



Bradley Masterplan

Initial Landscape Plan and Principles Statement

For

O'Neill Associates

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Executive Summary

The Bradley Masterplan sits in the Yorkshire Southern Pennine Fringe national landscape character area. The landscape is a transitional landscape from the upland areas of the south Pennines through to the low-lying land of Nottinghamshire, Derbyshire and Yorkshire Coalfields. The proposed development site is located to the north east of Huddersfield and characterised by an urban fringe landscape comprising of small satellite villages, hamlets and individual stone-built cottages or farmsteads.

The M62 corridor forms a definitive boundary to the north of the proposed development. The area is crossed by busy sections of main A-roads linking to Huddersfield and also characterised by a dense network of minor roads and winding lanes.

Bradley Wood, Park and Golf Course form part of a significant green corridor surrounding the M62 and which separates Huddersfield from Brighouse. This green corridor is predominantly agricultural with a loose grid like field pattern connecting to the River Calder to the north. To the north of the site is Bradley Wood, mature Oak woodland which is a designated Wildlife Habitat Network.

The site consists of Bradley Golf Course which has a highly structured and linear pattern of open fairways separated by thin bands of deciduous woodland running from east to west. Along the eastern edge of the site is a band of valuable mature Oak woodland. This is associated with Bradley Park which is an historic feature, formerly a quarry which is now used for a landfill operation.

In landscape terms the development options for the Bradley Masterplan site offer opportunities to:

- Provide a strong landscape setting for the new development;
- Retain the existing structure planting associated with the golf course where possible;
- Retain existing woodland belts and create new additional deciduous woodland;
- Create new woodland structure planting to the western edge of the site and to the north of Bradley Road;
- Retain the Kirklees Way as part of an emerging green corridor and spatial network through the site;
- Create an enhanced pedestrian network connecting to the existing public footpaths and reducing reliance on private vehicles to access the local area; and
- Provide strategic links to existing wildlife habitat networks i.e. Bradley Wood, Screamer Wood, Dyson Wood and Bradley Gate Wood.

Emerging landscape opportunities include the creation of distinct character areas, new public open space, structure planting and the creation of spaces for informal and formal play, habitat networks, green infrastructure and sustainable drainage systems. Long term sustainability, management and maintenance implications are important considerations of any potential development. The development provides opportunities to introduce and develop new woodland, wetland planting, species rich grassland and community growing spaces.

There is potential for the long term restoration of the Bradley Park quarry site into additional deciduous woodland, recreational space, formal parkland or golf provision.

Executive Summary

Initial Landscape and Visual impact Assessment of the potential development was undertaken as part of the study and Zones of Theoretical Visibility assessed. The site is relatively well contained and screened from local views by urban form and existing woodland blocks. However there are likely to be long distance views from towns and villages situated on the higher ground some 2 km to the north east of the site. The site would readily accommodate two storey development, higher development could be accommodated with careful siting in response to landform. The site's location in an already urban setting reduces the likely visual effects, which can be further mitigated by careful siting, the use of green roofs, roof gardens and vertical green infrastructure.

1.0 National Planning Policy Context

- 1.1 The National Planning Policy Framework sets out the Government's planning framework within which local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.
- 1.2 There are three dimensions to sustainable development: economic, social and environmental. These dimensions give rise to the need for the planning system to perform a number of roles including an environmental role, contributing to, protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy.
- 1.3 At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking. Paragraph 17 of the NPPF sets out 12 key principles of planning, those of relevance to the landscape masterplanning of Bradley states that it should:
- 'always seek to secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings' (bullet point 4);
- 'take account of the different roles and character of different areas, promoting the vitality of our main urban areas, protecting the Green Belts around them, recognising the intrinsic character and beauty of the countryside and supporting thriving rural communities within it' (bullet point number 5);
- 'contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in this framework'; and
- 'promote mixed use developments, and encourage multiple benefits from the use of land in urban and rural areas, recognising that some open land can perform many functions (such as for wildlife, recreation, flood risk mitigation, carbon storage, or food production).
- 1.4 The National Planning Policy relevant to this site includes:
- NPPG 6: Delivering a wide choice of high quality homes
 - NPPG 7: Requiring good design
 - NPPG 8: Promoting healthy communities
 - NPPG 9: Protecting Green Belt land
 - NPPG 10: Meeting the challenge of climate change, flooding and coastal change
 - NPPG 11: Conserving and enhancing the natural environment

2.0 Kirklees Local Plan Context

- 2.1 As shown on the attached local plan extracts (refer to Figures 1-3 Kirklees Local Plan Extracts 1-3) the Bradley Masterplan site was designated as Green Belt however it has now been selected for removal from the Green Belt designation.
- 2.2 The route of the Kirklees Way, a national trail, runs along the northern boundary of the site and connects through the site to a wider public footpath network.
- 2.3 To the north of the site is a large tract of woodland classified as Wildlife Habitat Network. Sections of this woodland spill onto the western end of the site connecting to the existing tree network on Bradley Golf Course. There is an opportunity to enhance the north-south connectivity of the Wildlife Habitat Network linked to the Kirklees Way to create a green corridor through the site.

3.0 National Character Area Profile

- 3.1 The Bradley Masterplan area sits in *National Character Area 37: Yorkshire Southern Pennine Fringe* an extract from which follows.
- 3.2 *“The Yorkshire Southern Pennine Fringe National Character Area (NCA) is a transitional landscape from the upland areas of the Southern Pennines NCA in the west through to the low-lying land of the Nottinghamshire, Derbyshire and Yorkshire Coalfield NCA to the east. The most striking aspect of the landscape is the mingling of predominantly ‘gritstone’ industrial towns and villages with the strong valley forms and pastoral agriculture of the Pennine foothills. The gritstone industrial buildings and settlements bring a sense of visual unity to the landscape. Travellers crossing the NCA from west to east experience a change from pastoral treeless hill tops, where drystone walls are the predominant field boundary, to wooded valleys, where large urban settlements such as Bradford, Huddersfield and Sheffield are focused in the valleys and were built up around the former industries such as coal mining, steelmaking and the woollen industry.*
- 3.3 *The NCA is characterised by steep slopes that are cut through by narrow rivers, notably the Don, the Calder, the Hebble Brook and the Colne in the north and the Sheaf, the Rivelin and the Loxley in the south near Sheffield, which open up into valleys on lower land.*
- 3.4 *Key Characteristics:*
- *Transitional landscape dissected by steep-sided valleys, dropping from the high gritstone hills in the west to lower land in the east, and thus creating an important backdrop to the many industrial towns and villages within and beyond the NCA.*
 - *Sandstones and gritstone beds of Millstone Grit (Namurian) age underlying smooth hills and plateaux in the west. These are overlain in the east by beds of sandstone, siltstone and mudstone of Coal Measures age.*
 - *Rivers creating a deeply dissected landscape, with high plateaux cut by steep-sided valleys, and fanning out in ‘fingers’ across valleys of the NCA.*
 - *Treeless hill tops with tracts of rough grazing and extensive areas of enclosed pasture to the west, but with broadleaved woodland on steeper valley sides, giving the impression of a well-wooded landscape, especially to the north and west of Sheffield.*
 - *Predominantly pastoral farming, especially in western areas, with a shift to more arable land in the drier eastern areas.*
 - *Boundary features that change from distinctive patterns of drystone walls on the upland hills, to hedgerows becoming the predominant field boundary in the east.*
 - *Close conjunction between rural landscapes and the rich industrial heritage of the urban areas, including settlements associated with the textile industry, with large mills and tall chimneys, and large factories and forges associated with the iron, steel and manufacturing industries.*
 - *Urban development constrained within valley floors and up side slopes, with location and layout strongly influenced by the landform.*

3.0 National Character Area Profile

- *Industrial wealth revealed in magnificent civil architecture in town centres, notably Bradford, Halifax, Huddersfield and Sheffield, and several stately homes with designed parklands.*
- *Extensive and dramatic views from higher land out over lower-lying land to the east, even from within urban areas.*
- *Small patches of fragmented priority habitats providing important refuges locally for wildlife.*

4.0 Landscape Character Area E2: Barkisland - Holywell Green

4.1 This LCA consists of two areas of rural fringe land located along the north-western boundary of Kirklees District, to the north of Huddersfield, extending into the Calderdale District to the north to form part of a larger LCA: Kirklees District Landscape Character Assessment 27 July 2015.

Key Characteristics

4.2 Topography, Geology and Drainage

- Steeply rising land between approximately 125 and 360 metres altitude.
- Bedrock geology consists of mudstone, siltstone and sandstone, along with the Pennine Coal Measures Group typical of much of the surrounding area.
- There are frequent springs draining from hill summits.

4.3 Woodland Cover

- Frequent tree and woodland cover, particularly on slopes. There are some larger areas of woodland evident to the south of Ainley Top and north-east of Huddersfield.

4.4 Land Use and Field Patterns

- The field pattern is typically of small scale grassland pastures enclosed by gritstone walls, hedgerow boundaries and post and wire fences.
- The majority of the fields are improved and grazed by a mix of both cattle and sheep. Urban expansion and associated land uses are encroaching on agricultural land use in some places.
- Several golf clubs are scattered throughout the LCA, including Bradley Park Golf Club, Huddersfield Golf Club and Outlane Golf Club.

4.5 Semi-Natural Habitats

- The landscape's bands of woodland provide naturalistic land cover and nature conservation interest, including Grimescar Woods – which form a notable area of local wildlife importance.

4.6 Archaeology and Cultural Heritage

- There are numerous Listed Buildings associated with the landscape's historic villages – buildings of local stone being particularly distinctive and key to sense of place.
- Nationally important archaeological features from the Roman period create a further sense of time depth, including the remains of a camp near Slack.
- Disused quarries and shafts provide evidence of an industrial past.

