Planning, Design & Access Statement

To support Planning and Listed Building Consent Applications for works to the existing Stable Block at Edge Grove School, Aldenham Village, Hertfordshire, WD25 8NL

Edge Grove School

March 2024

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Edge Grove School, Aldenham Village

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I. Purpose of this Document

This document is intended to demonstrate to the Local Planning Authority a thorough understanding of the site characteristics and constraints in relation to planning policies and guidelines, and our considered and methodical design response.

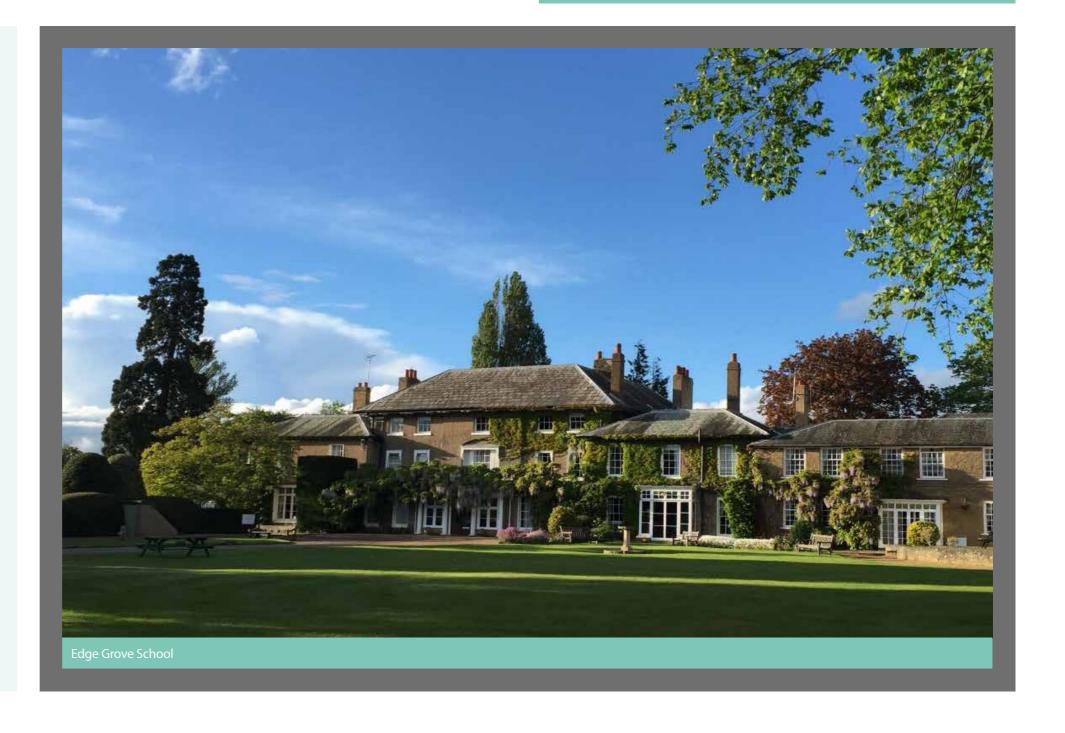
This Planning Design and Access statement is submitted in support of planning and listed building consent applications to renew identical extant permissions for a replacement rear extension and internal works to the existing 'stable block' which is a building that sits centrally within the existing built campus of Edge Grove School in Aldenham, Hertfordshire.

The proposed works - which remain exactly as previously consented - were unable to be implemented as the school had originally intended as a result of the implications arising from the Covid Pandemic which struck soon after the original consent were issued.

The application represents the final, most important and pivotal element of a wider development programme which combines to deliver essential improvements in the operation, functionality and condition of key school buildings and look to bring the school further up to date and 'fit-for-purpose' in line with its 5 year and 10 year masterplan requirements.

The document will set out an introduction to the school, it's current issues and constraints which are holding up its ability to grow and develop to deliver a modern and fit-for-purpose educational offer, a review of development options considered to address these problems, and a detailed description and analysis of the consequential built form developments as now proposed to meet the school's needs.

The statement will also consider the site's context both physical and in town planning policy and heritage terms and will set out the considerations undertaken to date that have led to the formulation of the current proposals in the manner as now presented.







II. Edge Grove School

An Introduction

Edge Grove School is a vibrant and successful independent day and boarding school that has been established since 1935, and provides education for boys and girls aged 3 to 13. The school is located within the Green Belt countryside, to the west of High Cross and to the north of Aldenham Village.

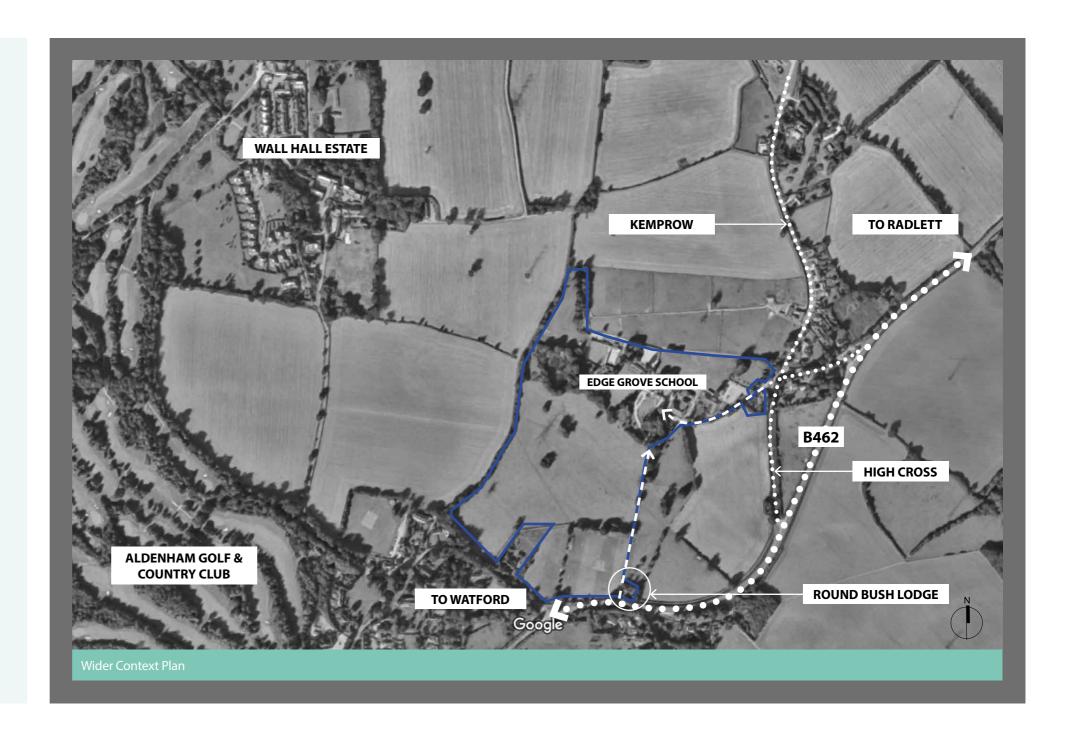
Vehicular access to the school is via Radlett Road and High Cross. In addition, there is a track for emergency vehicles running parallel with the northern boundary of the school grounds, accessed from Kemprow. No changes to the schools accesses or parking arrangements are proposed as part of these applications.

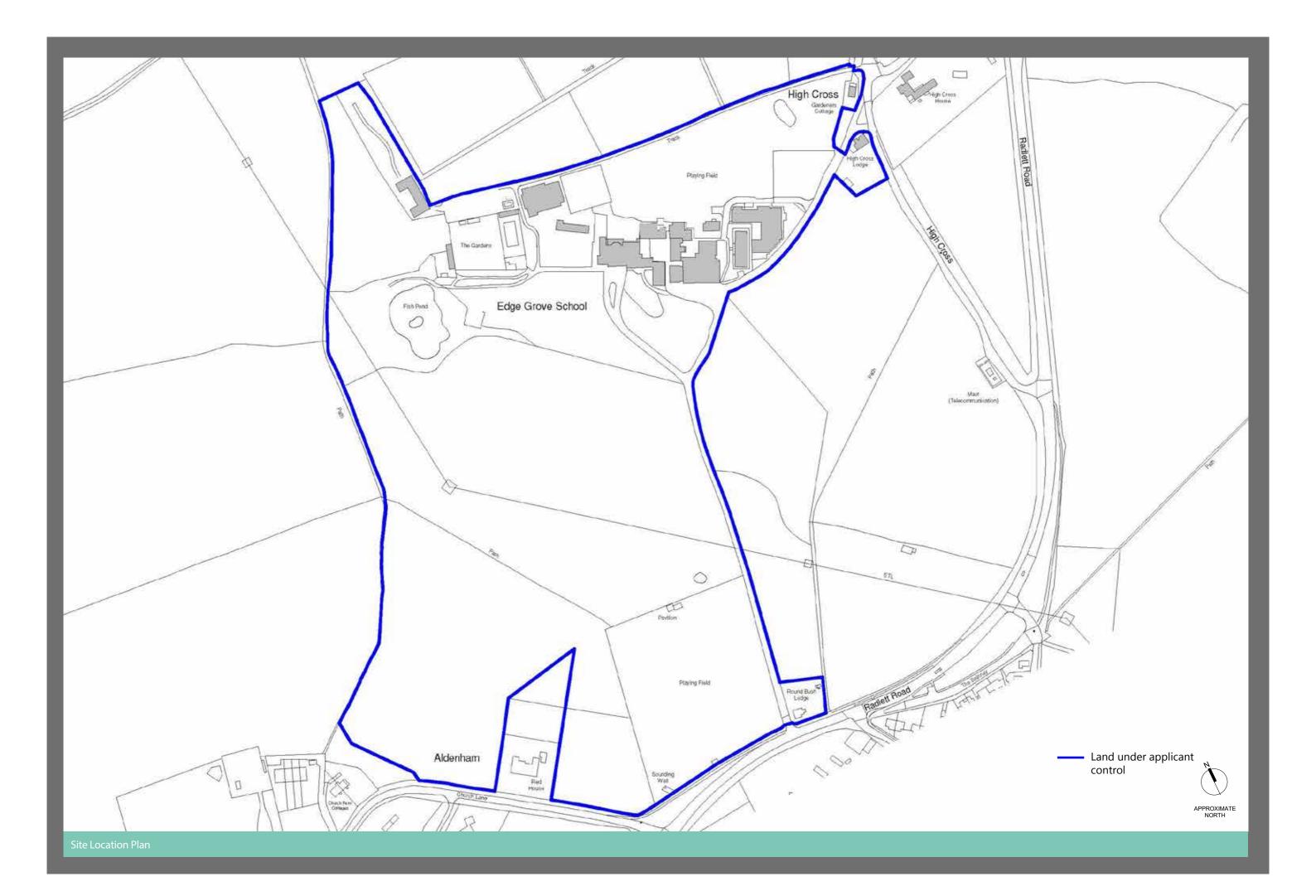
The main school building is Edge Grove, a large former country house dating from the early to mid-18th century. Within the curtilage of the main house is an original garden wall, and a former stable block / coach house, with various 19th to 21st century additions. The main Edge Grove school building and garden wall are listed as a Grade II buildings of special architectural or historic interest.

