





CHAPTER THREE

Understanding the Application Site

An in-depth analytical understanding of the application site is provided in this chapter, summarised through a set of constraints and opportunities. This analysis directly informs the emerging vision, design principles, and illustrative masterplan set out in subsequent chapters.

3. Understanding the Application Site

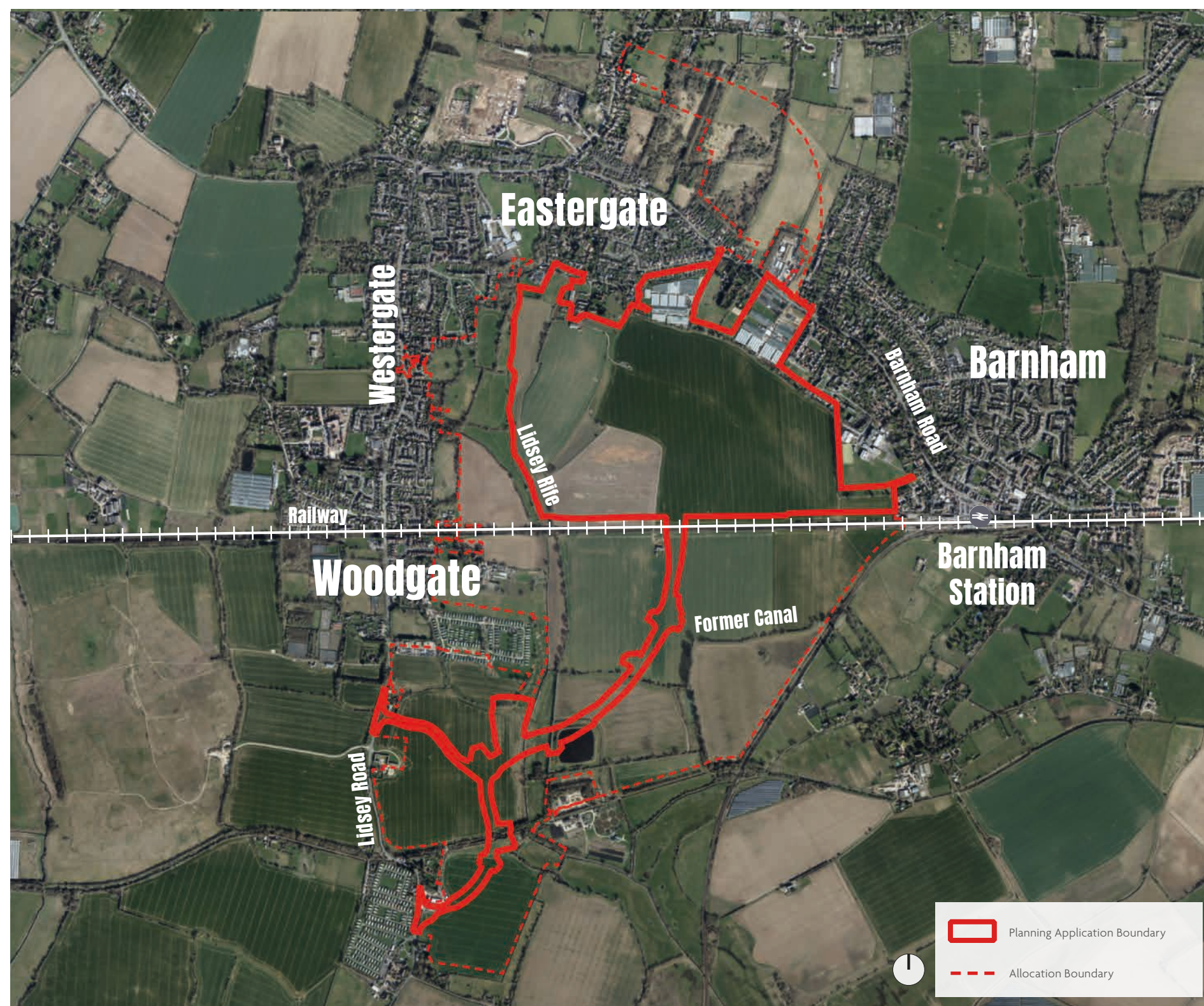
3.1 The Application Site

The Outline Planning Application (OPA) site forms part of the land within the allocation and is located north of the railway line and south of Barnham Road and includes the route of the A29 realignment south of the railway. The OPA site area extends to 92.65ha / 228.94 ac.

The application site is bordered by Barnham (to the east), Eastergate (to the north), Westergate (to the west) and the railway line (to the south). The site primarily consists of relatively flat arable land, with the exception of an area of large greenhouses to the north and the Lidsey Rife, a stream, which runs north to south and along the western boundary.

The application site south of the railway line primarily consists of open and enclosed farmland, with the former Chichester to Arundel canal running east-west. The Lidsey Rife continues south to the tail end of the site past the Waste Water Treatment Works, which sits on the southern boundary. A summary of constraints is included in Chapter 2, pg. 22-23. For a more detailed analysis, please refer to pg. 30 of the Framework Masterplan.