4.0 Landscape Character Area E2: Barkisland - Holywell Green

4.7 Settlement and Road Pattern

- This is an urban fringe landscape located on the immediate doorstep of Huddersfield, comprising small satellite villages, hamlets and individual stone-built cottages or farmsteads.
- There is a dense network of minor roads and narrow winding lanes, which link the area to the urban centres mainly focused to the south.
- The M62 forms a definitive boundary to the north of this character area, and the LCA is also crossed by busy sections of main A-roads linking to Huddersfield.

4.8 Views and Perceptual Qualities

- Although often well-treed, longer distance views, typically focused to the south, reveal the densely settled lower lying urban areas of greater Huddersfield and Brighouse.
- Elevated hill summits and ridgelines afford long views to the north over Calderdale District and also south west towards the Peak District National Park.
- Some areas retain a relative tranquil, rural character despite the proximity of urban development.
- Increasing urbanisation on the LCA's fringes creates a landscape of transition.

Landscape Evaluation

4.9 Geodiversity and Biodiversity

- LWS: There are three Local Wildlife Sites wholly or partially within the LCA with total coverage of 37 ha; Bradley Golf Course, Grimescar Woods, Shaw Wood.
- LGS: Three Local Geological Sites are found within the LCA - Clough Head Quarry, Longwood Edge Quarry, and Old Lindley Moor (collectively covering 1.2 ha).

4.10 Cultural and Historical

- Listed Buildings: There are a total of 134 Listed Buildings, two of which are Grade II* listed. Bradley Hall is a Grade II listed building and can be seen from within the site located in Bradley Park to the north east of the site boundary.

4.11 Perceptual Qualities (including levels of tranquillity)

- Away from the main roads in northern part of the LCA, the landscape mostly retains traditional rural qualities, although the presence of telecommunications towers and small scale wind turbines can add an industrial and further urban influence to the landscape. Elsewhere, urban fringe land uses and the sounds/sights of nearby development – and the M62 – erode levels of tranquillity.

4.0 Landscape Character Area E2: Barkisland - Holywell Green

4.12 Role as a Setting to Development

- This LCA provides a valued rural backdrop, rising up above the northern edge of Huddersfield. It also provides an immediate setting to several small settlements including Bradley, Nettleton and Scapegoat Hill.

4.13 Access and Enjoyment of the Landscape

- The Kirklees Way and Colne Valley Circular Walk pass through this LCA and are supplemented by a strong network of other rights of way, particularly in the west of the LCA.

5.0 Wider Landscape Context

- 5.1 Please refer to the attached Landscape Constraints Plan (Figure 4 Landscape Constraints).
- 5.2 To the north of the site is Bradley Wood which is a designated Wildlife Habitat Network. This is a deciduous mature oak woodland with an established understorey and shrub layer providing a highly valuable wildlife habitat.
- 5.3 The M62 runs along the northern boundary although it is hidden from the immediate site in a cutting.
- 5.4 To the east is Bradley Park which is a historic landscape feature, formerly a quarry and currently in use as a landfill operation, and the settlement of Bradley. Bradley Park is an original feature in the landscape as shown on the area's historic maps. The Bradley Park deciduous woodland protecting its northern edge remains however the former quarrying has had a detrimental impact on the quality of the landscape and landscape views in this area. Sensitive reinstatement of the land and the landscape features of the Park will be required following completion of the quarry as an active venture. Detailed masterplanning for Bradley should consider the reinstatement plans for the former quarry.
- 5.5 The southern edge of the site is defined by the A6107 and an associated single depth line of semi-detached properties. To the south of the A6107 is Screamer Wood and further housing development.
- 5.6 The western boundary of the site lies adjacent to the A641.
- 5.7 Bradley Wood, Park and Golf Course form part of a significant green corridor surrounding the M62 and which separates Huddersfield from Brighouse. This green corridor is predominantly agricultural with a loose grid like field pattern connecting to the River Calder to the north.
- 5.8 The site itself consists of Bradley golf course which has a highly structured and linear pattern of open greens separated by thin bands of deciduous woodland running from east to west. This woodland, while being an established and valuable habitat network, has no shrub layer or understorey both of which will need to be developed to enhance the wildlife habitat potential on site. Along the eastern edge of the site is a band of valuable original mature oak woodland to be retained.
- 5.9 At the western edge of the golf course is Shepherds Thorn Lane leading to Shepherds Thorn Farm. Currently this is used as the base for the grounds maintenance team of Bradley Golf Course however should there be a change of use as part of any future development these buildings are worthy of retention.
- 5.10 West of Shepherds Thorn Lane are four agricultural fields which slope down towards the M62.

5.0 Wider Landscape Context

- 5.11 The highest point of the masterplan area is at the south western corner where the agricultural fields adjoin Shepherds Thorn Lane. The landform undulates eastwards creating gentle dips and slopes as part of the golf course with a general downward slope to the north towards the M62 and Bradley Park.

6.0 Views and Vistas

- 6.1 Views out of the site are mainly screened by woodland planting.
- 6.2 Views into the site from the immediate area are equally screened by woodland planting and housing along the A6107 (Bradley Road).
- 6.3 An initial Zone of Theoretical Visibility (ZTV) has been produced to establish the likely visual effects of the development and to establish the study area. The ZTV is based entirely on topography and models a development of two storeys (refer to Figure 5 Zone of Theoretical Visibility). The ZTV indicates high levels of visibility immediately surrounding the site and extending to the urban edge of settlements up to a distance of 2-3 km away including:
- Rear facing properties along the A6107 (Bradley Lane) who experience views into the site along its southern edge filtered through woodland edge planting
 - The group of residential properties to the south west corner, west of the A641
 - Delamere
 - Brackenhall
 - Deighton
 - Bradley
 - Colne Bridge
 - Bog Hall
 - Upper Heaton
 - North Moor
 - Lower Hopton
 - Nab Hill
 - Kirkheaton
 - Rawthorpe
 - Bradley Mills
 - Dalton
 - Lowerhouses
 - Tandem
 - Hill Side
 - Greenside
 - Lascelles Hall
 - Mirfield
 - Battyeford
 - Bracken Hill
 - Mirfield Moor
 - Moor Top
 - Roberttown
 - Little Thorpe
 - Hartshead
 - Kirklees Hall
 - Windy Bank Lane
 - Freak Field Lane
 - J25 of the M62

6.0 Views and Vistas

- Hightown Heights
- Clifton
- Clifton Industrial Estate
- Brighthouse
- Hartshead Moor
- Hartshead Moor Top
- Hartshead Moor Side
- Woodrow
- Birkhouse
- Thornhills
- The Kirklees Way
- Bronte Way
- Hipperholme
- Bailiff Bridge
- Southowram
- Calderdale Way
- Brookfoot
- Rastrick
- Elland Upper Edge
- Toothill
- Round Hill
- Field Lane
- Woodhouse
- Ainley Top
- Those using the A641, A6107 and M62 may catch glimpses of the masterplan site

6.4 A further Zone of Visual Influence (ZVI) was produced (refer to Figure 6 Zone of Visual Influence) which takes into account the screening effects of existing vegetation and urban form. This indicates that the site is reasonably well screened to localised views with some distant views from the urban edge on higher ground of settlements approximately 2-3 km away including:

- Rear facing properties along the A6107 (Bradley Lane) who experience views into the site along its southern edge filtered through woodland edge planting
- The group of residential properties to the south west corner, west of the A641
- Colne Bridge
- Bog Hall
- Upper Heaton
- North Moor
- Kirkheaton
- Mirfield Moor
- Moor Top
- Little Thorpe
- Hartshead
- Windy Bank Lane
- Freak Field Lane

6.0 Views and Vistas

- J25 of the M62
 - Hartshead Moor
 - Hartshead Moor Top
 - Birkhouse
 - Woodrow
 - Kirklees Way
 - Bronte Way
 - Clifton Industrial Estate
 - Brighouse
 - Hipperholme
 - Hove Edge
 - Southowram
 - Calderdale Way
 - Elland Upper Edge
 - Toothill
 - Woodhouse
 - Round Hill
 - Those using the A641, A6107 and M62 may catch glimpses of the masterplan site
- 6.5 It is recommended that a more in depth ZTV/ZVI exercise is completed once further details of the proposed development potential of the site have been identified.
- 6.6 Views from the site into the surrounding area can be examined in the attached panoramas 1-10 (refer to Plates 1-10).
- 6.7 The impact of the proposed development on the surrounding area would be significantly reduced by the retention of existing woodland and the creation of new additional woodland structure planting belts.

7.0 Masterplan Proposals

- 7.1 The following recommendations form the basis of a masterplan concept and outline landscape strategy for the site. These recommendations work in conjunction with:
- Kirklees Council's supplementary design and planning guidance and other applicable good design guidance. the Landscape Institute's 'Green Infrastructure: an integrated approach to land use';
 - the Landscape Institute's 'Public Health and Landscape – Creating Healthy Places'; and
 - the Landscape Institute's 'Profitable Places – Why house builders invest in landscape'.
- 7.2 The site slopes generally downwards to the north towards the M62 while showing significant variations in level within the site (refer to Figure 7 Topography). This means that the site is best suited to clusters of housing set around the existing landscape features and topographical constraints. In addition to this there is a need to connect existing off-site landscape features including Bradley Wood and Screamer Wood (Figure 8 Existing Woodland Pattern and Field Pattern) by the use of on-site woodland and open green space. Please refer to Figure 10 Landscape Connectivity Option 1 and Figure 11 Landscape Connectivity Option 2, and also to Figure 9 Outline Landscape Strategy.
- 7.3 The existing golf course's landscape structure provides the opportunity to develop a sustainable housing, educational, business and retail scheme designed around the existing established landscape.
- 7.4 The existing woodland structure within the site is very narrow and linear in form situated on an east west axis. It is recommended that the woodland pattern is enhanced on the north south axis, connecting significant wildlife habitat networks to the north and south of the site i.e. linking Bradley Wood to Screamer Wood, Dyson Wood and Bradley Gate Wood. Some of the existing east west woodland structure may need to be loosened in order to strengthen and enhance the north south linkage.
- 7.5 The route of the Kirklees Way can be enhanced into a green corridor with broader areas of parkland throughout the site.
- 7.6 Where the M62 bounds the site there is a significant level of noise pollution. It is recommended that housing be placed away from this edge of the site which may be better used for leisure and recreational purposes as a buffer between the M62 and new housing. There is also potential to realign the landform along the northern edge of the site using the land itself to create an enhanced noise buffer.
- 7.7 The site topography is designed to create an interesting and technical golf course. This topography offers an opportunity to create an aesthetically pleasing housing scheme with clusters of properties grouped around landform and woodland belts. Open green space public networks would connect the clusters together.

