Appendix G: Land off Burnley Road – Landscape Appraisal

Turley

LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
URBAN DESIGN

RANDALL THORP
CHARTERED LANDSCAPE ARCHITECTS

Land Off Burnley Road, Edenfield Rossendale

Landscape Appraisal

August 2019

Prepared for:

Peel L&P
REALISING POSSIBILITY

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1. Introduction

1.1. Randall Thorp LLP has been commissioned by Turley, on behalf of Peel Holdings (Land & Property) Ltd, to produce a Landscape Appraisal as part of Peel Holdings engagement in the Rossendale Local Development Framework. The proposals include for the change in Urban Boundaries and Green Belt designation of an area of Land off Burnley Road, Edenfield. For the purposes of this Landscape Appraisal, this land will be referred to as "the site".

1.2. The Landscape Appraisal has been prepared for Peel Holdings in support of work being undertaken to assess the development potential of Land off Burnley Road, Edenfield to meet the housing needs of the Borough.

1.3. The Appraisal provides some essential landscape baseline information about the site and a basic assessment of the landscape and visual impacts on the site and the surroundings were the land to be developed.

1.4. The Landscape Appraisal also responds to the evidence base for the emerging local plan – Landscape Study 2015 prepared by a landscape consultant on behalf of Rossendale Borough Council.

2. Methodology

Guidance

2.1. The Landscape Appraisal has been prepared in accordance with 'Guidelines for Landscape and Visual Impact Assessment' (GLVIA), Third Edition, 2013; Landscape Institute and the Institute of Environmental Management and Assessment. These guidelines explain that it is necessary to tailor LVIA's and Landscape Appraisals to the specific nature of the proposals, and that a prescriptive approach should not be applied.

Approach

2.2. The principle objectives of the Landscape Appraisal are:

- To describe and evaluate the existing landscape character and components likely to be affected by the proposals (baseline description);
- To identify visual receptors with views of the proposals (baseline description);
- To identify and describe the sensitivity of these receptors and identify any potential effects of the proposals;

Baseline Studies

2.3. The baseline study identifies the landscape character and components of the site and surrounding landscape, and receptors with potential views of the development within the study area shown on Figure 1.1. The study area covers the extent of land where the site could either be partially or fully seen based on topography. Vegetation and built elements will prevent views of the site from a number of locations within the study area.

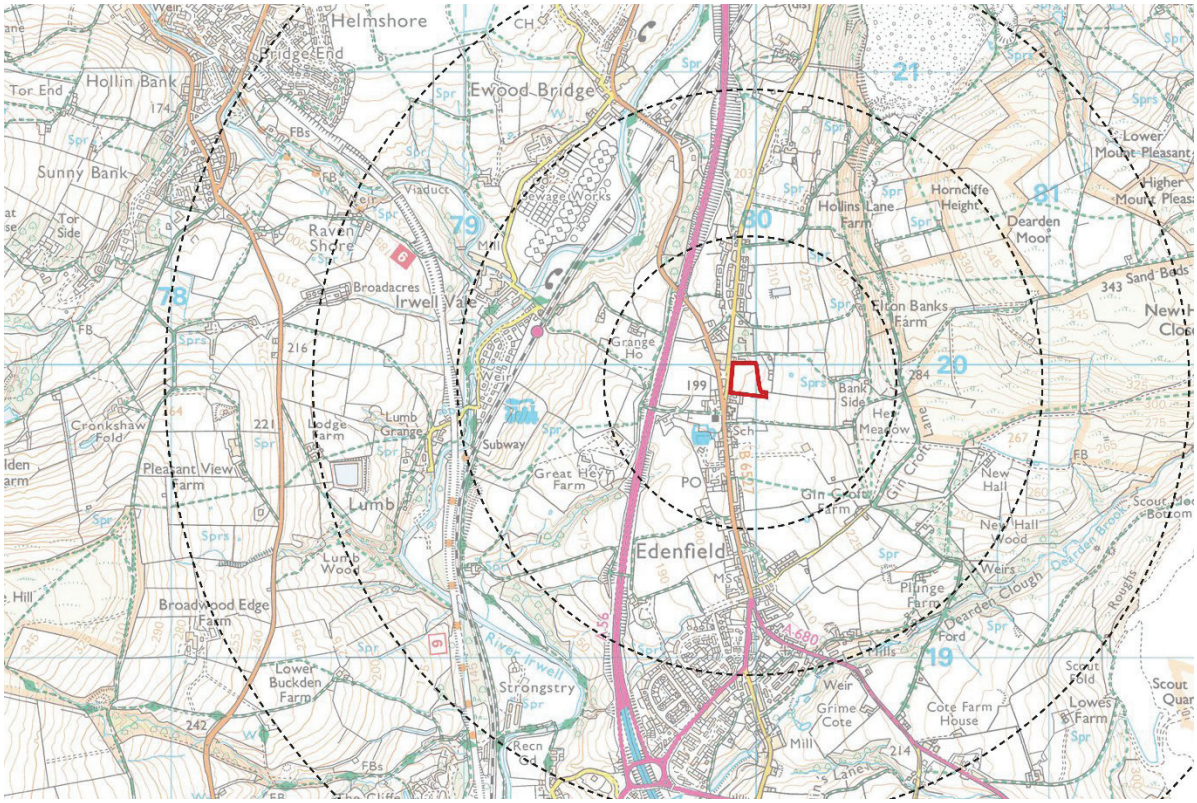


Figure 1.1

2.4. Baseline information of the landscape has been gathered through a combination of desk studies and field surveys.

2.5. The following documents have been reviewed as part of the desk study:

- National Planning Policy Framework (February 2019)
- Core Strategy DPD The Way Forward (Adopted November 2011)
- Local Plan Proposals Map (Adopted April 1995, updated November 2011)
- Emerging Local Plan Submission version (March 2019)
- National Landscape Character Area 36: South Pennines (2014)
- Lancashire Landscape Character Assessment (December 2000)

2.6. Field work was undertaken in August 2015 to gain a first-hand understanding of the landscape within and around the site, its component parts and subdivisions, as well as the contribution currently made by different areas in terms of landscape quality and character, value, green infrastructure functions and accessibility. The field work also established the visual baseline to identify the range of views of the site, and whether there are any public viewpoints which are important in terms of appreciating the character of the site. The site was revisited in August 2019 to ensure there were no significant changes to the baseline condition.

2.7. Viewpoints considered representative of potentially sensitive receptors situated within the study area at varying distances and directions have been identified. Views from public

viewpoints, such as Public Rights of Way (PRoW) and roads in the vicinity, as well as private viewpoints at residential properties have been considered.

Photography Methodology

2.8. Photographs have been taken from publicly accessible locations with a digital SLR type camera (Olympus E420) with a 25mm pancake fixed lens. This produces individual photographs with an approximate horizontal field of view of 40 degrees which are similar to those taken with a standard 35mm film camera and a 50mm fixed focal length lens. Individual photographs are then joined as panoramas to obtain fields of view which are as representative as possible of the views obtained from the particular viewpoint. Technical Guidance set out within the Landscape Institute Advice Note 01/11 (2011) - Photography and photomontage in landscape and visual impact assessment, has been followed, although tripod mounting and levelling to horizontal and vertical axes has not been employed, and any grid references (where given), are approximate.

Scheme Description

2.9. The principle elements of the scheme are described in section 6.

Assessment of Effects

2.10. In line with published guidance, the assessment is based on consideration of the sensitivity of landscape character, landscape features, and views/viewers to the type of development being proposed, (i.e. – residential development) and on the magnitude of change likely to occur. The sensitivity and magnitude are then considered together, and conclusions drawn on the likely effects on the landscape or on people's visual amenity.

2.11. The assessment primarily considers daytime effects because the site is located adjacent to existing settlement and principle viewpoints are from PRoW's used in the daylight hours.

2.12. For each landscape and visual receptor a wide range of considerations are drawn together as indicated by Tables 1 and 2 below.

Diagram 1: Considerations contributing to establishing the significance of landscape effects.

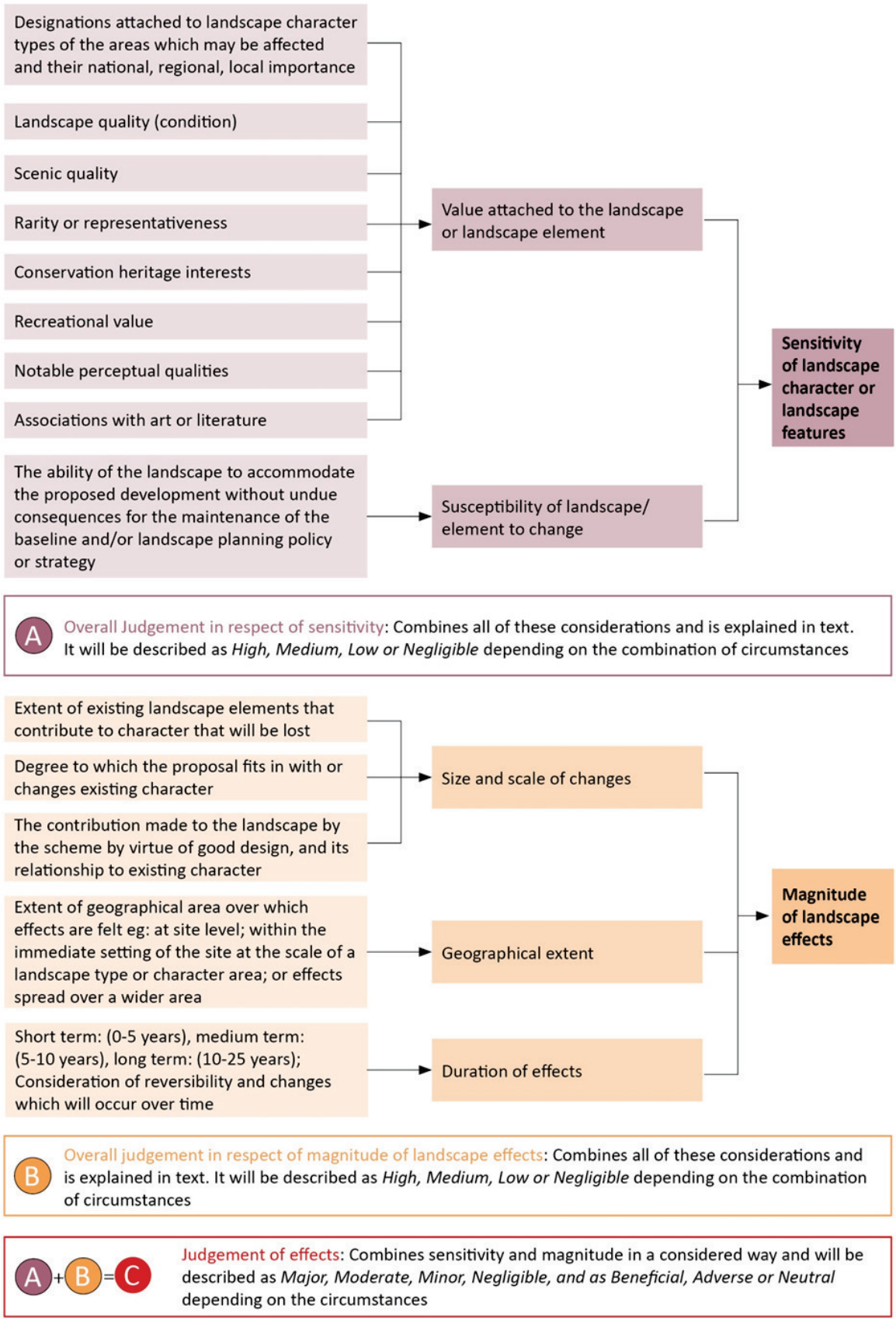
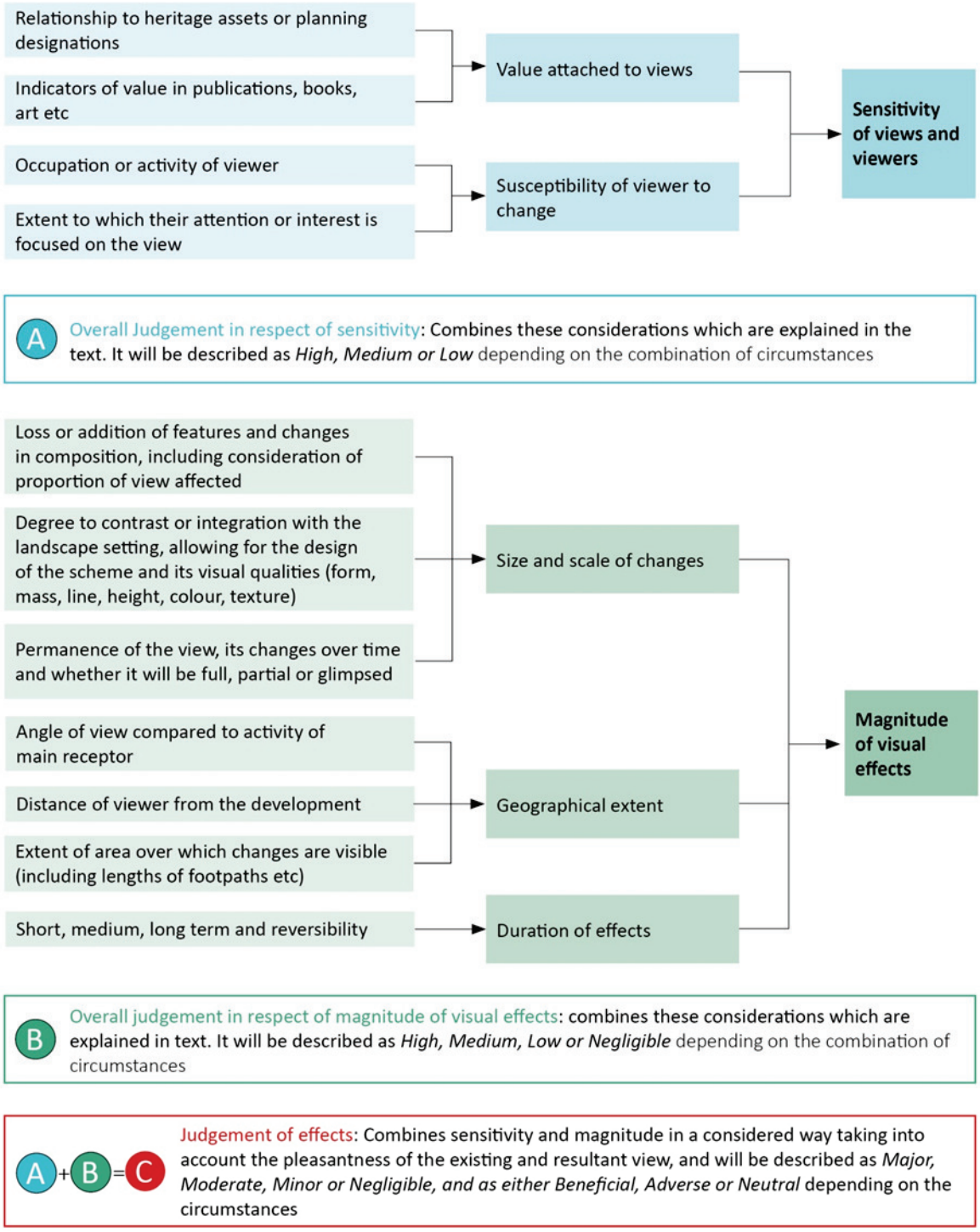


Diagram 2: Considerations contributing to establishing the significance of visual effects.



Mitigation

2.13. Landscape mitigation is most effective if considered as an integral part of the site layout and design in order to avoid, reduce or offset any adverse effects on the landscape or wider environment. Landscape mitigation is part of an iterative process of project planning.

2.14. Avoidance of impact through site planning and design has been the preferred and primary mitigation strategy for the avoidance of adverse landscape and visual effects.

2.15. Where landscape features cannot be avoided and will be lost, compensation in the form of replacement or creation of other appropriate substitute features are proposed as deemed appropriate.

Assumptions and Limitations

2.16. For the purpose of this landscape and visual assessment, the assessment has been based on the assumption that the site would be developed for housing.

2.17. A computer generated Zone of Theoretical Visibility has not been undertaken. The visibility of the site has been determined by a study of the existing topographical baseline and field work, with site observations taking into account the existing terrain, vegetation and intervening development. The prediction of visibility of the development is based on a maximum of 2.5/3.0 storey house judged against the heights of existing buildings in the landscape.

3. Legislative, Planning and Policy Framework

3.1. The review below highlights the key elements of policy which provide the landscape and design framework for the proposed development and which have provided the context for the Landscape Appraisal.

National planning policy

a. The National Planning Policy Framework (February 2019) promotes a presumption in favour of sustainable development for both plan-making and decision-taking (Paragraph 11).

b. Section 12 of the NPPF, Achieving Well-Designed Places, states (paragraph 124) that *"good design is a key aspect of sustainable development, creates better places to live and work and helps make development acceptable to communities"*. Paragraph 127 states, *"Planning policies and decisions should ensure that developments:*

a. *will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;*
b. *are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*
c. *are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities)*
d. *establish or maintain a strong sense of place, using the arrangements of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;"*

c. Section 15 of the NPPF, Conserving and Enhancing the Natural Environment, (paragraph 170) sets out how planning policies and decisions should contribute to and enhance the natural and local environment by:

d. *Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
e. *Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of best and most versatile agricultural land, and of trees and woodland;*

National designations

3.2. There are no national statutory landscape designations within the site boundary or immediate landscape setting.

Planning Practice Guidance

3.3. The Planning Practice Guidance (PPG) was published on 6th March 2014 to supplement the

NPPF. The PPG reiterates the sentiment that 'good design is indivisible from good planning' and that design qualities, amongst other things, play a fundamental role in delivering successful developments. Local character and landscape setting is recognised within the guidance as one of the many issues to consider when assessing the impact of new design on the physical environment.

Local Planning Policy

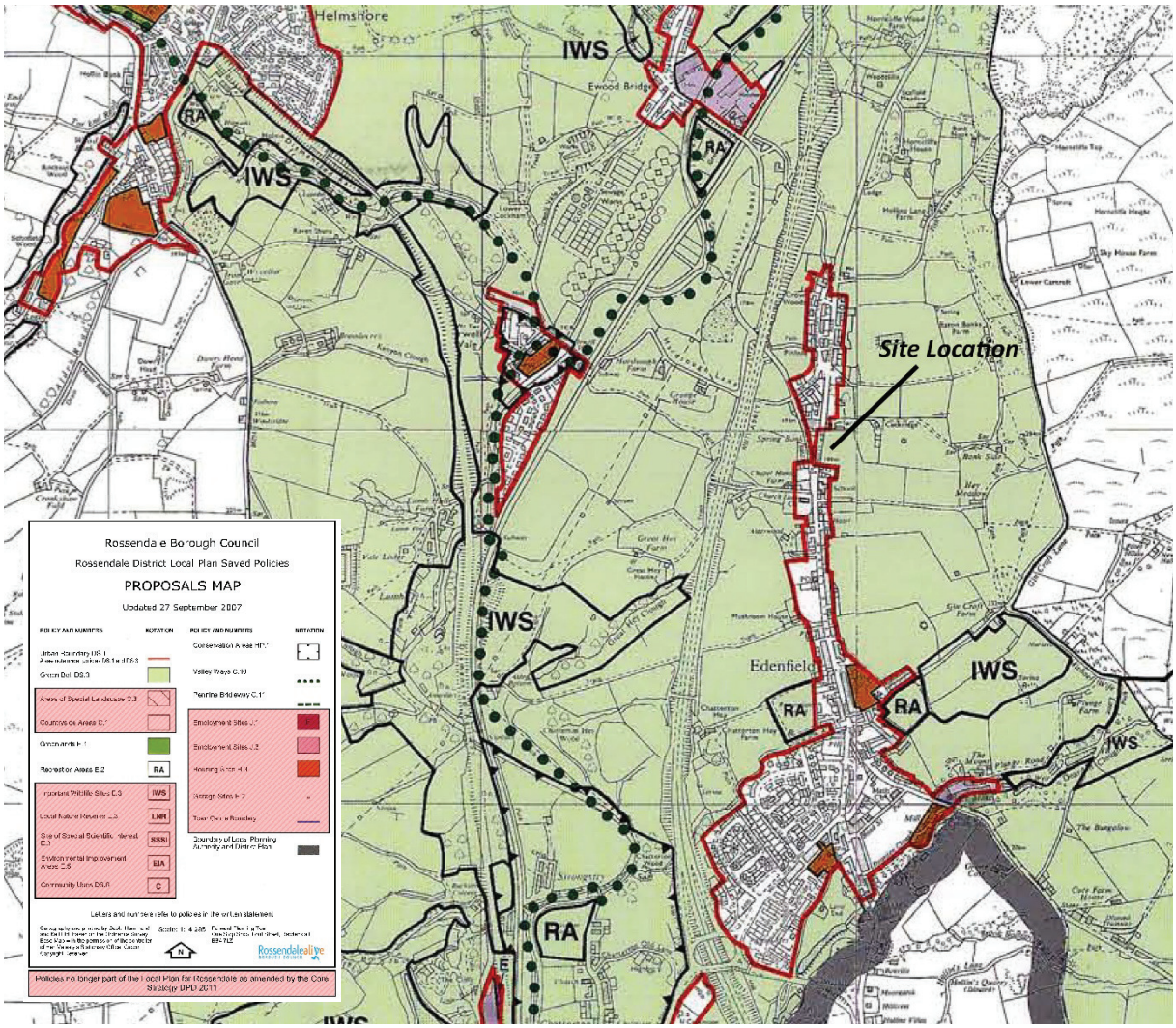
3.4. The Current Local Plan comprises the Core Strategy, Proposals Map and Saved Policies. The Rossendale Core Strategy Development Plan Document was adopted in November 2011 and sets out the current policies relating development and land uses.