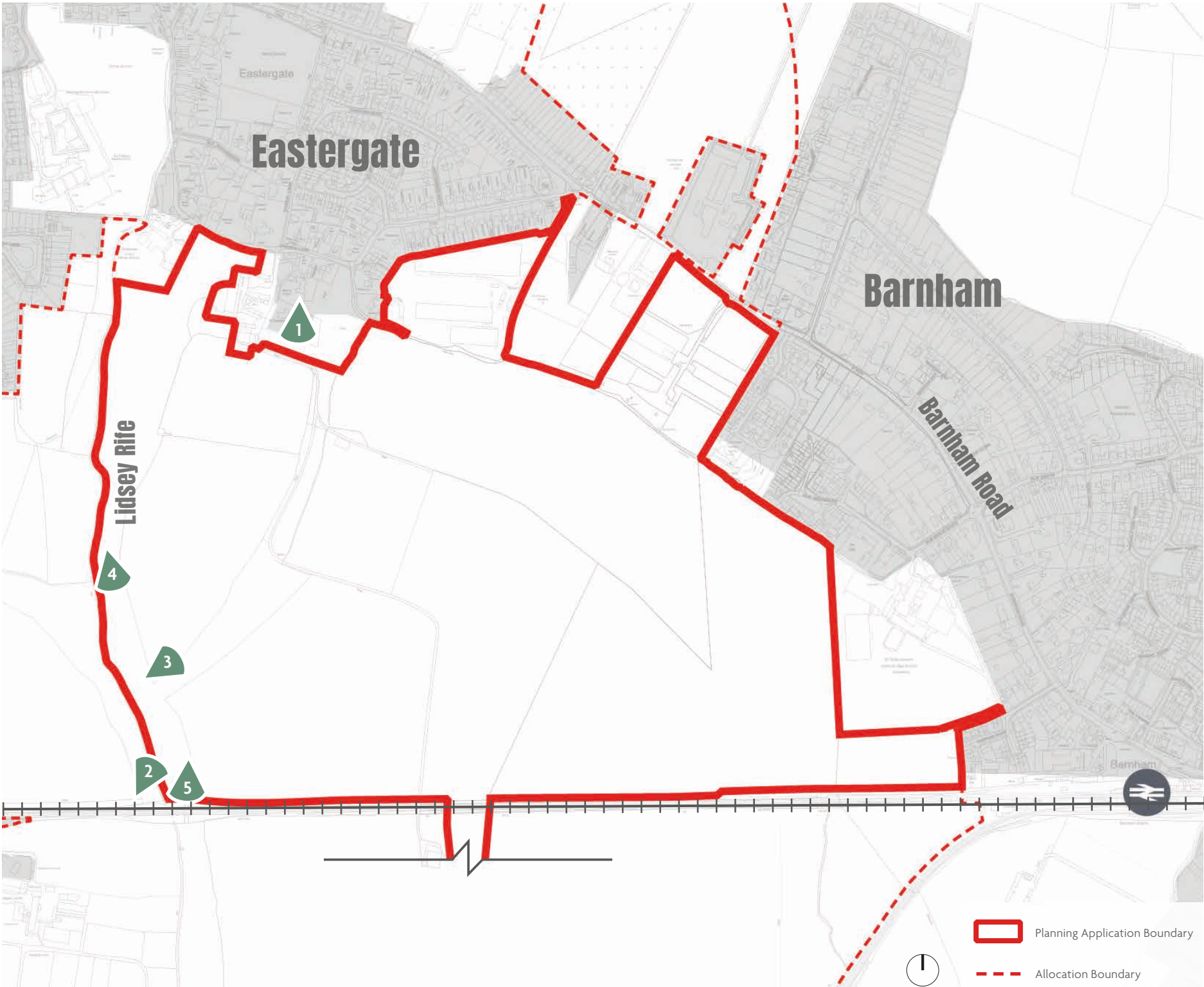
The subsequent analysis focuses on the central part of the application site north of the railway line. The following diagrams and drawings in this DAS will include a 'break line' to show the Planning Application Boundary and the realigned A29 continues south beyond what is shown.



Application Site in the Context of the Allocation Boundary

3. Understanding the Application Site

3.1 The Application Site



Application Site North of the Railway



View from St George's Church churchyard, Eastergate, looking south



View from PRoW alongside rife looking just north of rail line



View looking north east at the predominantly flat landscape of open views



View looking south towards the elevated railway line at the Rife Valley



Pedestrian rail tunnel at the Rife Valley

3. Understanding the Application Site

3.2 Ecology & Landscape Character

LANDSCAPE CHARACTER

The site currently consists of three landscape character areas; open arable farmland (majority of the site), Barnham Plant Nurseries (to the north) and the Lidsey Rife corridor (to the west) with Westergate meadows outside of the site to the west.

The open arable farmland which covers most of the site is characterised by gently sloping topography across the whole site and drainage ditches to the west, which leads into the Lidsey Rife. Public Rights of Way follow the north and east boundary, leading down towards the Arundel to Chichester railway line. The field boundary vegetation inside the site is sparse, resulting in a relatively open landscape, allowing long views.

Barnham Plant Nursery consists of glasshouses and plant stock areas interspersed with hardstanding. The glasshouses themselves sit on two sites separated by paddocks and individual dwellings.