7.0 Masterplan Proposals

- 7.8 There are two areas of the site which lend themselves to educational and business use: the first being the fields to the west of Shepherds Thorn Lane; the second being the foot golf and training fields to the east of the current golf Club House. The larger scale and massing of educational and business facilities can be accommodated in these areas, taking advantage of topography, existing and potential screening and minimising the likely visual effects.
- 7.9 A community hub offering small scale retail and social facilities would bind the new community together. This could potentially be located centrally within easy access to the rest of the development. The community hub could provide a valuable social meeting point with an open green public space connected to the Kirklees Way and other green space routes through the site, and bounded by community facilities.
- 7.10 It is essential that any proposed development is guided by a design code to ensure high quality development.
- 7.11 The site would suit a single transport loop/bus loop connected to shared surface pedestrian and private housing access routes. Through this the various housing clusters and community facilities are connected by a cycle and pedestrian network.
- 7.12 In designing a housing and community facility development it is recommended to examine good practice examples from throughout Europe such as Malmo, Sweden; Vauban, Germany; Accordia, Cambridge; Staithes South Bank Development in Gateshead and Laurieston Living development in Glasgow.

Masterplan Option 1

- 7.13 Option 1 (refer to Figure 12 Response to Masterplan option 1) offers opportunities to create fingers of woodland wildlife network running north south through the site. The housing has been designed in clusters between which bands of woodland and open green space connect Bradley Wood to the north with Screamer Wood to the south. These bands of open green space provides opportunities for surface water retention in the form of designed swales and semi-wetland habitats as well as open green recreational space for community leisure use.
- 7.14 Along the southern boundary there will be the need for a landscape structure belt to provide a soft edge to mitigate the impacts of the new housing on residents along Bradley Road.
- 7.15 The existing deciduous woodland along the northern and eastern edge of the site is to be retained. To the west of Shepherds Thorn Lane, where currently there are agricultural fields, there are open views into the site from the surrounding road and settlement network. These views will require screening in the form of an extension to the deciduous woodland edge (this applies to all options).

7.0 Masterplan Proposals

- 7.16 This option allows the retention of the Kirklees Way in its existing alignment through the new development and connecting to the existing route through the existing deciduous woodland (retention and integration of the Kirklees Way applies to all options).
- 7.17 This option offers a predominantly two storey development which will have a visual impact on the urban edge of outlying towns and villages as identified in the ZVI exercise, however with sensitive screening and the use of features such as green roofs this impact can be reduced.

Masterplan Option 2

- 7.18 Option 2 (refer to Figure 13 Response to Masterplan Option 2) offers opportunities to create broader expanses of open green space between the housing blocks. These spaces can accommodate sports pitches, community orchards, ornamental planting and informal grassed areas. The housing has been designed on a grid system which promotes green corridors along the pedestrian networks through the housing. The grid system also lends itself to connected roof gardens and green roofs which will enhance the wildlife value of the development and will reduce the visual impact from the surrounding area. The northern green edge of the site offers opportunities for surface water retention in the form of designed swales and semi-wetland habitats which blend into the woodland edge. Between the housing clusters are informal areas of open green space with remnants of the existing on-site vegetation retained in the form of small copses. Along the central access route there is potential for a more formal avenue style public open space that forms a gateway into the site.
- 7.19 Along the southern boundary a 10m depth band of native deciduous woodland is proposed to mitigate the impacts of the new housing on residents along Bradley Road.
- 7.20 This option offers higher rise development which will have a greater impact on views from the surrounding countryside and settlements as identified in the ZVI exercise. The impact of these views is lessened by the site's location in an already urban setting however the impacts can be further reduced by the use of green roofs, appropriate massing and materials, roof garden and vertical green infrastructure.

Masterplan Option 3

- 7.21 Option 3 (refer to Figure 14 Response to Masterplan Option 3) offers a wide range of habitat types from formal avenue planting to the natural wetland habitat. Narrow fingers of woodland and green space run north south between the clusters of housing connecting Bradley Wood to Screamer Wood. Green corridors running east west through the housing clusters connect the main circulation routes to pocket parks created in each development block. Through the centre of the site running east west is an Eco Boulevard with designed swales, wetland planting, open green space, orchard tree planting and natural play opportunities. Again there is potential to make use of roof gardens and green roofs to enhance the wildlife value of the site and reduce visual impacts from the surrounding area.

7.0 Masterplan Proposals

- 7.22 Along the southern boundary native deciduous structure planting is proposed to mitigate the impacts of the new housing on residents along Bradley Road.
- 7.23 This option offers higher rise development which will have a greater impact on views from the surrounding countryside and settlements as identified in the ZVI exercise. The higher storey development however, is proposed for the northern edge of the site where the land drops down towards the M62, this drop in landform can help to accommodate an additional storey with minimal visual impact. The impact of these views is lessened by the site's location in an already urban setting however the impacts can be further reduced by the use of green roofs, roof garden and vertical green infrastructure.

Masterplan Option 4

- 7.24 Option 4 (refer to Figure 15 Response to Masterplan Option 4) combines the use of low rise and higher rise housing to enable a housing density of 30-35 homes per hectare while still providing extensive open green space. Fingers of woodland and open green space run north south through the site connecting the wildlife habitat network of Bradley Wood and Screamer Wood. Green corridors run through the housing clusters providing designed landscape pedestrian networks throughout the development which connect to the main access points and to pockets parks. A central east west parkland offers opportunities for swales, wetland habitats, natural play, orchard tree planting, pockets of woodland and informal open green space for recreational use. Roof gardens and green roofs enhance the wildlife value of the site, screen views into the site from the surrounding area and enhance the sustainability of the development. Along the central access route there is potential for a more formal avenue style public open space that forms a gateway into the site.
- 7.25 Along the southern boundary native deciduous structure planting is proposed to mitigate the impacts of the new housing on residents along Bradley Lane.
- 7.26 This option offers higher rise development which will have a greater impact on views from the surrounding countryside and settlements as identified in the ZVI exercise. The higher storey development however, is proposed for the northern edge of the site where the land drops down towards the M62, this drop in landform can help to accommodate an additional storey with minimal visual impact. The impact of these views is lessened by the site's location in an already urban setting however the impacts can be further reduced by the use of green roofs, roof garden and vertical green infrastructure.

8.0 Conclusions

- 8.1 The development options for the Bradley Masterplan site offer opportunities to:
- Retain the existing structure planting associated with the golf course where possible.
 - Retain existing woodland belts and create new additional deciduous woodland.
 - Create new woodland structure planting to the western edge of the site and a new 10m depth woodland edge to the north of Bradley Road.
 - Retain the Kirklees Way as part of an emerging green corridor through the site.
 - Create an enhanced pedestrian network connecting to the existing public footpaths and reducing reliance on private vehicles to access the local area.
 - Provide links to existing Wildlife Habitat Networks i.e. Bradley Wood, Screamer Wood, Dyson Wood and Bradley Gate Wood.
- 8.2 Emerging landscape opportunities include the creation of structure planting and the creation of spaces for informal and formal play, habitat networks, green infrastructure and SUDs systems.
- 8.3 The long term management and maintenance implications of the landscape proposals would involve relatively short term medium to high level maintenance involvement for the first two years while the landscape structure became established followed by rapidly decreasing maintenance requirements to maintain wetland planting, woodland health, species rich planting and community orchards twice yearly.
- 8.4 There is potential for the long term restoration of the Bradley Park quarry site into additional deciduous woodland, recreational space, formal parkland or even a smaller golf provision.
- 8.5 Following the initial visual impact assessment the site is shown to be relatively well contained and screened from local views, therefore, the site would easily accommodate two storey development, higher development would need to be carefully sited and designed with the inclusion of green infrastructure principles to minimise the impacts on views to the surrounding area.
- 8.6 Long distance views from 2km and beyond would still require mitigation as the site is visible from the outlying towns and villages of:
- Rear facing properties along the A6107 (Bradley Lane) who experience views into the site along its southern edge filtered through woodland edge planting
 - The group of residential properties to the south west corner, west of the A641
 - Colne Bridge
 - Bog Hall
 - Upper Heaton
 - North Moor
 - Kirkheaton
 - Mirfield Moor
 - Moor Top
 - Little Thorpe

