody>
</table>

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</tr>
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<tbody>
<tr>
<td>T43</td>
<td>Oak</td>
<td>11m</td>
<td>700–800 - Ivy stems very large</td>
<td>5 5 5 5</td>
<td>2.5m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>&lt;10 years</td>
<td>R</td>
<td>Tree almost completely smothered by ivy.</td>
</tr>
<tr>
<td>T44</td>
<td>Ash</td>
<td>12m</td>
<td>Multi-stemmed tree 1200mm</td>
<td>4 4 4 4 4 0</td>
<td>Mature</td>
<td>Fair</td>
<td>Poor</td>
<td>&lt;10 years</td>
<td>R</td>
<td>Collapsed and crossing limbs. Lost main leader. Excessive weight to western most limb. Evidence of fungal fruiting bodies to both east and west side of base of stem (probably <em>Ganoderma</em> spp.).</td>
<td></td>
</tr>
<tr>
<td>T45</td>
<td>Ash</td>
<td>15m</td>
<td>850mm</td>
<td>6 6 6 6 2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Leaning slightly downhill. Recommend crown clean to remove minor deadwood.</td>
<td></td>
</tr>
<tr>
<td>T46</td>
<td>Sycamore</td>
<td>24m</td>
<td>1460mm</td>
<td>8 8 8 0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>This is a very fine spreading sycamore. Twin stemmed.</td>
<td></td>
</tr>
<tr>
<td>T47</td>
<td>Ash</td>
<td>12m</td>
<td>1500mm multi stem</td>
<td>7 7 7 7 2m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Formerly laid as part of hedge. Collapsed and broken branches - cavity at base.</td>
<td></td>
</tr>
<tr>
<td>T48</td>
<td>Alder</td>
<td>18m</td>
<td>750mm</td>
<td>6 11 6 11 0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Off-site tree with hanging deadwood - over-hanging site. Canopy bias to south. Ivy to top of canopy.</td>
<td></td>
</tr>
<tr>
<td>T48a</td>
<td>Alder</td>
<td>19m</td>
<td>540 multi stem</td>
<td>4 5 4 4 1.5m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Bifurcated at 1m.</td>
<td></td>
</tr>
<tr>
<td>T49</td>
<td>Ash</td>
<td>20m</td>
<td>910mm</td>
<td>8 9 10 12 0</td>
<td>Over mature</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40</td>
<td>C/B</td>
<td>Evidence of fruiting bodies on ground around fallen branches (probably <em>Inonotus hispidus</em>) - recommend detailed inspection. Several large limbs collapsed. Deadwood and hangers throughout.</td>
<td></td>
</tr>
<tr>
<td>T50</td>
<td>Ash</td>
<td>13m</td>
<td>880mm</td>
<td>9 9 9 9 0</td>
<td>Over mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Minor deadwood and hangers. Collapsed and crossing branches. Recommend crown clean.</td>
<td></td>
</tr>
<tr>
<td>T51</td>
<td>Alder</td>
<td>15m</td>
<td>420mm</td>
<td>4 4 4 4 1.5m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>T52</td>
<td>Alder</td>
<td>15m</td>
<td>420mm</td>
<td>5 6 4 4 1.5m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>T53</td>
<td>Sycamore</td>
<td>18m</td>
<td>680mm</td>
<td>6 6 6 6 4m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Significant ivy growth around stem and into canopy - provisional assessment. Recommend severing ivy at base of tree.</td>
<td></td>
</tr>
<tr>
<td>T54</td>
<td>Sycamore</td>
<td>15m</td>
<td>525mm</td>
<td>6 6 6 2.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Sever ivy at base of tree.</td>
<td></td>
</tr>
<tr>
<td>T55</td>
<td>Ash</td>
<td>18m</td>
<td>550mm</td>
<td>6 6 6 6 3.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Ivy growing into canopy - obscuring inspection of stem, provisional assessment. Recommend severing ivy at base of tree. Canopy has been raised above road.</td>
<td></td>
</tr>
</tbody>
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<th>ERC</th>
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<th>Observations and Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>T56</td>
<td>Giant Redwood</td>
<td>8m</td>
<td>280mm</td>
<td>2 2 2 2</td>
<td>0m</td>
<td>Middle</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T56a</td>
<td>Ash</td>
<td>12m</td>
<td>420mm</td>
<td>5 5 5 5</td>