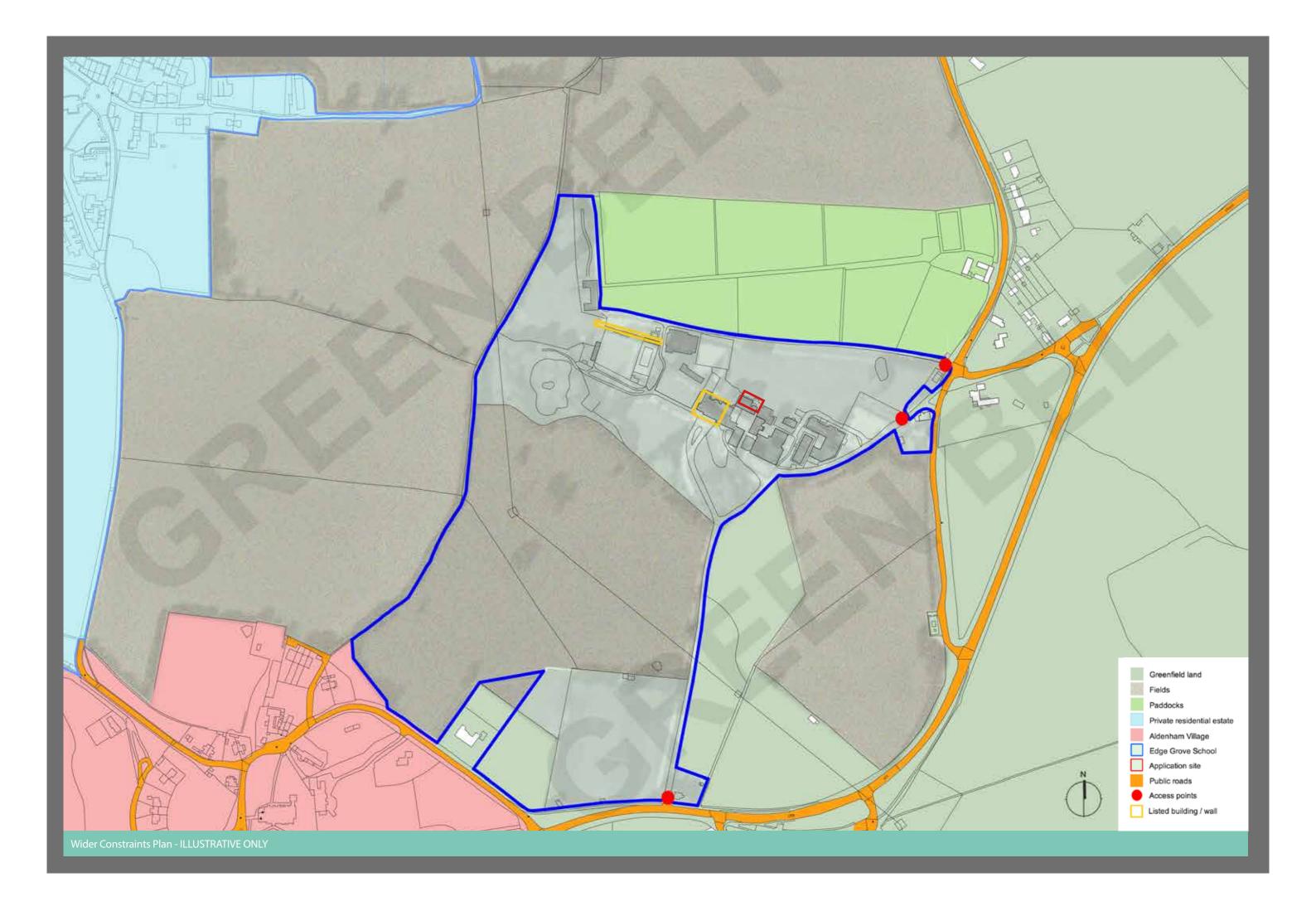
Other related school buildings within the campus comprise the far more contemporary 20th and 21st century pre-prep and lower school buildings, classrooms, theatre and sports hall.

The school as a whole is set within parkland surroundings.

Overall, the school and grounds cover an area of approximately 11.5 hectares.





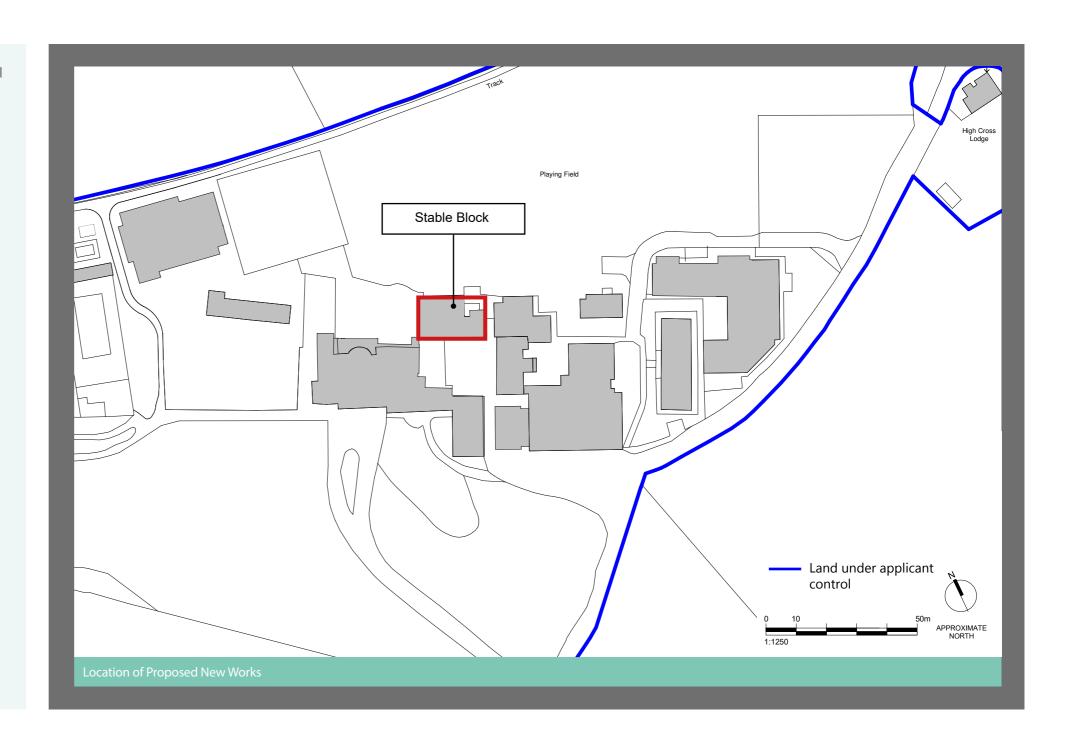


The Wider Constraints Plan on the adjacent page provides a contextual illustration of the existing site and its immediate surroundings.

The proposals have sought to locate all new building works within the current and previously developed 'envelope' of school buildings which serves in turn to limit the impact of the new extension and to preserve the openness of the Green Belt.

The Application Site is located in the center of Edge Grove School which is predominantly surrounded by greenfield land, fields and paddocks.

A residential estate is located to the west of the school boundary whilst Aldenham Village is to the south.



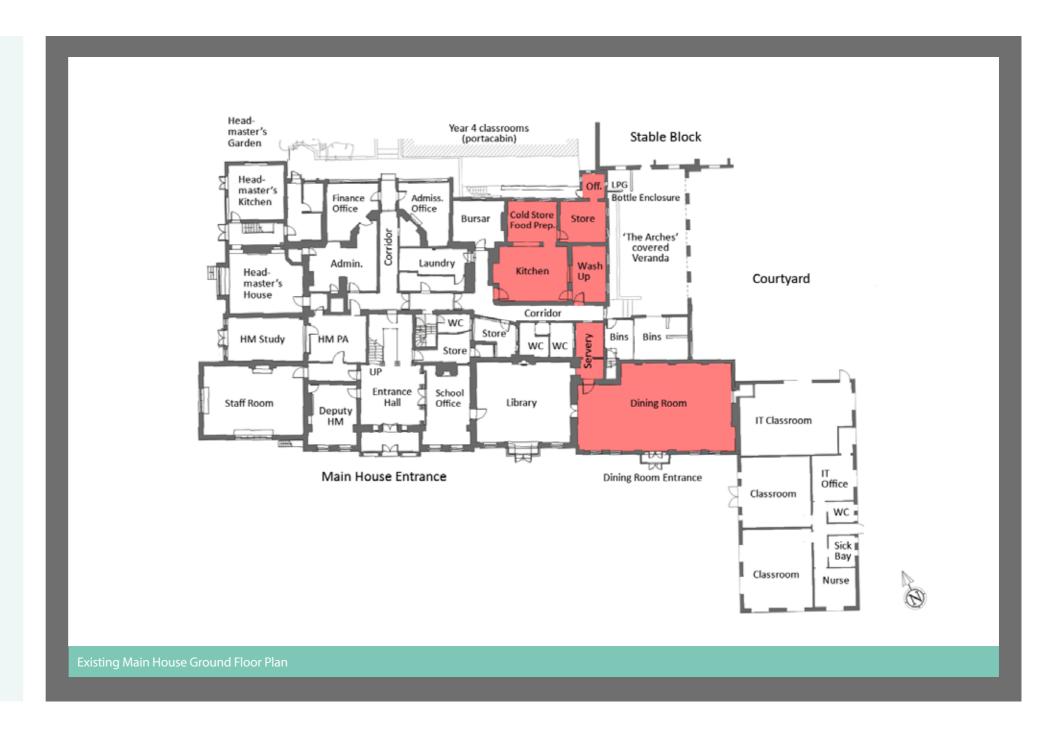
III. Drivers For Change

The Current Situation

The school have identified a need to provide a new school kitchen, dining and servery facility for pupils and staff whilst also creating a facility for a central campus 'hub' where staff, pupils and parents can meet an interact. At present, the school's dining room is only of sufficient size to accommodate 90 pupils at any one sitting which in turn requires a lunch service made up of 4 different sittings which have to spread from 11:30am to 1:45pm as a consequence.

This difficulty is compounded by the existing school kitchen, its servery and queueing areas all being located within the listed main house which is a severe problem and is a situation that is now demonstrably unfit for purpose. There is an urgent need therefore to provide for a new modern school kitchen of a commensurate size with its output, an immediately adjacent servery / queueing area and new dining hall of a size capable of feeding pupils and staff in only two sittings. Physical and heritage constraints mean that this is not practicable within the main house which, in any event, is presently short of administration and related school office and library space.

By relocating the kitchen and dining facilities elsewhere, the existing main house rooms can be readily re-purposed (without physical alteration) for support spaces and to uses far more suited to the buildings fabric and arrangement in which they are located. It was also recognised that the school suffers from not having a central and easily accessible meeting 'hub' where parents can be easily directed to for meetings and consultations and where staff can gather centrally in their own readily identifiable spaces and rooms for internal non-teaching meetings and discussions / break-out time.



The School's Vision

Please refer to the separate document, "Edge Grove School, Our 'One School' Vision, A Ten Year Development Framework March 2016 – March 2026".



OUR 'ONE SCHOOL' VISION

A TEN YEAR DEVELOPMENT FRAMEWORK

MARCH 2016—MARCH 2026

(PROGRESS REVISED MARCH 2020)

IV. Understanding The Site

Development Options to Meet the Need

The school site is constrained by its parkland setting within the green belt and the grade II listed status of the original main house, its garden wall and older curtilage buildings. This restricts options for new development which need to be appropriately sited to present an acceptable impact upon the openness of the green belt and the relationship with the principle heritage assets.

Similarly, the way the site functions in terms of the movement and flow of people, their related 'desire-lines' and the relationship between teaching and supporting / administrative spaces must be fully recognised and understood before settling on the optimum location and use for new buildings that draw visitors from throughout the campus.

For these reasons it was felt that re-use and re-development of presently under-utilised and centrally located campus buildings and spaces offered the optimum solution to meet the schools needs rather than providing new free-standing development outside of the schools present 'built envelope' or in areas that would have a more harmful impact upon the setting of the principle listed buildings or green belt.

Accordingly, the centrally located 'stable block' which is underutilised and in poor condition, was selected as the key building to accommodate change. In itself this building does not presently operate very satisfactorily and having been variously extended and altered over time now presents an opportunity to reconfigure and extend the ground floor of the building in a manner that both respects its origins but re-purposes it in a manner that puts it to its optimum viable use that will in turn secure its long term future. Alternatively locations for the central 'hub' were explored at the initial design stage of the project. These locations have been identified across the page with a series of considerations listed below.