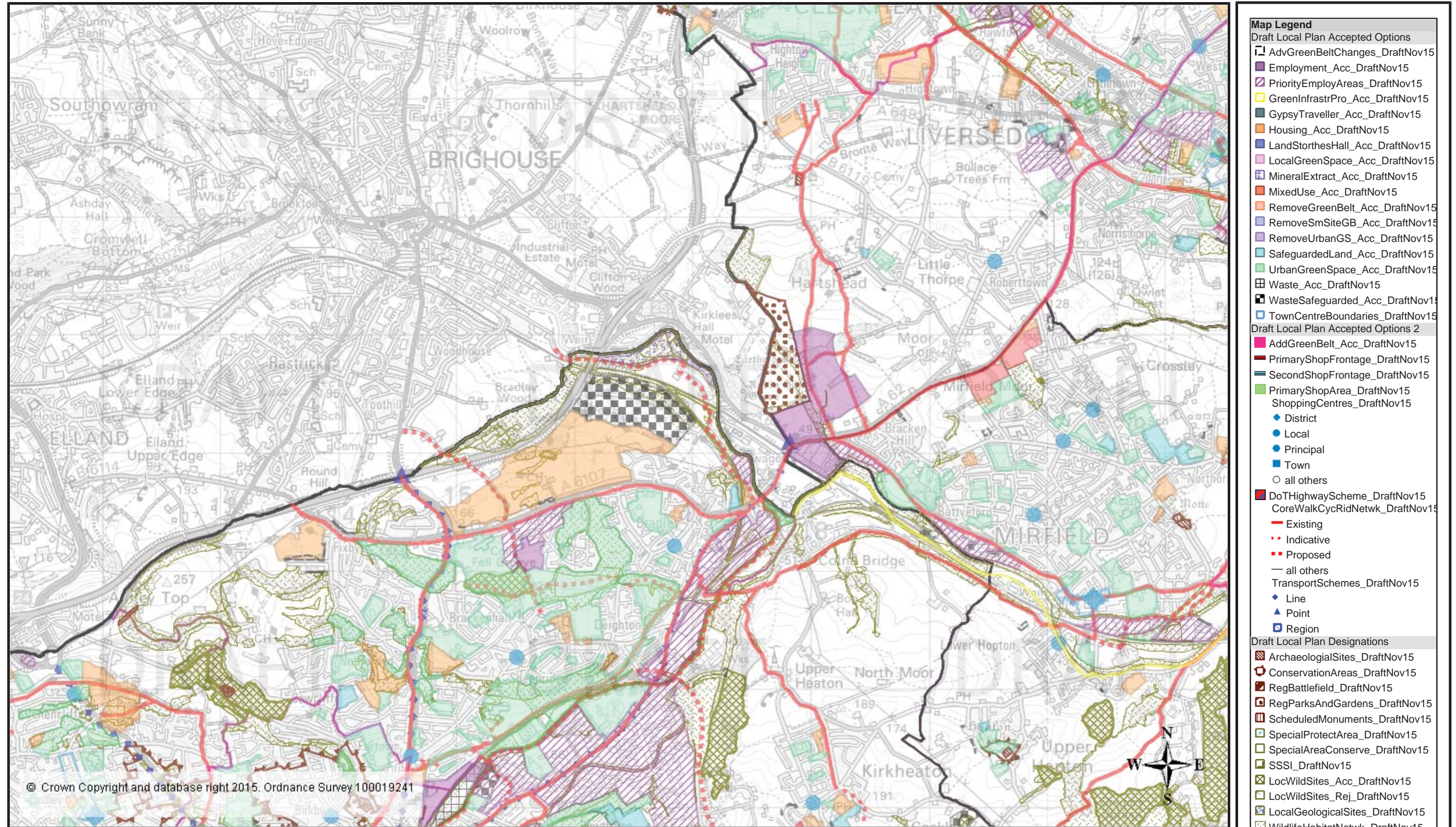
8.0 Conclusions

- Hartshead
- Windy Bank Lane
- Freak Field Lane
- J25 of the M62
- Hartshead Moor
- Hartshead Moor Top
- Birkhouse
- Woolrow
- Kirklees Way
- Bronte Way
- Clifton Industrial Estate
- Brighouse
- Hipperholme
- Hove Edge
- Southowram
- Calderdale Way
- Elland Upper Edge
- Toothill
- Woodhouse
- Round Hill
- Those using the A641, A6107 and M62 may catch glimpses of the masterplan site

Figures

Figure 1	Kirklees Local Plan Extract 1
Figure 2	Kirklees Local Plan Extract 2
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Figure 4	Landscape Constraints
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Figure 6	Zone of Visual Influence (ZVI)
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Figure 9	Outline Landscape Strategy
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Figure 12	Response to Masterplan Option 1
Figure 13	Response to Masterplan Option 2
Figure 14	Response to Masterplan Option 3
Figure 15	Response to Masterplan Option 4

Figure 1: Kirklees Local Plan Extract 1



- Map Legend**
- Draft Local Plan Accepted Options**
 - AdvGreenBeltChanges_DraftNov15
 - Employment_Acc_DraftNov15
 - PriorityEmployAreas_DraftNov15
 - GreenInfrastrPro_Acc_DraftNov15
 - GypsyTraveller_Acc_DraftNov15
 - Housing_Acc_DraftNov15
 - LandStorchesHall_Acc_DraftNov15
 - LocalGreenSpace_Acc_DraftNov15
 - MineralExtract_Acc_DraftNov15
 - MixedUse_Acc_DraftNov15
 - RemoveGreenBelt_Acc_DraftNov15
 - RemoveSmSiteGB_Acc_DraftNov15
 - RemoveUrbanGS_Acc_DraftNov15
 - SafeguardedLand_Acc_DraftNov15
 - UrbanGreenSpace_Acc_DraftNov15
 - Waste_Acc_DraftNov15
 - WasteSafeguarded_Acc_DraftNov15
 - TownCentreBoundaries_DraftNov15
 - Draft Local Plan Accepted Options 2**
 - AddGreenBelt_Acc_DraftNov15
 - PrimaryShopFrontage_DraftNov15
 - SecondShopFrontage_DraftNov15
 - PrimaryShopArea_DraftNov15
 - ShoppingCentres_DraftNov15
 - District
 - Local
 - Principal
 - Town
 - all others
 - DoTHighwayScheme_DraftNov15
 - CoreWalkCycRidNetwk_DraftNov15
 - Existing
 - Indicative
 - Proposed
 - all others
 - TransportSchemes_DraftNov15
 - Line
 - Point
 - Region
 - Draft Local Plan Designations**
 - ArchaeologicalSites_DraftNov15
 - ConservationAreas_DraftNov15
 - RegBattlefield_DraftNov15
 - RegParksAndGardens_DraftNov15
 - ScheduledMonuments_DraftNov15
 - SpecialProtectArea_DraftNov15
 - SpecialAreaConserve_DraftNov15
 - SSSI_DraftNov15
 - LocWildSites_Acc_DraftNov15
 - LocWildSites_Rej_DraftNov15
 - LocalGeologicalSites_DraftNov15
 - WildlifeHabitatNetwk_DraftNov15
 - Boundaries**
 - KirkleesBoundary_DraftNov15
 - DistrictCommittees_DraftNov15
 - WardBoundaries_DraftNov15
 - PeakPark_DraftNov15