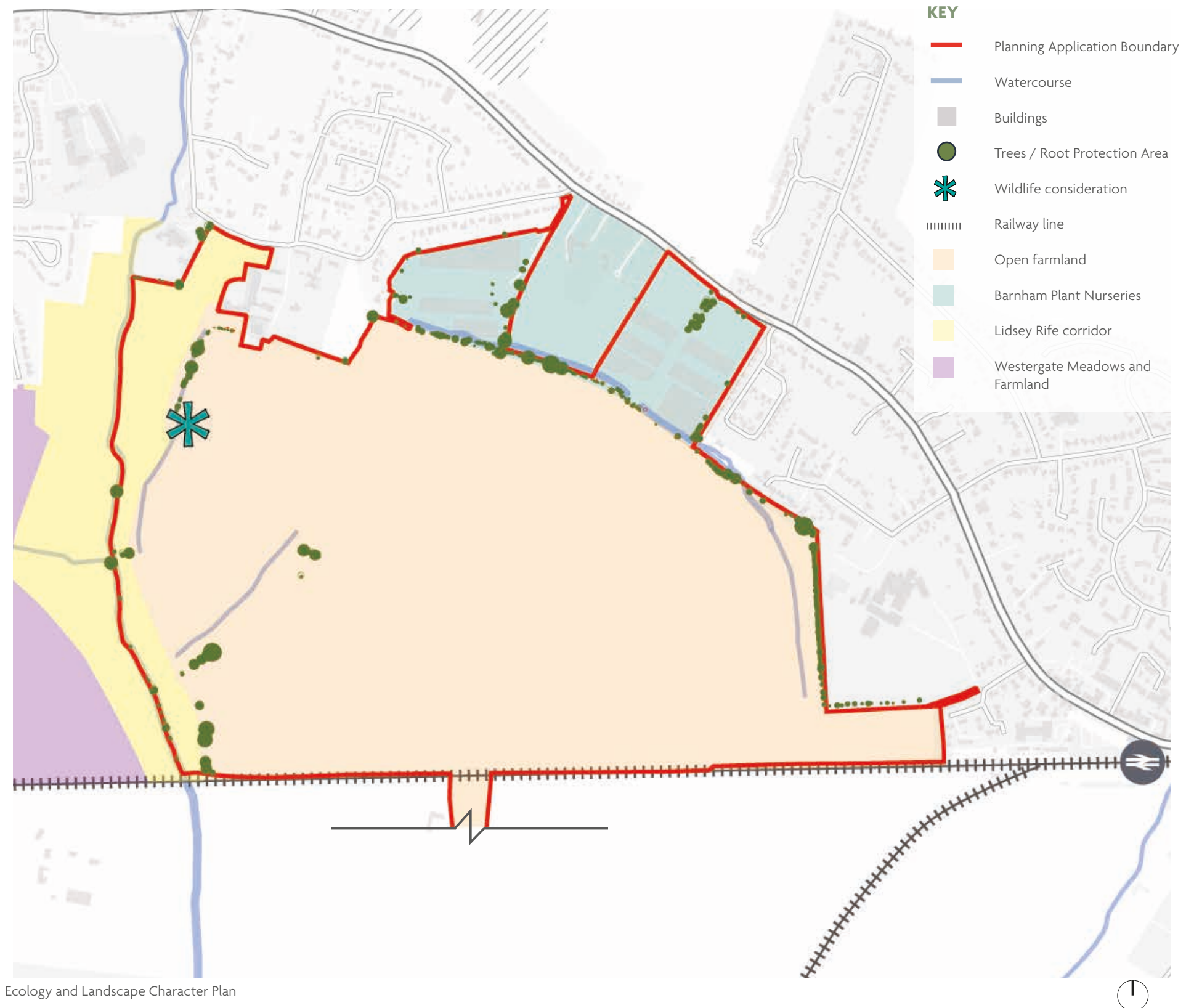
The Lidsey Rife corridor, which forms the western boundary, is a predominantly rural and enclosed valley, with meadows and lower valleys side to the Lidsey Rife. The corridor contains designated rights of way and informal paths following the alignment of the rife towards a tunnel under the railway line at the south of the site.

The Westergate meadows and farmland which sits outside of the Planning Application Boundary, to the west, is a series of small-scale fields, enclosed by trees on the settlement edge.

ECOLOGY

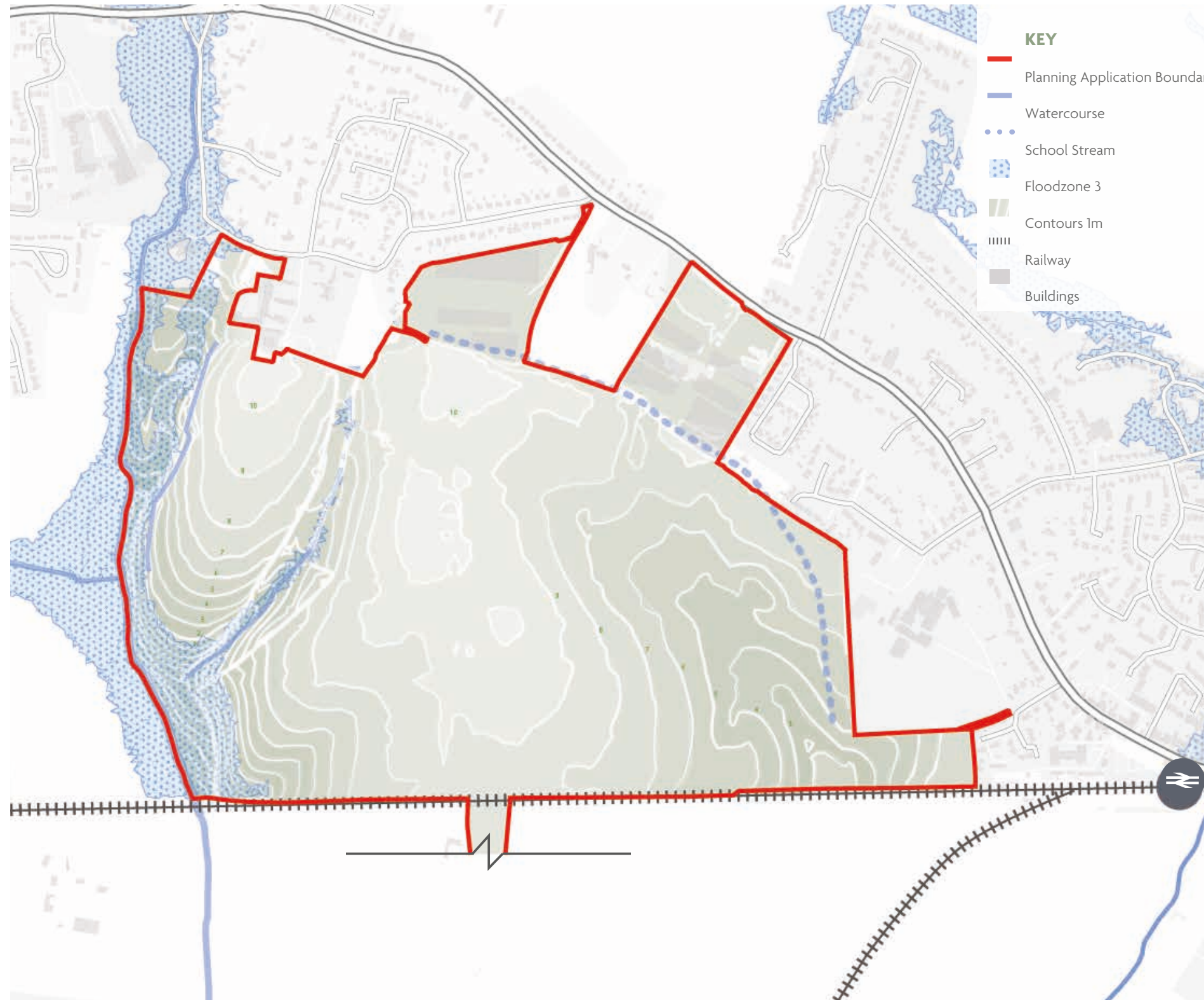
There are no statutory or non-statutory designated sites of nature conservation interest located within or adjacent to the site. The open farmland and Barnham Plant Nurseries provide very few opportunities for faunal groups and are therefore of negligible ecological interest. Features such as streams, hedgerows, tree lines and grassland (more predominant along the site boundaries and within the Lidsey rife corridor) are of greater interest, both in terms of the intrinsic value of the habitats present as well as the potential opportunities that they provide for faunal species.