<td>1.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Significant ivy growth around stem and into canopy - provisional assessment. Recommend severing ivy at base of tree.</td>
</tr>
<tr>
<td>T57</td>
<td>Horse Chestnut</td>
<td>9m</td>
<td>320mm</td>
<td>3 3 3 3</td>
<td>1m</td>
<td>Middle</td>
<td>Poor</td>
<td>Poor</td>
<td>10-20 years</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T58</td>
<td>Horse Chestnut</td>
<td>10m</td>
<td>310mm</td>
<td>4 4 4 4</td>
<td>2m</td>
<td>Middle</td>
<td>Fair</td>
<td>Fair</td>
<td>10-20 years</td>
<td>C</td>
<td>Tree leaning south. Included bark forming at the fork of the tree which looks very weak. Fork splitting down by approx 0.75m.</td>
</tr>
<tr>
<td>T59</td>
<td>Willow</td>
<td>18m</td>
<td>620mm</td>
<td>7 7 7 7</td>
<td>2m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Remove deadwood.</td>
</tr>
<tr>
<td>T60</td>
<td>Lime</td>
<td>19m</td>
<td>705mm</td>
<td>7 7 7 7</td>
<td>4m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>A</td>
<td>Epicormic growth causing congested centre of crown, recommend thinning.</td>
</tr>
<tr>
<td>T61</td>
<td>Hornbeam</td>
<td>19m</td>
<td>705mm</td>
<td>6 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>T62</td>
<td>Lime</td>
<td>19m</td>
<td>700mm</td>
<td>6 6 6 6</td>
<td>2.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>A</td>
<td>Epicormic growth causing congested centre of crown, recommend thinning. Trees T60 - T62 form a fine group of 3 trees in the centre of the field.</td>
</tr>
<tr>
<td>T63</td>
<td>Ash</td>
<td>16m</td>
<td>600mm</td>
<td>7 7 7 7</td>
<td>2.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Ivy growing well into canopy of tree - obscured inspection. Wound at ground level visible from roadside.</td>
</tr>
<tr>
<td>T63a</td>
<td>Horse Chestnut</td>
<td>10m</td>
<td>660mm</td>
<td>6 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>T64</td>
<td>Horse Chestnut</td>
<td>10m</td>
<td>680mm</td>
<td>6 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>T65</td>
<td>Horse Chestnut</td>
<td>12m</td>
<td>860mm</td>
<td>8 8 8 8</td>
<td>2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Extended lower limbs. May consider reducing weight to southeastern limb, but not recommended.</td>
</tr>
<tr>
<td>T66</td>
<td>Lime</td>
<td>24m</td>
<td>760mm</td>
<td>6 6 6 6</td>
<td>3m</td>
<td>Mature</td>
<td>Fair (est)</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Ivy is growing well into canopy of tree. Unable to make complete inspection of tree. Recommend severing ivy at base of tree.</td>
</tr>
<tr>
<td>T67</td>
<td>Horse Chestnut</td>
<td>17m</td>
<td>820mm</td>
<td>7 7 7 7</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Low, spreading branches.</td>
</tr>
<tr>
<td>T68</td>
<td>Horse Chestnut</td>
<td>19m</td>
<td>860mm</td>
<td>8 8 8 8</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Low, spreading branches. Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T69</td>
<td>Horse Chestnut</td>
<td>18m</td>
<td>750mm</td>
<td>6 6 6 6</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>Tree/ Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age Class</td>
<td>Physiological Condition</td>
<td>Structural Condition</td>
<td>ERC</td>
<td>Category Grading</td>
<td>Observations and Recommendations</td>
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<tr>
<td>----------------</td>
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<td>----------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>T70</td>
<td>Lime</td>
<td>19m</td>
<td>720mm</td>
<td>6</td>
<td>6</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T71</td>
<td>Lime</td>
<td>19m</td>
<td>760mm</td>
<td>6</td>
<td>6</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>T72</td>
<td>Lime</td>
<td>19m</td>
<td>780mm</td>
<td>6</td>
<td>6</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>None.</td>
</tr>
<tr>
<td>T73</td>
<td>Beech</td>
<td>18m</td>
<td>1010mm</td>