0 km 1.5 km 3 km

**Kirklees Draft
Local Plan**



Map created 05-Jan-2016

Scale 1 : 31295

Figure 2: Kirklees Local Plan Extract 2

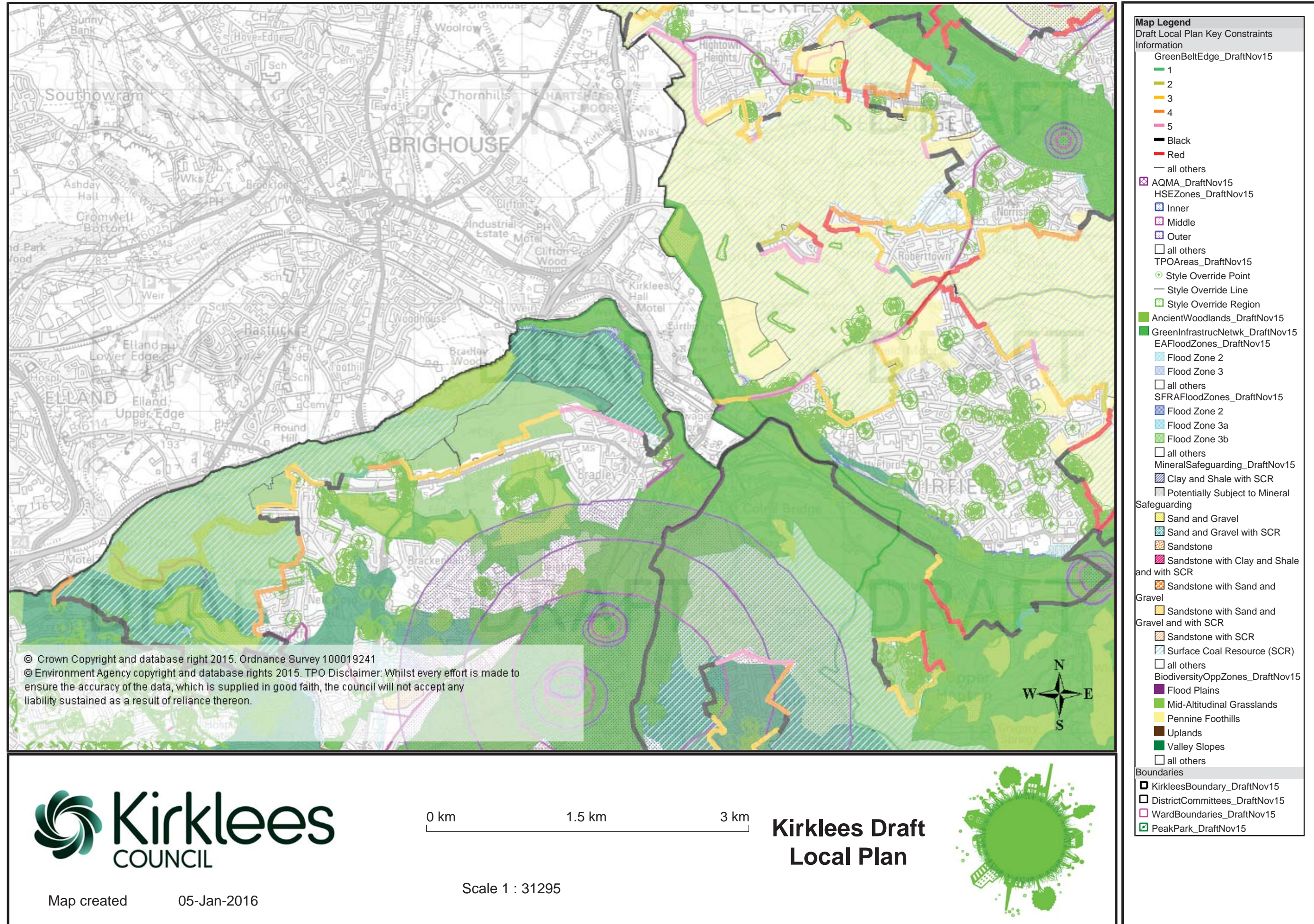


Figure 3: Kirklees Local Plan Extract 3

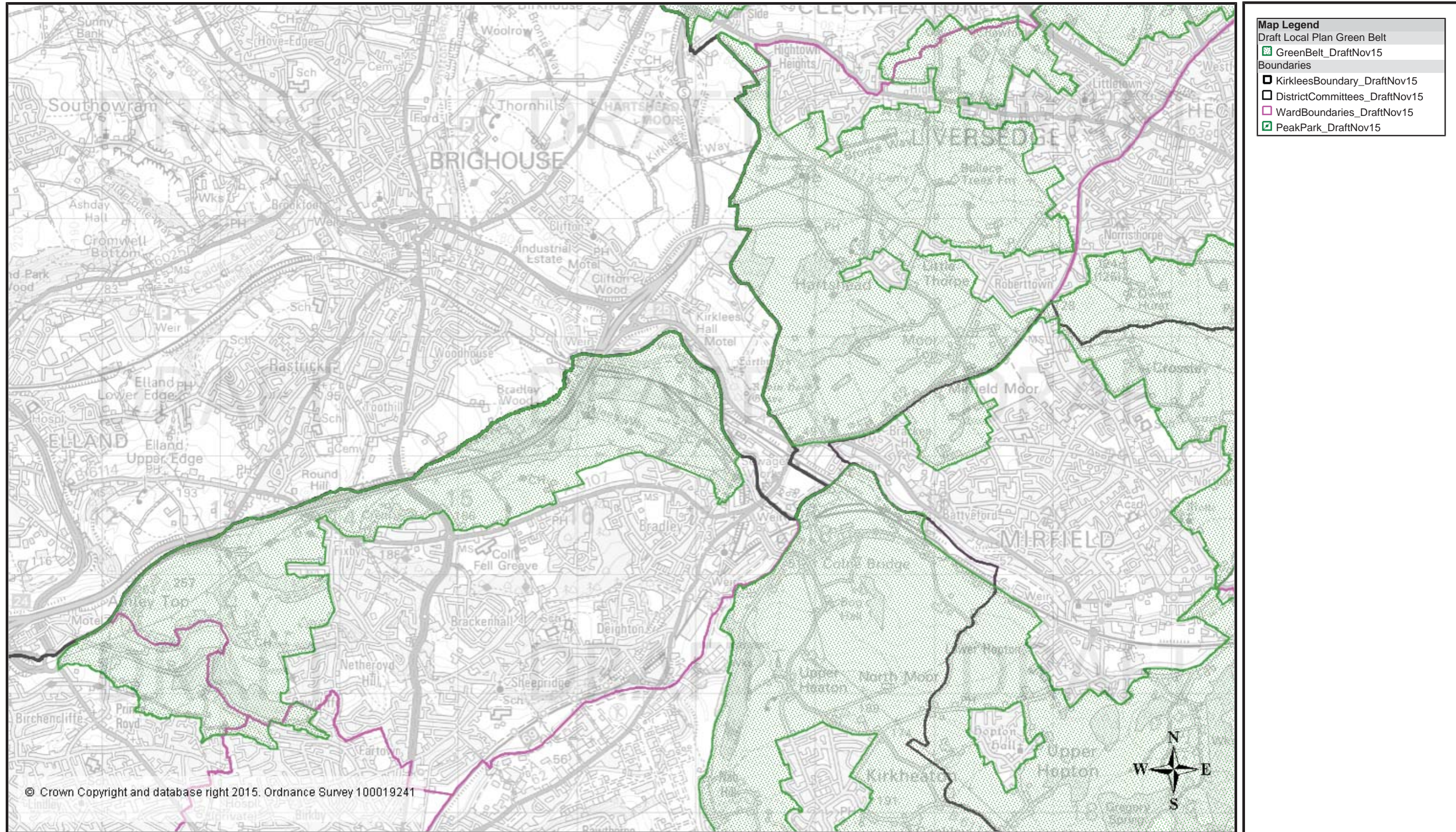


Figure 4: Landscape Constraints

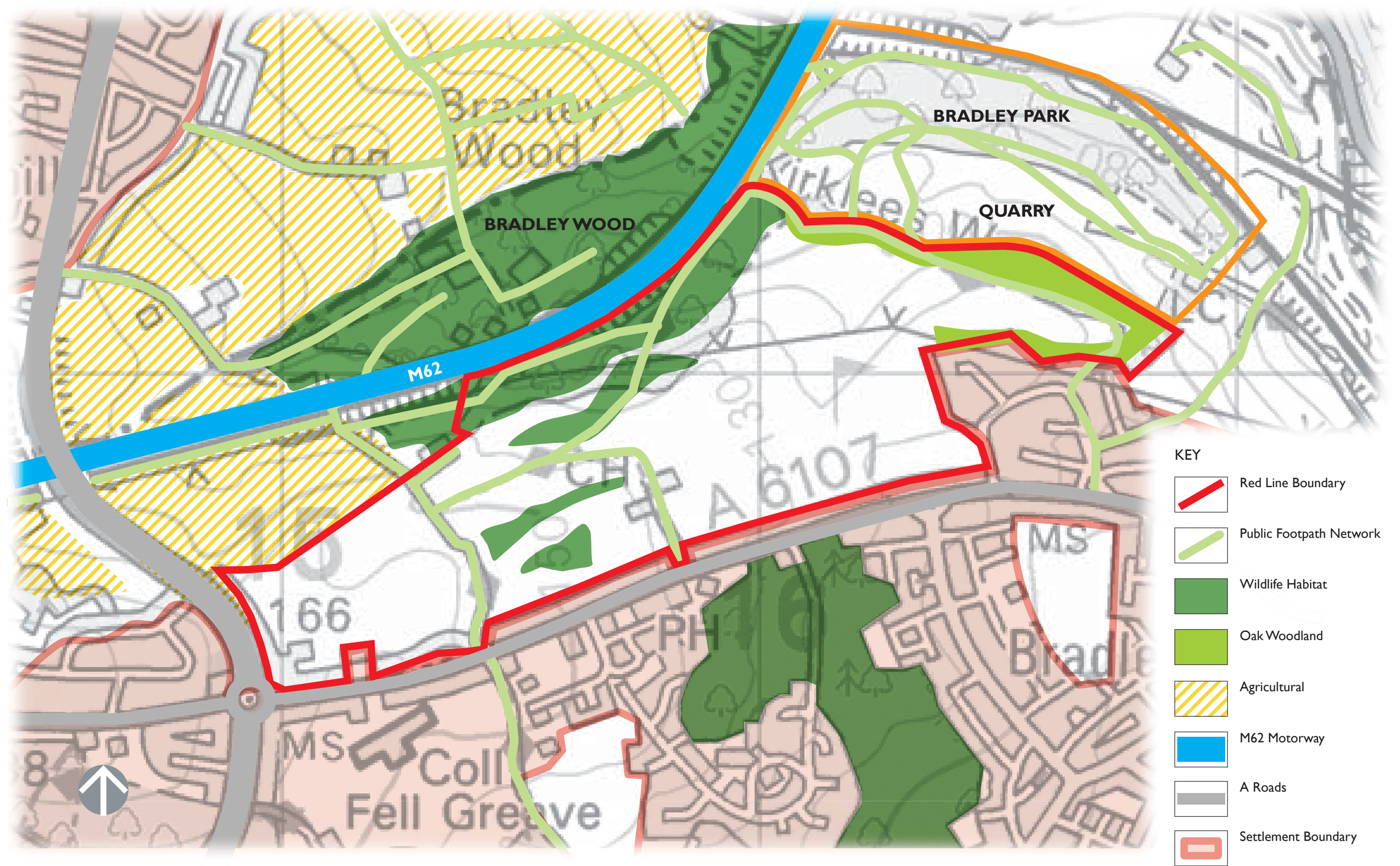


Figure 5: Zone of Theoretical Visibility

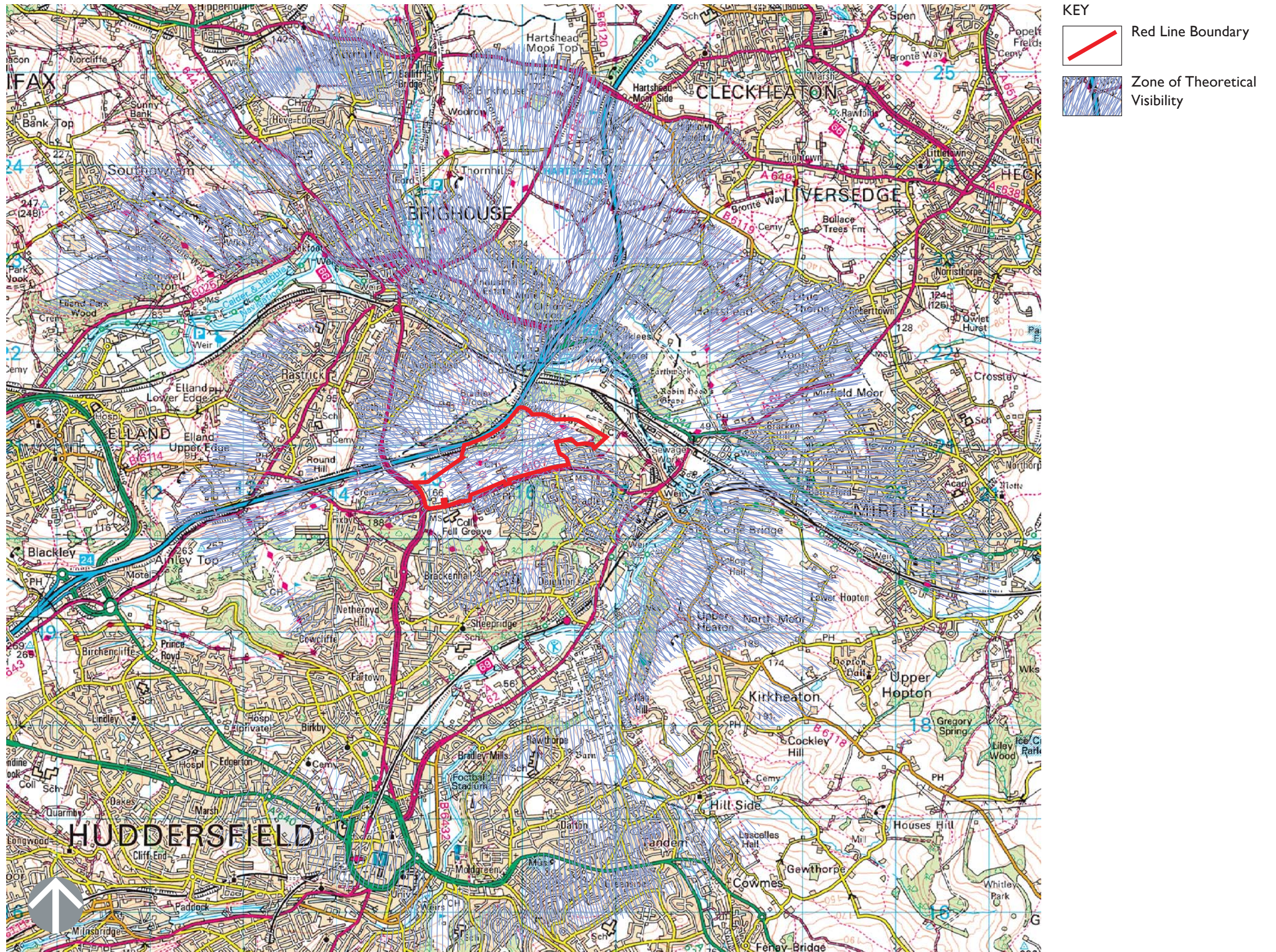


Figure 6: Zone of Visual Influence



KEY


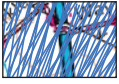
-  Red Line Boundary
-  Zone of Visual Influence