Given the existing baseline, it is considered that there is significant scope to safeguard existing features of interest and deliver improvements, both in terms of the quantity and quality of habitats and, in turn, the opportunities that they provide for wildlife.



3. Understanding the Application Site

3.3 Flooding & Topography



Flooding and Topography Plan

WATERCOURSES & TOPOGRAPHY

There are certain areas in the site that sit within a defined flood zone based on the Environment Agency's Flood Map for Planning. Typically, these align with the Lidsey Rife along the western boundary and extend across a well defined floodplain broadly parallel with the route of the watercourse. As shown in the adjacent diagram, the site is relatively flat with gentle slopes down towards the west into the rife and south east corner, therefore aiding in the formation of this flood plain. Smaller tributaries also show Flood Zones extending along their reach, within well defined corridors close to the watercourse. Proposed residential parcels will therefore be situated away from the western boundary.

A culverted watercourse (a stream conveyed in a pipe below-ground), referred to as the School Stream flows from the southern edge of the current Barnham plant nursery site in a south easterly direction towards the railway, where it passes under in another culvert before emerging as an open watercourse to the south. The exact route and condition are not currently known; however, it is understood to be in relatively poor condition, with the inlet observed as being overgrown. Given the poor condition of the School Stream, it will need to be adapted and also redirected to run adjacent to the St Philip Howard Catholic School boundary (to the east) in order to provide drainage for their sports pitches. Within the site, there is also a network of smaller land drainage ditches in various locations. On several site visits, these have been observed to run dry or have small isolated pools of water within them, although it is likely in particularly wet periods these look to convey surface water towards the rife.

GROUNDWATER

Elevated groundwater levels are a known issue across much of Arun District and across wider areas of the County. A number of monitoring wells were installed across the site to understand the peak Winter groundwater level and identify patterns of fluctuation in the level. The results are presented in the Flood Risk Assessment, but overall show on average the Winter groundwater was observed within 300-400mm of the ground level, although this varies across the site. Therefore, retention and detention ponds will be required throughout the site to suit the outlined constraints as detailed in the Sustainable Drainage Report.

3. Understanding the Application Site

3.4 Heritage & Archaeology

HERITAGE ASSETS

A small part of the application site falls within the Church Lane, Eastergate Conservation Area which contains a number of listed buildings, including the Grade II* listed St George's Church and Grade II Eastergate House. St George's Church lies close to the boundary of the site, and as such, the setting and views to and from the Church will form a key consideration to future development.

Eastergate Square Conservation Area is located further to the north and also contains Grade II listed buildings.

ARCHAEOLOGY

From a review of the Historic Environment Record, which contains records of previous archaeological finds within the site area, there are few areas that contain archaeological remains of high significance. The site lies within the West Sussex Coastal Plain, and it is anticipated that there could be archaeological potential for the Bronze Age, Iron Age and Roman periods.