1. New Building in Existing Car Park

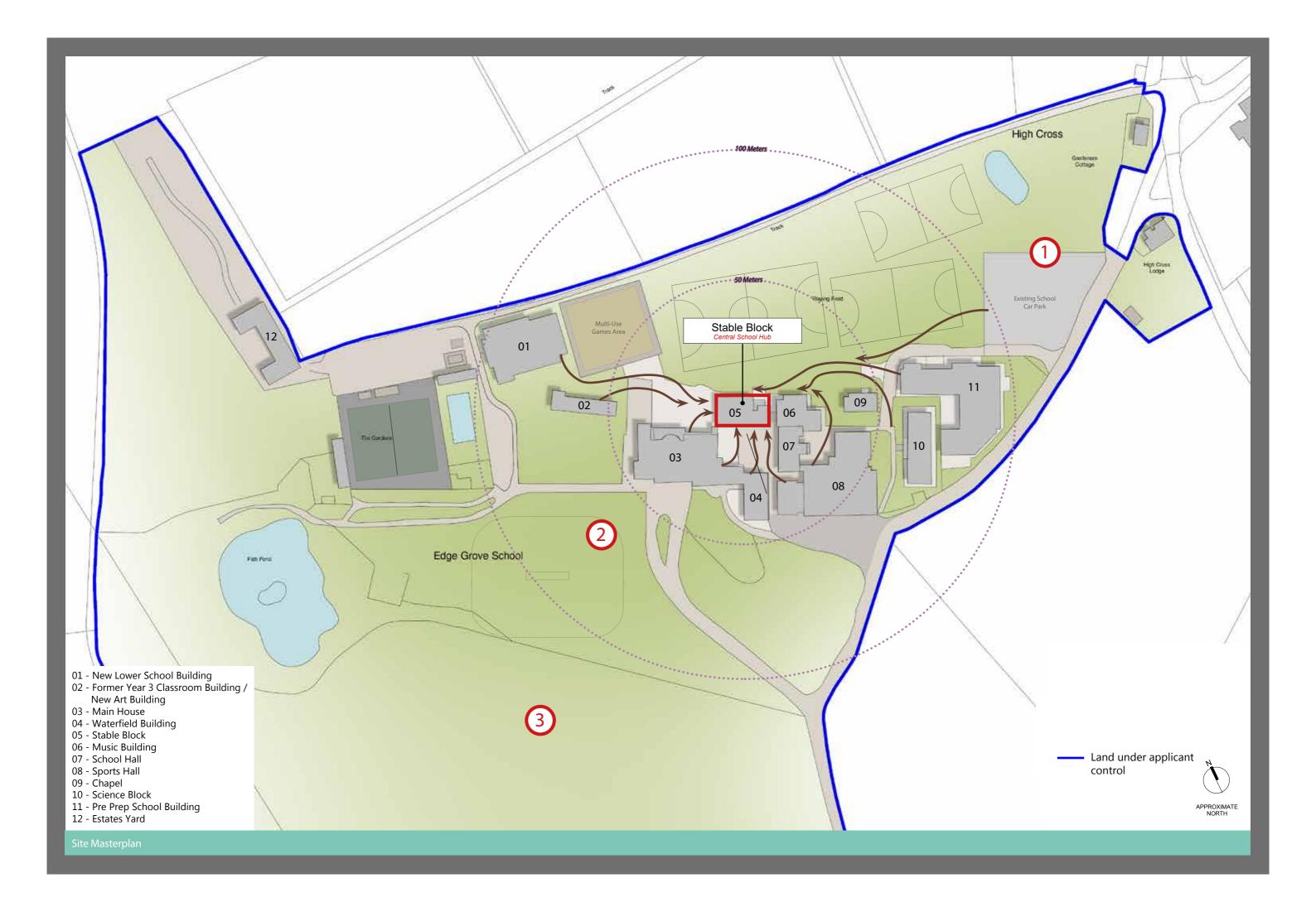
- Would sit forward of principle building line to the north
- Loss of car parking would have to be re-provided therefore losing greenfield land.
- Location not central to the school therefore inappropriate for a "Central Huh"

2. New Building in Front of Existing Main House

- Wholly detrimental to the southern aspect of the existing listed Manor House.
- Unacceptable impact on the heritage asset
- Location not central to the school therefore inappropriate for a "Central Hub".

3. New Building in Playing Fields

- Loss of recreational playing fields not acceptable
- Location too far from existing school buildings / facilities
- Detrimental impact on Green Belt setting / openess.



V. The Stable Block

Overview

In order to provide the required new school kitchen, servery and dining hall facility, the School is proposing the demolition of the single storey and poorly constructed 1980's rear addition to the centrally located former Stable Block / Coach House building (currently used as changing rooms) and the subsequent erection of a larger replacement and contemporary glazed single storey rear extension to this building to accommodate a new glazed central dining hall.

The new kitchen and servery and associated stores, accesses, queuing areas and toilet facilities are provided within a re-configured ground floor of the Stable Block building. This also accommodates a central access to a new central stair and lift within the building to staff, parent and pupil meeting rooms at first floor level.

This well sited building – central to the school campus - can then optimise its location and operate as a serviced central 'hub' building with associated and centrally located reception and meeting facilities

This in turn also allows those areas within the main house presently occupied by dining hall, servery kitchen and related stores to be vacated and re-purposed as offices, administration areas and a library which represent a less invasive use of these rooms.

The ground floor of the former Stable Block contains two classrooms and several staff offices with the first floor accommodating a further three classrooms accessed via a single stair.

The existing 1980's single storey extension to the north of the building also houses student changing rooms, a uniform shop and a music room. The smaller, pitched roof addition (bothy) in the north east corner of the Stable Block is currently utilized as an office. The former is to be removed as part of the proposals whilst the later is to be retained.

To the south, an external covered walkway underneath the brick arches connects the Stable Block to the Main House, fronting the internal courtyard.

The replacement single storey extension to the north will be of contemporary, lightweight appearance to give a readily perceptible reference to its modern age and to the ongoing evolution and related improvements to the school's accommodation and facilities.

The proposed addition will retain the views from the North of the Grade II listed Main House as well as the formal gardens reinstated as part of the New Lower School development.

The principal consideration in the design process has been how to reconcile the need to create a useable and accessible 'hub' for a modern preparatory school, taking into account its location within the setting of the Grade II listed Edge Grove House as well as the wider context of the Green Belt.

Please refer to the separate Heritage Statement for further details.



Design Considerations / Use

When considering the proposed extension, there were several key drivers which informed the design development.

- Minimizing the impact on the openness of the Green Belt as well as the setting of the listed Main House.
- The external appearance and articulation of the extension is to reflect both its function and its location on the edge of a group of buildings close to open countryside.
- Avoiding competition with both the older parts of the existing Stable Block and the listed Main House.
- Enhance the overall setting of the listed Main House.
- Avoid a pastiche of traditional design.
- The retention of key existing features such as the bread oven and 19th century bothy extension.

How these drivers have been considered will be discussed on the following pages.

The proposed use is not restricted to the extension, but the Stable Block in its entirety. The proposed single storey extension forms the dining hall and servery which is supported by the new state of the art kitchen and facilities provided within the ground floor of the existing building.

The first floor of the Stable Block will be accessed via a new central staircase and lift providing access to staff rooms, facilities and a meeting room which will replace the existing classrooms.



The Stable Block

Amount / Layout / Scale

The size of the extension is informed by the staff and pupils numbers it needs to accommodate whilst carefully considering its relationship with the existing Stable Block building and adjacent playing fields. There is a requirement for approximately 200 covers to ensure school meals can be served in two sittings, rather than the four currently in operation.

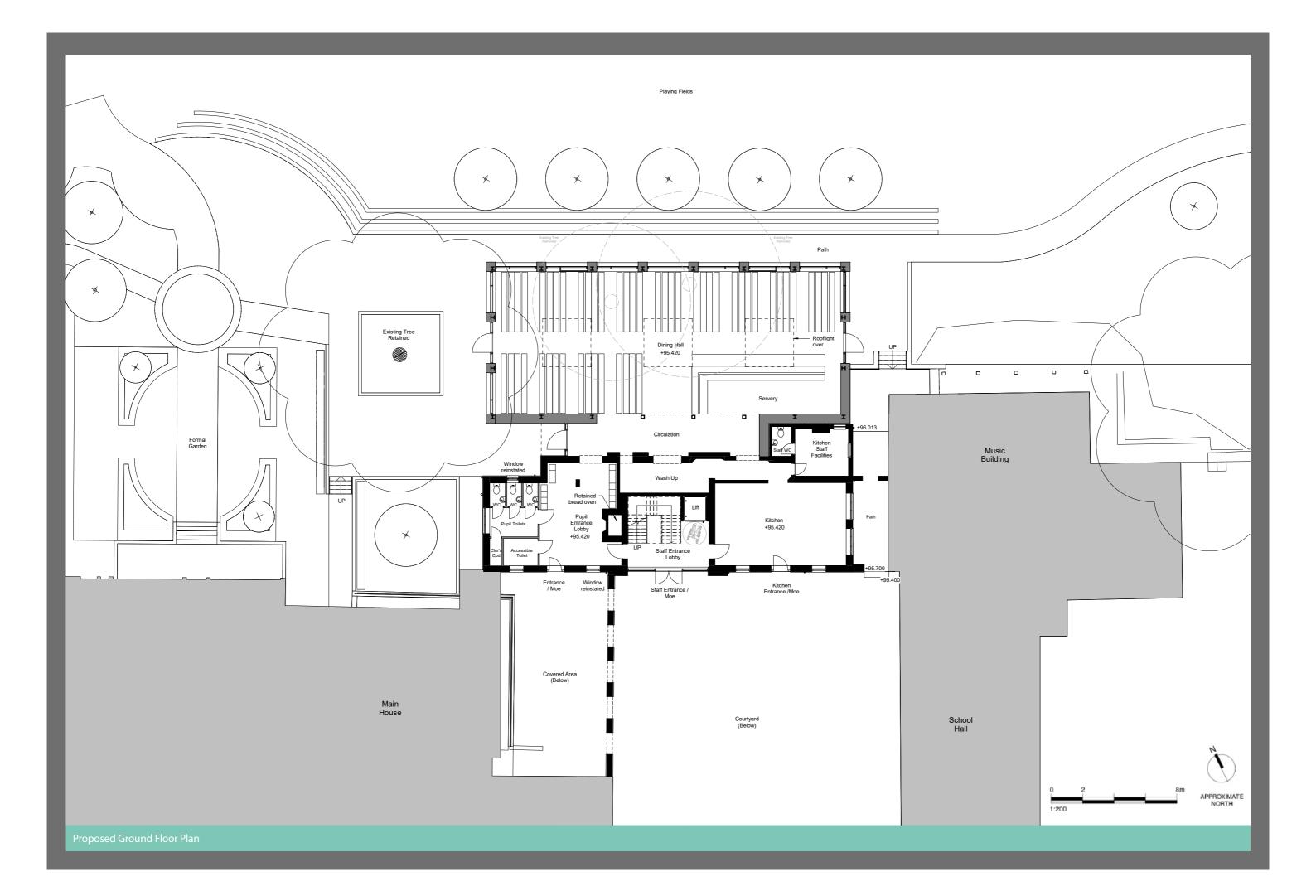
The width of the proposed extension is slightly narrower than the existing building to ensure its presence on the north elevation is not greater than the what is there already. This also benefits the setting of the listed Main House as the proposed extension does not encroach on the newly reinstated formal garden.

The position of the extension is offset from the existing building with the introduction of a lightweight and 'light-touch' glazed link. Not only does this create a uniformed, rectangular dining hall, it also reduces the physical connection with the existing Stable Block and allows for the reinstatement of previously covered up windows and external wall. The position also allows for the direct connection to both the pupil entrance lobby, which includes toilet facilities, as well as the new kitchen facilities. Access to the staff hub on first floor is from the internal courtyard to the south via a new entrance lobby designed to reinstate the original Coach House entrance / opening.

The single storey extension is of a scale subservient in nature to the Stable Block itself, with the floor levels matching existing to ensure the building is 'hunkered down' within the landscape. This will help to limit the above ground volume and visual impact of the building to preserve the openness of the Green Belt, especially when viewed from the north.

There have been a number of design discussions with the Local Planning Authority regarding the amount, layout and scale of the proposed extension that are explored further later in this document.





The Stable Block

Appearance / Landscaping

The appearance of the proposed extension will be of understated contemporary design to ensure it does not compete with either the existing Stable Block or the listed Main House.

Materials used will be a contemporary reflection of the existing building whilst using a similar palette to that of the New Lower School Building to ensure the new buildings across the school incorporate a design language separate to those already insitu.

In addition to the simple palette, the flat roof will facilitate views from the North to the existing first floor windows of the Stable Block itself with the symmetrical fenestration of the proposed elevations reflecting the balanced order of the existing.

The hidden (behind the parapet) glazed rooflights take advantage of both natural daylight as well as natural ventilation, whilst the glazed link between the extension and the existing building is deliberately lightweight to provide a visual break between old and new.