3.5. On 24th February 2016 Rossendale Borough Council took the decision to withdraw the Site Allocation and Development Management Policies Plan - Lives and Landscapes. Although this document is no longer part of the evidence base to inform planning decisions this appraisal has considered the receptors and conclusions made in this assessment as the evidence to the Emerging Local Plan.

Core Strategy DPD The Way Forward, (Adopted November 2011)

3.6. Policy 1: General Development Locations and Principles states that: "*Proposals outside the urban boundary will be determined in accordance with the relevant national and local planning guidance." and "A review of the existing Green Belt boundaries will be undertaken as part of the Site Allocation DPD. The review will be limited to small scale changes and cartographic corrections that do not adversely impact on the proposed Green Belt*".

3.7. Figure 1.2 shows the site in the context of the Core Strategy DPD planning policies and designations.



3.8. The site is designated as Green Belt under Policy 1, however the local planning authority have identified the need to review Green Belt boundaries within the borough. Any changes to the Green Belt designation would be made in exceptional circumstance and would take into account the following criteria:

- Effect on openness;
- The overall integrity of the Green Belt;
- Checking the unrestricted sprawl of the large built- up areas and other settlements;
- The significance of local and longer distance views into and out of the site;
- Preventing neighbouring towns and villages merging into one another;
- The maintenance of an appreciable open zone around between built up areas;
- The safeguarding of the countryside from encroachment;
- To preserve the setting and special character of historic towns and settlements;
- Whether it assists urban regeneration by encouraging the recycling of derelict and other urban land;
- Where small scale selective rounding off of Green Belt boundaries would promote sustainable development opportunities;

3.9. Other policies of relevance to the proposals include:

3.10. Policy 2 – Meeting Rossendale's Housing Requirement: *Achieving the net housing requirements.*

3.11. Policy 17 – Rossendale's Green Infrastructure: *promote the protection, enhancement and where appropriate the expansion of the Green Infrastructure network*.

3.12. Policy 18 – Biodiversity, Geodiversity and Landscape Conservation: *avoid any harmful impacts of development on all aspects of Rossendale's natural environment*.

3.13. Policy 23 – Promoting High Quality Designed Spaces: *ensure Rossendale's places and buildings are attractive, safe and easy to use.*

Emerging Local Plan Policies Map Submission Version

3.14. An extract from the Policies Map is shown in Figure 1.3. The site is proposed to be designated as Green Belt.

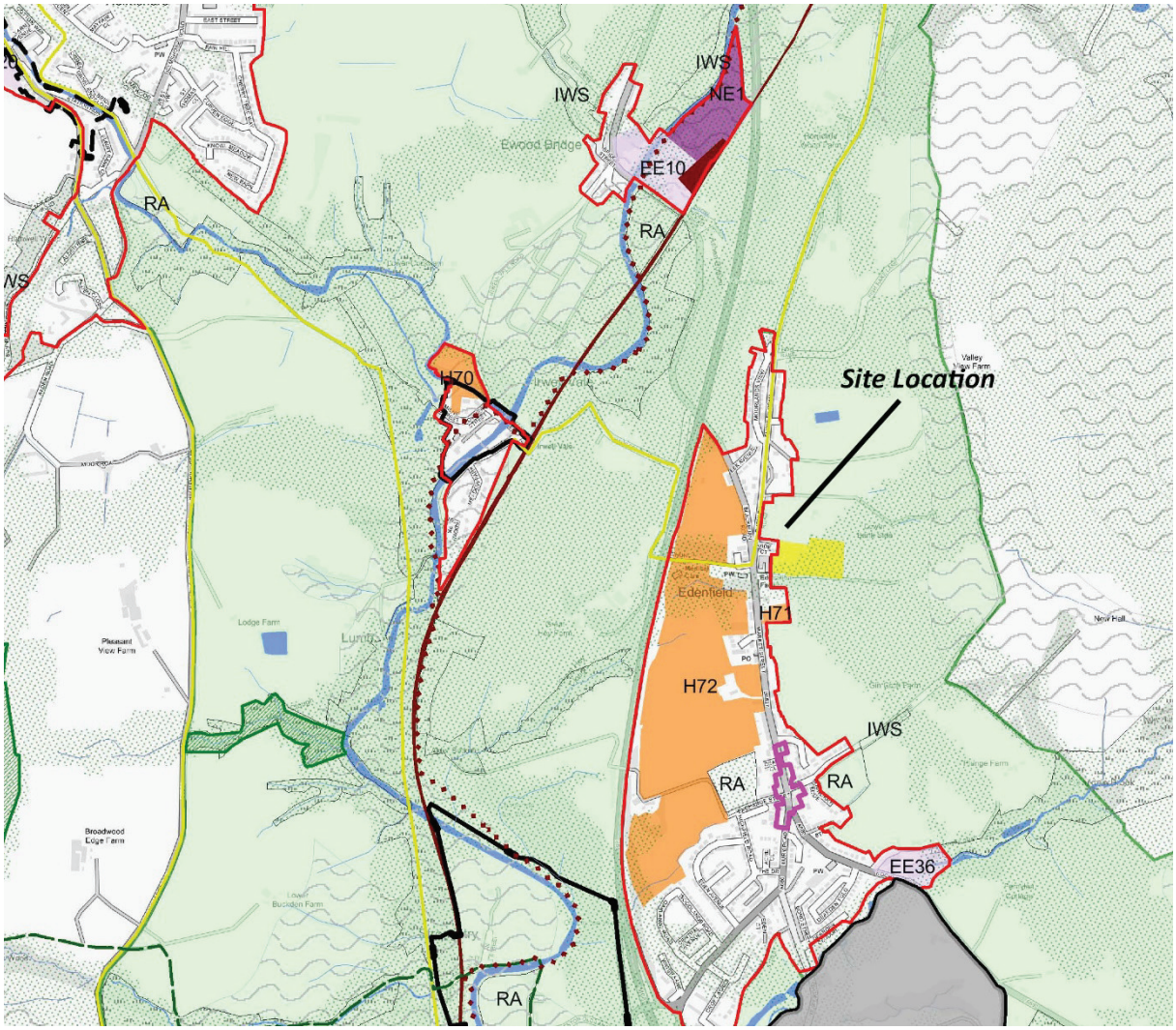

IWS
IWS
NE1
PE10
RA
RA
H70
Site Location
Edenfield
H71
H72
IWS
RA
RA
EE36
RA

Figure 1.3

4. Baseline Landscape Conditions

Landscape Character Context

National Landscape Character Context

4.1. The vicinity of the site is identified by Natural England as falling within National Landscape Character Area 36 – South Pennines. Its pertinent key characteristics are identified as comprising:

- *Large-scale, open, sweeping landscape with high flat-topped hills providing extensive views, cut into by narrow valleys with wooded sides;*
- *Mosaics of moorland vegetation on the plateaux, including blanket bog and heathland, supporting internationally important habitats and assemblages of upland birds, invertebrates and breeding waders;*
- *Enclosed upland pastures and hay meadows enclosed by dry stone walls on the hillsides, and narrow valleys with dense grit stone settlements in the valleys with steep slopes often densely wooded, providing strong contrast with open moorlands;*
- *Many reservoirs on the moors, supplying drinking water to the adjacent towns, wintering and breeding habitats for birds and high quality recreation experiences;*
- *Medieval villages and small holdings on higher shelves of land above the valleys, with small fields and a dense network of lanes and paths;*
- *Local stone buildings, with stone flags on roofs, bring a high degree of homogeneity to the towns, villages, hamlets and farmsteads;*
- *Rich time depth, from prehistoric features such as carved rocks, to medieval boundary stones, old mineral extraction sites and more recently, mills, factories, and non-conformist chapels;*
- *Historic packhorse routes traversing the moorlands, with more recent road, rail and canal routes located along valleys;*
- *Prominent feature, including Stoodley Pike, Darwen Jubilee Tower, Rivington Pike, wind farms and communication masts, visible from afar;*

4.2. The National Character Areas provide a general overview of character and is not detailed enough to provide an accurate description of the character of the landscape within the context of the site.

Local Landscape Character Context

Lancashire Landscape Character Assessment (2000)

4.3. The Lancashire Landscape Character Assessment (2000) has divided the National Landscape Character Types within the Lancashire area into geographically smaller Landscape Character Areas. The site is identified as lying within Landscape Character Area 8 –Settled Valley.

4.4. The character area is described as "*the narrow, high sided valleys of the river Irwell and it's tributary streams*", its key characteristics are:

- *Along the valley floor the urban settlements between Rawtenstall and Bacup, which originated at river crossing points; have now merged to form a dense ribbon of urban and industrial development;.*
- *The textile mills, with their distinctive chimneys, dominate the urban skyline and are a hall mark of this South Pennine landscape;*
- *Grit stone terraces form characteristic features of the hillsides and valley floor;*
- *North facing slopes usually remain free of development and there are frequently views towards woodlands, the patchwork of in-bye pastures and moorland edge;*
- *Broadleaved woodlands cling to the steep slopes and fill the steep valley side cloughs, reinforcing the sense of enclosure within the valleys, although the Irwell Valley has relatively little woodland;*
- *The settled valley contains a remarkable legacy relating to our industrial heritage, which itself marks remnants of pre-industrial settlement and land use;*
- *Urban areas, which were confined by topography tended to grow along the bottoms of the valleys and have tight knit urban centres. They are dominated by large textile mill buildings with terraces of stone cottages with their characteristic contrasting stonework and pointing running along the lower valley sides;*

4.5. The Lancashire Landscape Character Assessment describes the area along the valley floor as urban settlement. The surrounding housing and industry within the vicinity of the site is in keeping with the description of the character area. A lack of existing landscape features means the site has a low value within the wider landscape character area.

Description of the Site and its Surroundings

4.6. Figure 1.4 shows the site in its landscape context and surrounding public rights of way. Figure 1.5 shows the site features and Figure 1.6 includes photographs A-B which illustrate the character and features within the site.

Site Location and Boundaries

4.7. The site is located to the east of Burnley Road and consists of one broadly rectangular area of grassland used for grazing sheep. A low dry stone wall runs along the western boundary of the site to Burnley Road. To the north and east a detached property and an area of mature trees form the boundary. The south eastern boundary is formed by a timber post and wire fence to the playing fields of Edenfield C of E Primary School. To the north and south west the boundary of the site is formed by residential development that fronts on to Burnley Road.

Landform and Drainage

4.8. The site is gently sloping from east to west. There are no ponds located within the site.

Vegetation

4.9. There are no trees, hedgerows or shrubs within the site itself. Mature trees form the site

boundaries to the north and east.

Public Rights of Way

4.10. There are no Public Rights of Way (PRoW) within the site. PRoW's within the surroundings of the site are shown on Figure 1.3 and are described below.

4.11. PRoW 17, 121, 120 & 329 are located to the west of the site, on the opposite side of the valley connecting Helmshore Road to Beetle Hill and Holcombe Moor beyond. The routes are generally open and run across open fields used for grazing sheep, the steepness of the fields on the adjacent side of the valley provides an elevated view across the landscape.

4.12. PRoW 128 & 130 connects Edenfield to surrounding PRoW network and the open countryside beyond. PRoW FP128 crosses the A56 and is elevated and connects to PRoW FP130 which runs parallel to the A56. A short section F128 is raised and views of the site are possible.

4.13. PRoW 141, 140 & 277 are located to the east of the site and provide a connection from Burnley Road to the open countryside beyond. PRoW FP140 crosses an open field and connects to PRoW FP277 on higher ground. The elevated position of the footpaths on this side of the valley provides views across the landscape.

4.14. PRoW 139 & 136 are located to the west and south west of the site and provide connections from Market Street (south of Burnley Road) to the open countryside beyond. PRoW 139 rises up to the east along the south boundary of Edenfield C of E Primary School and connect to PRoW FP140 and FP136. FP136 cuts across an open field in a north to west direction and is in an elevated position to the south east of the site.

Views, Visibility and **Visual Character**

Visual Context and Views from the Site

4.15. Photographs of the site are included on Figure 1.6 and the photograph locations are shown on Figure 1.5.

4.16. To the north there are views of the surrounding landscape, however the mature trees and vegetation that forms the north boundary dominate the view. Views are experienced in the context of the surrounding urban land uses.

4.17. To the south west, there are long distance views from the site adjacent to the community garden at the junction of Burnley Road and Blackburn Road across the wider landscape. The A56 sits low in the landscape but the fast flowing traffic is a dominant feature. To the north west views are foreshortened by the properties that front onto Burnley Road.

4.18. To the east, views are somewhat screened by the mature vegetation to the northern and east boundaries of the site, however the land rises steeply beyond this and views can be gained across the agricultural landscape on this side of the valley.

4.19. To the south west, views are foreshortened and dominated by the properties that front on to Market Street, Blackburn Road and Guide Court, which have views of the site from upper storey windows.

Visual Receptors and Views of the Site

4.20. Figure 1.7 identifies the photographic survey viewpoints and visual receptors which are the publicly accessible areas and private dwellings from which there are views of the site. The photographs are grouped into sequences of views from linear receptors (footpaths and roads) to provide an overall impression of the character and visibility of the receptor.

4.21. Figures 1.8 – 1.13 provide a photographic study of the site and its context.

4.22. The main visual receptors are:

1. **Users of PRoW 17, 121, 120 & 329 to the far west of the site**. The footpath routes run in a general east to west direction, on the opposite side of the valley to the site, running perpendicular to the ridgeline. The footpaths run through open fields and are generally exposed, giving way to expansive views across the wider landscape including views of the site. These views are over 1.5km to 2km away and as the routes continue to rise further west the site would be discernable in the distance. (Photos 1 - 4)

2. **Users of PRoW 128 & 130 to the west of the site.** There are no views from PRoW FP128 to the east of the footpath at the junction with Church Lane; however as the footpath crosses the A56 there are glimpsed views of the site from the western part of this route due to its elevated position over the A56. The footpath then joins PRoW FP130 and runs in a northerly direction adjacent the A56, the site is visible from the higher sections of this PRoW. As the route continues north the topography of the land prevents any views of the site. (Photos 5 & 6)

3. **Users of PRoW FP141, FP140 & FP277 to the east of the site**. There are filtered views of the site through the intervening vegetation to the west of PRoW141 to the west of the footpath after the junction with Burnley Road. As the footpath continues to the north west of the site there are no views of the site due to the dense mature vegetation that forms the boundary to this corner of the site. As the PROW FP140 travels further south east and on higher ground there are views the south western corner of the site adjacent Edenfield Primary School Playing Fields and properties at Guide Court. (Photos 7, 8 & 9)

4. **Users of PRoW FP139 & FP136 to the south and south east of the site.** There are views of the site from the south east. From PRoW FP139 there are clear views across the playing field to Edenfield C of E Primary School of the site. FP136 is also located to the south east of the site in an elevated position adjacent Gin Croft Farm. The site is can be seen in the context of existing built form of Edenfield and surrounding agricultural buildings. (Photos 10 & 11)

5. **Motorists and pedestrians using Burnley Road west of the site.** Users of Burnley Road

would experience clear views across the site to the east, due to the low level boundary wall there is no screening to the site from the road. Views for motorists would be fleeting and not the primary focus of the user. (Photo 12)

6. **Motorists and pedestrians using Blackburn Road to the west of the site**. Users of Blackburn Road travelling north would experience clear views across the site to the east at the junction with Burnley Road. Due to the low level wall there is no screening to this boundary of the site from the road. Further north views of the site are not possible due to the properties that front on to Burnley Road screening the view. Views for motorists would be fleeting and not the primary focus of the user. (Photo 13)

7. **Motorists using the A56 to the west of the site.** Users of the A56 would gain views of the site to the east due to the location of the site on the adjacent side of the valley. These views are somewhat screened by intervening houses fronting on to Burnley Road. Due to the average speed along the A56 views for motorists would be fleeting and not the primary focus of the user.

8. **Motorists using Helmshore Road to the far west of the site.** Users of Helmshore Road travelling north to Helmshore gain views of the site to the east due to the elevated position of the road in comparison to the landscape to the east and the location of the site on the adjacent side of the valley. These views are experienced in the context of a complex view across the landscape. Views for motorists would be fleeting and not the primary focus of the user. (Photo 14)

9. **Private residents of the 2 storey properties on Burnley and Blackburn Road, to the south of the site.** Due to the elevated position of the properties on the western boundary of the site there are views of the site from the lower and upper storeys.

4.23. Potential views from properties would generally be from upper floors and representative images are therefore generally not possible.

5. Key Issues and Potential Landscape Effects

5.1. A review of the baseline descriptions suggests that issues of most importance or relevance for the development will include:

- Effects on landscape features and character of the landscape;
- Effects on views from the public footpaths around the site;
- Effects on views from the roads that surround the site;
- Effects on views from private properties which surround the site;

5.2. Purely private views are of relevance when judging the land use impact of a proposal. However there is no 'right to a view', and thus the change to a view is not of itself of concern to the planning system unless there is a material impact upon residential amenity as a result of the proposed development.

6. Description of the Scheme and Mitigation

6.1. The scheme proposes a development of around 38 houses with access from Burnley Road, incorporating properties fronting onto Burnley Road to mirror the existing character and adjacent built form.

6.2. The proposals include the strengthening and enhancement of existing field boundaries. Existing mature trees within the site would be retained. Screen planting with a strong landscape buffer is proposed to the open land south and south west of the site. Native species would be proposed to be planted inside the fence line along the boundaries. This would improve biodiversity and the ecological value of the site as well as mitigating the visual effects.

6.3. The properties would vary in size and type and be designed to be in keeping with local architectural style and be sinuous with the surroundings. The density of the proposed housing would decrease towards the east nearer to the countryside edge. Higher density housing would be focused along Burnley Road to create a strong building line to the existing streetscene.

7. Preliminary Assessment of Potential Landscape Effects

Landscape Features

Conclusions in respect of sensitivity of landscape features

7.1. There are no trees, hedgerows or shrubs within the site and there are no landscape features of outstanding national or regional value or of any recreational value. The site is used for grazing sheep with poorly maintained boundaries and overall condition of the site appears to be low.

7.2. The site would be able to accommodate the development without any change to the landscape baseline and the overall sensitivity of the landscape features on the site is therefore considered to be low

Conclusions in respect of magnitude of change and preliminary assessment of potential effects on the landscape features

7.3. There are no important landscape features within the site, there is scope for loss of existing features.

7.4. Proposed planting along the site boundaries as part of the mitigation strategy would increase the amount of vegetation within the site.

7.5. The effects of the loss of grassland would be minor and there would be an overall increase in vegetation as part of the mitigation planting and proposed new planting within front gardens of the development, resulting in beneficial effects. Effects on landscape features would not be significant.

Landscape character

Conclusions in respect of sensitivity of landscape character

7.6. The landscape is consistent with the 'Settled Valley' character area and development would not result in a change from the baseline with appropriate mitigation.

7.7. The value of the site itself is considered to be low due to a lack of landscape features; it has no recreational value and very little value in terms of rarity.

7.8. The overall sensitivity of the wider landscape character area to change is considered to be medium due to the presence of a variety of landscape features and PRoW's which give the wider landscape some recreational value and scenic quality. However, due to a lack of landscape features, scenic quality or recreational value within the site itself, it is considered to be able to accommodate the proposed development without any change to the landscape baseline, and therefore the landscape character of the site has a low sensitivity.

Conclusions in respect of magnitude of change and preliminary assessment of the potential effects on the landscape character

7.9. There would be no loss of landscape elements that contribute to the character of the landscape, and the nature of the scheme would be in keeping with the existing residential development and built form to the west and south of the site. The residential development would change the appearance within the site due to the nature of the built form, which would be felt at the local level. In addition to trees and garden planting within the development the introduction of new hedgerows and mitigation planting along the site boundaries would enhance the landscape features within the site and have a beneficial effect.

8. Preliminary Assessment of Potential Visual Effects

Conclusions in respect of sensitivity of the views

8.1. The landscape of the site is viewed by users of the public footpath network for whom the appreciation of the landscape may be their focus. The users of PRoW's are therefore considered to be of high sensitivity.

8.2. The transient views for motorists, cyclists and users of highways footpaths using local roads, including Blackburn Road and Burnley Road are considered to have medium sensitivity to change as the views are not long lasting or permanent, but the views may be considered important to maintain general visual amenity.

8.3. Residents of private dwellings who currently have an open view of the site will be expected to have a high level of sensitivity to any changes within the site. However, since Landscape Appraisal is not primarily concerned with private views (which are assessed in terms of residential amenity), the assessment of changes to these viewpoints will be of less significance than any changes to public views.