<td>8</td>
<td>8</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Slight lean and canopy bias to north. Over congested crown. May consider crown reduction.</td>
</tr>
<tr>
<td>T74</td>
<td>Ash</td>
<td>9m</td>
<td>Multi-stem tree 1020mm</td>
<td>3</td>
<td>3</td>
<td>Middle</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Remove dead branch and sever ivy at base of tree. Former coppiced specimen - located to north side of stream.</td>
</tr>
<tr>
<td>T75</td>
<td>Ash</td>
<td>12m</td>
<td>Multi-stem 580mm</td>
<td>3</td>
<td>5</td>
<td>Middle</td>
<td>Fair</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Buttressing to base of stem. Leaning east by 10° approx, suppressed by adjacent T76. Minor deadwood.</td>
</tr>
<tr>
<td>T76</td>
<td>Ash</td>
<td>15m</td>
<td>Multi-stem 860mm</td>
<td>6</td>
<td>6</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Ivy growing into canopy of tree - obscuring stem. Recommend severing ivy at base of tree.</td>
</tr>
<tr>
<td>T77</td>
<td>Ash</td>
<td>12m</td>
<td>Multi-stem 695mm</td>
<td>6</td>
<td>6</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>&lt;10</td>
<td>R/C</td>
<td>Ivy growing into canopy. Suppressed by T78, some dieback; major limb lost.</td>
</tr>
<tr>
<td>T78</td>
<td>Ash</td>
<td>16m</td>
<td>650mm</td>
<td>5</td>
<td>6</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Ivy growth obscuring base of stem - provisional assessment. Lower limbs have been removed. Small branch deadwood on ground.</td>
</tr>
<tr>
<td>T79</td>
<td>Ash</td>
<td>7m</td>
<td>250mm</td>
<td>3</td>
<td>3</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Growing out of coppiced stand.</td>
</tr>
<tr>
<td>T80</td>
<td>Ash</td>
<td>180mm</td>
<td>880 multi stem</td>
<td>3</td>
<td>5</td>
<td>Middle</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C/R</td>
<td>Four stems have been removed due to overhead power lines - only one stem remaining, leaning slightly east. Fungal fruiting bodies evident to base, north side - probably Ganoderma. Ultimately last stem will require removal.</td>
</tr>
<tr>
<td>T81</td>
<td>Ash</td>
<td>11m</td>
<td>450mm</td>
<td>N/A</td>
<td>N/A</td>
<td>Middle</td>
<td>Fair</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>No canopy - has been pollarded to 1.5m beneath power cables. Sprouting from base. Some evidence of decay.</td>
</tr>
<tr>
<td>T82</td>
<td>Ash</td>
<td>13m</td>
<td>600mm</td>
<td>5</td>
<td>3</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Severely pruned to south side due to power cables overhead.</td>
</tr>
<tr>
<td>T83</td>
<td>Ash</td>
<td>10m</td>
<td>635mm</td>
<td>5</td>
<td>5</td>
<td>Mature</td>
<td>Fair</td>
<td>Poor</td>
<td>20-40</td>
<td>C</td>
<td>Central limb torn and hanging deadwood. Several damaged branches. Recommend crown clean.</td>
</tr>
<tr>
<td>T84</td>
<td>Ash</td>
<td>17m</td>
<td>880mm</td>
<td>6</td>
<td>6</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Removal of some dead wood in the crown. Tree already had branches over field pruned.</td>
</tr>
<tr>
<td>T85</td>
<td>Ash</td>
<td>18m</td>
<td>615mm</td>
<td>5</td>
<td>5</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>20-40</td>
<td>C</td>
<td>Several dead limbs, recommend crown clean.</td>
</tr>
<tr>
<td>T86</td>
<td>Ash</td>
<td>15m</td>
<td>2500 multi stem</td>
<td>8</td>
<td>8</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Fine specimen located in the corner of field. Minor deadwood.</td>
</tr>
</tbody>
</table>

Radstone Fields, Brackley, Northamptonshire
Arboricultural Survey
E10226 9 March 2010 CAH/rew
<table>
<thead>
<tr>
<th>Tree/Group No.</th>
<th>Species</th>
<th>Height</th>
<th>Stem Diameter</th>
<th>Crown Spread</th>
<th>Height of Crown Clearance</th>
<th>Age Class</th>
<th>Physiological Condition</th>
<th>Structural Condition</th>
<th>ERC</th>
<th>Category Grading</th>
<th>Observations and Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>T87</td>
<td>Willow</td>