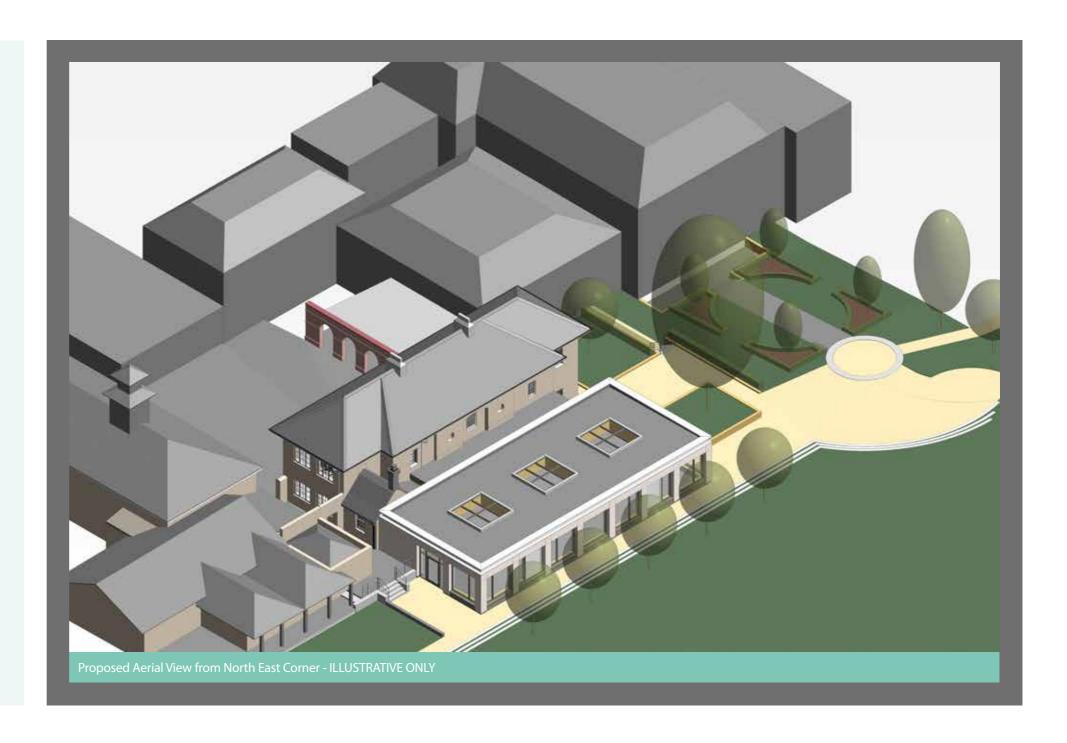
In terms of landscaping, the Stable Block is in the center of the school site and will complete the landscaped pedestrian link between the new landscaping of the New Lower School Building to the west and the parents' car park to the east.

The landscape masterplan is discussed later in this document. Within the immediate vicinity of the Stable Block, the landscape will abut the newly reinstated formal garden to the west in the form raised planting beds, a stepped gabion retaining wall to the north and the link to the car park to the east.

All hard and soft landscaping will be in keeping with that implemented at the New Lower School Building. Please refer to the 'Landscape Aspirations' section of this document.

There are three mature trees on the site illustrated on the previous page. The large Category A Maple tree to the west of the development is to be retained whilst the two Category B / C Sycamore trees to the north are to be replaced by a set of newly planted trees along the northern edge of the retaining wall. These trees will form a green screen facing the open fields to limit the impact on the Green Belt setting.

Please refer to the separate Arboricultural Assessment later in this document for further details.



The Stable Block

Landscaping Aspirations

The proposed landscape design strategy identifies three areas of intervention which are highlighted on the adjacent Landscape Masterplan.

- 1. The connection to the formal garden implemented as part of the New Lower School building development.
- 2. The upgraded east / west link from the formal garden and passed the Stable Block to the parent's car park.
- 3. A future aspiration to upgrade north / south link from the staff car park to the east / west link.

The key driver for the interventions is enhancing the movement of staff, pupils and parents through the school campus and, in particular, the connection to the new "Central Hub" located within the Stable Block.

Wide meandering paths will facilitate level access throughout the site whilst creating several smaller breakout spaces on route for pupils to relax and socialize during break times. The routes will be flanked by a composition of grassed and planted zones to further enhance the experience of moving through the school that will change throughout the seasons.

All three interventions will be to the same high quality in terms of both design and materiality used on site to date.

The school has a tree planting initiative designed to enhance the countryside credentials of the school and has planted numerous new trees to date with the help of the Woodland Trust. This will continue going forward as part of the school's Tree Charter and their 10 Year Development Plan.



andscaping outside Lower School Building

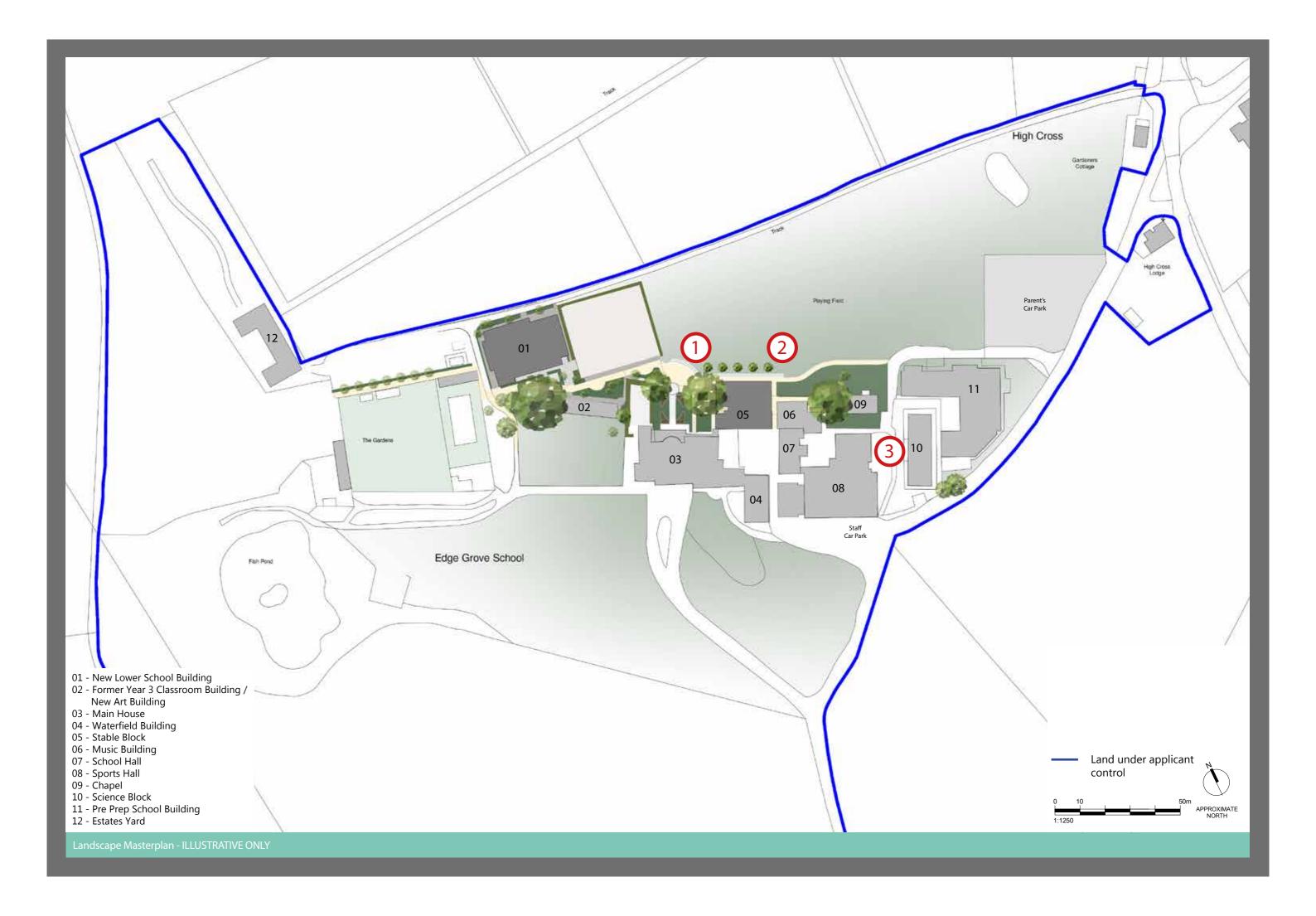




Resing Bound Gravel / Planting



esin Bound Gravel / Grassed Areas



VI. Pre-Application Consultations

Evolution of Proposals

The proposal for the Stable Block forms a key element of the longterm strategic vision for the enhancement of the school to provide appropriate and improved facilities and accommodation to meet current and changing educational and operational requirements over time.

The school has set out its vision in a document: Our 'One School' Vision – A Ten Year Development Framework March 2016 – March 2026', and a copy of this is submitted as context material supporting the Planning, Design and Access Statement.

The proposals have been the subject of numerous discussions and meetings with Officers of Hertsmere Council and their Heritage advisors over the last 24 months.

In the light of these pre-application considerations the proposals have evolved to a point where we believe they now meet the school's operational objectives whilst also maintaining the heritage assets and their curtilage buildings in their most viable and optimum use.

This is achieved in a way that causes less than substantial harm to the designated heritage assets and which offers related public benefits in providing a secure and viable use for the buildings within their current and long-standing optimum viable community use.

The adjacent table highlights the evolution of design following discussions with the Local Planning Authority.

The overall height (H) of the Stable Block extension has reduced since the pre-application submission and has reduced further following feedback from the Heritage Officer at the Local Planninhg Authority. This further reduction has opened up views from the North of the existing first floor windows of the Stable Block, therefore enhancing its overall setting.

This in turn has reduced the volume (V) by approximately 30% from the pre-application submission.

The footprint (F) of the extension has also reduced significantly from 323m² to 261m² showing a 20% reduction with a 24% reduction in terms of perimeter (P).

A noteworthy change is the width (W) of the extension as it now sits within the original extent of the Stable Block when viewed from the north whereas the Pre-Application submission was much wider. This was a direct response from comments made by the Heritage Officer.

Finally, the length of the proposal connecting to existing (L) has also been meaningfully reduced by a third allowing for previously covered up external walls and blocked up windows to be reinstated at ground floor level, and the retention of the 19th century bothy at the north east corner of the Stable Block.

In conclusion, the overall extent and massing of the proposed extension has been substantially reduced following dialogue with the Local Planning Authority.

	1. Pre-Application Submission	2. Developed Proposal Following Pre-App	3. Detailed Planning Submission
H (m)	4.6 m	5.1 m	4.0 m
V (m³)	1,486 m³	1,175 m³	1,047 m³
F (m²)	323 m ²	273 m²	261 m ²
P (m)	93 m	73 m	71 m
W (m)) 31.6 m	23.6 m	23.2m
L (m)) 30 m	25 m	20 m

H = Height (m)