Figure 7: Topography

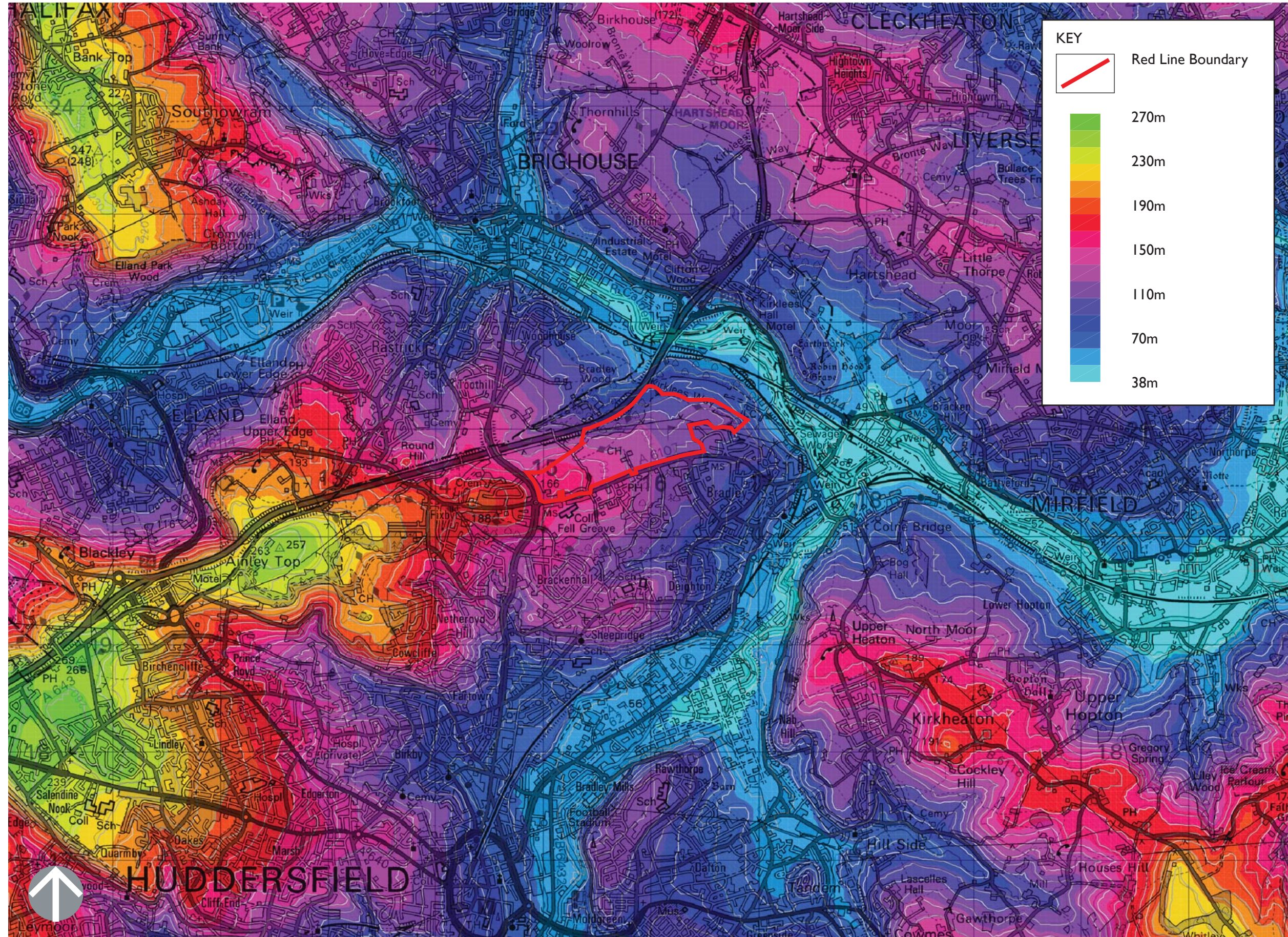


Figure 8: Existing Woodland Pattern and Field Pattern



Figure 9: Outline Strategy

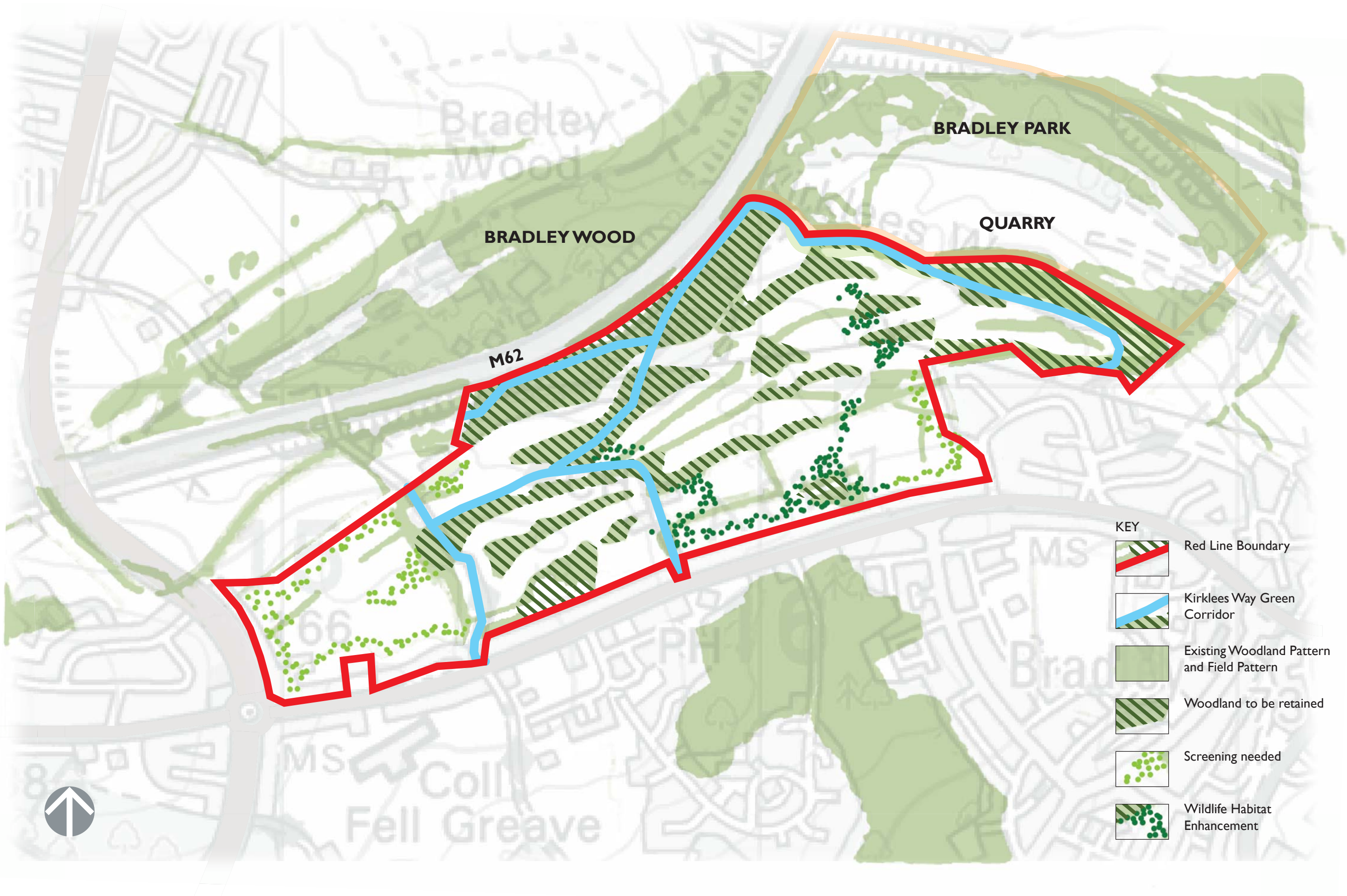


Figure 10: Landscape Connectivity Option 1

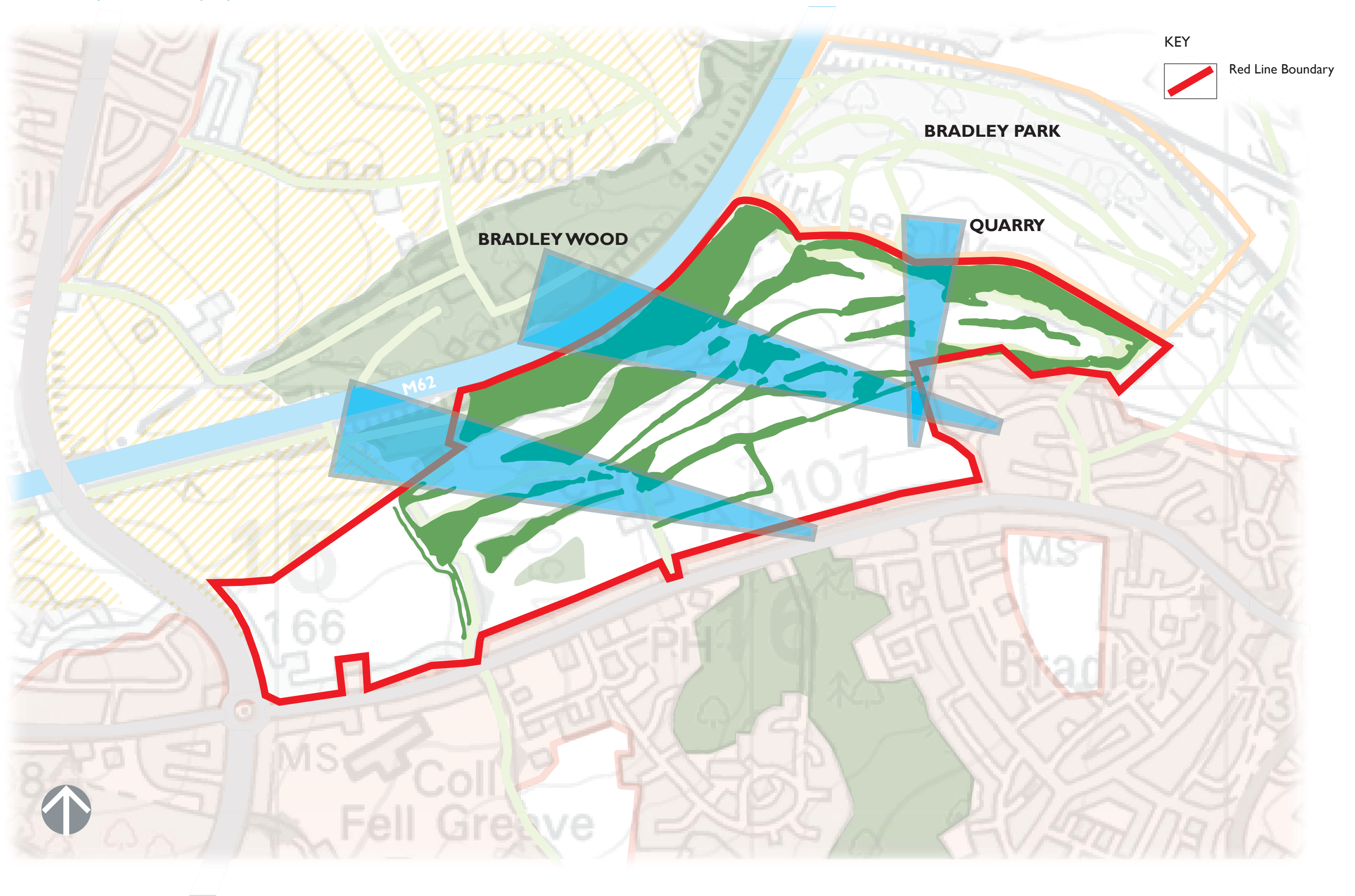


Figure 11: Landscape Connectivity Option 2