<td>20m</td>
<td>980mm</td>
<td>6 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Lowest limb is dead and hanging. Recommend removal. Other minor deadwood and hangers. Crown Clean.</td>
</tr>
<tr>
<td>T88</td>
<td>Willow</td>
<td>19m</td>
<td>1470mm</td>
<td>7 7 7 7</td>
<td>2m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Recommend removal of torn branch to north of canopy. Makes a very interesting specimen tree. Hangers especially to west side. Recommend crown clean.</td>
</tr>
<tr>
<td>T89</td>
<td>Willow</td>
<td>8m</td>
<td>590mm</td>
<td>8 0 4 4</td>
<td>1m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>20-40</td>
<td>C</td>
<td>None. Old pollard.</td>
</tr>
<tr>
<td>T90</td>
<td>Willow</td>
<td>10m</td>
<td>680mm</td>
<td>4 4 4 8</td>
<td>0.5m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>10 to 20</td>
<td>R</td>
<td>Tree pulled over by the weight of ivy. Heartwood is extensively decayed. Recommend leaving where fallen for ecological interest.</td>
</tr>
<tr>
<td>T91</td>
<td>Ash</td>
<td>19m</td>
<td>multi-stem 1500</td>
<td>6 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Good hedgerow tree, formerly a layed hedge.</td>
</tr>
<tr>
<td>T92</td>
<td>Oak</td>
<td>20mm</td>
<td>1200mm</td>
<td>6 6 6 6</td>
<td>4m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Good hedgerow tree. Remove hanging branch and further investigation of cavities within trunk is recommended. Located north side of stream, off site.</td>
</tr>
<tr>
<td>T93</td>
<td>Ash</td>
<td>12m</td>
<td>500mm</td>
<td>4 4 4 4</td>
<td>3m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>T94</td>
<td>Sycamore</td>
<td>16m</td>
<td>650mm</td>
<td>5 5 5 5</td>
<td>2m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Cavity at the first branch junction - recommend further investigation. Included bark or splitting to the trunk, mid canopy. Crown clean to remove deadwood.</td>
</tr>
<tr>
<td>T95</td>
<td>Sycamore</td>
<td>15m</td>
<td>500mm</td>
<td>5 5 5 5</td>
<td>3m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>T96</td>
<td>Ash</td>
<td>13m</td>
<td>380mm</td>
<td>3 3 3 3</td>
<td>3m</td>
<td>Middle Aged</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40</td>
<td>C</td>
<td>Cavity to base of stem. Possible decay.</td>
</tr>
<tr>
<td>T97</td>
<td>Ash</td>
<td>10m</td>
<td>multi-stem 620mm</td>
<td>4 4 4 4</td>
<td>2m</td>
<td>Middle Aged</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40</td>
<td>C</td>
<td>Remove Hawthorn growing at base of tree.</td>
</tr>
<tr>
<td>T98</td>
<td>Ash</td>
<td>12m</td>
<td>390mm</td>
<td>4 4 4 4</td>
<td>2.5m</td>
<td>Middle Aged</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40</td>
<td>C</td>
<td>Growing adjacent to T99. Recommend removal of Ash to allow for future growth of T99.</td>
</tr>
<tr>
<td>T99</td>
<td>Horse Chestnut</td>
<td>16m</td>
<td>930mm</td>
<td>6 6 6 6</td>
<td>2m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>A</td>
<td>Fine spreading specimen.</td>
</tr>
<tr>
<td>T100 (Not used)</td>
<td>Ash</td>
<td>13m</td>
<td>380mm</td>
<td>6 6 6 6</td>
<td>2.5m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree.</td>
</tr>
<tr>
<td>T101</td>
<td>Ash</td>
<td>16m</td>
<td>620mm</td>
<td>7 7 7 7</td>
<td>4m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>Tree/ Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age Class</td>
<td>Physiological Condition</td>
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<tr>
<td>----------------</td>
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<td>------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>T103</td>
<td>Ash</td>
<td>17m</td>
<td>720mm</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>3m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>T104</td>
<td>Ash</td>
<td>20m</td>
<td>680mm</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td>8</td>
<td>3m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>T105</td>