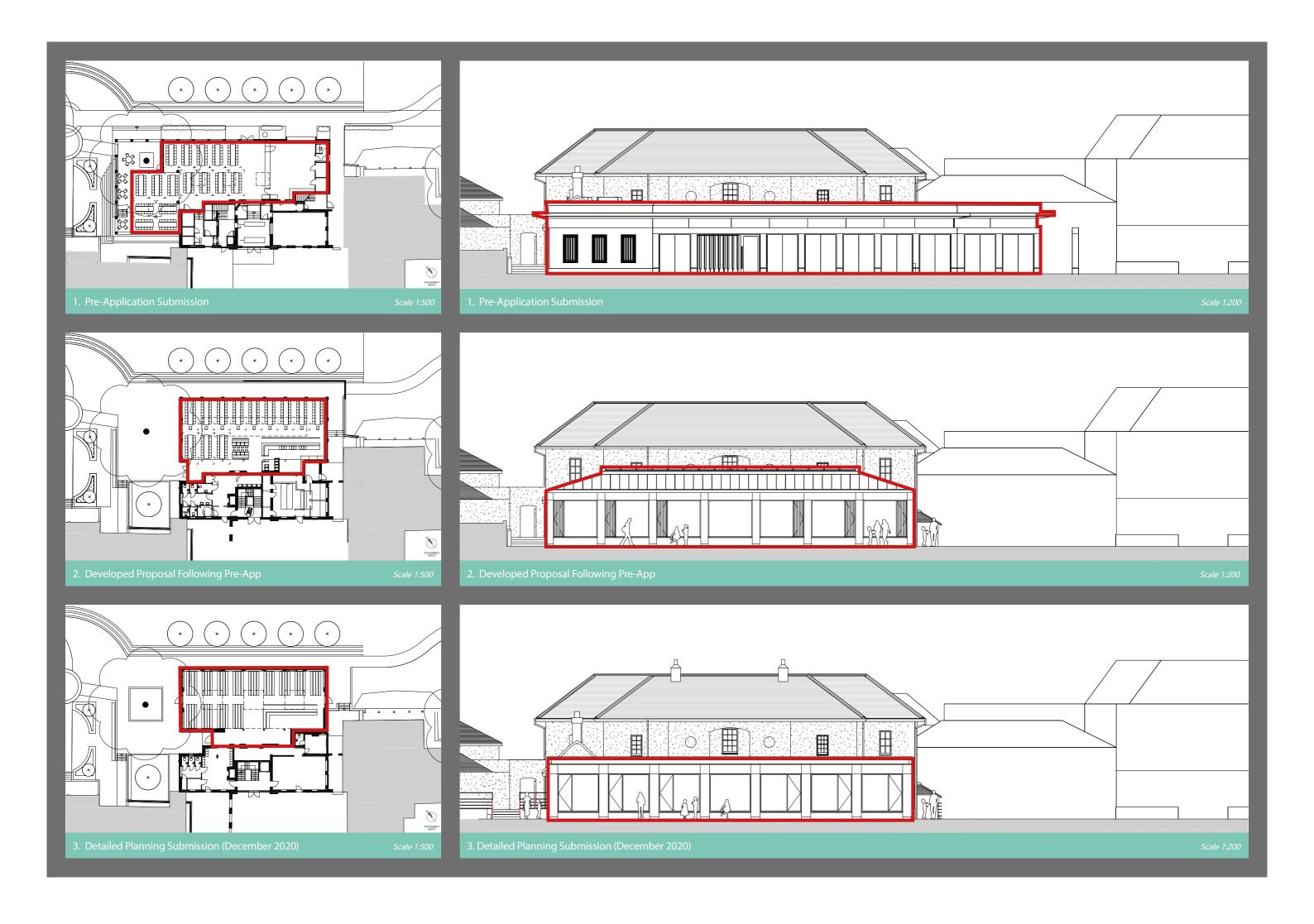
V = Volume (m³)

F = Footprint (m

P = Perimeter (m

V = Width (m

= Line of Proposal Connecting to Existing (m)



VII. Visual Impact / Landscape Impact Assessment

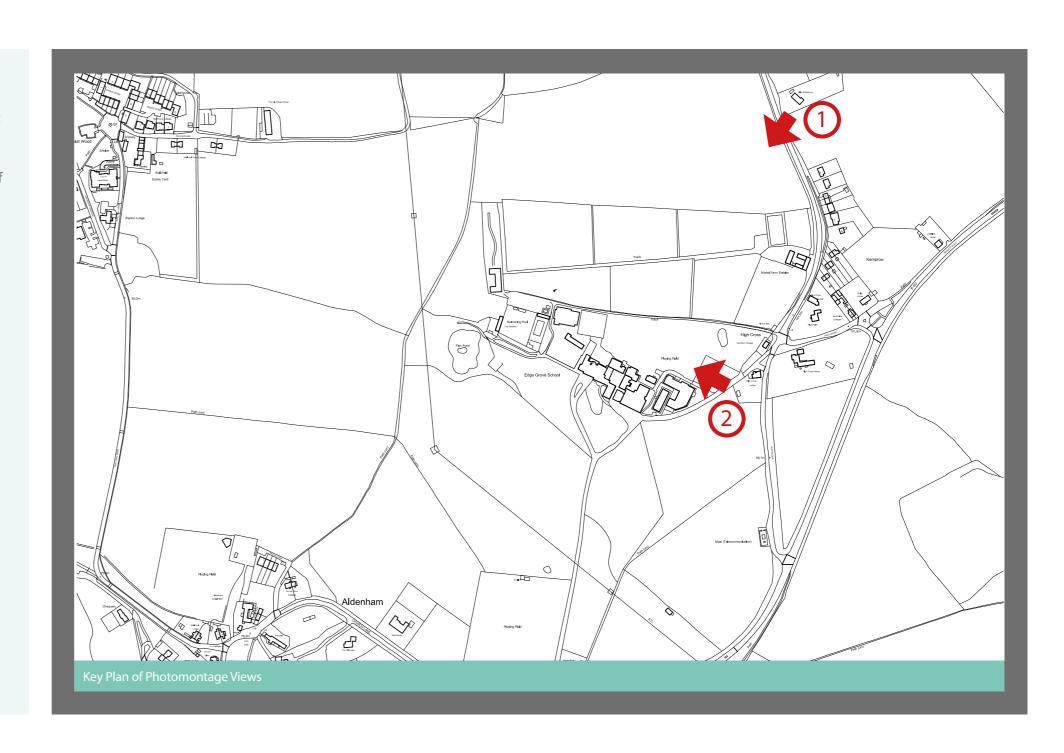
Green Belt Setting

The following photomontage views show indicative outlines of the proposed Stable Block extension from key points in and around the school campus. The position of these views illustrated on the adjacent key plan.

The purpose of these views is to demonstrate that the visual impact of the proposal does not prejudice the openess of the Green Belt and is also not harmful to the setting of the existing heritage assets.

Please note that these views are non-verified but produced using Ordinance Survey maps, topographical survey information and advanced modelling software.

- Photomontage 1 View Across the Fields from Kemprow
- Photomontage 2 View from Existing Car Park





Photomontage 1 - View Across the Fields from Kemprow - ILLUSTRATIVE ONLY



VIII. Planning History & Policy

Planning History

Notwithstanding the school's green belt location and elements with listed status, the requirement to continue to strive for improvement has been well recognised by the Local Planning Authority in the recent past and significant support has been forthcoming in the granting of planning applications for related new developments both here and at other education establishments within close proximity.

Recent planning history includes;

Full Planning Consent was granted for the erection of a replacement rear extension and internal reconfiguration and alterations to existing stable block building under Hertsmere ref: 20/0458/FUL on 15th March 2021.

Listed building consent for the above works was also granted on the same date under Hertsmere ref: 20/2119/LBC

If these permissions are not prior commenced therefore they will lapse on 15th March 2024.

The current submission therefore seeks to renew the above permissions which are identical to those previously approved to allow for a longer period to implement the proposals following full discharge of all pre-commencement planning conditions.

Planning permission was granted 6th April 2020 for the erection of a 2 storey extension to the existing sports hall to accommodate new changing room facilities (20/0462/FUL).

Planning permission was granted 3rd April 2020 for the construction of a replacement 2 storey science classroom building (20/0460/FUL).

Planning permission was granted 22nd December 2017 for the removal of pre-fabricated cabin type classroom buildings to the rear of the Grade II listed main house; demolition of estate management buildings and the erection of a single storey building to provide classrooms, a multi-purpose hall and associated accommodation, together with a plant enclosure, relocation of two LPG tanks and landscaping (17/1895/FUL).

Full planning permission was granted on 24th November 2015 for the election of a single storey extension to the pre-preparatory building; addition of a glazed canopy; installation of a low retaining wall and guarding, together with associated external works (15/1683/FUL).

Full planning permission was granted on 18th November 2015 for the removal of three existing estate yard buildings to the north of the Walled Garden, removal of a metal storage container and timber shed and construction of a new single storey timber clad building to accommodate garaging, workshops, staff room and ancillary spaces, provision of new pedestrian access, hard and soft landscaping, and new fences and gate (15/1633/FUL).

Listed Building Consent was granted on 18th March 2014 for internal alterations and the installation of a new flat roof and roof lights (14/0074/LBC).

Full planning permission was granted on 6th February 2013 for a new playground to include, an area of safety play surface, paved path, timber picket fence and gate and timber play equipment (13/0002).

Full planning permission was granted on 11th June 2012 for the erection of an extension to the listed house, a new staircase and new entrance hall for the dining room; re-roofing of a covered play area; new bin/recycling stores and replacement external fire escape stairs (12/0727). Listed Building Consent for the development was granted on 7th June 2012 (12/0728).

The number of pupils attending the school at any one time is restricted to no more than 400, via a condition attached to Section 73 planning permission 12/0680 dated 18th July 2012.

Full planning permission was refused on 8th July 2011 for the erection of a retractable cover over the swimming pool (11/0788). The proposal was considered to be contrary to Green Belt policy: inappropriate development, impact on openness, no very special circumstances, and would detract from the setting of the listed Garden Wall.

Full planning permission and Listed Building Consent was granted on 22nd May 2020 for the "Construction of a replacement 2 storey science classroom building" under Hertsmere refs: 20/0460/FUL and 20/0461/LBC.

Full planning permission and Listed Building Consent was granted on 22nd May 2020 for the "Erection of a 2 storey extension to the existing sports hall to accommodate new changing room facilities" under Hertsmere refs: 20/0462/FUL and 20/0463/LBC.

Key National, Local Planning Policy & Guidance

National and Local Planning Policy Support for School / Educational Facilities Development;

The National Planning Policy Framework (NPPF) of 2023 within its chapter entitled 'Promoting healthy and safe communities' states at para 99 that;

"It is important 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:

a) give great weight to the need to create, expand or alter schools through the preparation of plans and decisions on applications; and

b) work with schools promoters, delivery partners and statutory bodies to identify and resolve key planning issues before applications are submitted."

This is reflected in Hertsmere's own adopted Core Strategy (2013) Policy which similarly supports the provision for schools, (subject to any environmental constraints and other relevant policies).

Within its 'Building Sustainable Communities' section the 'Hertsmere Community Strategy' has the strategic objective of promoting both healthier communities and leisure / cultural facilities. In helping to deliver this objective, 'key community facilities' are considered to include: Schools and colleges".

At Policy CS19 the Core Strategy states in relation to these key community facilities that proposals for the provision of educational facilities will be supported, subject to any environmental constraints and other relevant policies.

Paras 6.5 - 6.7 states that; "The Council is committed to promoting, providing or facilitating the provision of key community facilities and a clear presumption in favour of supporting such uses is considered to be of paramount importance.

6.7 The provision of purpose built facilities will often present the best solution for, education or other providers of a local service....."

The Council's Site Allocation and Development Management Policies Plan (2016) Policy SADM32 also supports the enhancement of community facilities. The supporting text to SADM32 identifies schools as a key community facility and seeks to deliver accessible, high quality, inclusive facilities in appropriate locations in order to meet local needs. It states that;

"Proposals for the provision or enhancement of community facilities will be permitted provided: they will principally serve a local community or meet a wider unmet need which cannot be accommodated elsewhere;"

Educational Need

Edge Grove School maintains there is a strong educational and operational basis to support the case for the proposed development.

Firstly, replacing the existing extension and secondly, contributing to the achievement of, the School's education philosophy, as set out in the submitted School document: Our 'One School' Vision – A Ten Year Development Framework March 2016 – March 2026'.

In specific reference to the current proposal the school has provided a short summary of their educational and operational needs in a statement' which is re-produced in full below;

"Operational Needs Statement - New Dining Resource;

The proposed dining room is a necessary addition to school's facilities to ensure a centralised resource easily accessible by all members of the school the community and thereby reducing time for pupils coming from the campus perimeter.

The design will also facilitate vastly improved disabled access for pupils, staff and visitors and thereby satisfy a key component of our disability and equality policies.

Likewise, the central staff room and meeting rooms to be established on the first floor will provide improved access to staff for pupils and parents including a lift for disabled access. Level wheelchair entry and exit will be provided to replace the inadequate access currently on offer in both the art department and the dining room at present, something that has never been possible before with such a variation in site levels.

The relocation of the kitchen facilities will provide modern, hygienic and fit for purpose facilities. These will replace the outdated and cramped cooking, food preparation, storage and washing facilities currently being used which are unsuitable in the 21st century and operationally difficult to manage.

The construction of the new dining room will necessitate the demolition of a poorly constructed and designed 1970s' extension currently used as changing rooms. This is costly to maintain and heat, unattractive and no longer suitable as school accommodation.

The proposed building will add aesthetically to the rear of the school. The outside area surrounding the building will be enhanced, adding to the overall appeal of the listed building on site including the establishment of formal gardens.

Best educational practice in the 21st century requires far more from schools than simply the basics of the 3 R's taught in fixed classroom environments. In particular, schools need to provide the basic life skills appropriate to the ages of their pupils.