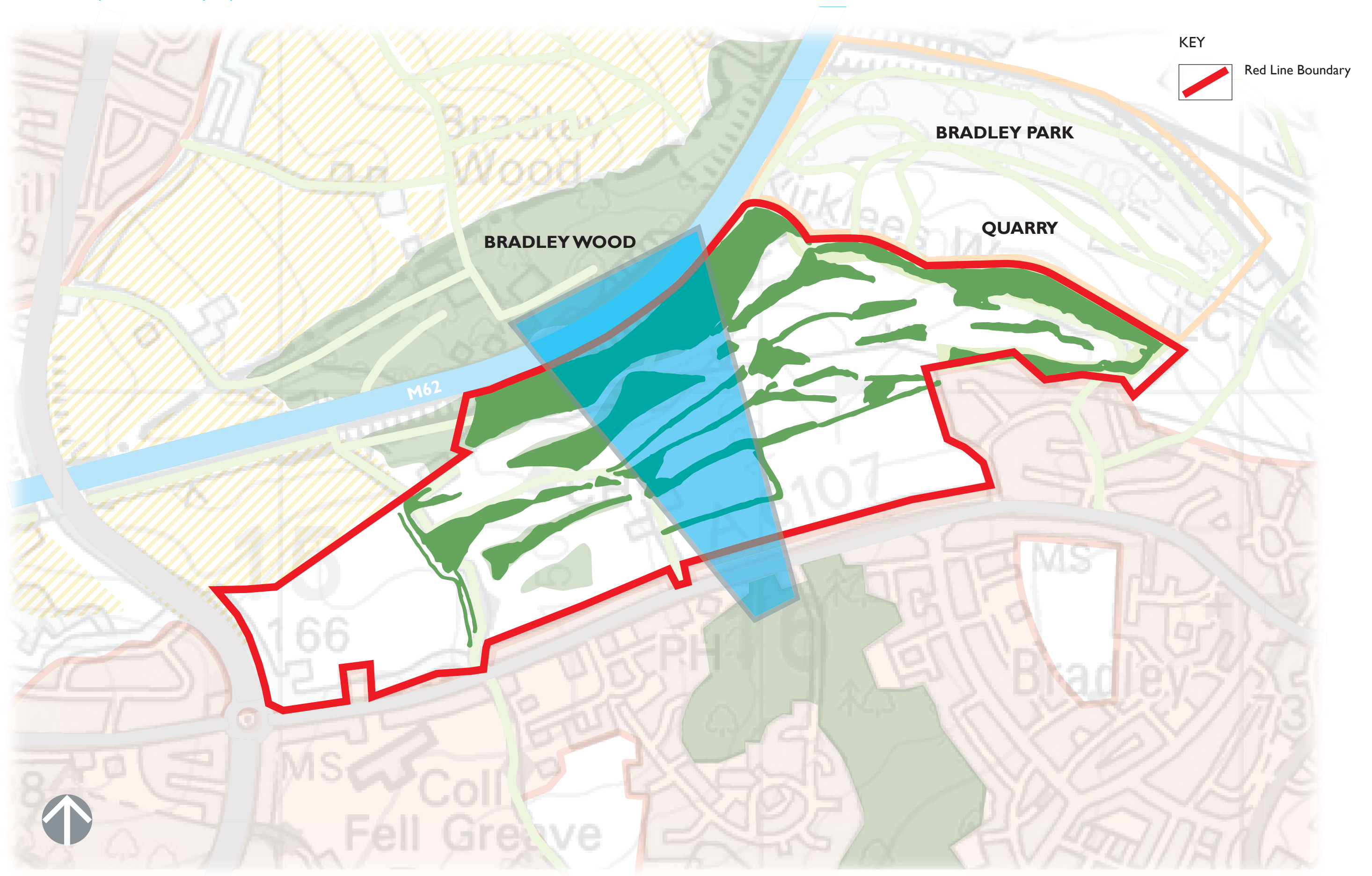


Figure 12: Response to Masterplan Option 1

KEY

- Off Site Woodland to be retained
- On Site Woodland to be retained
- Public Open Space
- Housing Blocks (Green Roofs)
- Primary School
- Vehicle Circulation / Shared Surface
- Public Right of Way / Footpath
- Woodland Screening (10m wide)
- Swales