KEY

Planning Application Boundary

Existing buildings

Church lane Eastergate Conservation Area

Grade II* listed church

Grade II listed buildings

Key views

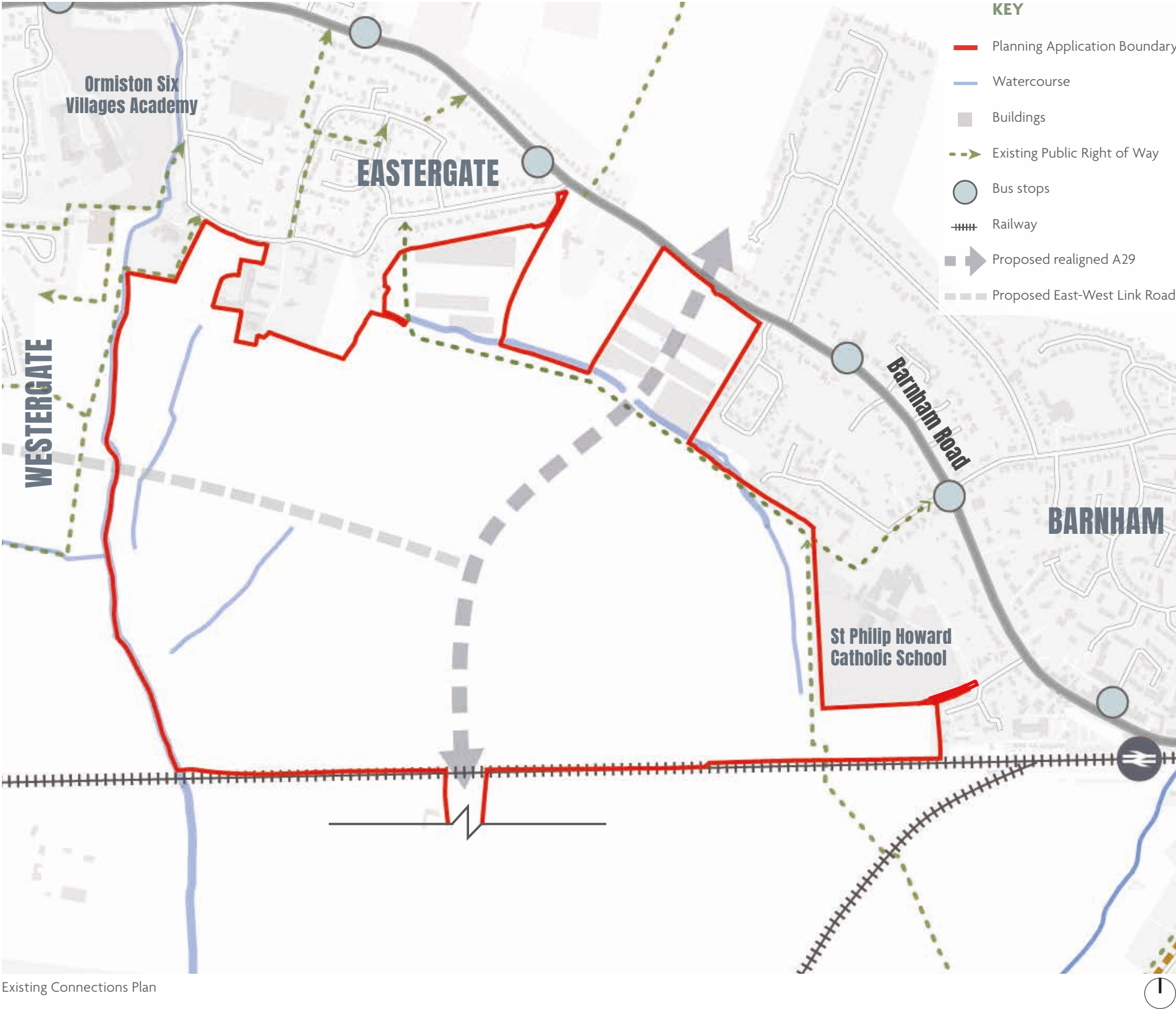
Railway line



Heritage and Archaeology Plan

3. Understanding the Application Site

3.5 Connections



HIGHWAYS

The proposed realignment of the A29 in the allocation is required to alleviate current congestion in the area. The A29 will traverse the site north to south, providing a connection to Barnham Road. In addition, the proposed East-West Link Road will provide east to west connections.

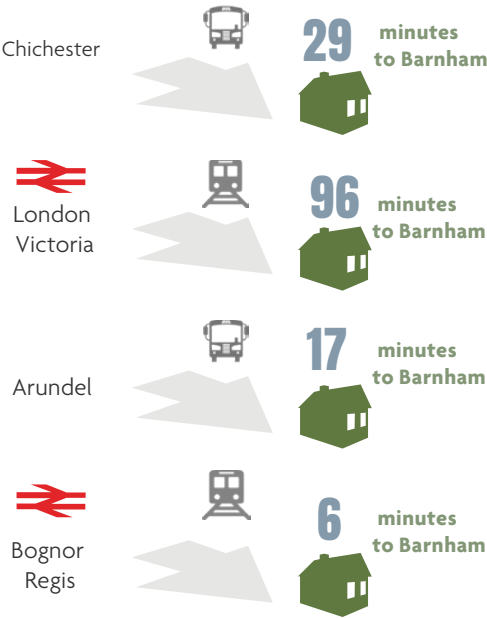
PEDESTRIAN & CYCLE CONNECTIONS

Pedestrian access to the proposed development site is to be gained from the surrounding footpaths and footways. As shown, multiple footpaths perforate the site boundary, providing easy access to the local amenities and encouraging integration with the existing infrastructure. The majority of these have the potential to be connected to new cycleways.

A key Public Right of Way runs along the northern part of the site. This provides access to St Philip Howard Catholic School and Ormiston Six Villages Academy, and crosses the railway to the south east of the site.

PUBLIC TRANSPORT

The site is well connected with national rail and local bus links from Barnham. Bognor Regis is in close proximity to the south, accessible by train in just over five minutes. Local bus links connect Barnham to Chichester to the west and Arundel to the north east, in under 30 minutes. Direct trains connect Barnham to London, arriving at London Victoria Railway Station in approximately 1 hr 30.



3. Understanding the Application Site

3.6 Amenities

The adjacent diagram demonstrates the grouping of existing amenities that are within walking distance of the centre of the site. The closest of these is to the east beside Barnham train station, followed by centres in Westergate and Eastergate. Given there are no mixed used centres directly adjacent to the site, this opens up the possible need for a new centre in the site itself in order to serve the new residents.

The proposed development will need to connect to existing amenities and complement them rather than compete. Therefore an eastern connection south of St Philip Howard Catholic School will be key. Similar emphasis will be placed on the pedestrian route to the north of the site, providing safe and easy access to the two existing schools. Please see pages 18-19 of the Framework Masterplan for further information regarding local amenities.