At Edge Grove, it is clear that we are currently unable to follow Government guidelines to inculcate the broader aspect of educating children in the social skills of eating and drinking, ensuring they are aware of initiatives such as Healthy Eating and broadening their palates.

The new dining room will enable pupils to spend more time over their meals in a purposeful environment with adequate supervision; the additional capacity of the room also enhances the caterers' ability to maintain already high levels of hygiene and food preparation.

The current Stable Block is an underused resource mainly due to the limitations stemming from the current layout which comprises changes of levels requiring stepped access to the vast majority of rooms, small size rooms, uneven flooring and inadequate ventilation.

The proposed plans will ensure an appropriately styled complete refurbishment and restoration of the building whilst preserving the historic infrastructure to include the opening and glazing of the original coachman's arch into the adjoining courtyard which has been bricked up for many years.

The new dining room facility will allow for the main school building to be reorganised and rationalised ensuring improved teaching and learning facilities for pupils as would be expected from a forward thinking school of the modern era.

This will include a large learning and innovation resource hub adjacent to the existing library accommodating collaborative work areas, suites of computers and teaching spaces. The current kitchens will become intervention areas to facilitate teacher-led support groups for all age groups, something not possible at present due to space restrictions.

The existing staff room will be used as the Head Teacher's conference room for large staff, parent and governor meetings as well as providing a more welcoming atmosphere."

Key Planning Policy Considerations

Given the overarching planning policy support for the appropriate development of schools and related educational facilities it is necessary to also consider the material environmental considerations affecting the proposal.

A. Green Belt Policy;

Within Hertsmere's Planning Officers report to Planning Committee dated 13th August 2020 for planning and listed building consent applications ref: 20/0458/FUL & 20/0459/LBC it was concluded in relation to Green Belt considerations that;

"Given the siting of the proposed extension adjacent to the existing stable block building and located as part of the existing complex of school buildings, the limited public views into this part of the school site and the limited increase in height of the proposed building by 4.9m which is lower than the eaves height of the existing building, Officers consider that the proposal would not have a greater impact on the openness of the Green Belt and the purposes of including land within it when compared to the existing development.

7.12 As such, Officers consider that the proposed development is not deemed to constitute inappropriate development, with regards to paragraph 145 of the NPPF 2019."

It is worthy of note here that the amended proposal the subject of this submission has been further reduced in scale, mass, bulk and height.

It is reasonable to conclude therefore that the proposal remains as "not inappropriate development" in green belt policy terms.

B. Heritage Impact Assessment.

At the Planning Committee meeting of 13th August 2020 in considering the originally submitted proposal for this site under planning and listed building consent applications ref: 20/0458/FUL & 20/0459/LBC, members concerns were raised by officers presenting that circumstances prevailing at this time had not allowed for sufficient investigations of the building fabric to be undertaken to allay fears that any conflict between the heritage assets conservation and the various aspects of the proposal had been substantively addressed.

Accordingly, the school and its consultant architectural and heritage advisers have continued since this time to work hard and in close consultation with Hertsmere planning officers and the Council's conservation and heritage advisers at Place Services.

This has included joint site meetings and further detailed building investigations – to clarify all elements of the proposed build programme in relation to their impact on existing structure and consequentially to introduce jointly agreed minor amendments to the scheme to ensure no harm is caused to the historic or significant form, fabric or features of this heritage asset.

This additional work and subsequent amendments have consequentially produced the current revised submission which incorporates;

 Minor revisions to the internal alterations proposed within the stable block to ensure that there is now proposed no loss of, or harmful alteration to, any historic fabric or significant heritage features or details. • A significant reduction in the scale, mass and bulk of the proposed extension by further reducing the roof profile – now a flat roof with central rooflights set in the structure. This further improves the setting of the rear of this curtilage listed stable block and the ability to better appreciate and thus interpret the existing structure in its original form – particularly in views from the north.

Having reflected on these revisions, members of the Planning Committee of 11th March 2021 resolved to grant Listed Building Consent for the proposed works. The current submission is unchanged from these approved proposals.

The Planning Balance

It is necessary to weigh any perceived degree of harm to a heritage asset – even where this may be considered 'less than substantial' against putting such assets to their 'Optimum Viable Use' and against any other 'public benefits' that will accrue as a result of the proposed changes.

Optimum Viable Use

The Governments 'Historic Environment Guidance' document which advises on enhancing and conserving the historic environment at Paragraph: 015 Reference ID: 18a-015-20190723(Revision date: 23 07 2019) expands upon the NPPF references quoted above and confirms that;

The vast majority of heritage assets are in private hands [as is the case at Edge grove School]. Thus, sustaining heritage assets in the long term often requires an incentive for their active conservation. Putting heritage assets to a viable use is likely to lead to the investment in their maintenance necessary for their long-term conservation.

Clearly being a central campus building in educational use the continued active use of the subject stable block for beneficial educational purposes will remain its most viable use and will subsequently ensure the most appropriate investment in its future care and maintenance.

The Educational Need section of this report concisely outlines the suitability of the stable block building and location in meeting the school's urgent need for new catering, dining and central meeting spaces.

Its use, in the manner as now proposed, builds upon its pivotal campus location and maximises its efficiency whilst minimising harm and fully respecting its historic structure, fabric, plan form and significant surviving features and elevational details.

Consequentially, the current proposal now enables essential supporting educational services to be accommodated within the building and its lightweight replacement extension, in a manner that has been demonstrated and agreed by all parties can be accommodated without harm to its internal historic form, fabric, significant heritage features or details.

This in turn allows the building to secure an ongoing secure and viable new use and function that will guarantee its long-term investment, care and maintenance as it provides for such a critical role in the operation of the school estate.

The proposed first floor staff and meeting rooms are a low-key re-use of these existing areas that retain and respect the original tri-partite form of the original structure. It has now been agreed with the Council's Conservation advisers at Place Services that alterations necessary to provide this viable new use solution are not harmful to the fabric of the building or the significance of the asset.

Similarly, within the ground floor of the original structure, the proposed kitchen and service areas allow the 3-part form of the original building to be better expressed and interpreted. It also facilitates the removal of less appropriate more modern portioning that exists today within these areas and better expresses the original form and function of the building. This includes the ability to "re-open" the central coach archway – now expressed in glass.

As pupils will principally be accommodated within the new extension for dining purposes and only support staff will be permanently based within the original structure at ground floor, wear and tear will be minimised, whilst care and maintenance of the structure will

be maximised to ensure the efficient and appropriate operation and delivery of the important support services that the building will now provide.

The Stable block will become an important 'public face' of the school for visitors, utilising its central campus location, turning what is presently something of a collection of neglected, under-utilised and out-moded spaces and structure, into a well maintained and attractive pivotal asset that fully respects its historic significance, form, function and detailing.

Public Benefits

The Governments 'Historic Environment Guidance' document which advises on enhancing and conserving the historic environment at Paragraph: 020 Reference ID: 18a-020-20190723 (Revision date: 23 07 2019) states that The National Planning Policy Framework requires any perceived 'harm' to designated heritage assets to be weighed against the public benefits of the proposal.

"Such public benefits may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the National Planning Policy Framework (paragraph 8).

Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and not just be a private benefit. However, benefits do not always have to be visible or accessible to the public in order to be genuine public benefits, for example, works to a listed private dwelling which secure its future as a designated heritage asset could be a public benefit.

The continued conservation of a heritage asset is a public benefit, even if its historic interest is contested in some way.

The alteration of a contested heritage asset may provide public benefits. These might relate directly to the heritage asset, for example by adding additional interpretation which will help people to gain a deeper understanding of the historical context, which led to the creation and installation of the asset."

Considering the three 'arms' of public benefits which central Government policy requires all approved sustainable development to fulfil (ref; NPPF para 8.), we would comment as follows;

Environmental

The proposal will deliver;

- A much enhanced school environment in the vicinity of the rear
 of stable block. This will reflect the very successful environment as
 recently created around the new lower school building.
- The 'opening up' of this area and removal of the ugly attached 1980's addition, offers tangible environmental and architectural improvements here.
- These improvement will be readily and appropriately tied in with the landscape masterplan that links this new central facility to the existing and new school buildings sited to the east and west.
- This reinforces current movement 'desire-lines' and delivers the central 'school community hub' that is presently missing from how the school appears visually and how it operates.
- The new addition being a predominantly glass lightweight structure with a high degree of 'transparency' and a 'light-touch' link to the stable block itself, allows for better identification of this function alongside an enhanced ability to interpret the use of the new spaces as well as the existing structures behind. This allows for a clear understanding of their functional and historic interrelationship.
- Set low into the site with the lowest possible eaves / parapet height ensures that the new works do not harm distant views towards the school from the north but rather enhances the visual appearance of the rear of the stable block which will nonetheless still be seen as the principle historic element of built form in this group (given its height).
- From within the new addition and meeting rooms hub at first floor pupils and visitors will be able to better interpret and appreciate the history of the site development and respective buildings and

uses and allow greater appreciation of the rear of the main house as already partly enhanced by the related proposals linked with the new lower school building and the landscape masterplan.

Social

- Enhanced pupils and staff dining arrangements allowing for reduced sittings (and thus time away from education to complete a lunch service) and improved opportunities for social interactions between both pupils and staff.
- Much improved working conditions for the schools catering staff.
- A close interaction between the central dining facilities and rooms made available for pupil, staff and parent consultations and meetings.
- A centralised 'hub' facility grouping common support spaces in a location central to the school campus and built estate.

Economic

- Viability of the school to be able to continue to attract pupils and staff
- Construction jobs and services for the local supply chain during the build of the next three phases.
- Sustainability gains and energy efficiency improvements through the use of modern cooking and cleaning facilities, and enhanced building energy performance within the new build and refurbished elements of the project.

Heritage Benefits

Paragraph: 020 of the guidance goes on to give examples of 'heritage benefits' which can include:

- Sustaining or enhancing the significance of a heritage asset and the contribution of its setting
- Reducing or removing risks to a heritage asset
- Securing the optimum viable use of a heritage asset in support of its long-term conservation

The latter point has been rehearsed above in relation to the proposal now fulfilling a long-term beneficial function to maintain its related care and maintenance as the optimum viable use for the building.

This latest change at the school reflects the ongoing necessity for continued adaptation, modernisation and evolution of the estate over time to meet the ever changing needs, demands and expectations of a high quality, modern and 'fit-for-purpose' educational establishment.

The significance of the listed main house, stable block and garden wall within the context of the application proposals, is their location within the associated historic parkland setting, which has been retained and enhanced.

It is reasonable to accept carefully considered development which reflects the School's needs, but which responds to the heritage assets significance and is justifiable in terms of public benefit.

This significance has been lessened to some degree as various additions, alterations and new buildings within the group have been implemented and developed over time.

The stable block element has arguably suffered the most in this regard with unsympathetic additions and modern portioning and infilling of the coaching arch.

Accordingly, is reasonable to accept carefully considered development which reflects and responds to the school's needs, but which is also justifiable in terms of its actual impact upon the heritage asset affected.

Historic England's 'The Setting of Heritage Assets: Historic Environment Good Practice Advice in Planning: 3' provides advice on assessing impacts on the setting of listed buildings. The document advises that the setting is generally understood to be the surroundings within which the asset is experienced, which may change as the surroundings evolve; that the importance of the setting lies in its contribution to the significance of the heritage asset and; setting is not a heritage asset in itself.

As originally built, it is understood that the main house and the stable block were freestanding buildings. Various 19th and 20th century additions to the house have now infilled this separation and now link the house and stable block.

The existing flat and pitched roof extension to the north elevation is of no architectural merit or significance and can be reasonably argued to detract from the appearance of the stable block.

In turn, it is considered that the existing extensions have a detrimental visual impact on the setting of both the main house and existing stable block.

The contemporary and largely glazed / lightweight appearance of the proposed stable block extension as now proposed, - to now incorporate a flat roof to allow views of the upper floor of the north elevation of the stable block - will better complement the historic architecture of the original building and the main house.

The replacement extension will not compete with the dominance of the principal Edge Grove House or the existing two storey stable block but will sit comfortably within its setting and will appear appropriate to its current 'age' both architecturally and in relation to its function as a central campus meeting and dining space.