<td>Lime</td>
<td>15m</td>
<td>820mm</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>4m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>T106</td>
<td>Lime</td>
<td>16m</td>
<td>600mm</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>3m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>G1</td>
<td>Hawthorn</td>
<td>6m</td>
<td>150mm</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>0.75cm</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>G2</td>
<td>Ash</td>
<td>10m</td>
<td>80-180mm</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>G3</td>
<td>Ash</td>
<td>10m</td>
<td>80-180mm</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1m</td>
<td>Middle Aged</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>G4</td>
<td>Field Maple, Ash, Hawthorn, Blackthorn, Elder, Beech</td>
<td>5m</td>
<td>50-100mm</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0.75mm</td>
<td>Young</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>G5</td>
<td>Elder, Ash, Field Maple, Blackthorn, Bramble, Spindle</td>
<td>3-12m</td>
<td>50mm &amp; 220mm</td>
<td>2 to 4</td>
<td>2 to 4</td>
<td>2 to 4</td>
<td>2 to 4</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>G6</td>
<td>Hawthorn, Field Maple, Ash</td>
<td>6-8m</td>
<td>220mm - 560mm multi-stemmed</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Tree/Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age Class</td>
<td>Physiological Condition</td>
<td>Structural Condition</td>
<td>ERC</td>
<td>Category Grading</td>
<td>Observations and Recommendations</td>
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</tr>
<tr>
<td>G7</td>
<td>Elder, Ash, Field Maple, Blackthorn, Bramble, Spindle</td>
<td>3-12m</td>
<td>50mm &amp; 220mm</td>
<td>2 to 4</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Dense stand of self seeded trees growing on steep embankment.</td>
</tr>
<tr>
<td>G8</td>
<td>Ash</td>
<td>12m</td>
<td>210-250mm</td>
<td>3 to 4</td>
<td>1.5m</td>
<td>Middle Aged</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree trunks. Minor deadwood, brambles to base. Recommend Crown clean.</td>
</tr>
<tr>
<td>G9</td>
<td>Hawthorn, Field Maple</td>
<td>6-8m</td>
<td>220mm</td>
<td>3 to 4</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Sever ivy at base of tree trunks.</td>
</tr>
<tr>
<td>G10</td>
<td>Hawthorn, Field Maple, Rose, Ivy</td>
<td>7m</td>
<td>Multi-stemmed</td>
<td>3 to 4</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>G11</td>
<td>Spindle, Willow, Beech, Field Maple, Blackthorn, Ash, Dog wood, Hawthorn, Scots Pine, Hazel, Oak</td>
<td>3 to 4</td>
<td>50 - 100</td>
<td>1 to 2</td>
<td>1</td>
<td>Young</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Recently planted woodland buffer strip, at 1.5m centres. Will need thinning in the future.</td>
</tr>
<tr>
<td>H1</td>
<td>Hawthorn</td>
<td>4m</td>
<td>50-100mm</td>
<td>2 to 2</td>
<td>0.5m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40 years</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>H2</td>
<td>Hawthorn</td>
<td>4-6m</td>
<td>50-150mm</td>
<td>3 to 3</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>Dense hedge forming good visual screen, turns into a group of overgrown hawthorns at southern end. Cut back height of hedge to 3m.</td>
</tr>
<tr>
<td>H3</td>
<td>Elder, Spindle, Ash, Bramble</td>
<td>4-5m</td>
<td>50-180mm</td>
<td>2 to 2</td>
<td>0m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>20-40 years</td>
<td>C</td>
<td>Hedgerow requires gapping up with native species. Remove dead specimens and fallen branches.</td>
</tr>
<tr>
<td>H4</td>
<td>Hawthorn</td>
<td>3m</td>
<td>50-120mm</td>
<td>1.5 to 1.5</td>
<td>0m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Hedgerow forming highway boundary. Regular management to 3m would create denser screen.</td>
</tr>
<tr>
<td>Tree/Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Age Class</td>
<td>Physiological Condition</td>