KEY

Planning Application Boundary

Isochrones

Railway line

Pedestrian connections

Existing buildings

Recreation grounds

School grounds

Business park

Shopping centre

Barnham railway station

Employment

Nursery

Primary school

Secondary school

Open space

Recreation

Village hall

Doctors surgery / Dentist

Retail

Food store

Cafe / restaurant

The map illustrates the planning application boundary and its proximity to various amenities. The 0.5km (5-minute walk) isochrone is shown as a dashed line, and the 1km (10-minute walk) isochrone is shown as a solid line. The map includes a key for the symbols used, such as the red line for the planning application boundary, dashed lines for isochrones, and various icons for amenities like schools, shops, and recreational areas. The map also shows the railway line and pedestrian connections.

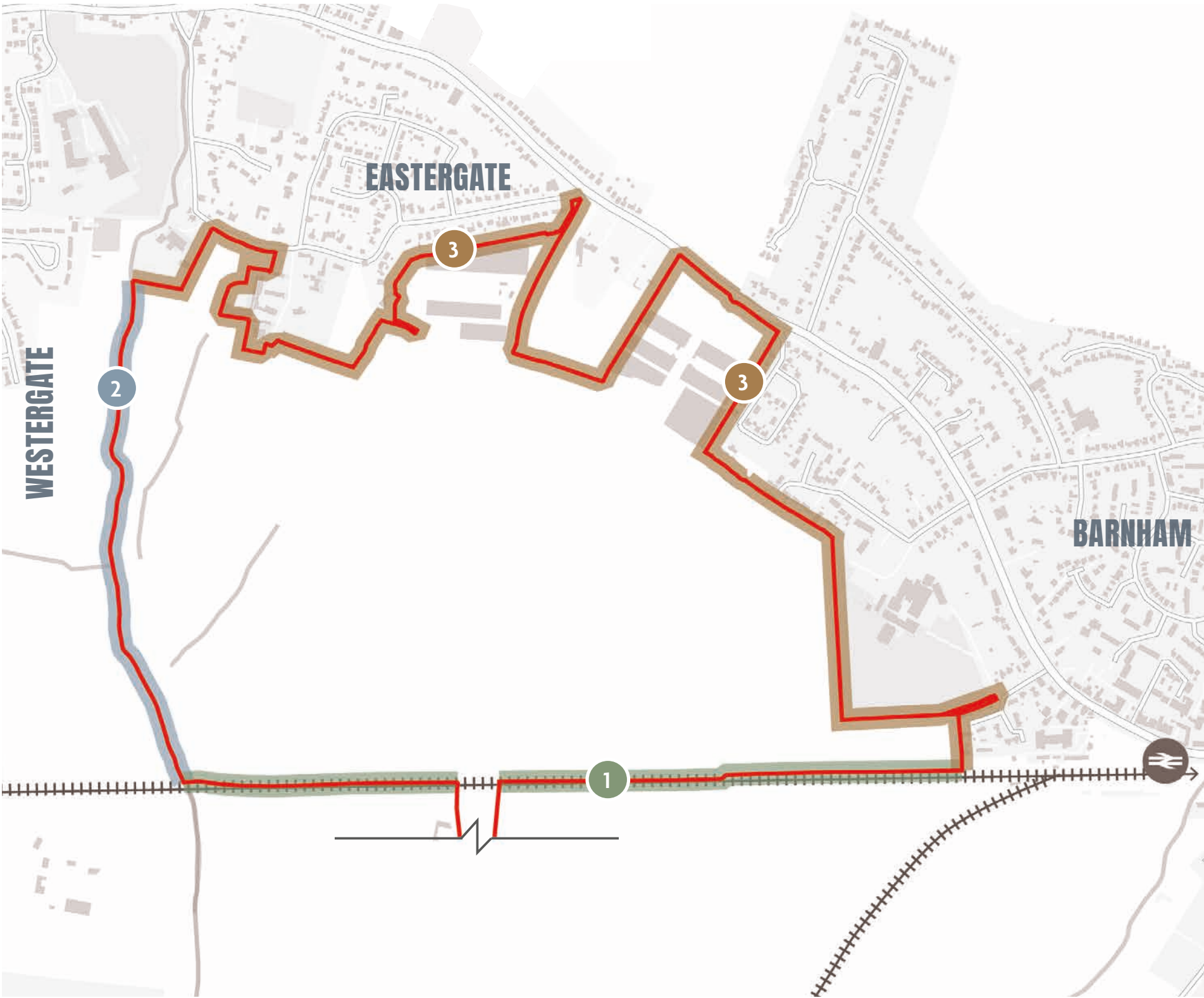
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ARUN DISTRICT COUNCIL BN/11/22/OUT 36 BARNHAM, EASTERGATE, WESTERGATE (BEW) PARCEL SCI DESIGN & ACCESS STATEMENT

3. Understanding the Application Site

3.7 Key Edge Conditions

The application site has a range of settlement and landscape presence along its boundary. Whilst the southern boundary runs along the railway, the western boundary comprises the rife and adjoining open farmland. The north and eastern boundaries adjoin existing settlements of Eastergate and Barnham, respectively, bringing a range of opportunities and elements that require an appropriate response.