Where the significance of a heritage asset has been compromised in the past by unsympathetic development it is considered that the present proposal as now revised, accords with NPPF policy test in so far as any perceived negative impact on the significance of the heritage asset due to the larger built form on the site, is outweighed by the positive effects of removing the existing extension, putting the building to its optimum viable use and other public benefits that accrue.

As such Listed building consent should be granted for this urgently needed educational facility.

IX. Other Matters

Biodiversity / Ecological Impact Assessment

Account has been taken of the ecological assessment and appraisal undertaken for the school in 2017 and a recent walk-over site survey and was conducted with the objective of identifying any ecological constraints associated with the proposals such as the site's potential to support any legally protected species or habitats of high nature conservation value.

This survey concentrated upon species likely to be of relevance including all species of bat (it being an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost); all species of British reptile (in particular grass snake, common lizard, adder and slow-worm as it is illegal to kill or injure these species; and Great Crested newt (similarly it is illegal to obstruct access to any structure or place which great crested newts use for shelter or protection or to disturb any great crested newt while it is using such a place).

The NPPF sets out the Government's vision for biodiversity in England with the broad aim that planning, construction, development and regeneration should maintain and enhance, restore or add to biodiversity and geological conservation interests.

Each of the three developments proposed involve work on previously developed land currently comprising buildings, regularly mown amenity grassland or tarmacadam / paved paths.

2 Sycamore trees close to the existing stable block will be removed as part of the proposals. These trees are classed as low and moderate quality in the applications accompanying arboricultural report. These

will be replaced with new tree planting as shown on the landscape strategy plan to compensate and offer bio-diversity enhancements in this area.

The existing buildings and trees on site were considered to hold negligible potential to support roosting bats. This was due to the modern construction and lack of features for access for roosting bats such as holes. No readily identifiable evidence of the presence of roosting bats was identified within those parts of the existing buildings that will be affected by the current proposals.

Where considered appropriate the applicants are prepared to accept conditions on any grant of planning permission to accommodate bat boxes on the new buildings to offer biodiversity gains in this connection.

A large pond is present on the site over 150 metres southwest from the location of the proposed new buildings. Arable fields and developed land surround the site in all directions. The pond was assessed in 2017 as holding poor suitability to support breeding populations of great crested newt due to predation on the pond from herons, presence of fish and its isolation from other ponds and suitable terrestrial habitat.

Due to the limited suitable terrestrial habitat on and surrounding the site for great crested newts, it is therefore still considered highly unlikely that great crested newts would be present within the pond and therefore great crested newts are considered to be absent from the proposed development sites. Whilst previous studies have provided in the data searches shown that reptiles have been recorded within the wider area, due to a lack of suitable habitat present on the proposed development sites it is considered highly unlikely that reptiles would be present in these locations.

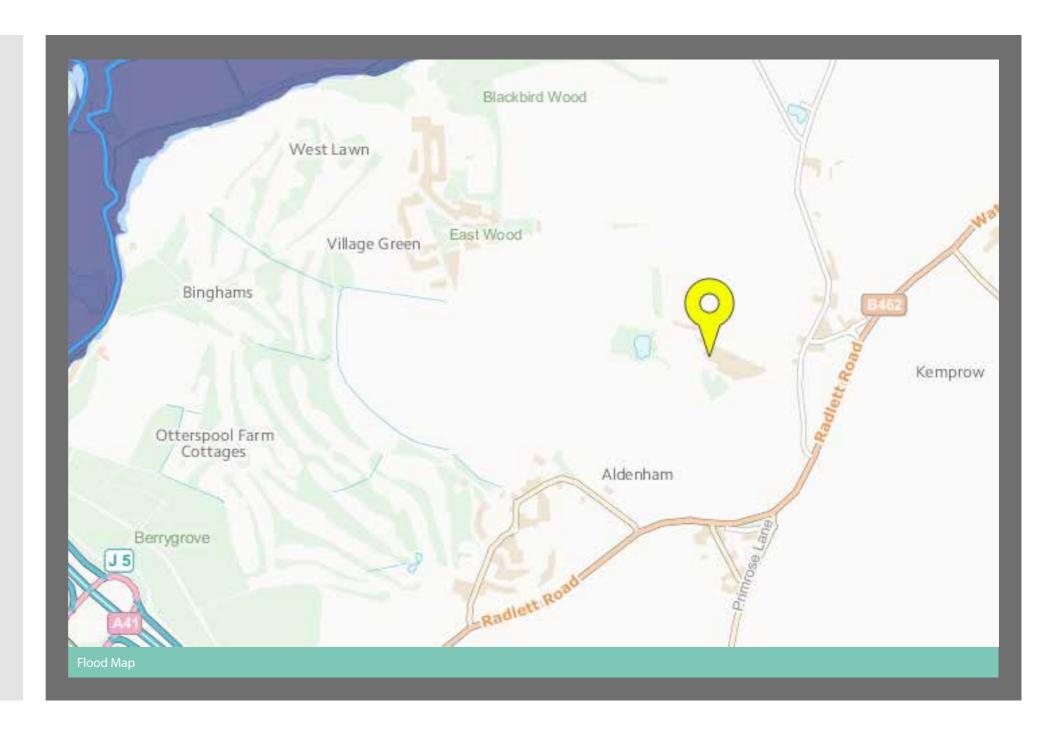
In conclusion it is considered that whilst the trees to be removed may include the potential for foraging habitat for common and widespread species of bird, appropriate precautions can be taken to negate the risk of harming, injuring or contributing to the demise of these species; for example;

- To conduct vegetation clearance outside of the bird nesting season;
- To check potential nesting habitat immediately prior to clearance;
- To employ ecological enhancement through the use of native species for planting within any new landscaping proposals
- And use of measures in replacement planting to provide new foraging and nesting opportunities for various species of birds and invertebrates.
- Where amenity grassland is included, sowing this area with a wildflower lawn mix to provide better nectar sources for invertebrates and hence higher value for foraging birds.
- Provision of bat boxes and nest boxes for bird species such as starlings, swift, house martin, and house sparrow on the walls of the buildings or trees. With their provision on site this would also enhance the habitat for the local bat and bird population.

These matters can be covered by planning condition.

Flood

With all of the development sites and the school and grounds generally falling Flood Zone 1 (Low risk) the site is not required to provide a Flood Risk Assessment in this instance.



Community Infrastructure Levy (CIL)

Energy Statement

Daylight / Sunlight Assessment

It is understood that as the school has charity status (registration no. 311054) and as for the recently constructed Lower School Building (Planning Permission ref: 17/1895/FUL) that CIL is not applicable.

Previous correspondance with Hertsmere Borough Council (see Appendix 3) confirmed that the proposal falls outside the categories that are liable to pay CIL as detailed in Hertsmere Borough Council's charging schedule. Therefore, the proposals would not require CIL. See Appendix 2.

Given the scale location and orientation of the proposed developments and their physical relationship to adjacent school buildings the proposals will not cause any adverse impacts by virtue of overshadowing or loss of daylight or sunlight.

Noise & Vibration Impact Assessment

Ground Conditions & Land Contamination

The uses of all buildings remain as educational classrooms and supporting administrative / dining facilities. The proposals do not involve noise or vibration generating developments and are not impacted by nearby sources of noise / vibration nuisance.

The application sites fall within land previously disturbed / built upon as recently as the 1990's.

The uses on the site before and after these works are not such that would have resulted in land contamination. The ground conditions have been proven to be capable of accommodating built development without issue.

Tree Survey / Arboricultural Assessment

The affected trees rear of the stable block have been surveyed and assessed by Arboricultural Consultant, Landmark Trees (LT). The trees were surveyed on the basis of the Visual Tree Assessment method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994). LT have not taken any samples for analysis and the trees were not climbed, but inspected from ground level.

A copy of the resultant survey data and related survey plan are reproduced here.

Landmark Trees Assessment concluded that;

"There are 3 trees within the application boundary that are within close proximity and need to be assessed.

Of the 3 trees surveyed, T1 is a mature, category A (High Quality) Norway maple; T2 is a mature, category C (Low Quality) sycamore and T3 is a mature, category B (Moderate Quality) sycamore.

None are category U (Poor Quality)."

Hertsmere Borough Council's online mapping service indicates that there are no Tree Preservation Orders within the site and nor does the site stands within a Conservation Area. Relevant local planning policies comprise Policies SP1 and CS12 of Hertsmere Borough Council's Core Strategy (adopted January 2013) and their Biodiversity, Trees and Landscape Supplementary Planning Document.

The stable block proposals necessitate the removal of the Category B and C trees. The category A tree is retained.

The report assessed the impacts of development proposals and concludes there would be at most a low impact on the retained highest quality tree.

The two trees to be removed are of lower quality and will be replaced.

There is (similar to existing) a small encroachment on plan to the RPA of the retained tree and only a fractional amount of this RPA will continue to be affected. Net impacts are considered to be low.

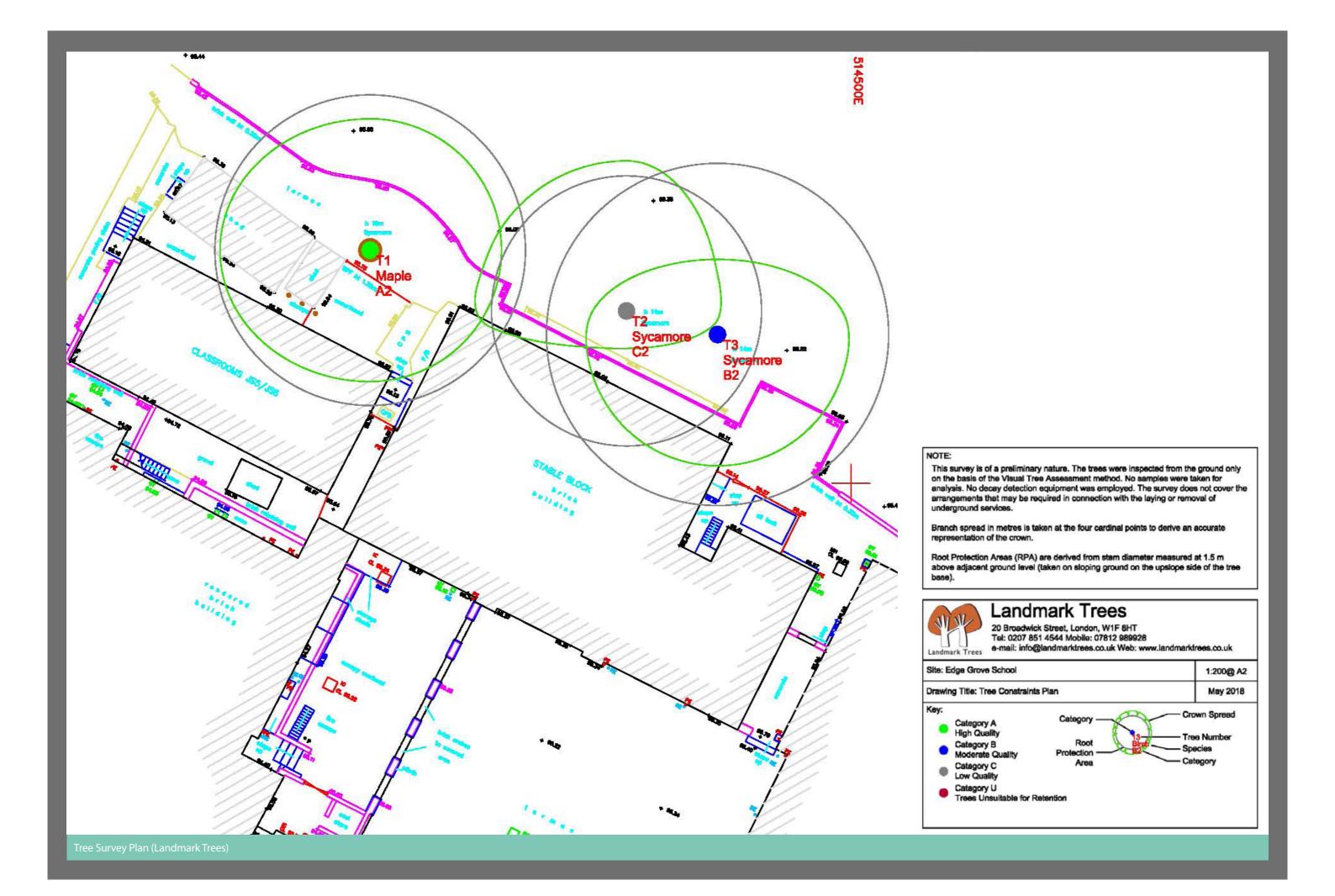
An RPA encroachment of <20% of RPA may be considered as low impact, given the permissive references to 20% RPA relocation and impermeable paving within BS5837:2012 and other published references to healthy trees tolerating up to 30-50% root severance in general (Coder, Helliwell and Watson in CEH 2006). The tree in question is a healthy specimen of species with a good resistance to development impacts, and quite capable of tolerating these low impacts.