Preliminary assessment of the potential effects on the visual receptors

8.4. The site is visible from parts of a number of PRoW's within the study area from varying distances and elevations. The surrounding PRoW network has the highest sensitivity to change. The proposed development on the site would be expected to result in some notable visual changes for these visual receptors.

8.5. PRoW's 17, 121, 120 & 130 all have views of the site from an elevated position. However, site is partially screened by existing housing . A small portion of the site can be seen from a distance of 1.5km to 2km as part of a wider overall panoramic view. The site forms a small element of the view and includes the existing built form of Edenfield. The magnitude of change is therefore considered to be minor. The potential effects of the proposed development on views from these PRoW's would be of limited importance.

8.6. PRoW's 128 & 130 have similar views from the raised locations. Users of PRoW FP128 would not experience a change in view, the A56 is a dominant feature and adjacent mature trees in the foreground screen the site. A small portion of the site is visible for a short section of the PRoW FP130. The site would be viewed in the context of the existing built form of Edenfield meaning the proposals would have a limited visual effect and therefore the magnitude of change is considered to be minor.

8.7. Users of PRoW 141 would experience glimpse views into the site through the mature vegetation along the northern site boundary. From the elevated locations users of PRoW's 140 & 277 experience similar views of the site. However, the site would also be viewed in the context of the existing built form of Edenfield and the properties that front on to Burnley

Road meaning the proposals would have a limited visual effect, therefore the magnitude of change is considered to be moderate - minor. These visual effects would be further reduced upon maturity of the proposed mitigation planting within the site.

8.8. PRoW's 138 & 139 have similar views of the site from the south east of the site. However, the site would also be viewed in the context of the existing built form of Edenfield and the properties that front on to Burnley Road meaning the proposals would have a limited visual effect from this location and therefore the magnitude of change is considered to be moderate - minor. These visual effects would be further reduced upon maturity of the proposed mitigation planting along the southern and south eastern boundary of the site.

8.9. The proposed development would be visible for motorists and pedestrians using Blackburn Road and Burnley Road. The magnitude of change is considered to be moderate and potential effects of the proposed development would significant to the users of the Community Garden. However this view would be experienced in the context of the built form of Edenfield. Motorist views from Blackburn Road and Burnley Road would be glimpses and fleeting. The proposed development would continue the streetscene of housing along Burnley Road and be in-keeping with the adjacent vernacular

8.10. Motorists using the A56 and Helmshore Road would have views towards the site. However these views are somewhat screened by the existing houses that front on to Burnley Road; due to the average speed of the road users, and the landscape not being the primary focus of the user, the magnitude of change is considered to be minor and potential effects of the proposed development would be of limited importance.

8.11. Views from the east facing side of the properties on Burnley Road and the properties at Guide Court would have clear views of the site. The change in view would not be discordant with the surrounding locality of these properties. The magnitude of change is considered to be moderate to minor. The proposed development would continue the streetscene of housing along Burnley Road and be in-keeping with the adjacent vernacular.

9. Response to the Evidence Base

9.1. The landscape character is an urban edge and is strongly influenced by the surrounding urban land use. As such inclusion of the whole site within the urban boundary would not have a significant adverse effect on the landscape character. There are mature trees around the boundaries of the site, but there are no features within the site that form a logical Green Belt boundary.

9.2. In response to the evidence base (Landscape Study 2015), with appropriate mitigation and an active frontage to Burnley Road, the site is considered to be developable. Although the development of the site would prevent a long vista to the wider countryside from the community garden these views are considered to be a brief snapshot in the context of the surrounding built form and urbanising features within Edenfield.

9.3. The site is a logical extension of the urban edge up to and in line with adjacent built form; and would round off the built form of Edenfield. Development wil follow the exiting ribbon of urban development that is typical of this area.

10. Summary of Conclusions

Potential Landscape Effects

10.1. The Landscape Appraisal considers that the effects on landscape features or landscape character as a result of the proposed development are not significant, with a beneficial effect on landscape features through the introduction of trees, garden planting and mitigation planting along the site boundaries.

10.2. The Landscape Appraisal concludes that:

- The potential effects on views from the PRoW network within the study area are not significant, these views would be experienced in the context of the existing residential and industrial development that surrounds the site and would be reduced upon maturity of the boundary planting;
- The potential effects on views from the users travelling on the A56 and Helmshore Road are of limited importance;
- The potential effects on views from Burnley Road and users of the community garden would experience the biggest change as a result of the proposals and are considered to be moderate. Although the proposals would be designed in accordance with the surrounding vernacular and be a continuation to the existing streetscene;

Potential new long term defensible Green Belt:

10.3. The landscape is urban edge and is strongly influenced by the surrounding features. As such inclusion of the whole site within housing allocation would not have a significantly adverse effect on character.

10.4. The mature trees and vegetation to the north and eastern provide a physical boundary to the Green Belt, and would result in a rounding off of the urban edge in line with the requirements set out in NPPF.

LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
URBAN DESIGN

RANDALL THORP

CHARTERED LANDSCAPE ARCHITECTS

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Appendix H: Transport Report – Burnley Road, Edenfield

Turley

TECHNICAL NOTE

SCP
Transportation Planning : Infrastructure Design

Proposed Allocation Site
Land off Burnley Road, Edenfield, Rossendale
VAL/190545/TN01 - 22 August 2019

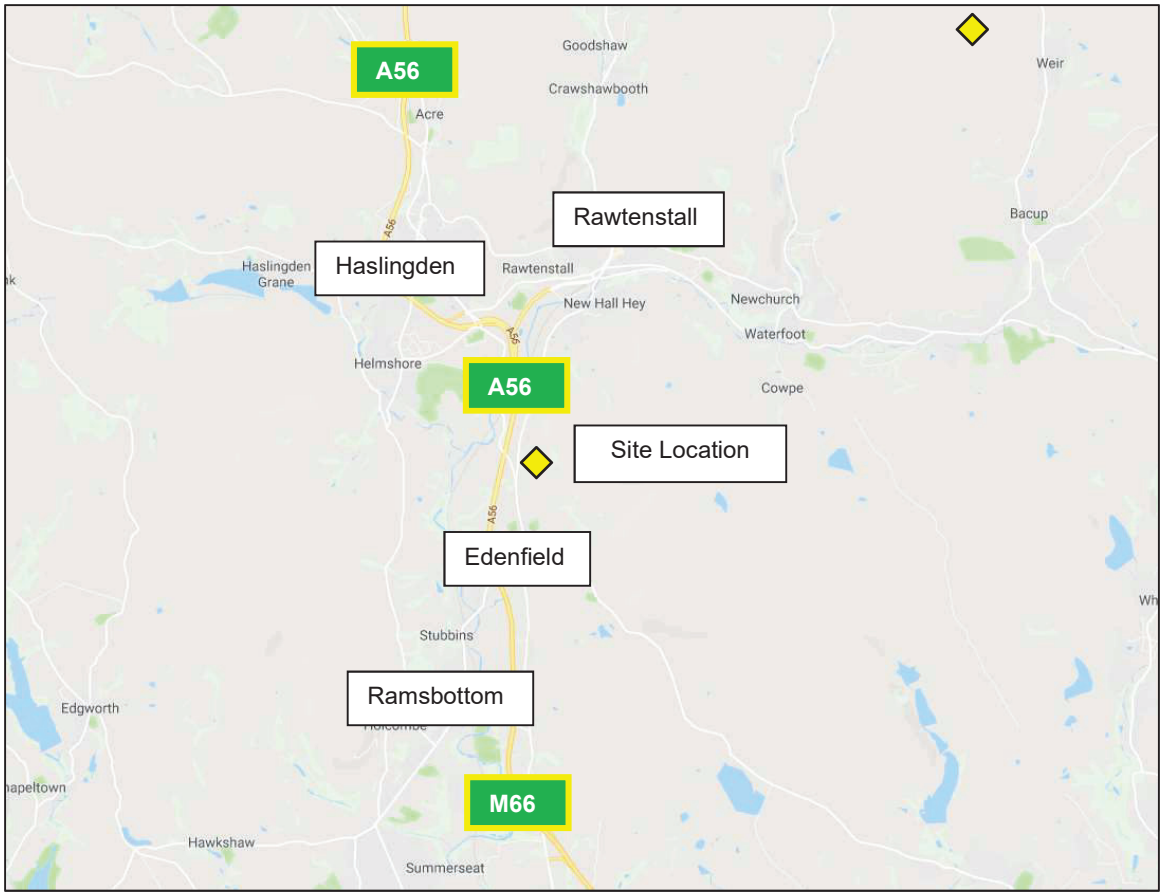
Introduction

1. SCP have been instructed by Peel Holdings (Land and Property) Ltd to support the proposed allocation of land to the east of Burnley Road, Edenfield for residential purposes. The site is located approximately 700m to the north of Edenfield Village and covers an area of approximately 2.6 acres.

2. This technical note has been produced to support the allocation and to demonstrate to the Local Planning and Highway Authority that a safe and suitable access can be provided to serve future residential development on the site.

3. The site location can be seen on **Figure 1**.

Figure 1 – Site Location



Existing Highway Conditions

4. The site is located to the east of Burnley Road which provides a link between Edenfield in the south and New Hall Hey / the A682 in the north. In the vicinity of the site, Burnley Road is subject to a 30mph speed limit, has a carriageway width of approximately 7.6m and benefits from street lighting and a footway on the western side of the road. Edenfield CoE Primary School is located to the south of the site with a 20mph speed limit in operation during school pick up / drop off times.

5. The Burnley Road / B6527 Blackburn Road / Market Street signalised junction is located immediately to the south of the site. All movements at this junction are under signal control apart from northbound movement from Market Street to the B6527 Blackburn Road which is under priority control.

6. The most recently available three-year road safety record in the vicinity of the site has been obtained from the database website Crashmap for the period 1st January 2014 to 31st December 2018. Investigations show that two accidents occurred on Blackburn Road with no accidents being recorded at the Burnley Road / B6527 Blackburn Road / Market Street signalised junction. Given the low number of accidents, the existing road safety record does not lead to any significant concern or demonstrate any discernible pattern that could be affected by allocation proposals.

7. Images of the Burnley Road adjacent to the site are provided below.

Northbound on Burnley Road

Southbound on Burnley Road

Proposed Access Strategy

8. Vehicular access to the proposed allocation site can be achieved through the introduction of a simple priority controlled junction on Burnley Road, as shown on Drawing Number SCP/15254/F02 presented in **Appendix A**.

9. The access provides visibility splays that have an 'x' (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 56m in both directions. Based on guidance contained in the Manual for Streets, the visibility splays are commensurate with a 37mph design speed, which is in excess of the 30mph speed limit of Burnley Road and therefore acceptable.

10. The proposed access has been located as far to the north as possible, whilst still ensuring sufficient visibility is provided, in order to maximise the spacing / queuing distance between to the Burnley Road / B6527 Blackburn Road / Market Street signalised junction. In addition, 'keep clear' markings are proposed at the access which, in the event that queues develop back from the signal junction, it will still allow vehicles to enter and leave the site.

11. Swept path analysis has been undertaken of the site access which demonstrates that the movements of a standard refuse vehicle can be accommodated, as shown on the site access drawing presented in **Appendix A**.

12. Pedestrian / Cycle access to the site will be provided at the same location as the vehicular access. In addition, a 2m wide footway will be introduced on the eastern side of Burnley Road along the site's frontage which will connect onto the existing footway to the south of the site and provide prospective residents with a safe connection to the facilities within Edenfield and Edenfield CoE Primary School.

Accessibility

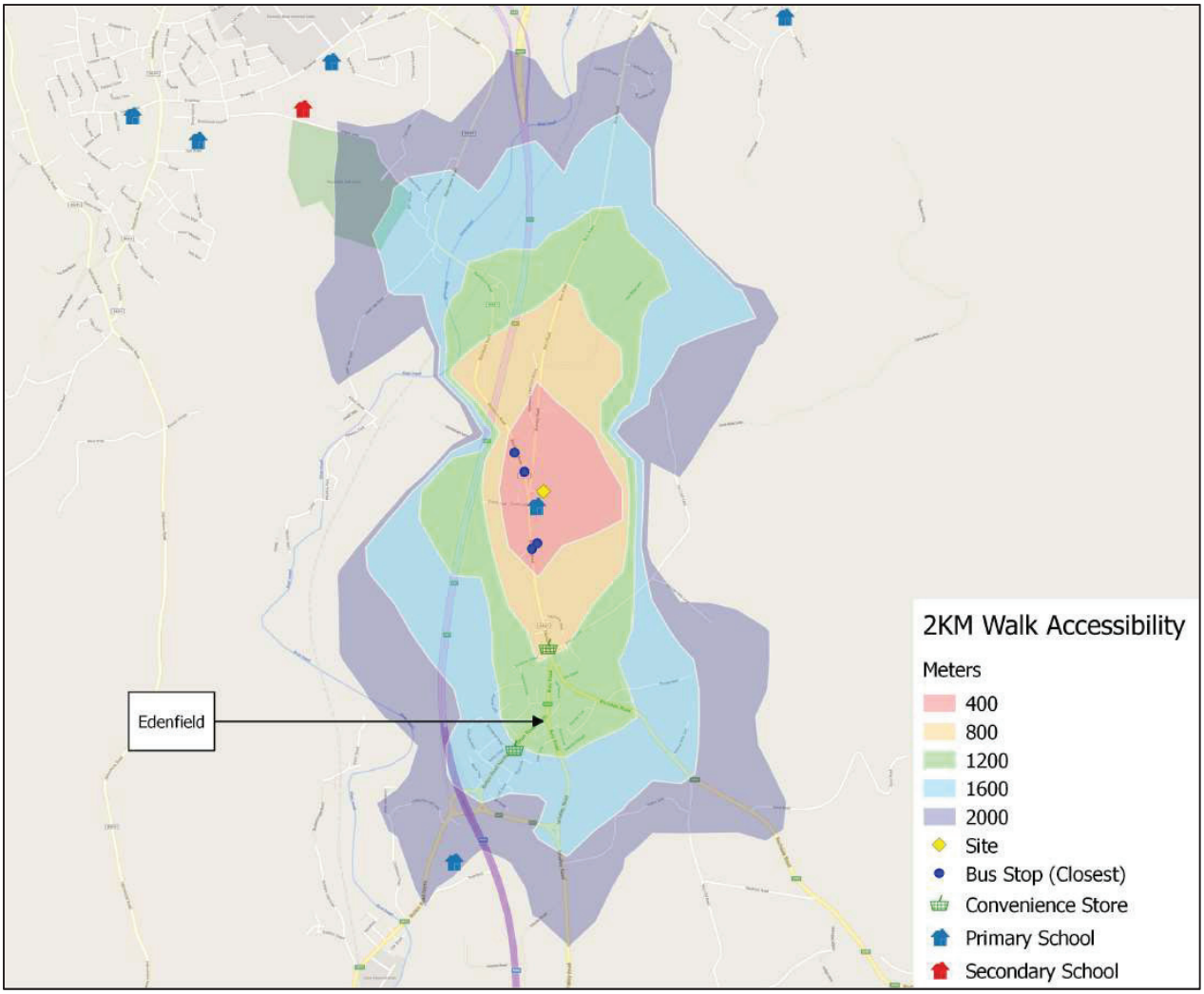
13. The accessibility of the application site by non-car modes is a key consideration in the planning process. The requirement to ensure that sites are accessible by non-car modes of transport is set out in both local and national planning policy (National Planning Policy Framework).

Walking

14. MfS states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, it goes on to state that this is not an upper limit and that walking offers the greatest potential to replace short car trips, particularly those under 2km.

15. The pedestrian accessibility of the development has been modelled using Geographical Information System (GIS) software to produce isochrone mapping. The purpose of the isochrones is to demonstrate the areas and facilities within an acceptable walk distance of the site, as shown on **Figure 2**.

Figure 2 – 2km Walk Accessibility



16. The plan above demonstrates the majority of Edenfield can be reached within a 2km walk distance. **Table 1** demonstrates the facilities within this distance, however the list is not exhaustive but demonstrates the closest key local everyday facilities.

Table 1 – Facilities within 2km of the site

Facility	Description	Distance from site (Approximately)
Primary School	Edenfield Church of England Primary School	<100m
Bus Stop	Southbound Blackburn Road	140m
Bus Stop	Northbound Blackburn Road	230m
Pharmacy	Strachan's Chemist	700m
Convenience Store	Market Street News	700m
Butchers	Valentine's Butchers	750m
Bakery	Sixsmith Bakery	750m
Leisure	Edenfield Cricket Club	800m
Nursery	Edenfield Nursery	800m
Convenience Store	Edenfield Mini Market (Off-License)	1.2km
Primary School	Stubbins Primary School	1.9km

17. In summary, the site is well located with available opportunity for residents to access a wide range of amenities, leisure and employment opportunities, reducing the requirement to travel by car.

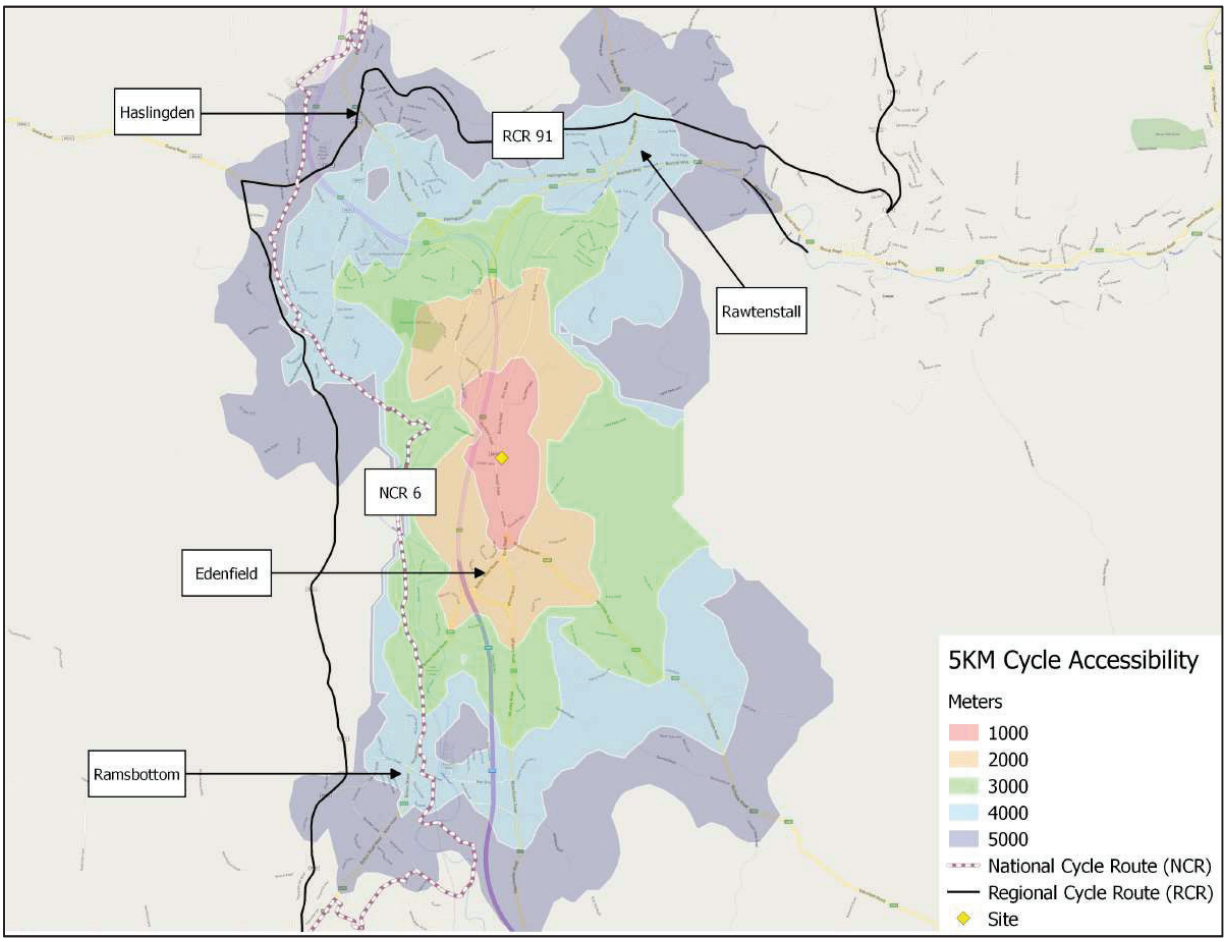
Cycling

18. Cycling is a cheap, efficient and healthy way to travel. Cycling also provides a predictable arrival time which depending on location, can be quicker than driving or using public transport, and is subject to fewer traffic and congestion delays.

19. Transport Policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.

20. GIS software has been used to model a 5km cycle catchment from the site and is shown on **Figure 3**. The plan demonstrates that in addition to Edenfield, areas of Rawtenstall, Haslingden and Ramsbottom are amongst other employment areas within 5km of the site.