<td>Structural Condition</td>
<td>ERC</td>
<td>Category Grading</td>
<td>Observations and Recommendations</td>
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<td></td>
</tr>
<tr>
<td>H5</td>
<td>Hawthorn, Bramble</td>
<td>4-5m</td>
<td>100-180mm</td>
<td>3 3 3 3</td>
<td>1m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Remnant hedgerow comprising individual plants. Fallen hedgerow plants in centre of line.</td>
</tr>
<tr>
<td>H6</td>
<td>Hawthorn, Ash, Elder</td>
<td>3m</td>
<td>50-100mm</td>
<td>1.5 1.5 1.5 1.5</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Cut back to 3m. Allow ash sapling to grow into individual hedgerow trees.</td>
</tr>
<tr>
<td>H7</td>
<td>Hawthorn, Ash, Elder, Field Maple, Bramble</td>
<td>3m</td>
<td>50-100mm</td>
<td>1.5 1.5 1.5 1.5</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Cut back to 3m. Allow ash sapling to grow into individual hedgerow trees.</td>
</tr>
<tr>
<td>H8</td>
<td>Hawthorn, Ash, Bramble, Elder</td>
<td>4-5m</td>
<td>50-150mm</td>
<td>2 2 2 2</td>
<td>0.75mm</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Overgrown hedgerow forms good visual screen.</td>
</tr>
<tr>
<td>H9</td>
<td>Hawthorn</td>
<td>5m</td>
<td>50-220mm</td>
<td>3 3 3 3</td>
<td>1m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Remnant hedgerow.</td>
</tr>
<tr>
<td>H10</td>
<td>Elder, Bramble, Hawthorn, Rose, Blackthorn, Ash</td>
<td>1m</td>
<td>20-80mm</td>
<td>1 1 1 1</td>
<td>0m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>H11</td>
<td>Hawthorn, Bramble, Ivy, Elder, Ash</td>
<td>4-5m</td>
<td>50-150mm</td>
<td>2 2 2 2</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Recommend cutting back to 3m and gapping up with suitable native species.</td>
</tr>
<tr>
<td>H12</td>
<td>Willow, Ash, Sycamore, Hazel, Ivy, Hawthorn</td>
<td>6-12m</td>
<td>50-350mm</td>
<td>3 3 3 3</td>
<td>1m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Overgrown scrubby vegetation to embankment.</td>
</tr>
<tr>
<td>H13</td>
<td>Ash, Bramble, Hawthorn, Blackthorn, Rose, Field Maple, Elder</td>
<td>3-4m</td>
<td>50-150mm</td>
<td>2 2 2 2</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>Tree/ Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age Class</td>
<td>Physiological Condition</td>
<td>Structural Condition</td>
<td>ERC</td>
<td>Category Grading</td>
<td>Observations and Recommendations</td>
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</tr>
<tr>
<td>H14</td>
<td>Ash, Hawthorn, Bramble, Ivy, Field Maple, Blackthorn, Elm</td>
<td>6-8m</td>
<td>50-180mm</td>
<td>N:3 S:3 E:3 W:3</td>
<td>0m</td>
<td>Mature</td>
<td>Fair</td>
<td>Poor</td>
<td>40+</td>
<td>B/C</td>
<td>Hedge comprising overgrown shrubs and trees, many overcome by ivy, bramble and elder. Several trees collapsing, fallen limbs etc. Recommend removal of dead and damaged material, appropriate gapping up.</td>
</tr>
<tr>
<td>H15</td>
<td>Hawthorn, Blackthorn, Hazel, Ash, Field Maple, Bramble</td>
<td>4-8m</td>
<td>50-220mm</td>
<td>N:3 S:3 E:3 W:3</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Pull undergrowth back from hedgerow. Sparse at north west end beside stream.</td>
</tr>
<tr>
<td>H16</td>
<td>Alder, Elder, Blackthorn, Hawthorn, Bramble</td>
<td>2-6m</td>
<td>50-220mm</td>
<td>N:3 S:3 E:3 W:3</td>
<td>0.5m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Sparse and overgrown with brambles - gaps in the hedge require gapping up with native species.</td>
</tr>
<tr>
<td>H17</td>
<td>Hawthorn</td>
<td>3-5m</td>
<td>50-150mm</td>
<td>1 1 1 1</td>
<td>0m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Relatively recently planted hedge forming highway boundary. Recommend reduce height to improve latteral growth and gap up in places where some plants are not doing as well as others.</td>
</tr>
<tr>
<td>H18</td>
<td>Hawthorn, Blackthorn, Ash, Elder</td>
<td>4-5m</td>
<td>50-150mm</td>
<td>2 2 2 2</td>
<td>0m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