Key Edge Conditions Plan



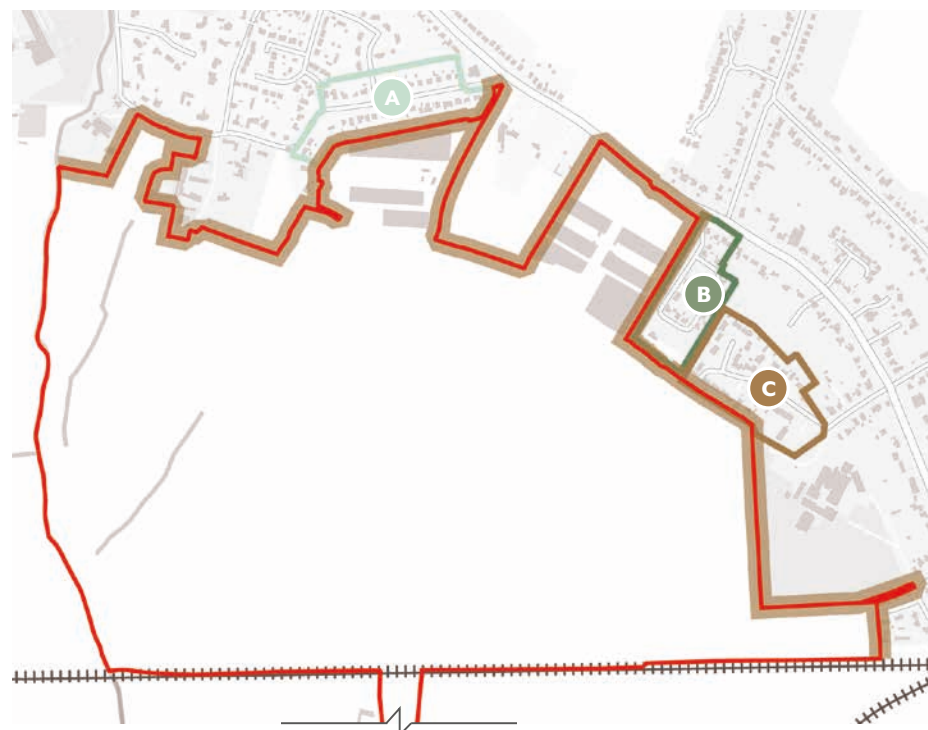
- KEY**
- 1 Railway
 - 2 Lidsey Rife
 - 3 Eastergate and Barnham

3. Understanding the Application Site

3.7 Key Edge Conditions

The following existing residential developments were chosen as areas of study due to their proximity to the site boundary. Their built form character and relationship with the site boundary will guide the proposed development, which will respond appropriately.

The proposed developments directly adjacent to these sites would ideally use the existing urban landscape as an opportunity to interact with the surrounding villages successfully. This could be done by connecting to and expanding any existing footpath connections whilst also aiming to complete blocks where possible through back-to-back housing.



Key Plan Identifying Area Locations

A - CHURCH LANE



- The street is characterised by a linear building line that runs parallel to the road with generous setbacks and irregular spacing between dwellings. A range of plot boundary characters including hedges, timber fences and brick boundary walls define the street;
- Private direct access lead to driveways and on plot garages; and
- Building typologies primarily consists of single-storey detached dwellings and the occasional dwellings that go up to 1.5- 2 storeys. Dwellings are set in deep plots with gardens backing onto the site boundary.

KEY

- | | |
|-----------------------------------|--------------|
| Detached dwelling (1 storey) | Tree/foliage |
| Semi-detached dwelling (1 storey) | Road |
| 1.5 - 2 storey | Footpath |



3. Understanding the Application Site

3.7 Key Edge Conditions

B - UPTON BROOKS



- Upton Brooks is a newly built development, to the north of the site boundary. The development has a semi-formal character formed by a predominantly linear building line with consistent setbacks and focused around a shared amenity space. Marker buildings define the entrance to the development. Dwellings adjacent to the site predominantly back on to the site boundary;
- Dwellings primarily have direct access driveways leading to garages set back behind the building line and in between dwellings with a few dwellings sharing drives; and
- The dwelling mix roughly comprises two-thirds detached and one-third terraced.

KEY

- | | |
|-------------------------------------|--------------|
| Detached dwelling (two storey) | Key frontage |
| Semi-detached Dwelling (two storey) | Tree/foliage |
| Terraced dwelling (two storey) | Garage |
| SuDS | |

C - ELM GROVE SOUTH



- Elm Grove South is located in Barnham and adjacent to the site boundary and St Phillip Howard Catholic School. The street character comprises of a formal, orthogonal arrangement of buildings that are set back from the street. The street follows a different geometry to the building line thus creating a series of shared / public amenity spaces adjacent to streets;
- A range of parking solutions include on-street parking, private garages as well as on-plot drives; and
- Dwellings are predominantly two storeys and comprise a mix of semi-detached, terraced and apartments. Dwellings that are adjacent to the site, back onto the site boundary.

KEY

- | | |
|-------------------------------------|--------------|
| Detached dwelling (two storey) | Key frontage |
| Semi-detached dwelling (two storey) | Tree/foliage |
| Terraced dwelling (two storey) | Footpath |
| Apartment block (three storey) | Garage |
| Single storey | |

3. Understanding the Application Site

3.7 Key Edge Conditions

To guide the proposed development response, the existing character of the site's boundary itself has been analysed. This diagram and the following sections demonstrate the varying boundary character that exists along the northern and eastern boundary, including landscape elements and roads and the land uses beyond it.