Figure 3 – 5km Cycle Accessibility



Bus

21. Guidance published by the IHT 'Planning for Public Transport in Developments' (1999), recommends that the maximum walking distance to a bus stop should be 400 metres, equating approximately to a five minute walk.

22. The nearest bus stops to the site are located on Manchester Road approximately 150m to the west of the site (as seen on **Figure 2**)

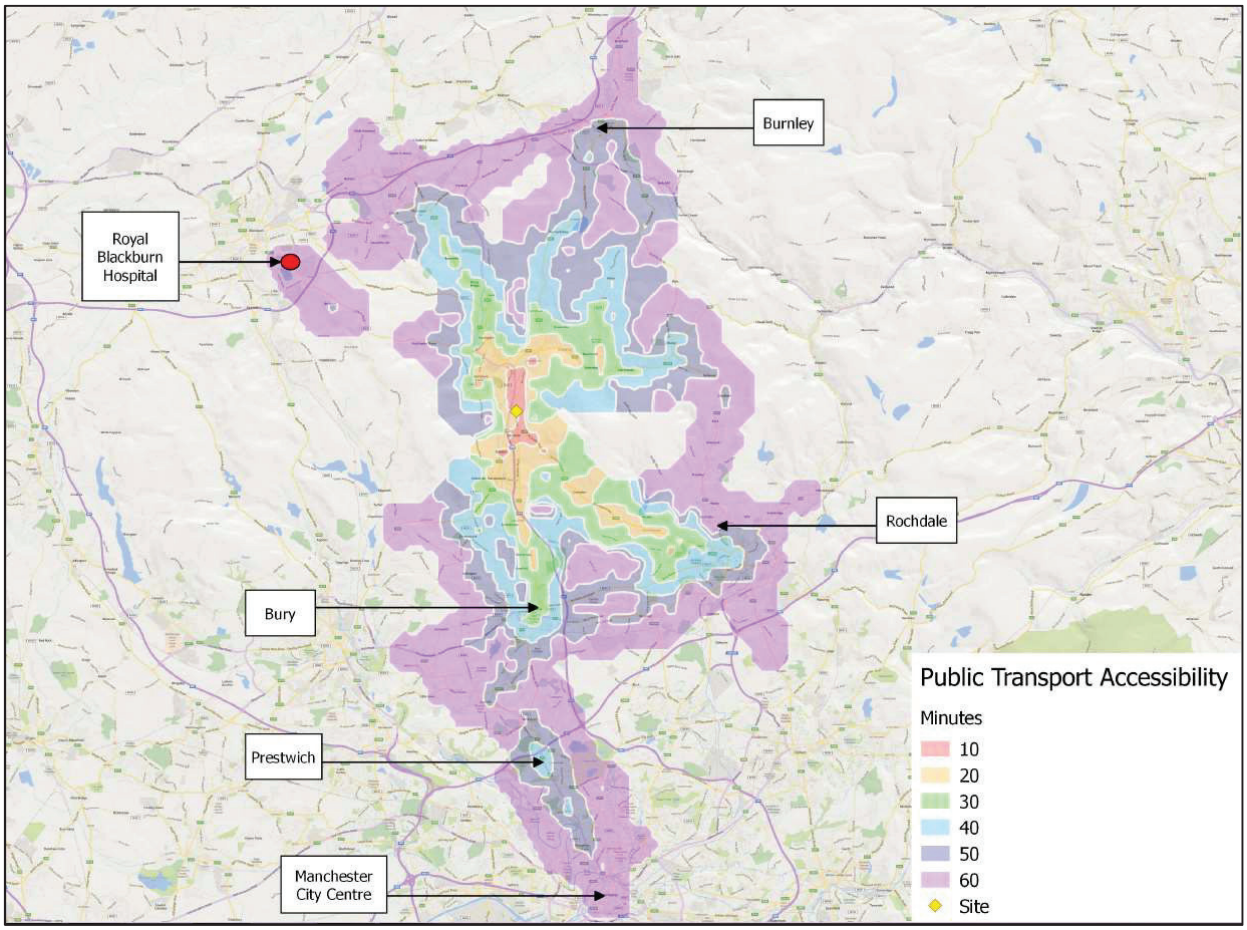
23. **Table 2** below shows details of the bus service at these bus stops:

Table 2 – Bus Timetable

Service	Route	Operator	Approximate Frequency (minutes)		
			Mon- Friday	Sat	Sunday
X41 Red Express (Timetable valid from 1/09/2019)	Accrington – Haslingden – Ramsbottom – Prestwich – Manchester	Red Express	60	60	60 (Last service 17:15)

24. TRACC software has been used to map a 60 minutes journey time using public transport, including the walk to the nearby bus stops, and are presented in **Figure 4.** The analysis demonstrates that it is possible to reach a vast array of areas in the north-west region such as Manchester City Centre, Prestwich, Rochdale, Blackburn Royal Hospital and Bury amongst others, within an acceptable 60 minutes commute time.

Figure 4 – 60 Minutes Public Transport Accessibility



25. Having regard to the above, it is therefore considered that the site has a good level of accessibility by all the main non-car modes of transport. Access to the site by foot, cycle and public transport is of a good standard which ensures there is no requirement to own or use a car for commuting or leisure purposes.

Traffic Generation and Highway Impact

26. In order to estimate the number of trips generated by the site in its current use, the Trip Rate Information Computer System (TRICS) database has been used to derive suitable multi-modal trip generation rates.

27. The following criteria were applied to the TRICS category "Residential, Privately owned housing":

- Sites in London, Republic of Ireland, Northern Ireland were excluded;
- Edge of Town and Suburban areas were included;
- Only surveys on weekdays are included;
- Sites between 6 and 90 dwellings were included; and
- Only the most recent survey was included for each site.

28. The TRICS outputs are presented in **Appendix B** and are summarised in **Table 3** below:-

Table 3 – Proposed Residential Use Trip Rates (Trips per dwelling)

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.154	0.398	0.352	0.166
Cyclists	0.001	0.027	0.019	0.004
Pedestrians	0.069	0.199	0.107	0.065
Public Transport	0.001	0.027	0.017	0.005

29. The above trip rates have been applied to the potential 38 dwellings which could be provided on the allocation site, as summarised in **Table 4** below.

Table 4 – Potential Trips Generated by Allocation Site

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	6	15	13	6
Cyclists	0	1	1	0
Pedestrians	3	8	4	2
Public Transport	0	1	1	0

As can be seen from the above, the proposed allocation site could generate a maximum of 21 two-way trips which occurs in the network peak hour. These trips will be distributed both inbound and outbound, as well as to and from the north and to and from the south such that the impact on any part of the highway network will not be noticeable.

Summary

30. Having regard to the analysis presented above, there are considered to be no constraints from a transport planning perspective which would prevent this land from coming forward for residential use.

S|C|P

APPENDIX A

SCALE 1:1000

N

BURNLEY ROAD

B 6527

BLACKBURN ROAD

BURNLEY ROAD

GUIDE CLOSE

PROPOSED FOOTWAY ALONG SITE FRONTAGE

2.4 x 56m VISIBILITY SPLAY

2.4 x 56m VISIBILITY SPLAY

PROPOSED FOOTWAY ALONG SITE FRONTAGE TO LINK INTO EXISTING PROVISION

Pinfold

SCALE 1:500

R8.0

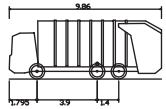
2.0

2.0

R8.0

NOTES

SITE BOUNDARY



Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

REVISIONS

REV	DESCRIPTION	DATE	BY
A	-ALTERATIONS MADE TO WHILE-LINE MARKINGS	04.09.15	BA

S|C|P
Transportation Planning : Infrastructure Design
2 Mount Street, Manchester, M2 5WQ, Tel 0161 832 4400, Fax 0161 832 5111
www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:
PEEL HOLDINGS LTD

Project Title:
LAND OFF BURNLEY ROAD, EDENFIELD, ROSSENDALE

Drawing Title:
POTENTIAL SITE ACCESS ARRANGEMENT

Drawn By: BA	Date: 01.09.2015
Checked: PT	Scale: AS SHOWN @ A3
Status: PLANNING	Approved/Unapproved: -

Drawing No. SCP/15254/F02 | Rev. A

S|C|P

APPENDIX B

Calculation Reference: AUDIT-726001-190815-0859

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	3 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	2 days
03	**SOUTH WEST**		
	DC	DORSET	1 days
	DV	DEVON	2 days
	SM	SOMERSET	1 days
	WL	WILTSHIRE	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	2 days
	SF	SUFFOLK	3 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	2 days
	WK	WARWICKSHIRE	2 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NY	NORTH YORKSHIRE	5 days
	SY	SOUTH YORKSHIRE	1 days
08	**NORTH WEST**		
	CH	CHESHIRE	2 days
	GM	GREATER MANCHESTER	1 days
	MS	MERSEYSIDE	1 days
09	**NORTH**		
	DH	DURHAM	2 days
	TW	TYNE & WEAR	1 days
10	**WALES**		
	PS	POWYS	1 days
	VG	VALE OF GLAMORGAN	1 days
11	**SCOTLAND**		
	AG	ANGUS	1 days
	FA	FALKIRK	1 days
	HI	HIGHLAND	1 days
	PK	PERTH & KINROSS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	Number of dwellings
Actual Range:	6 to 79 (units:)
Range Selected by User:	6 to 90 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 09/05/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	9 days
Tuesday	10 days
Wednesday	12 days
Thursday	9 days
Friday	4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	44 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	26
Edge of Town	18

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	43
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	44 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	4 days
5,001 to 10,000	9 days
10,001 to 15,000	9 days
15,001 to 20,000	12 days
20,001 to 25,000	4 days
25,001 to 50,000	6 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	5 days
50,001 to 75,000	5 days
75,001 to 100,000	11 days
100,001 to 125,000	2 days
125,001 to 250,000	12 days
250,001 to 500,000	5 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	13 days
1.1 to 1.5	31 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	7 days
No	37 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	44 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **AG-03-A-01** **BUNGALOWS/DET.** **ANGUS**
KEPTIE ROAD
ARBROATH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 7
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

2 **CA-03-A-04** **DETACHED** **CAMBRIDGESHIRE**

PETERBOROUGH
THORPE PARK ROAD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 9
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

3 **CA-03-A-05** **DETACHED HOUSES** **CAMBRIDGESHIRE**
EASTFIELD ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *17/10/16* *Survey Type: MANUAL*

4 **CH-03-A-08** **DETACHED** **CHESHIRE**
WHITCHURCH ROAD
CHESTER
BOUGHTON HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 11
Survey date: TUESDAY *22/05/12* *Survey Type: MANUAL*

5 **CH-03-A-09** **TERRACED HOUSES** **CHESHIRE**
GREYSTOKE ROAD
MACCLESFIELD
HURDSFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 24
Survey date: MONDAY *24/11/14* *Survey Type: MANUAL*

6 **DC-03-A-08** **BUNGALOWS** **DORSET**
HURSTDENE ROAD
BOURNEMOUTH
CASTLE LANE WEST
Edge of Town
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *24/03/14* *Survey Type: MANUAL*

7 **DH-03-A-01** **SEMI DETACHED** **DURHAM**
GREENFIELDS ROAD
BISHOP AUCKLAND

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 50
Survey date: TUESDAY *28/03/17* *Survey Type: MANUAL*

8 **DH-03-A-03** **SEMI-DETACHED & TERRACED** **DURHAM**
PILGRIMS WAY
DURHAM

Edge of Town
Residential Zone
Total Number of dwellings: 57
Survey date: FRIDAY *19/10/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **DV-03-A-01** **TERRACED HOUSES** **DEVON**
BRONSHILL ROAD
TORQUAY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 37
Survey date: WEDNESDAY *30/09/15* *Survey Type: MANUAL*

10 **DV-03-A-03** **TERRACED & SEMI DETACHED** **DEVON**
LOWER BRAND LANE
HONITON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 70
Survey date: MONDAY *28/09/15* *Survey Type: MANUAL*

11 **ES-03-A-02** **PRIVATE HOUSING** **EAST SUSSEX**
SOUTH COAST ROAD
PEACEHAVEN

Edge of Town
Residential Zone
Total Number of dwellings: 37
Survey date: FRIDAY *18/11/11* *Survey Type: MANUAL*

12 **FA-03-A-01** **SEMI-DETACHED/TERRACED** **FALKIRK**
MANDELA AVENUE
FALKIRK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 37
Survey date: THURSDAY *30/05/13* *Survey Type: MANUAL*

13 **GM-03-A-10** **DETACHED/SEMI** **GREATER MANCHESTER**
BUTT HILL DRIVE
MANCHESTER
PRESTWICH
Edge of Town
Residential Zone
Total Number of dwellings: 29
Survey date: WEDNESDAY *12/10/11* *Survey Type: MANUAL*

14 **HC-03-A-20** **HOUSES & FLATS** **HAMPSHIRE**
CANADA WAY
LIPHOOK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 62
Survey date: TUESDAY *20/11/18* *Survey Type: MANUAL*

15 **HC-03-A-21** **TERRACED & SEMI-DETACHED** **HAMPSHIRE**
PRIESTLEY ROAD
BASINGSTOKE
HOUNDMILLS
Edge of Town
Residential Zone
Total Number of dwellings: 39
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

16 **HC-03-A-22** **MIXED HOUSES** **HAMPSHIRE**
BOW LAKE GARDENS
NEAR EASTLEIGH
BISHOPSTOKE
Edge of Town
Residential Zone
Total Number of dwellings: 40
Survey date: WEDNESDAY *31/10/18* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 **HI-03-A-14** **SEMI-DETACHED & TERRACED** **HIGHLAND**
KING BRUDE ROAD
INVERNESS
SCORGUIE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 40
Survey date: WEDNESDAY *23/03/16* *Survey Type: MANUAL*

18 **KC-03-A-03** **MIXED HOUSES & FLATS** **KENT**
HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

19 **LN-03-A-03** **SEMI DETACHED** **LINCOLNSHIRE**
ROOKERY LANE
LINCOLN
BOULTHAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 22
Survey date: TUESDAY *18/09/12* *Survey Type: MANUAL*

20 **MS-03-A-03** **DETACHED** **MERSEYSIDE**
BEMPTON ROAD
LIVERPOOL
OTTERSPOOL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 15
Survey date: FRIDAY *21/06/13* *Survey Type: MANUAL*

21 **NF-03-A-01** **SEMI DET. & BUNGALOWS** **NORFOLK**
YARMOUTH ROAD
CAISTER-ON-SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: TUESDAY *16/10/12* *Survey Type: MANUAL*

22 **NF-03-A-03** **DETACHED HOUSES** **NORFOLK**
HALING WAY
THETFORD

Edge of Town
Residential Zone
Total Number of dwellings: 10
Survey date: WEDNESDAY *16/09/15* *Survey Type: MANUAL*

23 **NY-03-A-08** **TERRACED HOUSES** **NORTH YORKSHIRE**
NICHOLAS STREET
YORK

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 21
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

24 **NY-03-A-09** **MIXED HOUSING** **NORTH YORKSHIRE**
GRAMMAR SCHOOL LANE
NORTHALLERTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY *16/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

25 **NY-03-A-10** **HOUSES AND FLATS** **NORTH YORKSHIRE**
BOROUGHBRIDGE ROAD
RIPON

Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY *17/09/13* *Survey Type: MANUAL*

26 **NY-03-A-11** **PRIVATE HOUSING** **NORTH YORKSHIRE**
HORSEFAIR
BOROUGHBRIDGE

Edge of Town
Residential Zone
Total Number of dwellings: 23
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

27 **NY-03-A-13** **TERRACED HOUSES** **NORTH YORKSHIRE**
CATTERICK ROAD
CATTERICK GARRISON
OLD HOSPITAL COMPOUND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 10
Survey date: WEDNESDAY *10/05/17* *Survey Type: MANUAL*

28 **PK-03-A-01** **DETAC. & BUNGALOWS** **PERTH & KINROSS**
TULLYLUMB TERRACE
PERTH
CORNHILL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 36
Survey date: WEDNESDAY *11/05/11* *Survey Type: MANUAL*

29 **PS-03-A-02** **DETACHED/SEMI-DETACHED** **POWYS**
GUNROG ROAD
WELSHPOOL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: MONDAY *11/05/15* *Survey Type: MANUAL*

30 **SC-03-A-04** **DETACHED & TERRACED** **SURREY**
HIGH ROAD
BYFLEET

Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY *23/01/14* *Survey Type: MANUAL*

31 **SF-03-A-04** **DETACHED & BUNGALOWS** **SUFFOLK**
NORMANSTON DRIVE
LOWESTOFT

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 7
Survey date: TUESDAY *23/10/12* *Survey Type: MANUAL*

32 **SF-03-A-05** **DETACHED HOUSES** **SUFFOLK**
VALE LANE
BURY ST EDMUNDS

Edge of Town
Residential Zone
Total Number of dwellings: 18
Survey date: WEDNESDAY *09/09/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

33 **SF-03-A-07** **MIXED HOUSES** **SUFFOLK**
FOXHALL ROAD
IPSWICH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 73
Survey date: THURSDAY *09/05/19* *Survey Type: MANUAL*

34 **SH-03-A-05** **SEMI-DETACHED/TERRACED** **SHROPSHIRE**
SANDCROFT
TELFORD
SUTTON HILL
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

35 **SH-03-A-06** **BUNGALOWS** **SHROPSHIRE**
ELLESMERE ROAD
SHREWSBURY

Edge of Town
Residential Zone
Total Number of dwellings: 16
Survey date: THURSDAY *22/05/14* *Survey Type: MANUAL*

36 **SM-03-A-01** **DETACHED & SEMI** **SOMERSET**
WEMBDON ROAD
BRIDGWATER
NORTHFIELD
Edge of Town
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY *24/09/15* *Survey Type: MANUAL*

37 **SY-03-A-01** **SEMI DETACHED HOUSES** **SOUTH YORKSHIRE**
A19 BENTLEY ROAD
DONCASTER
BENTLEY RISE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY *18/09/13* *Survey Type: MANUAL*

38 **TW-03-A-02** **SEMI-DETACHED** **TYNE & WEAR**
WEST PARK ROAD
GATESHEAD

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 16
Survey date: MONDAY *07/10/13* *Survey Type: MANUAL*

39 **VG-03-A-01** **SEMI-DETACHED & TERRACED** **VALE OF GLAMORGAN**
ARTHUR STREET
BARRY

Edge of Town
Residential Zone
Total Number of dwellings: 12
Survey date: MONDAY *08/05/17* *Survey Type: MANUAL*

40 **WK-03-A-01** **TERRACED/SEMI/DET.** **WARWICKSHIRE**
ARLINGTON AVENUE
LEAMINGTON SPA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 6
Survey date: FRIDAY *21/10/11* *Survey Type: MANUAL*

41 **WK-03-A-02** **BUNGALOWS** **WARWICKSHIRE**
NARBERTH WAY
COVENTRY
POTTERS GREEN
Edge of Town
Residential Zone
Total Number of dwellings: 17
Survey date: THURSDAY *17/10/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

42 **WL-03-A-02** **SEMI DETACHED** **WILTSHIRE**
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: THURSDAY *22/09/16* *Survey Type: MANUAL*

43 **WS-03-A-05** **TERRACED & FLATS** **WEST SUSSEX**
UPPER SHOREHAM ROAD
SHOREHAM BY SEA

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 48
Survey date: WEDNESDAY *18/04/12* *Survey Type: MANUAL*

44 **WS-03-A-10** **MIXED HOUSES** **WEST SUSSEX**
TODDINGTON LANE
LITTLEHAMPTON
WICK
Edge of Town
Residential Zone
Total Number of dwellings: 79
Survey date: WEDNESDAY *07/11/18* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	44	34	0.079	44	34	0.309	44	34	0.388
08:00 - 09:00	44	34	0.154	**44**	**34**	**0.398**	**44**	**34**	**0.552**
09:00 - 10:00	44	34	0.151	44	34	0.184	44	34	0.335
10:00 - 11:00	44	34	0.132	44	34	0.153	44	34	0.285
11:00 - 12:00	44	34	0.151	44	34	0.166	44	34	0.317
12:00 - 13:00	44	34	0.170	44	34	0.162	44	34	0.332
13:00 - 14:00	44	34	0.175	44	34	0.179	44	34	0.354
14:00 - 15:00	44	34	0.160	44	34	0.199	44	34	0.359
15:00 - 16:00	44	34	0.256	44	34	0.182	44	34	0.438
16:00 - 17:00	44	34	0.302	44	34	0.173	44	34	0.475
17:00 - 18:00	**44**	**34**	**0.352**	44	34	0.166	44	34	0.518
18:00 - 19:00	44	34	0.254	44	34	0.148	44	34	0.402
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.336			2.419			4.755