</tr>
<tr>
<td>H19</td>
<td>Hawthorn, Ivy, Ash</td>
<td>3-5m</td>
<td>50-150mm</td>
<td>2 2 2 2</td>
<td>0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>The hedgerow is being over-crowded with ivy in places. Recommend severing ivy at base of hedgeow.</td>
</tr>
<tr>
<td>H20</td>
<td>Blackthorn</td>
<td>3-5m</td>
<td>50-150mm</td>
<td>1 1 1 1</td>
<td>0m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>Cut back suckering Blackthorn.</td>
</tr>
<tr>
<td>H21</td>
<td>Hawthorn, Ash, Ivy</td>
<td>4-8m</td>
<td>80-220mm</td>
<td>1 to 3 1 to 3 1 to 3 1 to 3</td>
<td>0.5m</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
</tr>
<tr>
<td>H22</td>
<td>Elder, Hawthorn, Bramble, Blackthorn, occasional Ash</td>
<td>3-5m</td>
<td>50-150mm</td>
<td>2 2 2 2</td>
<td>0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Overgrown and scrappy hedge, with damage caused by adjacent metal fence.</td>
</tr>
<tr>
<td>Tree/ Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age Class</td>
<td>Physiological Condition</td>
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</tr>
<tr>
<td>H23</td>
<td>Elder, Bramble, Hawthorn, Rose, Blackthorn, Ash</td>
<td>1m</td>
<td>20-80mm</td>
<td>1 1 1 1 0m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>H24</td>
<td>Leyland Cypress</td>
<td>5-7m</td>
<td>150mm</td>
<td>2 2 2 2 0m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>H25</td>
<td>Leyland Cypress</td>
<td>2.5m - Standard Leyland Cypress trees within hedge. Height 8m.</td>
<td>80cm, Individual trees 120cm.</td>
<td>2 2 2 2 0m</td>
<td>Middle Aged</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td>None.</td>
<td></td>
</tr>
<tr>
<td>H26</td>
<td>Hawthorn, Blackthorn, Field Maple</td>
<td>3-4m</td>
<td>50-150mm</td>
<td>2 2 2 2 0.5m</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Sever ivy at base of trunks where necessary. Clear bramble from hedgerow.</td>
<td></td>
</tr>
<tr>
<td>H27</td>
<td>Bramble, Hawthorn, Blackthorn, Ivy, Elder</td>
<td>3-6m</td>
<td>50-260mm</td>
<td>3 3 3 3 0.5m</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Recommend removal of bramble from areas of hedge next to ditch.</td>
<td></td>
</tr>
<tr>
<td>H28</td>
<td>Hawthorn, Elder, Field Maple, Ash</td>
<td>3 to 4m</td>
<td>50-150mm</td>
<td>2 2 2 2 0.5</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>C</td>
<td>Recommend gapping up beside stream with suitable native species.</td>
<td></td>
</tr>
<tr>
<td>H29</td>
<td>Hawthorn, Elder, Ash</td>
<td>2 to 8m</td>
<td>50 - 220mm</td>
<td>3 3 3 3 0.5</td>
<td>Mature</td>
<td>Poor</td>
<td>Poor</td>
<td>40+</td>
<td>C</td>
<td>Recommend gapping up with suitable native species.</td>
<td></td>
</tr>
<tr>
<td>H30</td>
<td>Elder, Hawthorn, Ivy, Bramble, Blackthorn</td>
<td>4m</td>
<td>50-150mm</td>
<td>1 1 1 1 0</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Hedge has previously been managed to a height of 2m. Recommend recutting to 2m.</td>
<td></td>
</tr>
<tr>
<td>H31</td>
<td>Elder, Hawthorn, Ivy, Bramble, Blackthorn</td>
<td>4m</td>
<td>50-150mm</td>
<td>1 1 1 1 0</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td>Hedge has previously been managed to a height of 2m. Recommend recutting to 2m.</td>
<td></td>
</tr>
<tr>
<td>Tree/Group No.</td>
<td>Species</td>
<td>Height</td>
<td>Stem Diameter</td>
<td>Crown Spread</td>
<td>Height of Crown Clearance</td>
<td>Age Class</td>
<td>Physiological Condition</td>
<td>Structural Condition</td>
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</tr>
<tr>
<td>H32</td>
<td>Elder, Hawthorn, Ivy, Bramble, Blackthorn</td>
<td>4m</td>
<td>50-150mm</td>
<td>1 1 1 1 0</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td></td>
<td>Hedge has previously been managed to a height of 2m. Recommend recutting to 2m.</td>
</tr>
<tr>
<td>H33</td>
<td>Elder, Hawthorn, Ivy, Bramble, Blackthorn</td>
<td>4m</td>
<td>50-150mm</td>
<td>1 1 1 1 0</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td></td>