It is considered also that appropriate measures, controlled by condition and related recommendations to be followed prior to and during construction that will ensure any impact to the retained tree is minimised.

In conclusion, it is considered that the current the proposal, through following appropriate tree protection recommendations, will have a limited impact upon the mature tree proposed to be retained.

The two trees proposed to be removed will be compensated by new tree planting as part of the landscape masterplan at suitable locations within the school grounds.

The replanting scheme will offer considerable enhancement and replace lower quality trees. Replacement trees will have the advantage of being specifically selected for the proposed site, healthy and fit-for-purpose. Design can provide for a diverse range of native and ornamental species that will compliment rather than conflict with the proposals, so providing a more sustainable long-term resource for the future.



Conclusion

The potential impacts of development are all relatively low in terms of the quality of the trees to be removed. RPA encroachments are low in practice.

The full potential of the impacts can be largely mitigated through design and precautionary measures. These measures can be elaborated in Method Statements in the discharge of planning conditions.

The species affected is generally tolerant of root disturbance / crown reduction and the is in generally good health and capable of sustaining these impacts.

The trees recommended for felling are of lesser individual significance, such that their loss will not adversely affect the visual character of the area.

Therefore, the proposals will not have any significant impact on either the retained tree or wider landscape thereby complying with Policies SP1 and CS12 of Hertsmere Borough Council's Core Strategy (adopted January 2013) and their Biodiversity, Trees and Landscape Supplementary Planning Document.

Thus, with suitable mitigation and supervision the scheme is recommended to planning.



Site: Edge Grove School

Date: 10/05/2018

Appendix 1

020 7851 4544

Surveyor(s): Adam Ho

Landmark Trees Ltd

Surveyor(s): Adam Hollis

Ref: LSH_EGS_AIA

BS5837 Tree Constraints Survey Schedule

Tree No.	English Name			Ground Clearance	Stem Diamete	Age Class	Protection Radius	Growth Vitality	Structural Condition	B.S. Cat	Sub Cat	Useful Life	Comments
1	Maple, Norway	17	7778	2.5	690	Mature	8.3	Normal	Good	A	2	40+	Small deadwood throughout upto 750mm Entry wounds
2	Sycamore	16	8258	2.5	600	Mature	7.2	Moderate	Fair	С	2	20+	Deadwood Suppressed by nearby tree
3	Sycamore	16	4777	2.5	760	Mature	9.1	Normal	Fair	В	2		

Tree Survey Schedule (Landmark Trees)

X. Conclusions

The current application seeks simply to renew the planning and listed building consents as granted by the Council in March 2021 to allow for an extended period in which to discharge the related pre-commencement conditions and then to 'implement' the scheme, which whilst significantly delayed by implications for the school during and following the Covid pandemic remains a vital part of the school's development plan.

These applications seek to provide an integrated redevelopment package of works to meet the essential modern day educational requirements of a long standing educational facility parts of which have become no longer fit-for-purpose.

The development proposed meets directly the Governments NPPF and Local Development Plan objectives of enhancing key community facilities and the published aim for Local Authorities to continue support the need to alter schools to meet operational objectives.

In heritage impact terms the school has worked tirelessly with the Local planning Authority and their advisers to find a mutually agreeable solution that can best deliver the urgent requirements of the school in a manner which fully respects the significance of the designated heritage asset.

The proposal remains in accordance with NPPF advice and related guidance and delivers a raft of important public benefits including securing the already and previously compromised assets optimum viable future use.

The Council have previously recognised the need for schools such as Edge Grove to continue to operate, evolve and develop in response to changing educational demands.

The modernisation and reorganisation of the present sub-standard elements of Edge Grove School is now becoming in need of urgent attention.

Accordingly, we look forward to the Local Authorities support in progressing this development in the proactive, positive and collaborative approach advocated by the NPPF.

XI. Appendices

APPENDIX 1 Listing Text for Edge Grove School

The listing text for Edge Grove

Former large house, now school. Early to mid C18 for J.Skey. Extended and altered c.1800, mid C19 and c.1910. Red brick, roughcast. Slate hipped roof. 3 storeys, originally 5 windows. Ground floor extended forward: glazed tetrastyle lonic porch with flanking sashes in reveals. First floor sashes with blind boxes, that to centre with lonic pilaster jambs. Smaller 2nd floor windows. Giant pilasters at return angles. Modillion bracketed deep boxed eaves. End stacks. c.1800 3 bay single storey wings added, raised to 2 storeys c.1910: projecting forward, sprocketed eaves, rectangular bay to right. Left return: first floor

weatherboarding with timber balustrades and fluted pilasters. To rear: mid C19 full height canted bay, simple doorcase, first floor balconettes. c.1910 1 and 2 storey additions to rear, hipped and gabled roofs, ornamental bargeboard. Interior: largely remodelled c.1910.

Ionic entrance hall to top-lit staircase hall, wrought iron balusters to open well stair, octagonal drum. Panelled front rooms and first floor ballroom. 1 storey link to right to C20 buildings not of special interest. (VCH 1923: Pevsner 1977: RCHM Typescript).

Garden Wall

C18. Red brick. Approximately square about 40 metres to each side, about 3 metres high. Openings and inserted windows irregularly spaced. Flat tile coping.

Introduction

APPENDIX 2

Energy Statement

This energy statement responds to guidance given in national, and local planning policies including Hertsmere Borough Council's Local Core Strategy DPD (adopted 2013) and supplementary planning documents.

The proposed scheme will improve the sustainability and environmental performance of the built environment by increasing energy efficiency, reducing CO2 emissions, generating energy services efficiently and implementing building integrated Low or Zero Carbon (LZC) technology when compared to a traditional equivalent scheme. The new buildings will be constructed to meet the energy efficiency and sustainability policies of Hertsmere Borough Council and will achieve Part L compliance with the prevailing building regulations. It is anticipated that the new buildings will achieve a significant reduction in regulated CO2 emissions against the 2013 Building Regulations through the use of energy efficiency measures for space heating and cooling.

This statement identifies how the proposed works address the energy related policies of Hertsmere Borough Council. In this connection options have been reviewed for reducing CO2 emissions through energy efficiency measures, construction materials and processes and low and zero carbon technologies.

Relevant Planning policy and Guidance

developments to:

This energy statement is based on the requirements of Part L of the Building Regulations with guidance taken from the Hertsmere Borough Council's Local Core Strategy DPD (adopted 2013) and the Draft Supplementary Planning Document (SPD) – Planning and Design Guise Part D: Guidelines for High Quality Sustainable Development (October 2016)., This assessment includes:

- An energy demand assessment for heating, cooling, electricity and baseline CO2 emissions
- A summary identifying the preferred energy strategy and the overall CO2 emissions reductions achieved over theBuilding Regulations 2013 compliance baseline.

National Planning Policy Framework (NPPF)
The NPPF sets out planning policies for England and Wales and how these are expected to be applied. In determining planning applications, local planning authorities should expect new

- Comply with adopted Local Plan policies on local requirements for decentralised energy supply unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable.
- Take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.

Policy CS17 within the Core Strategy relates to energy and CO2 reduction. It states that all new non-domestic developments will be expected as a minimum to achieve CO2 emissions reductions in line with Building Regulations Part L through the use of decentralised and renewable or low carbon sources.

Hertsmere Local Plan SPD – Draft Planning and Design Guide Part D (2016)

This document outlines the small scale renewable and low carbon energy generation technologies suitable for use and these include:

- Solar thermal and PV
- Heat pumps (air and ground source)
- Biomass heaters

Proposals

Minimising energy requirements; A key design aim has been to reduce energy requirements through energy efficiency measures and good practice sustainable building services. This will result in an improvement in the building's energy performance to a point that is over and above the minimum levels stipulated within Part L of the Building Regulations.

The proposed building will be built with area weighted U-values in line with Building Regulations Part L2A (2013) for the building fabric and glazing elements to provide a compliant scheme.

New buildings are required to be pressure tested under Building Regulations Part L2A (2013) with the maximum permissible air leakage set at 10m3/(h.m2) @ 50 Pa.

It is proposed that all endeavours will be taken to improve the air leakage performance of the building to 5m3/(h.m2) @ 50Pa to further improve the energy efficiency of the new buildings.

In order to minimise overheating, glazing will be enhanced to reduce heat gain to the main occupied areas of the buildings. It is therefore proposed that all glazing will be specified with a SHGC (solar heat gain coefficient) of no more that 0.5 to minimise heat gain.

In addition, blinds are to be provided to habitable room spaces to provide independent occupant control to further reduce the level of heat gain into the space.

Heating and Cooling

Air Source Heat Pumps (ASHP) are considered a Low/Zero carbon (LZC) technology and it is proposed that they are used to provide space heating and cooling to the classrooms, offices and multipurpose hall. ASHPs extract thermal energy from the surrounding air by moving heat from the outside air into a building in heating mode and in cooling mode they take heat from the inside air and reject it to outdoors. The proposed ASHPs have a coefficient of performance in excess of 4, meaning that for every kW input of electricity, 4kW of heat or coolth is generated. In transient areas with relatively low heat demands, such as the WCs, electric underfloor heating is proposed with sophisticated controls to keep the spaces to a pre-determined background temperature.

Services Distribution

All services pipework, valves and fittings will be insulated to minimise unwanted heat loss or heat gain.

Ventilation

It is proposed that all classrooms, offices and the multipurpose hall will incorporate means of natural ventilation, such as openable windows with actuators controlled by CO2 sensors. Openable windows would also allow the rooms to be purged, which will assist in removing any heat gain from the space.

It is proposed that toilets will be served by extract only ventilation systems with make-up air provided via transfer grilles or undercut doors. It is proposed that each system will be individually controlled via PIR, which will reduce energy use. Ventilation principles will be in accordance with Building Bulletins, Building Regulations Part L2A and CIBSE Guides.

Lighting

It is proposed that LED and low energy compact fluorescent lighting will be used with automatic and/or manual switching facilities.

The use of photocells (daylight sensors) to control lighting in the classrooms and multipurpose hall will be considered. PIR (Passive Infrared) detectors to control lighting in low occupancy areas will also be installed to assist in reducing energy wastage. The lighting design throughout the building will incorporate high efficacy lamps to ensure compliance with Building Bulletins and Building Regulations whilst providing the required lighting levels and environment.

Water Consumption

In order to minimise the impact of the development on the local water infrastructure, water saving techniques will be incorporated to help reduce site consumption. For example WC's with a total effect flush volume of 4.5l/min and taps with a maximum of 5l/min with low flow regulators (e.g. timed turn off, electronic, spray or aerated).

Overheating

Building Bulletins 101 highlights that overheating in teaching areas can be a problem if it is not dealt with at design stage.

Due to the enhanced performance of the building fabric, external heat gains can be reduced, however having less 'leaky' buildings, means that removal of internal heat gains becomes difficult.

Solutions to minimise internal heat gains include utilising LED light sources and removal of a wet based heating system help to mitigate heat gains into internal spaces.

In order to minimise potential overheating from external sources, glazing will be enhanced to reduce heat gains to the main occupied areas of the building and ASHP providing cooling are introduced to the development. It is therefore proposed that all glazing will be specified with a SHGC (solar heat gain coefficient) of no more that 0.5 to minimise heat gain. In addition, blinds should be provided to each classroom to provide independent occupant control to further reduce the level of heat gain into the space.

<u>Summary</u>

It is proposed that the following measures will be provided to reduce the CO2 emissions of the building:

- Air source heat pumps for space heating and cooling
- Energy efficient lighting LED and compact fluorescent
- Improved services distribution and insulation
- Natural ventilation with automatic controls
- Water saving technologies

The above measures will achieve a significant reduction in CO2 emissions to a level that is considered to be in accordance with Part L of the Building Regulations and guidance from the Hertsmere Borough Council.

APPENDIX 3 CIL Correspondance