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	6 - 79 (units:)
Survey date date range:	01/01/11 - 09/05/19
Number of weekdays (Monday-Friday):	44
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	44	34	0.006	44	34	0.023	**44**	**34**	**0.029**
08:00 - 09:00	44	34	0.001	**44**	**34**	**0.027**	44	34	0.028
09:00 - 10:00	44	34	0.002	44	34	0.009	44	34	0.011
10:00 - 11:00	44	34	0.005	44	34	0.011	44	34	0.016
11:00 - 12:00	44	34	0.004	44	34	0.004	44	34	0.008
12:00 - 13:00	44	34	0.007	44	34	0.006	44	34	0.013
13:00 - 14:00	44	34	0.008	44	34	0.003	44	34	0.011
14:00 - 15:00	44	34	0.005	44	34	0.003	44	34	0.008
15:00 - 16:00	**44**	**34**	**0.022**	44	34	0.003	44	34	0.025
16:00 - 17:00	44	34	0.021	44	34	0.004	44	34	0.025
17:00 - 18:00	44	34	0.019	44	34	0.004	44	34	0.023
18:00 - 19:00	44	34	0.009	44	34	0.005	44	34	0.014
19:00 - 20:00	1	7	0.000	1	7	0.000	1	7	0.000
20:00 - 21:00	1	7	0.000	1	7	0.000	1	7	0.000
21:00 - 22:00	1	7	0.000	1	7	0.000	1	7	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.109			0.102			0.211

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	44	34	0.021	44	34	0.075	44	34	0.096
08:00 - 09:00	44	34	0.069	**44**	**34**	**0.199**	**44**	**34**	**0.268**
09:00 - 10:00	44	34	0.053	44	34	0.067	44	34	0.120
10:00 - 11:00	44	34	0.047	44	34	0.063	44	34	0.110
11:00 - 12:00	44	34	0.054	44	34	0.046	44	34	0.100
12:00 - 13:00	44	34	0.060	44	34	0.048	44	34	0.108
13:00 - 14:00	44	34	0.057	44	34	0.057	44	34	0.114
14:00 - 15:00	44	34	0.052	44	34	0.059	44	34	0.111
15:00 - 16:00	**44**	**34**	**0.166**	44	34	0.093	44	34	0.259
16:00 - 17:00	44	34	0.114	44	34	0.067	44	34	0.181
17:00 - 18:00	44	34	0.107	44	34	0.065	44	34	0.172
18:00 - 19:00	44	34	0.073	44	34	0.047	44	34	0.120
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.873			0.886			1.759

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	44	34	0.003	44	34	0.027	**44**	**34**	**0.030**
08:00 - 09:00	44	34	0.001	**44**	**34**	**0.027**	44	34	0.028
09:00 - 10:00	44	34	0.003	44	34	0.013	44	34	0.016
10:00 - 11:00	44	34	0.007	44	34	0.013	44	34	0.020
11:00 - 12:00	44	34	0.007	44	34	0.008	44	34	0.015
12:00 - 13:00	44	34	0.012	44	34	0.013	44	34	0.025
13:00 - 14:00	44	34	0.004	44	34	0.003	44	34	0.007
14:00 - 15:00	44	34	0.014	44	34	0.007	44	34	0.021
15:00 - 16:00	44	34	0.015	44	34	0.006	44	34	0.021
16:00 - 17:00	**44**	**34**	**0.025**	44	34	0.005	44	34	0.030
17:00 - 18:00	44	34	0.017	44	34	0.005	44	34	0.022
18:00 - 19:00	44	34	0.019	44	34	0.001	44	34	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.127			0.128			0.255

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Appendix I: Flood Risk Burnley Road

Turley

Our ref: RCEF74462-001 LR Land off Burnley Road

8 Exchange Quay
Salford, Greater Manchester
M5 3EJ
T +44 161 786 8550

Date: 22 August 2019

Land off Burnley Road, Edenfield, Rossendale – Development Framework Area

Preliminary note on flood risk and surface water drainage

Background

RPS Consulting Services Ltd has been commissioned to update a previous technical note (RPS ref: RCEF26527-002 LR Draft Burnley Road) to reflect current national planning policy, guidance and best practice in relation to flood risk and drainage at Land off Burnley Road, Edenfield, Rossendale.

Site Setting

National Grid Reference (NGR) – 379950, 419948

Site area = approximately 1.07 hectares

Hydrological Setting

The Environment Agency's online Flood Map for Planning (see Figure 1) indicates the site is wholly within Flood Zone 1 and is therefore considered to be at a low risk of fluvial flooding. A spring is shown to be located approximately 30 – 50 m north of the site on detailed Ordnance Survey maps. This spring is at approximately the same level as the eastern area of the site and upgradient of part of the western area of the site. There are a number of issues/springs located approximately 200 m east, upgradient of the site. These are shown to sink before reaching the site.

Site Visit

A site walkover was undertaken in 2013. During the walkover, the site was observed to slope from east to west towards Burnley Road at an estimated gradient of approximately 1 in 25.

It is likely that surface water currently drains towards the western end of the site. No connection points beneath Burnley Road were observed during the site walkover and as such it is anticipated that surface water ponds towards the north western corner of the site.

Geology

Reference to British Geological Survey online mapping (1:50,000 scale) indicates the site is underlain by superficial deposits of Diamicton (Glacial Till). The site is shown to be predominantly underlain by bedrock deposits of Holcombe Brook Grit which is described as sedimentary sandstone. The eastern boundary of the site appears to be underlain by bedrock deposits from the Marsden Formation which is described as a sedimentary mudstone and siltstone.

Existing Sewers / Water Mains

Reference to United Utilities Asset Location Plans (included as Appendix A) indicates there are no public sewers within the boundary of the site. A 300 mm diameter combined sewer is shown to be located adjacent to the south western corner of the site within Burnley Road. This sewer is shown to flow in a southerly direction before discharging into a 300 mm diameter combined sewer which subsequently flows to the north beneath Blackburn Road.

United Utilities Asset Location Plans indicate there is a 6 inch diameter water distribution main and two 12 inch trunk water mains located in Burnley Road. In addition, an 8 inch diameter distribution main a 9 inch diameter trunk main are shown within Blackburn Road.

Surface Water Management

The Government's planning policy in relation to surface water management is set out within the National Planning Policy Framework (NPPF) and accompanying Planning Practice Guidance (PPG). This is supported by the Non-Statutory Technical Standards for Sustainable Drainage Systems, published by DEFRA in 2015 which states the following in relation to greenfield sites:

"For greenfield developments, the peak run-off rate from the development to any highway drain, sewer, or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event should never exceed the peak greenfield run-off rate for the same event".

The existing peak greenfield run-off rate for the 1 in 1 and 1 in 100 year rainfall events have been calculated using the Interim Code of Practice for Sustainable Drainage Systems (ICP SuDS) function in MicroDrainage. The existing greenfield run-off rates have been calculated based on a 1 ha area and this rate has subsequently been scaled based on several assumed proposed hardstanding areas, as shown in Table 1 below.

In order to restrict surface water run-off generated by the proposed development to the existing peak run-off rates, attenuation will be required on site for all events up to and including the 1 in 100 year plus 40% climate change event. At this stage, the amount of attenuation has been estimated using the Quick Storage Estimate function in MicroDrainage and the results of this are included in Table 1.

Table 1 Preliminary surface water attenuation requirements*

Assumed proposed impermeable area (%)	Assumed proposed impermeable area (ha)	1 in 1 year greenfield run-off rate (l/s)	Attenuation volume required to restrict surface water run-off to 1 in 1 year run-off rate (m^3)	1 in 100 year greenfield run-off rate (l/s)	Attenuation volume required to restrict surface water run-off to 1 in 100 year run-off rate (m^3)
100	1.070	11.1	672 - 1081	26.6	450 - 772
90	0.963	10.0	605 - 972	24.0	402 - 691
80	0.856	8.9	537 - 864	21.3	362 - 621
70	0.749	7.8	470 - 756	18.7	315 - 540
60	0.642	6.7	402 - 647	16.0	268 - 461
50	0.535	5.6	335 - 539	13.3	228 - 391
40	0.428	4.5	267 - 430	10.7	181 - 310

**the above estimations assume no infiltration based on a preliminary appraisal of the geology. Once infiltration rates are known pending further investigation, the volume of attenuation may be decreased.*

The PPG identifies that the discharge of surface water run-off should be as high up the following hierarchy of drainage options as reasonably practicable:

1. Into the ground (infiltration);
2. To a surface water body;
3. To a surface water sewer, highway drain, or another drainage system;
4. To a combined sewer.

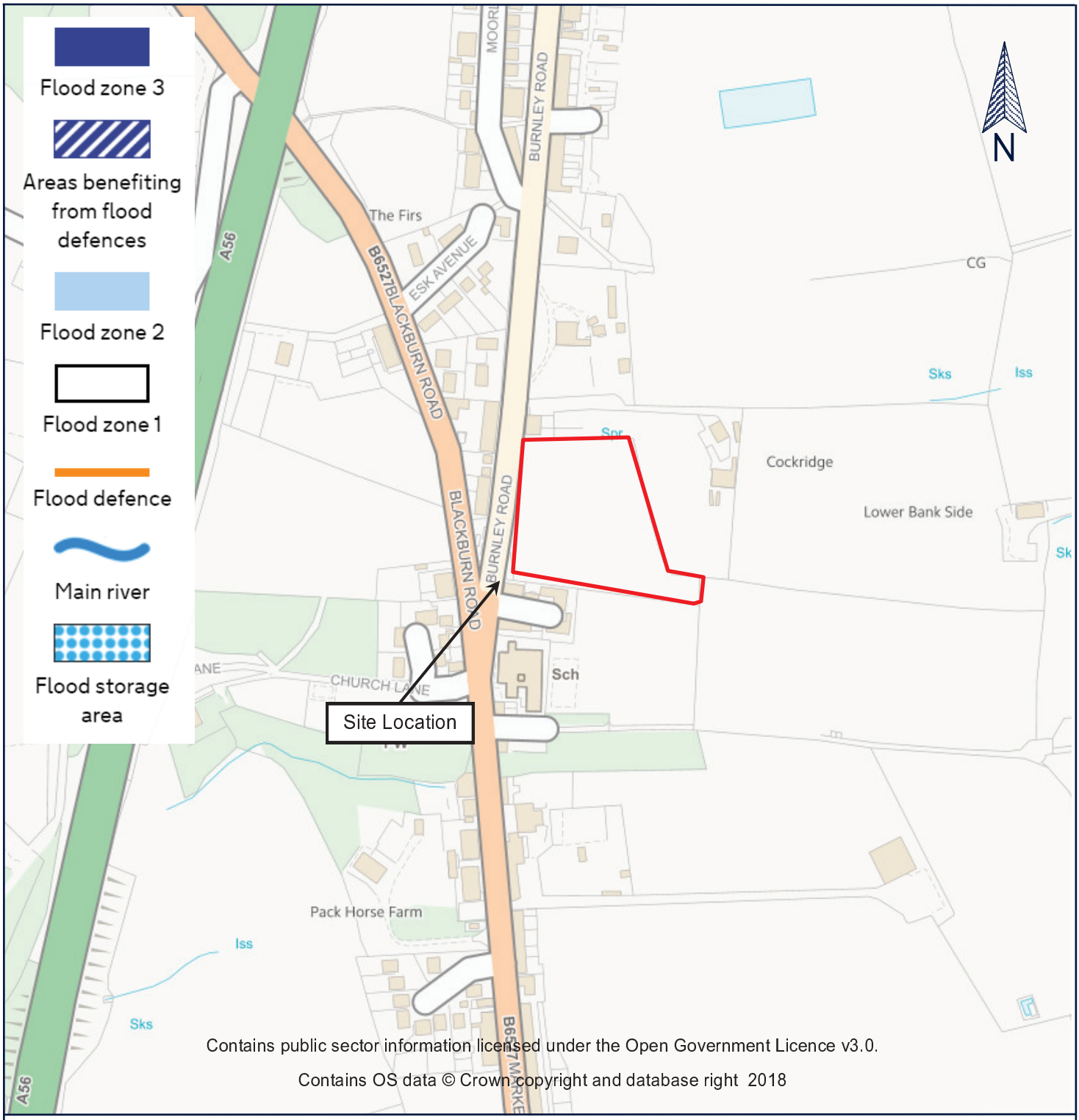
The published geology (described above) indicates that the use of infiltration drainage techniques may be limited due to the potentially cohesive nature of the underlying strata. Some infiltration may be achievable, however, further investigation (i.e infiltration testing in accordance with BRE365) will be required to confirm

site specific infiltration rates. In addition, the presence of springs within the vicinity of the site indicates the potential presence of a high groundwater table therefore the depth to groundwater should be confirmed via an appropraite site investigation.

A detailed Topographic Survey will be required to establish whether there is sufficient fall across the site and inform the feasibility of connecting into the existing sewers. Subject to sufficient fall across the site, the likely surface water management solution is to discharge surface water into the United Utilities combined sewers located within Burnley Road. Consultation will be required with United Utilities in order to establish the capacity of the public surface water sewer network to accept run-off from the site. At this stage, a pre-development enquiry has been submitted to United Utilities to confirm acceptable surface water pass forward flow rates into the public sewer network and RPS are currently awaiting a response. It should be noted that ground levels may need to be altered in order to achieve gravity drainage across the site.

The Lead Local Flood Authority is likely to require the use of SuDS attenuation techniques within the site in order to restrict surface water run-off. In addition to providing attenuation, the use of SuDS will provide ecological, amenity and visual benefits within the site. The use of SuDs techniques such as basins / ponds for the provision of attenuation should be considered within the site.

Where such features are not feasible due to engineering constraints it is likely that hard engineered solutions (such as tanks or oversized pipes) will be required.



8, Exchange Quay, Manchester, M5 3EJ

T: +44 (0)161 786 8550 W: rpsgroup.com

MAKING COMPLEX EASY

Client: Peel L&P Group Management Limited	Date: August 2019	Scale: NTS
Project: Land at Burnley Road	Figure: 01	Rev: 00
Title: Environment Agency Flood Map for Planning	Job Ref: RCEF74462	

Appendix A

United Utilities Asset Location Plans

United Utilites Water PLC
Property Searches
Ground Floor Grasmere House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP
DX 715568 Warrington
Telephone 0870 751 0101
Fax Number 0870 7510102
Property.searches@uuplc.co.uk

Your Ref:
Our Ref: 13/ 971268
Date: 11/10/2013

Joshua Rigby
Unit 12 Watersedge Business Park
Modwen Road
Salford Quays

M5 3EZ

FAO: J RIGBY

Dear Sirs

Location: LAND OFF BURNLEY ROAD EDENFIELD ROSSENDALE BL0 0QL

I acknowledge with thanks your request dated 10/10/13 for information on the location of our services.

Please find enclosed plans showing the approximate position of our apparatus known to be in the vicinity of this site.
I attach General Condition Information sheets, which details contact numbers for additional services (i.e. new supplies, connections, diversions) which we are unable to deal with at this office. In addition you should ensure they are made available to anyone carrying out any works which may affect our apparatus.

I trust the above meets with you requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please telephone us on 0870 7510101.

Yours Faithfully,

S McManus.

Sue McManus
Operations Manager
Property Searches

United Utilities Water PLC
Registered in England & Wales No. 2366678
Registered Office: Haweswater House,
Lingley Mere Business Park, Lingley Green Avenue,
Great Sankey, Warrington, WA5 3LP

TERMS AND CONDITIONS - WASTERWATER & WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self construction of water mains) (UUW apparatus) of United Utilities Water PLC ("UUW").

TERMS AND CONDITIONS:

1. This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.

2. This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.

3. In particular, the position and depth of any UUW apparatus shown on the Map are approximate only. UUW strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUW apparatus. The exact location, positions and depths should be obtained by excavation trial holes.

4. The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.

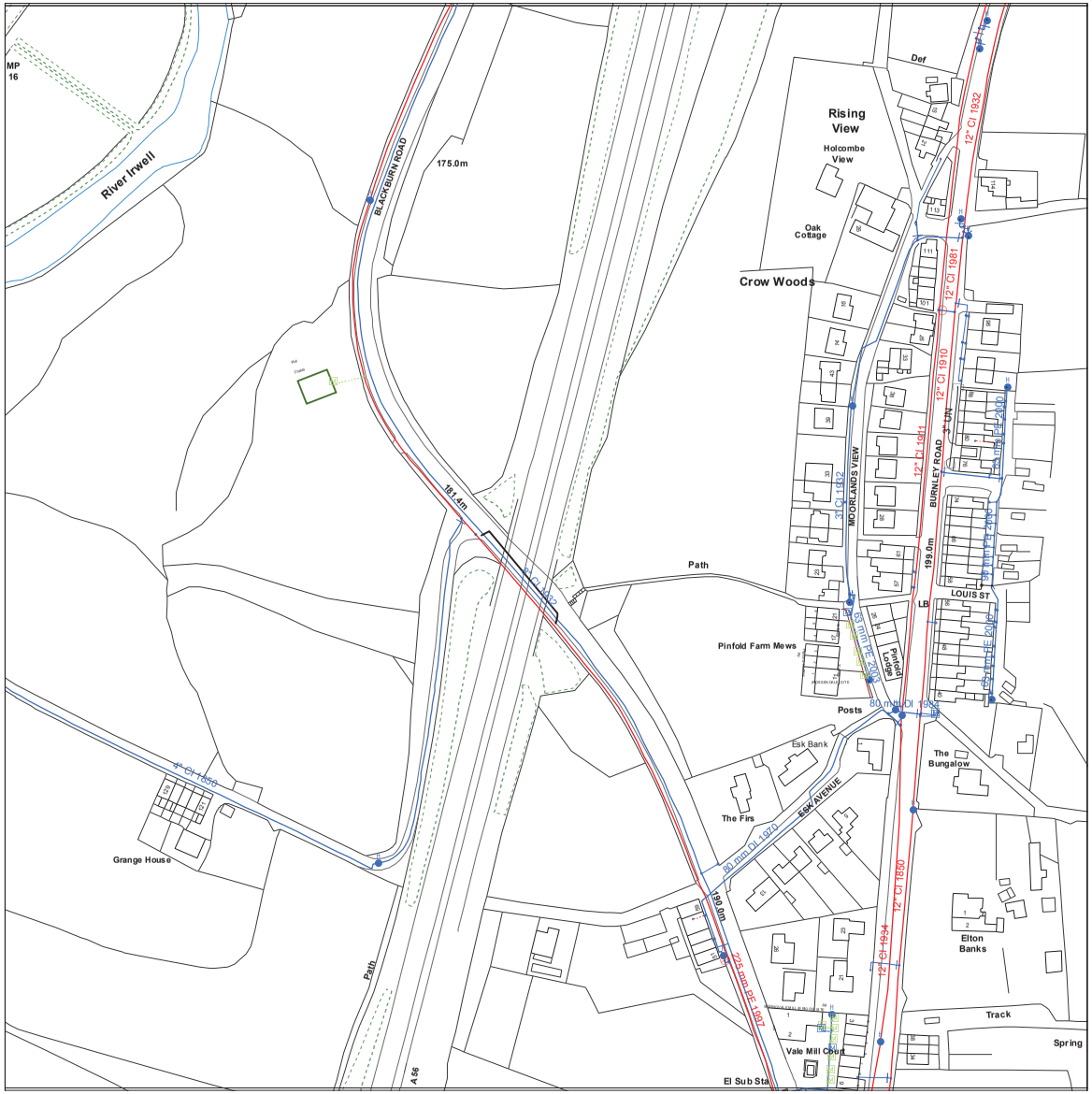
5. The position and depth of UUW apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.

6. This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUW apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.

7. No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUW apparatus by reason of the actual position and/or depths of UUW apparatus being different from those shown on the Map and any information supplied with it.

8. If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.

9. This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUW from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.