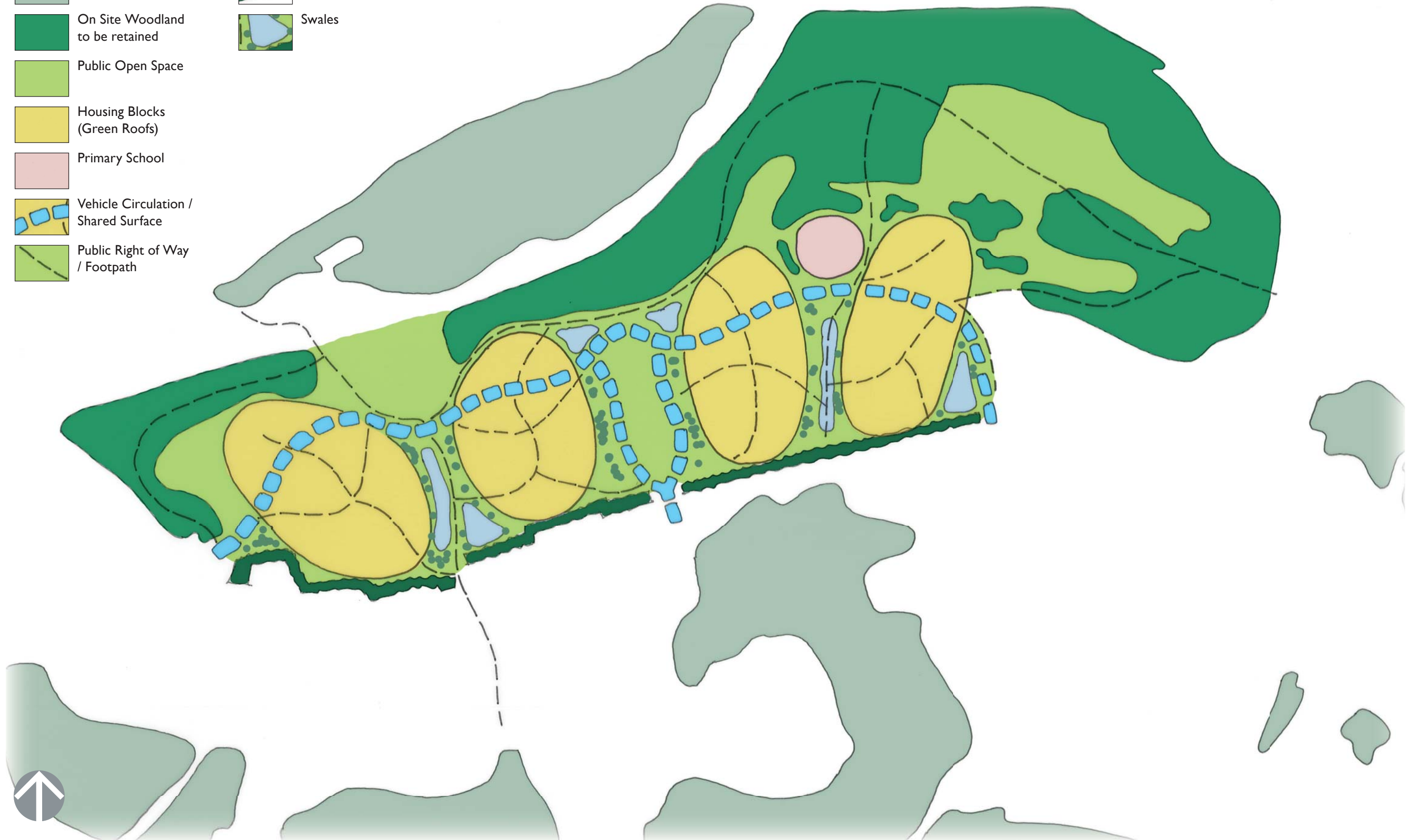


Figure 13: Response to Masterplan Option 2

KEY







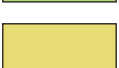

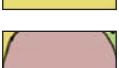
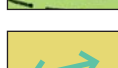




- | | | | |
|--|----------------------------------|---|--------------------------------------|
|  | Off Site Woodland to be retained |  | Vehicle Circulation / Shared Surface |
|  | On Site Woodland to be retained |  | Public Right of Way / Footpath |
|  | Public Open Space |  | Woodland Screening (10m wide) |
|  | Housing Blocks (Green Roofs) |  | Swales |
|  | Primary School |  | Green Corridors |
|  | Sports Pitches | | |
|  | Community | | |
|  | Formal Community Garden | | |
|  | Business / Retail | | |



Figure 14: Response to Masterplan Option 3

KEY







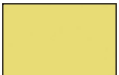











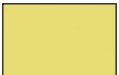





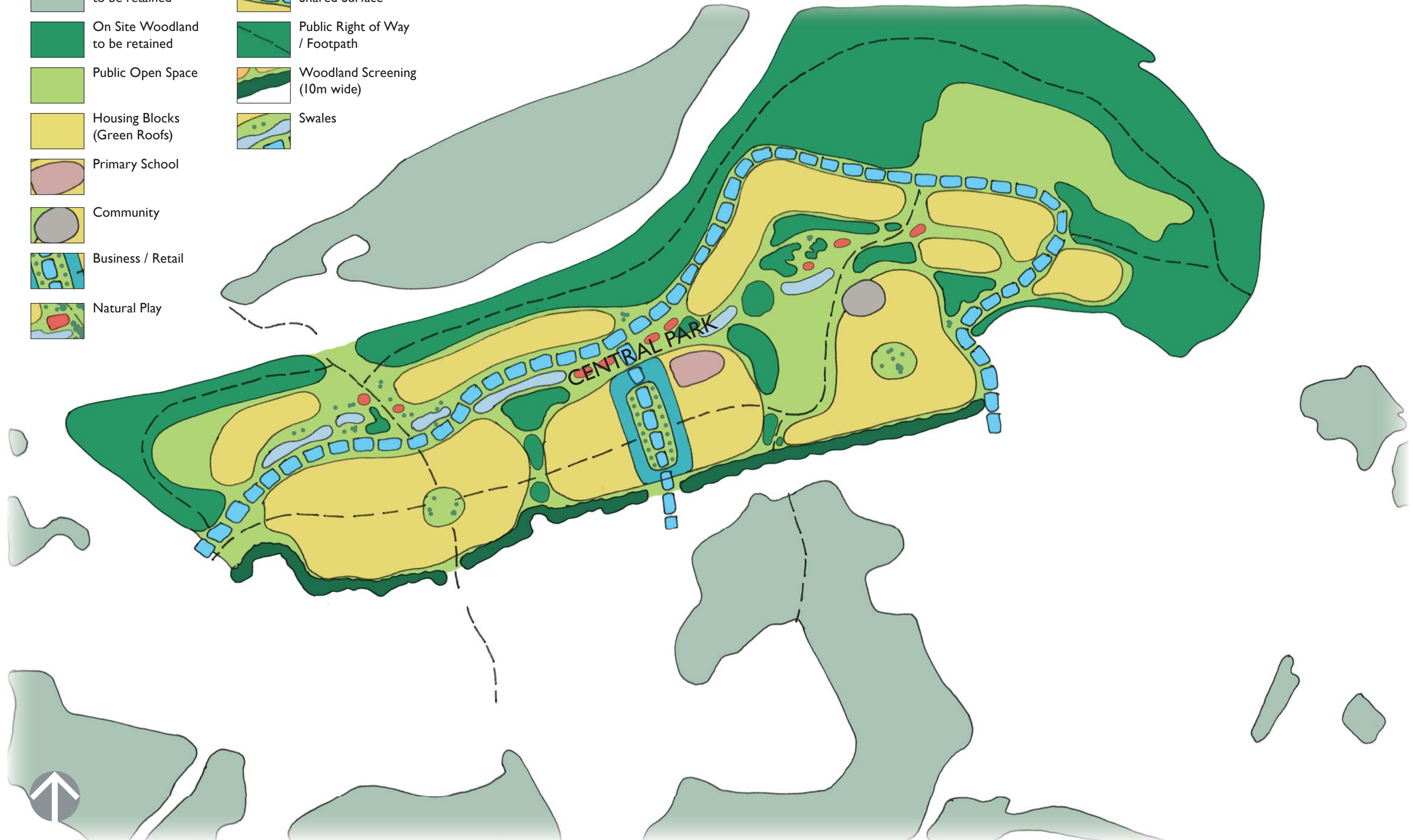
- | | | | |
|--|----------------------------------|---|--------------------------------------|
|  | Off Site Woodland to be retained |  | Vehicle Circulation / Shared Surface |
|  | On Site Woodland to be retained |  | Public Right of Way / Footpath |
|  | Public Open Space |  | Woodland Screening (10m wide) |
|  | Housing Blocks (Green Roofs) |  | Swales |
|  | Primary School | | |
|  | Community | | |
|  | Pocket Parks | | |
|  | Natural Play | | |



Figure 15: Response to Masterplan Option 4

KEY

- | | | | |
|--|----------------------------------|---|--------------------------------------|
|  | Off Site Woodland to be retained |  | Vehicle Circulation / Shared Surface |
|  | On Site Woodland to be retained |  | Public Right of Way / Footpath |
|  | Public Open Space |  | Woodland Screening (10m wide) |
|  | Housing Blocks (Green Roofs) |  | Swales |
|  | Primary School | | |
|  | Community | | |
|  | Business / Retail | | |
|  | Natural Play | | |



Plates

- Plate 1 View out of site from existing golf clubhouse looking south showing the houses along the edge of Bradley Road (A6107)
- Plate 2 View looking west from Shepherd's Thorn Lane
- Plate 3 View looking north east towards M62
- Plate 4 View of Kirklees Way through existing mature deciduous oak woodland
- Plate 5 View into site looking south/southwest from Bradley Park boundary and Kirklees Way
- Plate 6 View into site looking west from Bradley Park quarry boundary and Kirklees Way
- Plate 7 View out of site looking east from the eastern site boundary
- Plate 8 View from the Kirklees Way looking south east out of the site towards the edge of the Bradley housing line
- Plate 9 View out of site looking south east from the existing driving range towards Bradley housing
- Plate 10 View into site looking north from the existing foot golf and driving range pitches

Plates 1-3



Plate 1: View out of site from existing golf clubhouse looking south showing the houses along the edge of Bradley Road (A6107)



Plate 2: View looking west from Shepherd's Thorn Lane



Plate 3: View looking north east towards M62



Plate 4: View of Kirklees Way through existing mature deciduous oak woodland



Plate 5: View into site looking south/southwest from Bradley Park boundary and Kirklees Way

Plates 6-8



Plate 6: View into site looking west from Bradley Park quarry boundary and Kirklees Way



Plate 7: View out of site looking east from the eastern site boundary



Plate 8: View from the Kirklees Way looking south east out of the site towards the edge of the Bradley housing line



Plate 9: View out of site looking south east from the existing driving range towards Bradley housing



Plate 10: View into site looking north from the existing foot golf and driving range pitches

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Document Status and Approval Schedule

Issue	Status	Description	Prepared by Signed/Dated	Reviewed by Signed/Dated
D145\V2\ Draft\TH\ 0116	Draft	Bradley Masterplan Initial Landscape Plan and Principles Statement	T. Harrison 26.01.16	C. Davis 27.01.16
D145\V3\ Draft\TH\ 0116	Draft	Bradley Masterplan Initial Landscape Plan and Principles Statement		C. Davis 29.01.16
D145\V4\ Draft\TH\ 0216	Draft	Bradley Masterplan Initial Landscape Plan and Principles Statement		C.Davis 22.02.16
D145\V5\ TH\0216	Final	Bradley Masterplan Initial Landscape Plan and Principles Statement		C. Davis 24.02.16

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