3. Understanding the Application Site

3.7 Key Edge Conditions

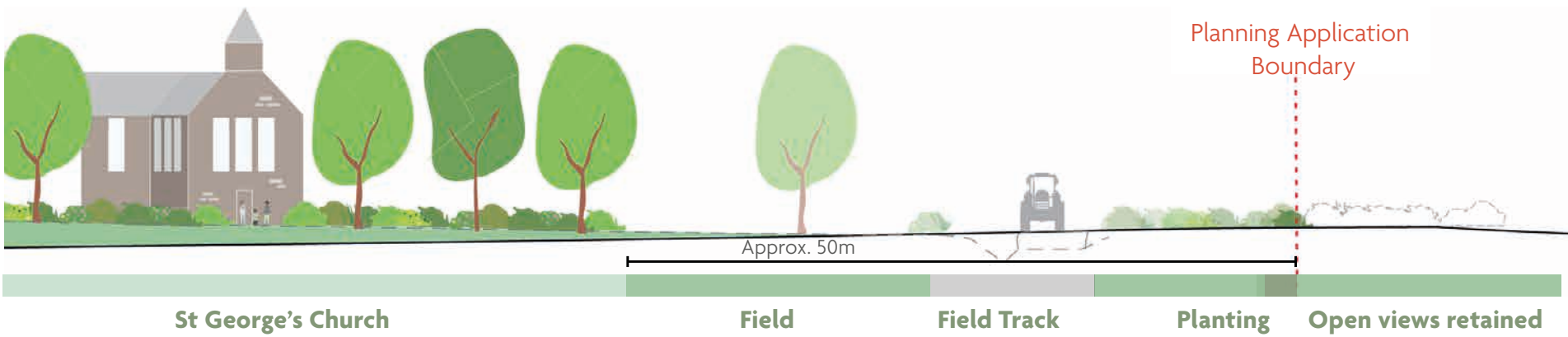
CONCLUSION

The existing adjoining land uses help to guide the proposed development and its response to it. There is an opportunity for proposed development adjacent to existing settlement edges such as Church Lane, Upton Brooks, and Elm Grove south to integrate the existing urban landscape with the extension or retention of paths for pedestrian and cycle connections. Proposals could also complement the built form with new dwellings backing on to the existing backs, thus completing a back-to-back residential block (Section B-BB).

The Lidsey Rife along the western edge provides a unique opportunity for a linear park. Continuing the park north towards St George's Church would be an appropriate response to the Grade II* listed building setting and maintaining views south from it (Section A-AA).

The existing edge boundary treatments will need to be approached sensitively in areas with dense vegetation, particularly along the existing PROW adjoining the existing plant nurseries and along the eastern boundary along St Philip Howard Catholic School. Locating open space and active routes would be a more appropriate response to this setting (Section C-CC).

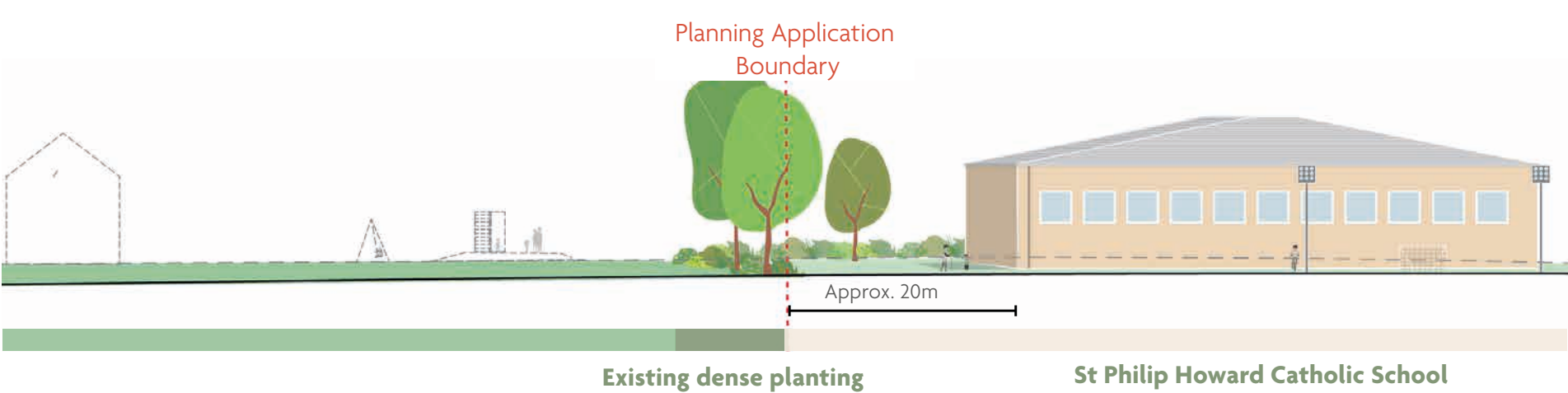
The presence of the railway along the southern edge also requires new development along this edge to set back, making space for open space, pedestrian & cycle routes, and a suitable planting strategy.



Section A-AA through St George's Church on northern edge



Section B-BB through existing residential development of Eastergate village



Section C-CC through St Philip Howard Catholic School on eastern edge

3. Understanding the Application Site

3.8 Constraints

CONSERVATION AREAS & LISTED BUILDINGS

Two Conservation Areas lie close to the development, and the site incorporates some of the Eastergate Church Lane Conservation Area and directly adjoins the site of the Grade II* listed St George's Church. Future proposals will need to ensure that the heritage setting of these areas is appropriately considered by integrating open space, which protects and enhances the historic setting of St George's Church and Eastergate Conservation Area.

WEST COASTWAY RAILWAY LINE

The railway line currently acts as a barrier to north-south movement and also presents a potential noise impact. North to south movement is currently possible in three areas:

- Western underpass adjacent to Lidsey Rife;
- Farm access at grade; and
- Raised level foot crossing of the Public Right of Way in the east.

There is also a shallow underpass to facilitate surface drainage of the School Stream; however, this will not be of sufficient size for a person to pass through. The proposal will also need to set back any new development beyond the noise exclusion zone as indicated on the plan opposite.

FLOOD ZONES & WATERCOURSES

The site is naturally drained through a series of small, interconnected ditches and watercourses, with the Lidsey Rife running in a valley from north to south. The rife valley is a well-defined floodplain, categorised as Flood Zone 3, or areas potentially at high risk of flooding from rivers or the sea. Residential parcels will therefore be shaped and placed in a way that avoids the floodplain.