OS Sheet No: SD7920SE

Scale: 1: 1250 Date: 11/10/2013

Printed By: Nicola Morris

LEGEND

PIPE WORK

Live	Proposed	
		Trunk Main - PressurisedMain
		Raw Water Aqueduct - PressurisedMain
		Raw Water Aqueduct - GravityMain
		LDTM Raw Water Distribution - PressurisedMain
		LDTM Raw Water Distribution - GravityMain
		LDTM Treated Water Distribution - PressurisedMain
		LDTM Treated Water Distribution - GravityMain
		Private Pipe - LateralLine
		Distribution Main - PressurisedMain
		Comms Pipe - LateralLine
		Concessionary Service - LateralLine

ABANDONED PIPE

- Trunk Main
- Raw Water Aqueduct
- LDTM Raw Water Distribution
- LDTM Treated Water Distribution
- Private Pipe
- Distribution Main
- Comms Pipe
- Concessionary Service

NODES/ FURNITURE

Live	Proposed	
		End Cap
		CC Valve
		AC Valve
		Air Valve
		Sluice Valve
		Non Return Valve
		Pressure Management Valve
		Change of Characteristic
		Anode
		Chlorination Point
		De Chlorination Point
		Bore Hole
Inlet	Inlet	Inlet Point
		Bulk Supply Point
FH	FH	Fire Hydrant
H	H	Hydrant
PFH	PFH	Private Fire Hydrant
		Pump
		Site Termination
		Service Start
		Service End
PM	PM	Process Meter
		Stop Tap
		Monitor Location
SP	SP	Strainer Point
AP	AP	Access Point
HB	HB	Hatch Box
IP	IP	IP Point
RM		Route Marker
SPT	SPT	Sampling Station
LB	LB	Logger Box

PROPERTY TYPES

Live	Proposed	
		Condition Report
		Pipe Bridges
		Tunnels (non carrier)
		Pumping Station
		Water Treatment Works
		Private Treatment Works
VH	VH	Valve House
		Water Tower
SR	SR	Service Reservoir
SR	SR	Supply Reservoir
Inlet AP	Inlet AP	Abstraction Point
M	M	Domestic meter
CM	CM	Commercial meter
T	T	Telemetry Outstation

MATERIAL TYPES

AC ASBESTOS CEMENT	OT OTHERS
CI CAST IRON	PB LEAD
CU COPPER	PV uPVC
CO CONCRETE	SI SPUN IRON
DI DUCTILE IRON	ST STEEL
GI GALVANISED IRON	UN UNKNOWN
GR GREY IRON	PE POLYETHYLENE

LINING TYPES

CL CEMENT LINING	ERL EPOXY RESIN
TB TAR OR BITUMEN	

INSERTION TYPES

DD DIE DRAWN	MO MOLING
DR DIRECTIONAL DRILLING	PI PIPELINE
	SL SLIP LINED

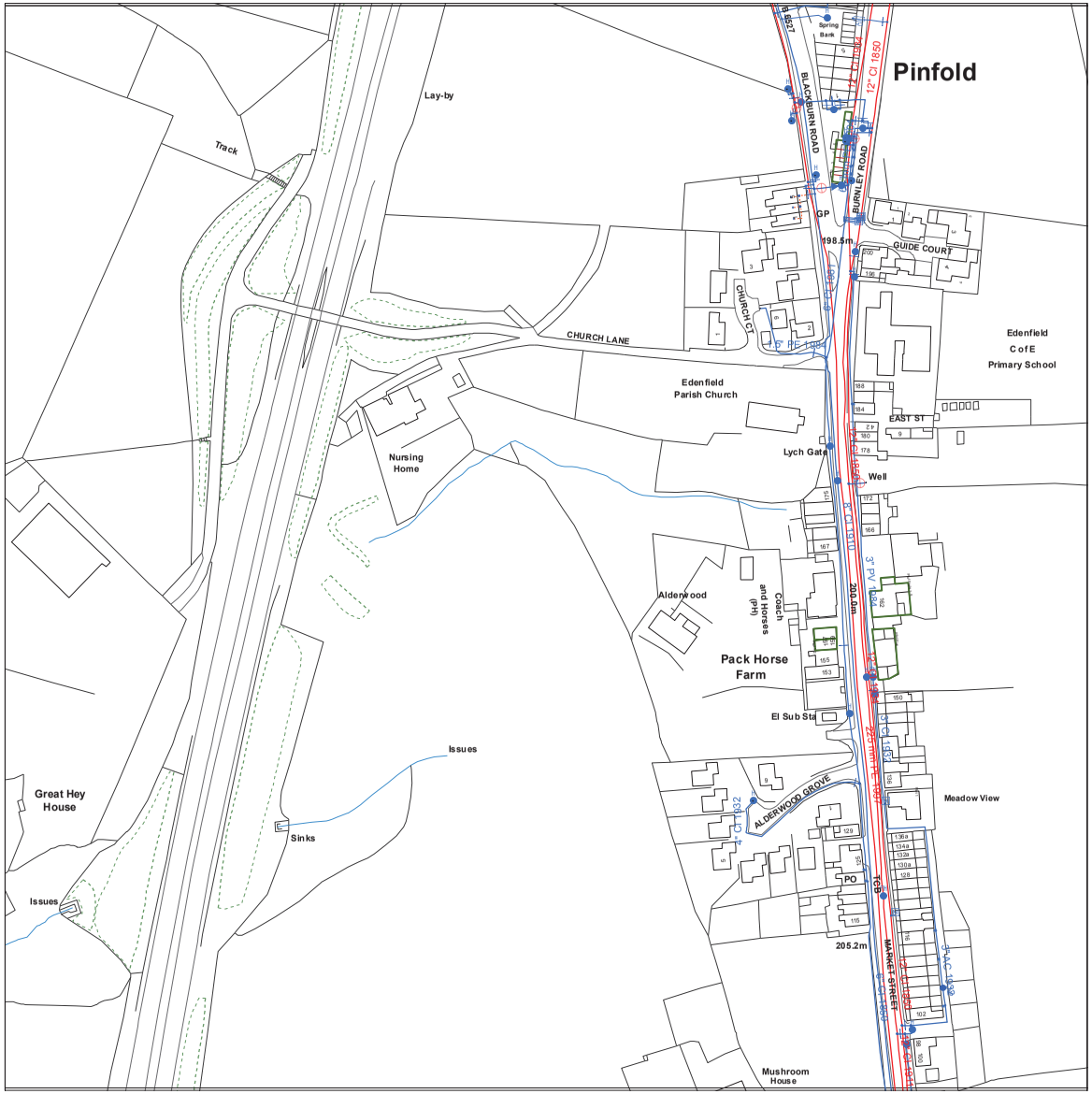
OS Sheet No: SD7920SE

Scale: 1: 1250

Date: 11/10/2013

United Utilities

WATER MAIN RECORDS



OS Sheet No: SD7919NE

Scale: 1: 1250 Date: 11/10/2013

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LEGEND

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		Comms Pipe - LateralLine
		Concessionary Service - LateralLine

ABANDONED PIPE

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- LDTM Treated Water Distribution
- Private Pipe
- Distribution Main
- Comms Pipe
- Concessionary Service

NODES/ FURNITURE

Live	Proposed	
		End Cap
		CC Valve
		AC Valve
		Air Valve
		Sluice Valve
		Non Return Valve
		Pressure Management Valve
		Change of Characteristic
		Anode
		Chlorination Point
		De Chlorination Point
		Bore Hole
Inlet	Inlet	Inlet Point
		Bulk Supply Point
FH	FH	Fire Hydrant
H	H	Hydrant
PFH	PFH	Private Fire Hydrant
		Pump
		Site Termination
		Service Start
		Service End
PM	PM	Process Meter
		Stop Tap
		Monitor Location
SP	SP	Strainer Point
AP	AP	Access Point
HB	HB	Hatch Box
IP	IP	IP Point
RM		Route Marker
SPT	SPT	Sampling Station
LB	LB	Logger Box

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		Pumping Station
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		Private Treatment Works
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		Water Tower
SR	SR	Service Reservoir
SR (S)	SR (S)	Supply Reservoir
Inlet AP	Inlet AP	Abstraction Point
M	M	Domestic meter
CM	CM	Commercial meter
T	T	Telemetry Outstation

MATERIAL TYPES

AC ASBESTOS CEMENT	OT OTHERS
CI CAST IRON	PB LEAD
CU COPPER	PV uPVC
CO CONCRETE	SI SPUN IRON
DI DUCTILE IRON	ST STEEL
GI GALVANISED IRON	UN UNKNOWN
GR GREY IRON	PE POLYETHYLENE

LINING TYPES

CL CEMENT LINING	ERL EPOXY RESIN
TB TAR OR BITUMEN	

INSERTION TYPES

DD DIE DRAWN	MO MOLING
DR DIRECTIONAL DRILLING	PI PIPELINE
	SL SLIP LINED

OS Sheet No: SD7919NE

Scale: 1: 1250

Date: 11/10/2013

United Utilities

WATER MAIN RECORDS

OS Sheet No: SD8019NW

Scale: 1: 1250 Date: 11/10/2013

Printed By: Nicola Morris

LEGEND

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		Pump
		Site Termination
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		Service End
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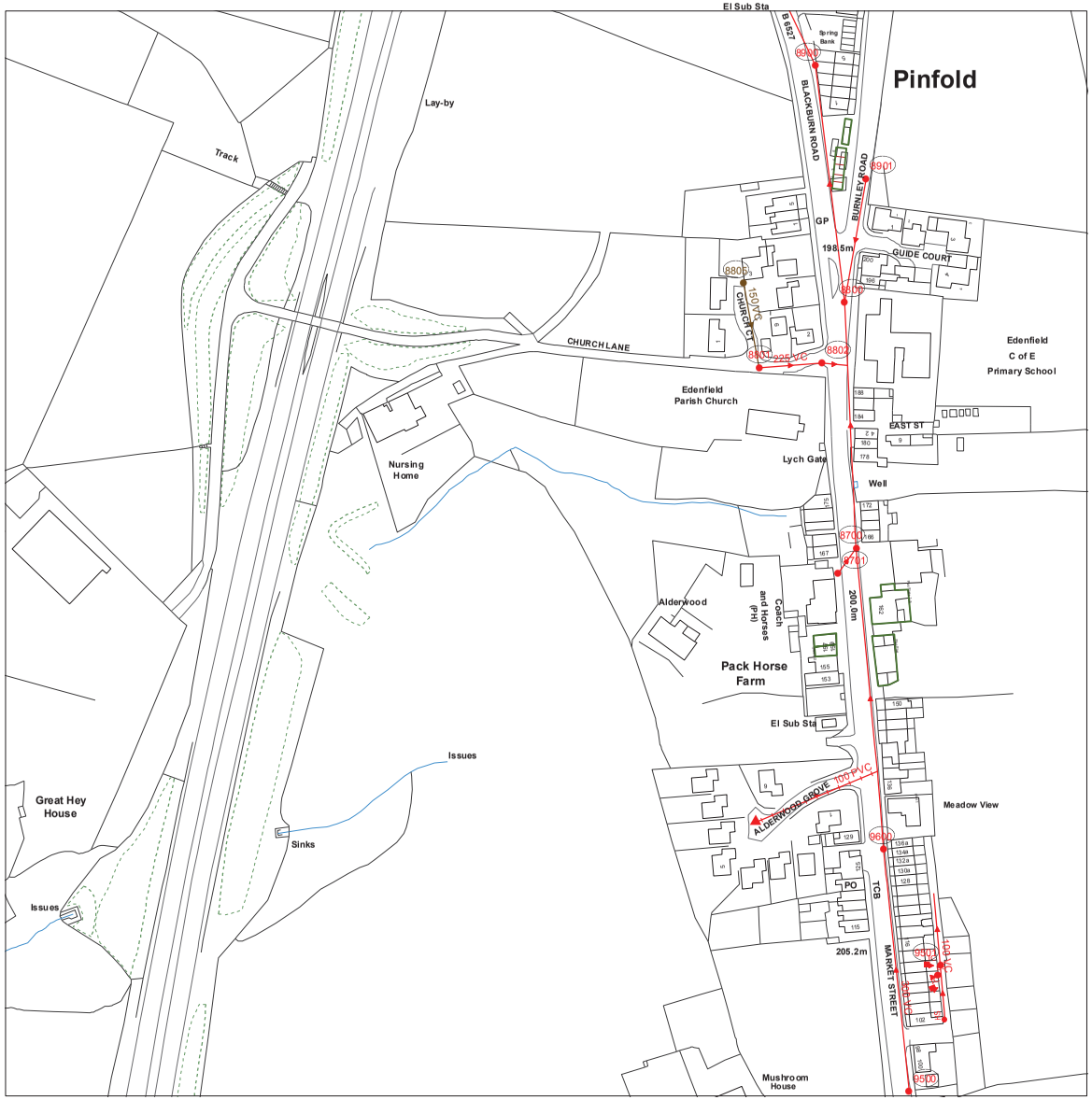
OS Sheet No: SD8019NW

Scale: 1: 1250

Date: 11/10/2013

United Utilities

WATER MAIN RECORDS



Refno	Cover	Func	Invert	Size	Size	Shape	Matl	Length	Grad
8700	199.79	CO							
8701	199.63	CO	196.81	300		CI	VC	142.1	7
8800	198.89	CO	195.03	300		CI	VC	110.43	0
8801	198.99	CO							
8802	199.01	CO							
8803		CO		150		CI	VC	39.77	
8804	195.13	CO							
8805		CO	0	300		CI	VC	68.11	15
9600	206.27	CO	204.82	300		CI	VC	112.54	0
9601		CO							
9602	204.38	CO							
9504		CO							
9603		CO							
9501		CO							
9601		CO	0			CI	PVC	60.79	35

OS Sheet No: SD7919NE

Scale: 1: 1250 Date: 11/10/2013

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WASTE WATER SYMBOLOGY

Foul Surface Combined Overflow

Manhole
Manhole, Side Entry
Mainsewer, Public
Mainsewer, Private
Mainsewer, S104
Rising Main, Public
Rising Main, Private
Rising Main, S104
Highway Drain, Private

Foul Surface Combined

WW Site Termination
Air Valve
Cascade
Non Return Valve
Extent of Survey
Flow Meter
Gulley
Hatch Box
Head of System
Hydrobrake / Vortex
Inlet
Inspection Chamber
Bifurcation
Catchpit
Contaminated Surface Water
WW Pumping Station
Sludge Pumping Station
Sewer Overflow
T Junction/Saddle
LampHole
OilInterceptor
PenStock
Pump
RoddingEye
Soakaway
Summit
Valve
Valve Chamber
Washout Chamber
DropShaft
WW Treatment Works
Septic Tank
Vent Column
Network Storage Tank
Orifice Plate
Vortex Chamber
Penstock Chamber
Blind Manhole

Foul Surface Combined Overflow

Screen Chamber
Discharge Point
Outfall

Sludge Main, Public
Sludge Main, Private
Sludge Main, S104

ABANDONED PIPE

MainSewer
Rising Main
Highway Drain
Sludge Main

Control Kiosk
Unspecified

LEGEND

MANHOLE FUNCTION

FO	Foul
SW	Surface Water
CO	Combined
OV	Overflow

SEWER SHAPE

CI	Circular	TR	Trapezoidal
EG	Egg	AR	Arch
OV	Oval	BA	Barrel
FT	Flat Top	HO	HorseShoe
RE	Rectangular	UN	Unspecified
SQ	Square		

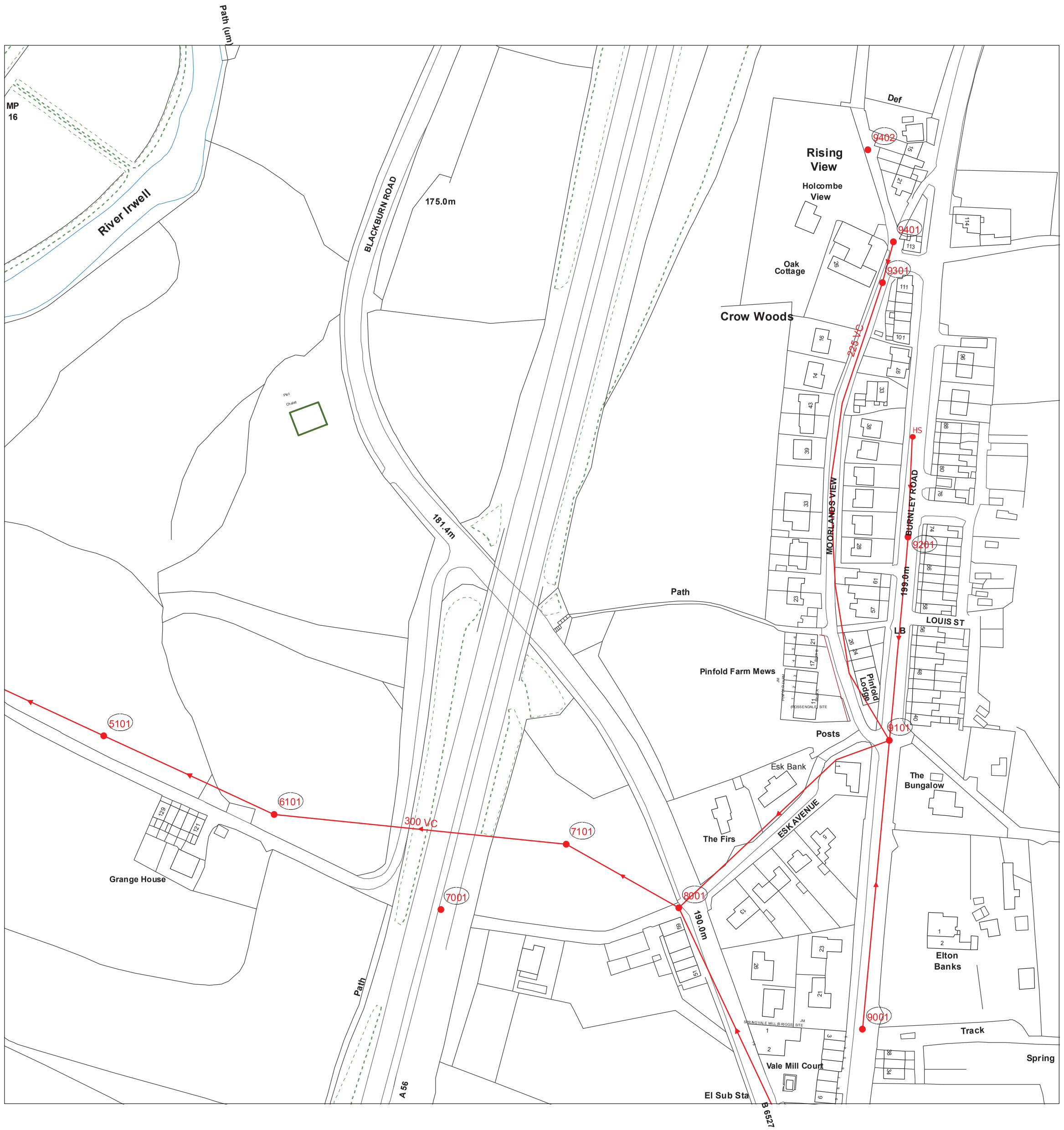
SEWER MATERIAL

AC	Asbestos Cement	DI	Ductile Iron
BR	Brick	PVC	Polyvinyl Chloride
PE	Polyethylene	CI	Cast Iron
RP	Reinforced Plastic Matrix	SI	Spun Iron
CO	Concrete	ST	Steel
CSB	Concrete Segment Bolted	VC	Vitrified Clay
CSU	Concrete Segment Unbolted	PP	Polypropylene
CC	Concrete Box Culverted	PF	Pitch Fibre
PSC	Plastic/Steel Composite	MAC	Masonry, Coursed
GRC	Glass Reinforced Concrete	MAR	Masonry, Random
GRP	Glass Reinforced Plastic	U	Unspecified

OS Sheet No: SD7919NE
Scale: 1: 1250 Date: 11/10/2013
15 Nodes
Sheet 1 of 1

United Utilities

SEWER RECORDS



Refno	Cover	Func	Invert	Size.x	Size.y	Shape	Matl	Length	Grad
5101	180.09	CO	178.74	300		CI	VC	77.61	0
6101	187.7	CO							
7001		CO							
7101		CO	0	300		CI	VC	139.05	73
8001	187.72	CO							
9001	197.41	CO	0	300		CI	VC	137.69	65
9101	198.03	CO							
9201	199.91	CO							
9301	199.68	CO	197.09	225		CI	VC	226.19	1
9401	200.78	CO	197.54	225		CI	VC	20.15	0
9402	198.84	CO							
9302		CO	0	300		CI	VC	47.11	22

Refno	Cover	Func	Invert	Size.x	Size.y	Shape	Matl	Length	Grad

WASTE WATER SYMBOLOGY

Foul | Surface | Combined | Overflow

Manhole
Manhole, Side Entry
MainSewer, Public
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Rising Main, S104
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Foul | Surface | Combined

WW Site Termination
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Valve Chamber
Washout Chamber
DropShaft
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Septic Tank
Vent Column
Network Storage Tank
Orifice Plate
Vortex Chamber
Penstock Chamber
Blind Manhole

Foul | Surface | Combined | Overflow

Screen Chamber
Discharge Point
Outfall

Sludge Main, Public
Sludge Main, Private
Sludge Main, S104

ABANDONED PIPE

MainSewer
Rising Main
Highway Drain
Sludge Main

Control Kiosk
Unspecified

LEGEND

MANHOLE FUNCTION

FO Foul
SW Surface Water
CO Combined
OV Overflow

SEWER SHAPE

CI Circular
EG Egg
OV Oval
FT Flat Top
RE Rectangular
SQ Square
TR Trapezoidal
AR Arch
BA Barrel
HO HorseShoe
UN Unspecified

SEWER MATERIAL

AC Asbestos Cement
BR Brick
PE Polyethylene
RP Reinforced Plastic Matrix
CO Concrete
CSB Concrete Segment Bolted
CSU Concrete Segment Unbolted
CC Concrete Box Culverted
PSC Plastic/Steel Composite
GRC Glass Reinforced Concrete
GRP Glass Reinforced Plastic
DI Ductile Iron
PVC Polyvinyl Chloride
CI Cast Iron
SI Spun Iron
ST Steel
VC Vitrified Clay
PP Polypropylene
PF Pitch Fibre
MAC Masonry, Coursed
MAR Masonry, Random
U Unspecified

OS Sheet No: SD7920SE

Scale: 1: 1250 Date: 11/10/2013

12 Nodes

Sheet 1 of 1

United Utilities

SEWER RECORDS

Printed By: Nicola Morris

OS Sheet No: SD7920SE

Scale: 1: 1250 Date: 11/10/2013

OS Sheet No: SD8019NW

Scale: 1: 1250 Date: 11/10/2013

Printed By: Nicola Morris

WASTE WATER SYMBOLOGY

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MainSewer, S104
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Rising Main, Private
Rising Main, S104
Highway Drain, Private

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GRP	Glass Reinforced Plastic	U	Unspecified

OS Sheet No: SD8019NW
Scale: 1: 1250 Date: 11/10/2013
0 Nodes
Sheet 1 of 1

United Utilities

SEWER RECORDS

Conditions and information regarding wastewater network

These general conditions and precautions apply to the wastewater network of United Utilities.