<td>Hedge has previously been managed to a height of 2m. Recommend recutting to 2m. Sections of this hedgerow are now overgrown with bramble, remove bramble.</td>
</tr>
<tr>
<td>H34</td>
<td>Hawthorn, Bramble</td>
<td>4 to 5m</td>
<td>50-150mm</td>
<td>2 2 2 2 0.5</td>
<td>Mature</td>
<td>Fair</td>
<td>Fair</td>
<td>40+</td>
<td>B</td>
<td></td>
<td>Recommend gapping up with native species.</td>
</tr>
<tr>
<td>H35</td>
<td>Leyland Cypress</td>
<td>8 to 12m approx</td>
<td>80-220mm</td>
<td>3 3 3 3 0</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>C</td>
<td></td>
<td>None.</td>
</tr>
<tr>
<td>H36</td>
<td>Elder, Hawthorn, Ivy, Bramble, Blackthorn</td>
<td>4m</td>
<td>50-150mm</td>
<td>1 1 1 1 0</td>
<td>Mature</td>
<td>Good</td>
<td>Good</td>
<td>40+</td>
<td>B</td>
<td></td>
<td>Hedge has previously been managed to a height of 2m. Recommend recutting to 2m.</td>
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</tbody>
</table>
B. Cascade Chart for Tree Quality Assessment
<table>
<thead>
<tr>
<th><strong>Category</strong></th>
<th><strong>Definition</strong></th>
<th><strong>Criteria</strong></th>
<th><strong>Identification on Plan</strong></th>
</tr>
</thead>
</table>
| **Category R** | Those in such a condition that any existing value would be lost within 10 years and which should, in the current context, be removed for reasons of sound arboricultural management | - Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other R category trees (i.e. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning);  
- Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline; and  
- Trees infected with pathogens of significance to the health and/or safety of other trees nearby (e.g. Dutch elm disease), or very low quality trees suppressing adjacent trees of better quality.  
NOTE: Habitat reinstatement may be appropriate (e.g. R category tree used as a bat roost: installation of bat box in nearby tree) | DARK RED |
| **Category A** | Those of high quality and value: in such a condition as to be able to make a substantial contribution (a minimum of 40 years is suggested) | | LIGHT GREEN |
| **Category B** | Those of moderate quality and value: those in such a condition as to make a significant contribution (a minimum of 20 years is suggested) | Trees present in numbers, usually as groups or woodlands, such that they form distinct landscape features, thereby attracting a higher collective rating than they might as individuals but which are not, individually, essential components of formal or semi-formal arboricultural features (e.g. includes better, A category specimens), or trees situated mainly internally to the site, therefore individually having little visual impact on the wider locality | MID BLUE |
| **Category C** | Those of low quality and value: currently in adequate condition to remain until new planting could be established (a minimum of 10 years is suggested), or young trees with a stem diameter below 150mm | Trees present in groups or woodlands, but without this conferring on them significantly greater landscape value, and/or trees offering low or only temporary screening benefit | GREY |

**NOTE:** Whilst C category trees will usually not be retained where they would impose a significant constraint on development, young trees with a stem diameter of less than 150mm should be considered for relocation.
C. Protection Fencing
1 Standard scaffold poles
2 Uprights to be driven into the ground
3 Panels secured to uprights with wire ties and where necessary standard scaffold clamps
4 Weldmesh wired to the uprights and horizontals
5 Standard clamps
6 Wire twisted and secured on inside face of fencing to avoid easy dismantling
7 Ground level
8 Approx. 0.6 m driven into the ground
PLANS

Findings of Arboricultural Survey and Tree Constraints Plan  
(E10226-100-AA-77-0002 A01 Mar 2007 CAH/BS)

Tree Protection Plan  
(E10226-100-AA-77-0006 A01 Mar 2010 CH/BS)