Please ensure that a copy of these conditions is passed to your representative and contractor on site.

1. United Utilities provides the approximate locations of its sewers according to its records. These records are not necessarily accurate or complete nor do they normally show the positions of every sewer culvert or drain, private connections from properties to the public sewers or the particulars of any private system. No person or company shall be relieved from liability for any damage caused by reason of the actual positions and/or depths being different from those indicated. The records do indicate the position of the nearest known public sewer from which the likely length of private connections can be estimated together with the need for any off site drainage rights or easements.

2. Special requirements relative to our sewers may be indicated. United Utilities employees or its contractors will visit any site at reasonable notice to assist in the location of its underground sewers and advise any precautions that may be required to obviate any damage. To arrange a visit or for further information regarding new supplies, connections, diversions, costing, or any notification required under these General Conditions, please call us on **0845 746 2200**.

3. Where public sewers are within a site which is to be developed and do not take any drainage from outside the area, they are from an operational viewpoint redundant. The developer must identify all redundant sewers affected by the development and apply to United Utilities in writing for these sewers to be formally closed. The developer shall bear all related costs of the physical abandonment work.

4. Public sewers within the site that are still live outside the area will be subject to a “Restricted Building zone”. This would normally be a surface area equivalent to the depth of the sewer measured from the centre line of the sewer on either side. No construction will be permitted within that zone. The developer should also note that deep and wide rooted trees must not be planted in close proximity to live sewers. Access to public sewers must be maintained at all times and no interference to manholes will be permitted during construction work.

5. Where there is a public sewer along the line of a proposed development/building, arrangements shall be made by the developer at his cost to divert the sewer around the development. Where this is not possible and as a last resort, a “Building Over Agreement” will need to be completed under section 18 of the Building Act 1984. The developer shall design building foundations to ensure that no additional loading is transferred to the sewer and submit such details both to the Local Authority’s Building Control Officer and to United Utilities for approval/acceptance. United Utilities on a rechargeable basis would normally undertake all aspects of design work associated with the diversion of any part of the operational wastewater network. For further advice please call asset protection on **01925 678 306**

6. Where there is a non-main river watercourse/culvert passing through the site, the landowner has the responsibility of a riparian owner for the watercourse/culvert and is responsible for the maintenance of the fabric of the culvert and for all works involved in maintaining the unrestricted flow through it. Building over the watercourse/culvert is not recommended. The developer must contact the local authority before any works are carried out on the watercourse/culvert. Where it is necessary to discharge surface water from the site into the watercourse/culvert the developer shall make an assessment of the available capacity of the watercourse/culvert (based on a 1 in 50 year event) and ensure that the additional flow to be discharged into the watercourse/culvert will not cause any flooding. In appropriate cases, flooding may be prevented by on-site storage. The developer shall submit the relevant details required to substantiate his development proposals. Details of any outfall proposed shall also be submitted to the Environment Agency, PO Box 12, Richard Fairclough House, Knutsford Road, Warrington, Cheshire, WA4 1HT for their approval.

7. Where there is a main river watercourse/culvert passing through the site, the developer shall submit all proposals affecting the river to the Environment Agency at the address stated in paragraph 6 for approval/acceptance.

8. Your attention is drawn also to the following:

• **Private drains or sewers which may be within the site.** On 1 October 2011 all privately owned sewers and lateral drains which communicate with (that is drain to) an existing public sewer as at 1 July 2011 will become the responsibility of the sewerage undertaker. This includes private sewers upstream of pumping stations that have yet to transfer, but excludes lengths of sewer or drain that are the subject of an on-going appeal or which have been excluded from transfer as a result of an appeal or which are on or under land opted-out by a Crown body. The transfer specifically excludes sewers and lateral drains owned by a railway undertaker. Sewers upstream of such assets, however, are transferred. Such assets may not be recorded on the public sewer record currently as it was not a requirement to keep records of previously private sewers and drains.

• **Applications to make connections to the public sewer.** The developer must write to United Utilities requesting an application form that must be duly completed and returned. No works on the public sewer shall be carried out until a letter of consent is received from United Utilities.

• **Sewers for adoption.**
If an agreement for the adoption of sewers under Section 104 of the Water Industry Act 1991 is being contemplated, a submission in accordance with "Sewers for Adoption", Seventh Edition, published by the Water Research Centre (2001) Plc, Henley Road, Medmenham, PO Box 16, Marlow, Buckinghamshire, SL7 2HD will be required, taking into consideration any departures from the general guide stipulated by United Utilities.

• **Further consultation with United Utilities.**
Developers wishing to seek advice or clarification regarding sewer record information provided should contact United Utilities to arrange an appointment. A consultation fee may be charged, details of which will be made available at the time of making an appointment.

9. Combined sewers, foul sewers, surface water sewers, and pumped mains. These are shown separately in a range of colours or markings to distinguish them on our drawings, which are extracts from the statutory regional sewer map. A legend and key is provided on each extract for general use, although not all types of sewer will be shown on every extract.

Combined sewers shown coloured red carries both surface water and foul sewage, especially in areas where there is no separate surface water sewerage system.

Foul sewers coloured brown may also carry surface water and there may be no separate surface water system indicated in the immediate area. Both combined and foul sewers carry wastewater to our treatment works before it can safely be returned to the environment.

Surface water sewers coloured blue on our drawings are intended only to carry uncontaminated surface water (e.g. rainfall from roofs, etc) and they usually discharge into local watercourses. It is important for the protection of the environment and water quality that only uncontaminated surface water is connected to the surface water sewers. Improper connections to surface water sewers from sink wastes, washing machines and other domestic use of water can cause significant pollution of watercourses.

Pumped mains, rising mains and sludge mains will all be subject to pumping pressures and are neither suitable nor available for making new connections.

Highway drains, when included, show as blue and black dashed lines. Highway drains are not assets belonging to United Utilities and are the responsibility of local authorities.

10. For information regarding future proposals for construction of company apparatus please write to United Utilities, PO Box 453, Warrington, WA5 3QN.

11. For information regarding easements, deeds, grants or wayleaves please write to United Utilities Property Solutions, Coniston Buildings, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington WA5 3UU (**Tel: 01925 731 365**).

United Utilities Water PLC
Haweswater House, Lingley Mere Business Park,
Lingley Green Avenue, Great Sankey, Warrington WA5 3LP
www.unitedutilities.com
Registered in England and Wales Registered Number 2366678

Conditions and information regarding water distribution apparatus

These general conditions and precautions apply to the water distribution system of United Utilities.

Please ensure that a copy of these conditions is passed to your representative and contractor on site.

1. United Utilities provides approximate locations of its water mains or apparatus according to its records. These records are not necessarily accurate or complete nor do they normally show the positions of private service pipes from the mains to properties. Where service pipes are shown, a blue broken line indicates their approximate position. No person or company shall be relieved from liability for any damage caused by reason of the actual positions and/or depths being different from those indicated.

2. Special requirements relative to our apparatus may be indicated. United Utilities employees will visit any site at reasonable notice to assist in the location of its underground water apparatus and advise any precautions that may be required to obviate any damage. To arrange a visit or for further information regarding new supplies, connections, diversions, costing, future proposals for construction of company apparatus or any notification required under these General Conditions, please telephone us on **0845 746 2200** or write to United Utilities, PO Box 453, Warrington, WA5 3QN.

3. In order to achieve safe working conditions adjacent to any water apparatus the following should be observed;

(a) All water apparatus should be located by hand digging prior to the use of mechanical excavation.

(b) During construction work where heavy plant may have to cross the line of a water main, and the main is not under a carriageway of adequate standard of construction, crossing points should be suitably reinforced with sleepers, steel plates or a specially constructed reinforced concrete raft as necessary. These crossing points should be clearly indicated and crossing the line of the water main at other places should be prevented. United Utilities employees will advise on the type of reinforcement necessary. This is particularly important on agricultural or open land, where tilling or erosion may have significantly reduced the original cover.

(c) No explosive should be used within 32 metres of any United Utilities apparatus without prior consultation with United Utilities.

(d) Where it is proposed to carry out piling within 15 metres of any water main United Utilities should be consulted so that the affected main may be surveyed.

4. During any excavation, it is important that measures should be taken to ensure continued support for any water main:

(a) Where excavation of trenches adjacent to any water main is likely to affect its support, the main must be supported to the satisfaction of United Utilities.

(b) Where a trench is excavated crossing or parallel to the line of a water main, the backfill should be adequately compacted to prevent any settlement which could subsequently cause damage to the main. In special cases it may be necessary to provide permanent support to a main which has been exposed over the length of the excavation before back-filling and reinstatement is carried out. No back-filled concrete should contact the main.

5. No other apparatus should be laid over and along the line of a water main irrespective of clearance. A minimum clearance of 450 millimetres should be allowed between any plant being installed and an existing main, to facilitate maintenance and repair, whether the adjacent plant is parallel to or crossing the main. No manhole, chamber, or other obstruction should be built over or around a water main.

6. Where a water main is coated with special wrapping and the wrapping is damaged, even to a minor extent, United Utilities must be notified, and the excavation must be left open for ready access so that repairs can be made. In case of any material damage to the main itself causing leakage, or weakening of the mechanical strength of the pipe, the person or body responsible should immediately notify United Utilities in order that the necessary remedial work can be carried out. The full cost of the necessary remedial work will be charged to the person or body responsible for the damage.

7. If you propose to change existing levels over water mains you will need to inform us. We will need specific locations to be identified together with precise details as to the scale of the proposed changes to existing ground levels. Changes to existing levels may require the diversion of our apparatus at your cost. However, in certain circumstances we may wish to leave our apparatus where it is. On these occasions you will usually be required to protect our apparatus by means of a concrete raft and either raise or lower any surface boxes affected.

8. Under no circumstances should our surface boxes be either buried or left in a situation where they are raised above finished ground levels. You should re-use and re-set any surface boxes affected by your works into the new surface so that they align over the water apparatus below. You will be responsible for the cost of repairing any damage to our apparatus as a result of your works.

9. Where proposals involve resurfacing, you must notify United Utilities if your excavation will be greater than 750mm in the highway and 300mm in a footpath, verge or other location.

10. For information regarding easements, deeds, grants, licences or wayleaves, please write to United Utilities Property Solutions, Coniston Buildings, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington WA5 3UU (**Tel 01925 731 365**).

Tree planting restrictions over water mains

a) Poplar and willow trees have extensive root systems and should not be planted within 10 metres of any water main.

b) The following trees and those of a similar size, whether they are deciduous or evergreen, should not be be planted within six metres of any water main:
• Ash, beech, birch, elm, horse chestnut, lime, oak, sycamore;
• Apple trees and pear trees;
• Most conifers.

c) United Utilities requires access to the route of its mains at all times to inspect for leaks and carry out surveys.
We recommend that no shrubs or bushes which might obstruct or interfere with our access should be planted within one metre of the centre line of any water main.

d) There may be instances when both United Utilities and the landowner will wish to plant shrubs or bushes close to the water main for screening or other purposes. The following shallow rooting shrubs would be suitable for this purpose:
• Blackthorn, broom, cotoneaster, elder;
• Hazel, laurel, privet, quickthorn, snowberry;
• Most ornamental flowering shrubs.

e) In areas where soft fruit is grown, blackcurrant, raspberries and gooseberries may be planted close to the main, provided that a path is left clear for inspection access and surveys. United Utilities can give additional advice where required in particular circumstances.

United Utilities Water PLC
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Appendix J: Land at Burnley Road, Edenfield – Ecological Assessment

Turley

THE ENVIRONMENT PARTNERSHIP

LAND AT BURNLEY ROAD

EDENFIELD, LANCASHIRE

LAND AT BURNLEY ROAD ECOLOGICAL ASSESSMENT

TEP
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Birchwood Science Park
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Offices in Warrington, Market Harborough, Gateshead, London and Cornwall

Document Title	Ecological Assessment
Prepared for	Peel Land and Property (Peel Management Limited)
Prepared by	TEP - Warrington
Document Ref	7820.006

Author	Lee Greenhough
Date	August 2019
Checked	Emma Pickering
Approved	Emma Pickering

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APPENDICES

APPENDIX A: Desk Based Assessment Report
APPENDIX B: Target Notes Report

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G7820.002 Phase 1 Habitat Survey Burnley Road

Executive Summary

1. TEP Ltd was commissioned in August 2019 by Peel Land and Property Group Management Ltd, to carry out a preliminary ecological assessment of a plot of land at Burnley Road, Edenfield in Lancashire. The preliminary ecological assessment has been instructed to support an allocation for housing in the Local Plan and will also inform future proposals on the site.

2. The proposed site is a parcel of land of approximately 1ha, located in the north of Edenfield village. It is bordered to the west by Burnley Road. To the east of there are agricultural fields that lead to Dearden Moor and Scout Moor. Further west the A56 is located approximately 220m from the proposed site.

3. There are no biodiversity-related allocations on or adjacent to the site under the Rossendale Council Local Development Plan Part 1 and the Emerging Rossendale Local Plan (Submission Version).

4. It is not anticipated that any international, national or local designated sites would be impacted by the proposed site.

5. An Extended Phase 1 habitat survey was carried out in July 2019. The proposed site itself consists of improved and marshy grassland, with scattered trees and shrubs immediately adjacent to the site boundary.

6. Montbretia *Crocosmia x crocosmiiflora* was identified adjacent to the western boundary of the proposed site. Montbretia is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and it is therefore an offence to cause the spread of this species in the wild.

7. The proposed development may have implications on amphibians, badger, bats, birds and reptiles. Recommendations for each of these are summarised below:

    - Amphibians - Habitat Suitability Index (HSI) assessment and eDNA analysis of three water bodies within 500m. Further mitigation may be required in the form of Reasonable Avoidance Measures (RAMs) based on the results of the HSI and eDNA;
    - Bats - If trees and dry stone wall are to be lost as part of the development a ground based roost assessment should be undertaken during the winter months followed by aerial inspections and/or nocturnal surveys in Spring if needed; and
    - Birds - Clearance of trees, scrub or demolition of walls should be carried out outside of the nesting bird season (March - August inclusive). If it is not possible a nesting bird check must be carried out.

8. Under the National Planning Policy Framework 2019 (NPPF), developments should aim to minimise impacts on biodiversity and provide net gains, where possible. It is also recommended that biodiversity net gain is quantified through the use of a biodiversity metric.

1.0 Introduction

1.1 TEP Ltd was commissioned in August 2019 by Peel Land and Property Group Management Ltd, to carry out an ecological assessment of a plot of land at Burnley Road, Edenfield in Lancashire.

1.2 This report has the following objectives:

- To describe the existing vegetation and give an overview of the habitats present on the site;
- To identify whether there are any features of conservation value such as legally protected species or habitats and species of principal importance listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006;
- To identify any further survey requirements;
- To identify scheme design options to mitigate ecological impacts; and
- To identify biodiversity enhancement opportunities.

Site Proposals

1.3 This ecological assessment has been instructed to support an allocation for housing in the Local Plan and will also inform future proposals on the site.

Site Context

1.4 The proposed site is a parcel of land of approximately 1ha, located in the north of Edenfield village. It is bordered to the west by Burnley Road, along which a number of residential properties are located. To the immediate north and south of the proposed site are residential properties and associated gardens. The recreational fields of Edenfield Primary School are adjacent to the south east site boundary. To the east of the proposed site are agricultural pasture fields that lead to Dearden Moor and Scout Moor. Further west the A56 is located approximately 220m from the proposed site.

1.5 The proposed site itself consists of improved grassland with scattered trees and introduced shrubs adjacent to the proposed site boundary.

1.6 The central grid reference for the site is SD 79942 19967, the site location plan is shown in Figure 1.

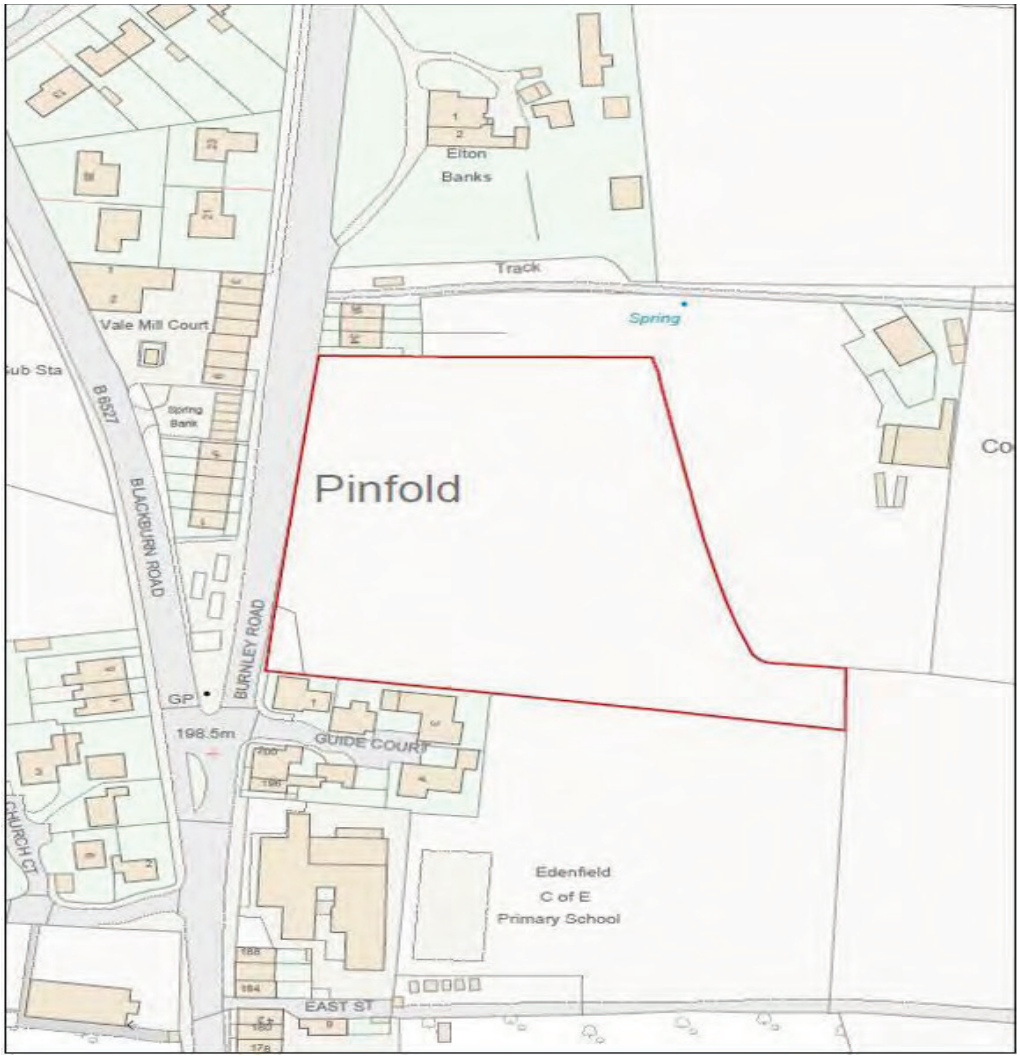

Figure 1: Proposed site location and approximate boundary. Contains OS data © Crown copyright and database right 2019 (Licence Number 100018033).

2.0 Methods

Desk Study

2.1 Information regarding historic species records and protected sites was requested/gathered from the sources listed in Table 1. This collated data gives a useful indication of the distribution and abundance of ecological receptors at a given locale. An absence of records does not indicate the absence of protected species from the search area. Our survey work has sought to identify the potential for any protected species to be present.

Table 1: Sources of information

Source of information	Nature of information
Magic Map	Maps showing internationally designated sites to 10km, nationally designated sites to 5km and habitats of value to biodiversity within and adjacent to the site.
Lancashire Environment Record Network (LERN)	Protected species records and locally designated sites within 2km
Rossendale Council	Land allocations and relevant policies
ArcMap10	Ordnance & Aerial survey mapping

Habitats and Flora

2.2 A Phase 1 habitat survey was carried out by ecologist Lausanne Jenkins (FISC Level 3) on 16th July 2019 (optimal period for Phase 1 habitat surveys is April to October). The survey was carried out in accordance with the Phase 1 habitat assessment methods (JNCC 2010[1]) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017[2]). The method records the habitat types present within and immediately surrounding the site, based on the JNCC descriptions. Plant species were identified in accordance with Stace (2010) and recorded as target notes using the DAFOR scale.

Fauna

2.3 The Phase 1 habitat survey included an extended assessment of the habitats present for their potential to support species of conservation concern, particularly statutorily protected species or species listed under S41. Any signs indicating the presence of these species were recorded.

Limitations

2.4 No limitations were encountered during the survey.

[1] JNCC 2010. Handbook for Phase 1 Habitat Survey: A technique for environmental audit.
[2] CIEEM 2017. Guidelines for Preliminary Ecological Appraisal.

3.0 Results

Desk Study

Planning Context

3.1 A summary of the results of the desk based assessment (DBA) is set out below. Further details, including maps, are provided in Appendix A (TEP report reference: 7820.002).

3.2 The proposed site is currently allocated as Green Belt DS.3 in the existing Rossendale Local Development Plan Part 1 and as Proposed Green Belt in the Emerging Rossendale Local Plan (Submission Version).

Relevant Planning Policies and Guidance

3.3 There are no biodiversity-related allocations on or adjacent to the site under the Rossendale Council Local Development Plan Part 1 and the Emerging Rossendale Local Plan (Submission Version).

3.4 Planning policies applicable to the site and relevant to biodiversity include:

Rossendale Local Development Plan Part 1:

- Policy 17: Rossendale's Green Infrastructure, which states The Council will promote the protection, enhancement and where appropriate the expansion of the Green Infrastructure network; and
- Policy 18: Biodiversity, Geodiversity and Landscape Conservation, which states The Council will seek to avoid any harmful impacts of development on all aspects of Rossendale's natural environment - including its biodiversity, geodiversity and landscape assets, priority habitats and species and statutory and locally designated sites. Current and future biodiversity and geodiversity assets will be given full appropriate protection, and enhanced where possible.

Emerging Rossendale Local Plan (Submission Version):

- Policy HS3 - Edenfield: Within the area defined on the Policies Map at Edenfield new residential development will be permitted subject to the following a) Comprehensive development of the entire site is demonstrated through a masterplan and b) The implementation of development in accordance with an agreed Design Code;
- Policy ENV3 - Landscape Character and Quality: The Council will expect development proposals to conserve and , where possible, enhance the natural and built environment, its immediate and wider environment;
- Policy ENV4 - Biodiversity, Geodiversity and Ecological Networks: Development proposals that have potential to affect a national or locally designated site and its immediate environs, or on protected habitats and species will be expected to be accompanied by relevant surveys and assessments detailing likely impacts. Development proposals should protect areas of biodiversity, protected species and ecological networks, and where possible enhance sites and linkages; and

- Policy ENV10 - Trees and Hedgerows: Development proposals must seek to avoid the loss of, and minimise the risk of harm to, existing trees, woodland, and or/ hedgerows of visual or nature conservation value.

Designated Sites

3.5 There are no internationally designated wildlife sites within 10km of the proposed site.

3.6 There are three nationally designated wildlife sites within 5km of the proposed site. These nationally designated sites are:

- Hodge Clough Site of Special Scientific Interest (SSSI) located 1.2km south west of the proposed site and designated for its geological features;
- West Pennine Moors SSSI located 2.1km west of the proposed site and designated for its extensive mosaic of upland and fringe habitats; and
- Lower Red Lees Pasture SSSI located 2.2km south west of the proposed site and is important as one of the few remaining examples of herb-rich unimproved neutral to slightly acidic pasture typical of south-east Lancashire.

3.7 The site lies within the Impact Risk Zone (IRZ) for Hodge Clough SSSI and the West Pennine Moors SSSI. Due to the nature of the proposed development and fact that the development proposals do not fall within the risk categories of the IRZ, it is believed that there will be no impact on Hodge Clough SSSI and the West Pennine Moors SSSI in relation to the proposed development.

3.8 There are 19 locally designated wildlife sites within 2km of the proposed site, five of which are within 1km of the proposed site and include:

- Hodge Clough and Lumb Wood Biological Heritage Site (BHS) located 1km to the south west of the proposed site and designated for its ancient plantation mixed woodland;
- Alder Bottom Bank BHS located 0.9km to the south west of the proposed site and designated for its floristic diversity;
- Great Hey Clough BHS located 0.7km to the south west of the proposed site and designated for its ancient plantation mixed woodland;
- Blackburn Road Pasture BHS located 0.5km to the north west of the proposed site and designated for mosaic of neutral grassland and tall herb flushes amidst open and dense scrub and mature trees;
- Gincroft Lane Important Wildlife Site located 0.5km to the south east of the proposed site and designated for its mature, well established parallel hedge.

Notable Habitats

3.9 There are no notable habitats within or adjacent to the proposed site.

Notable Flora and Fauna

3.10 A number of species spread over a 2km search radius were identified through the data from LERN. Species include those listed under any of the following:

- European Protected Species (EPS);

- Protected bird species under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
- Protected animal species under Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
- Protected plant species under Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8);
- Invasive non-native plant species under Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9);
- Species of principal importance under Section 41 of the NERC Act 2006 (S41); and
- Red and Amber listed Birds of Conservation Concern (BRd/BAm);
- Local Biodiversity Action Plan Species (LBAP).

3.11 These records are detailed in the relevant species sections below.

Habitats and Flora

Extended Phase 1 Habitat Survey

3.12 Results of the Extended Phase 1 habitat survey are provided below, with detailed Target Notes (TN) presented in Appendix B, and displayed on the Phase 1 Habitat Map within the Drawings Appendix (G7820.002).

3.13 The habitats present within the site are listed below and brief descriptions of these habitats are also given:

- Improved grassland;
- Marshy grassland;
- Tall ruderal;
- Running and standing water;
- Scattered broad-leaved trees, scattered coniferous trees and scattered scrub; and
- Walls and fences.

Improved grassland

3.14 An improved grassland field (TN1 within Drawing G7820.002) is the main habitat at the proposed site (Figure 2). The field undulates slightly with a distinct dip in the middle of the field (Figure 3). On 16th August 2019 when the Phase 1 habitat survey was undertaken the grassland sward was short due to the field being recently cut for haylage. An uncut grassland buffer strip remained around the perimeter of the field along the field boundaries.

3.15 The species noted within the improved grassland include abundant crested dog's-tail *Cynosurus cristatus* and perennial rye grass *Lolium perenne*, with frequent annual meadow grass *Poa annua* and creeping buttercup *Ranunculus repens*. A full species list is provided with the Target Notes in Appendix B.

Figure 2: View of the improved grassland field looking east.

Figure 3: View of the dip in the middle looking south.

Marshy grassland

3.16 A strip of marshy grassland (TN2) dominated by soft rush *Juncus effusus* runs along the south eastern field boundary of the proposed development site (Figure 4). This area has patches of grazed grassland between the rush.

Figure 4: Strip of marshy grassland along the south east site boundary.

Tall ruderal

3.17 Tall ruderal vegetation dominated by nettle *Urtica dioica* was noted along the north west and west field boundaries (Figure 4).

Figure 5: Tall ruderal vegetation in the north west of the proposed site.

Running and standing water

3.18 A very narrow linear ditch containing shallow standing water was noted in the marshy grassland in the south east of the proposed site. The ditch was heavily vegetated with soft rush (Figure 6)

Figure 6: Ditch containing shallow standing water in the south east of the proposed site.

3.19 Running water was noted in the east of the site where a small pipe and drain were present, water was flowing from the pipe during the Phase 1 survey (TN4, Figure 7).

Figure 7: Running water in the east of the proposed site.

3.20 A narrow channel of running water was also noted flowing into a drain in the north west of the proposed site during the survey (TN5, Figure 8)

Figure 8: Running water in the north west of the proposed site.

Scattered broad-leaved trees, coniferous trees and scattered scrub

3.21 No trees or shrubs were noted within the proposed site boundary during the Phase 1 habitat survey. However, a line of trees was present immediately adjacent to the site along the eastern (Figure 9) and northern site boundaries and less frequently along the western site boundary. The trees range in age and other than a small number of Leyland cypress trees *Cupressus x leylandii* along the eastern site boundary all other trees were broad-leaved species including sycamore *Acer pseudoplatanus*, willow species *Salix sp.*, ash *Fraxinus excelsior* and rowan *Sorbus aucuparia*. Scattered scrub species noted include elder *Sambucus nigra* and wild plum *Prunus domestica*.

Figure 9: Trees adjacent to the eastern site boundary looking north.

Walls and fences

3.22 The site is enclosed to the north, east and west by a dry stone wall and the south by a wooden fence. There is also a fenced sheep pen in the south east of the site and a fenced haylage storage area in the south west of the site.

3.23 The dry stone wall is largely intact along the eastern site boundary (Figure 10), however sections of the wall along the northern and western site boundaries are in need of repair (Figure 11).

Figure 10: Dry stone wall along the eastern site boundary.

Figure 11: Damaged wall along the western site boundary.

Invasive and protected plant species

3.24 There are numerous desktop records for plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) (WCA9) within 2km of the proposed site. This includes Himalayan balsam with 164 records between 1999 and 2018 and 55 records within 1km of the proposed site, the nearest record approximately 510m north west of the proposed site and Japanese knotweed *Fallopia japonica* with 69 records between 1999 and 2018 and 26 records within 1km of the proposed site, the nearest being approximately 440m north west of the proposed site.

3.25 Other WCA9 plant species recorded within 2km of the proposed site include cotoneaster species *Cotoneaster sp.*, giant hogweed *Heracleum mantegazzianum*, Spanish bluebell *Hyacinthoides hispanica*, montbretia *Crocosmia x crocosmiiflora*, waterweed species *Elodea sp.* and rhododendron *ponticum*. These records are shown in the Desk Study within Appendix A (7820.001). No records of WCA9 plant species including Japanese knotweed or Himalayan balsam occurred within site itself.

3.26 During the Phase 1 habitat survey two small patches of montbretia (WCA9) were noted immediately adjacent to the proposed site along western boundary wall (Figure 12).

Figure 12: Monbretia along the western site boundary.

3.27 Eleven records of bluebell *Hyacinthoides non-scripta* listed on Schedule 8 of the Wildlife and Countryside Act (1981) (WCA8) were recorded within 2km of the proposed site between 1999 and 2018, however no records of bluebell within 1km of the site were returned in the desktop search.

3.28 No protected plant species were identified at the proposed site during the Phase 1 habitat survey. However, the survey was undertaken in mid-July when early flowering protected plant species such as bluebell would no longer be identifiable.

Connectivity with the Wider Landscape

3.29 The habitats to the east of the proposed site are largely grassland agricultural fields that lead to nearby Dearden Moor and Scout Moor. Blackburn Road and Burnley Road, located immediately to the west of the site are not likely to form a significant barrier to wildlife connectivity, as they are relatively quiet roads other than during peak commuting periods.

3.30 The linear nature of the trees bordering the site boundary and dry stone walls are likely enhance connectivity between the site and the habitats in the wider landscape.

3.31 The A56, which is located approximately 220m west of the proposed site forms a significant barrier to wildlife connectivity between the proposed site and the habitats further west, as it is busy with traffic throughout the day.

Fauna

3.32 The habitats present within the site are suitable for the following species; further consideration is given below to the likelihood for these species to be present within the proposed site:

- Amphibians
- Badger
- Bats
- Birds
- Hedgehog
- Invertebrates
- Reptiles
- Water vole

Amphibians

3.33 No records for great created newt (GCN) *Triturus cristatus* (EPS, WCA5, LBAP) were returned within 2km of the proposed site. One common toad *Bufo* (WCA5, S41, LBAP) record was returned in the 2km desktop records search. The common toad was recorded approximately 1km to the west of the proposed site in 2013. Three common frog *Rana temporaria* (WCA5, LBAP) records were returned in the 2km desktop records, the closest record being approximately 500m north west of the proposed site.

3.34 No evidence of amphibians was observed during the Phase 1 habitat survey.

3.35 There are no waterbodies suitable for breeding amphibians at the proposed site. However, the terrestrial habitats including grassland and dry stone walls may provide suitable cover, foraging and hibernation habitat for amphibians should they be present within the wider area.

3.36 A review of aerial and OS imagery identified three water bodies within 500m of the proposed site, as shown in Figure 13. A rectangular water body is located approximately 230m to the north east of the proposed site, although it is unclear from the aerial and OS imagery if the water body is suitable for breeding amphibians. Two further water bodies are located approximately 350m south east and 430m south of the proposed site.

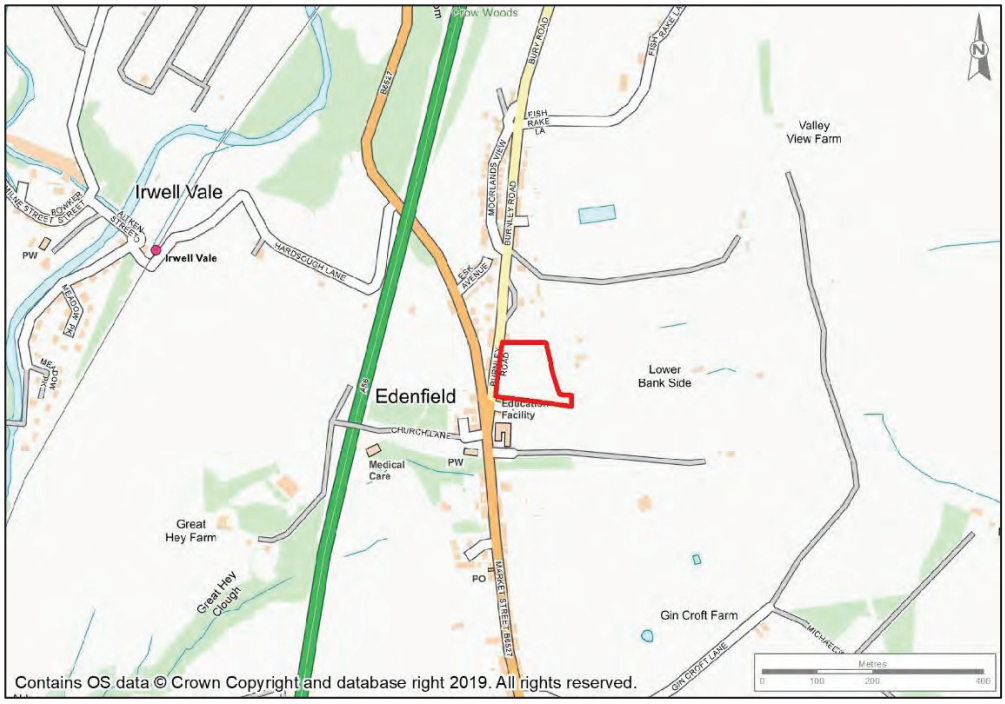

Figure 13: Water bodies within 500m of the proposed site.

Badger

3.37 Ten records of a badger *Meles meles* (WCA5) recorded between 2013 and 2019 were returned in the 2km desktop records search, with two records noted within 1km of the proposed site, the nearest is approximately 380m north west of the proposed site and was recorded in 2013.

3.38 The proposed site itself provides some foraging and commuting opportunities for badger. The habitats at the proposed site are not suitable for badger sett excavation.

3.39 No badger field signs, such as setts, latrines, snuffle holes or desire lines were noted at the proposed site during the Phase 1 habitat survey although it was not possible to access the adjacent fields within 30m of the site.

Bats

3.40 There are 21 records within the desk study identifying bat species within 2km of site during the last 10 years, with two bat records noted within 1km of the proposed site. 17 of these records are of pipistrelle species (EPS, WCA5, S41, LBAP) the remaining are three records of Daubenton's bat *Myotis daubentonii* (EPS, WCA5, S41, LBAP) and one record of brown long-eared bat *Plecotus auritus* (EPS, WCA5, S41). Six of the 21 records are of roosting bats. The closest roost record is approximately 1.0 km south of the proposed site within a residential house.

3.41 The improved grassland at the proposed site and adjacent rows of trees holds some limited foraging potential for bats. The lines of trees along the site boundary also offer commuting potential for bats.

3.42 The trees immediately adjacent to the proposed site and the dry stone wall around the site boundary may have the potential to support roosting bats.

Birds

3.43 The following bird records have been returned within the 2km of the proposed site:

- Bullfinch *Pyrrhula* (S41, BAm);
- Dunnock *Prunella modularis* (S41, BAm);
- House sparrow *Passer domesticus* (S41, BRd);
- Mistle thrush *Turdus viscivorus* (BRd);
- Oystercatcher *Haematopus ostralegus* (BAm);
- Song thrush *Turdus philomelos* (S41, BRd, LBAP);
- Starling Sturnus vulgaris (S41, BRd);
- Swift *Apus* (BAm); and
- Willow warbler *Phylloscopus trochilus* (BAm).

3.44 Dunnock, house sparrow and starling were recorded within 1km of the proposed site.

3.45 No birds were observed using the proposed site during the Phase 1 habitat survey. However, multiple swallows *Hirundo rustica* were noted foraging on the adjacent field to the south of the site during the survey.

3.46 The absence of trees, shrubs and dense scrub within the proposed site boundary provides very little nesting habitat for birds. The site is also unlikely to support ground nesting bird species due to its small size and adjacent trees and residential buildings, which could be used by aerial predators and therefore deter ground nesting bird species.

3.47 The trees and shrubs adjacent to the site boundary and dry stone wall do however have the potential to support nesting birds.

3.48 The improved grassland within the proposed site provides foraging habitat for a range of insectiverous bird species.

3.49 The habitats within the proposed site are also unlikely to support large numbers of wintering birds.

Hedgehog

3.50 One hedgehog *Erinaceus europaeus* (S41) record was returned in the 2km desktop records search. The hedgehog was recorded approximately 470m to the north west of the proposed site in 2019.

3.51 No hedgehog field signs were observed during the Phase 1 habitat survey, however the grassland within the site provides good foraging and commuting habitat for hedgehogs.

3.52 The habitats within the proposed site are unlikely to be suitable for hedgehog hibernation.

Invertebrates

3.53 The 2km desktop records search returned six records of S41 moth species approximately 1.2km to the south of the proposed site in 2011. The species include mouse moth *Amphipyra tragopoginis*, powdered quaker *Orthosia gracillis*, sallow species *Xanthia sp.*, small phoenix *Ecliptopera silaceata*, small square-spot *Diarsia rubi* and white ermin *Spilosoma lubricipeda*.

3.54 Two LBAP invertebrate species records were also returned in the Desk based Assessment, including one record for small heath butterfly *Coenonympha pamphilus* and one records for wood tiger moth *Parasemia plantaginis*.

3.55 No protected invertebrate species records were returned within 1km of the proposed site.

3.56 The habitats at the site are not considered to be suitable for significant invertebrate populations or notable species.

Reptiles

3.57 One slow-worm *Anguis fragilis* (WCA5, S41) record was returned in the 2km desktop records search. The record was taken in 2010 approximately 1.1km south of the proposed site.

3.58 No reptiles were observed during the Phase 1 habitat survey.

3.59 The habitats within the proposed site are unsuitable for the majority of reptile species, which tend to prefer a mosaic of habitats, however slow-worm exhibit a wide habitat preference and the grassland, including marshy grassland at the proposed site are likely to provide suitable foraging and basking habitat for slow-worm.

3.60 Blackburn and Burnley Road to the west of the proposed site will act as a barrier to commuting reptiles.

Water Vole

3.61 No water vole *Arvicola amphibius* (EPS, WCA5, S41, LBAP) records were returned in the 2km desktop records search.

3.62 No water voles or field signs were observed during the Phase 1 habitat survey.

3.63 The ditch containing standing water in the south east of the proposed site is unsuitable for water vole due to the ditch being very short, narrow, isolated and holding very little water. The flowing channel in the north west of the proposed site was not a ditch as such and was likely to be temporary due to recent heavy rainfall resulting in runoff from the nearby moorland.

4.0 Conclusions

4.1 This section concludes the potential impacts on the ecological receptors in and around the proposed development.

Planning Context

4.2 The proposed site is allocated as Green Belt DS.3 in the existing Rossendale Local Development Plan Part 1 and as Proposed Green Belt in the Emerging Rossendale Local Plan (Submission Version).

4.3 There are no biodiversity-related allocations on or adjacent to the site.

4.4 Policies that apply to the proposed site are listed within Chapter 3 of this report. If the recommendations outlined within Chapter 5 of this document are implemented and biodiversity enhancements are incorporated into the scheme it is anticipated that the requirements of the biodiversity-related planning policies will be met.

Designated Sites

4.5 There are no internationally designated wildlife sites within 10km of the proposed site and therefore no implications to internationally designated sites are anticipated as a result of the proposed development.

4.6 There are three nationally designated wildlife sites within 5km of the proposed site. These nationally designated sites are Hodge Clough SSSI, West Penine Moors SSSI, and Lower Red Lees Pasture SSSI. Due to the distance between the proposed site and these nationally designated sites and the lack of connectivity between the proposed site and the habitats to the west, it is concluded that no impact on any nationally designated site is anticipated as a result of the development of the proposed site.

4.7 The site lies within the Impact Risk Zone (IRZ) for Hodge Clough SSSI and the West Pennine Moors SSSI. Due to the nature of the proposed development and fact that the development proposals do not fall within the risk categories of the IRZ, it is believed that there will be no impact on Hodge Clough SSSI and the West Pennine Moors SSSI in relation to the proposed development. Therefore Local Planning Authorities are not required to consult with Natural England with regard to residential development proposals within these IRZs.

4.8 There are five locally designated wildlife sites within 1km of the proposed site (as identified on Magic Maps and within the desktop records). These sites are not believed to be impacted by the proposed site as detailed below.

4.9 Hodge Clough and Lumb Wood Biological Heritage Site (BHS) located 1km to the south west of the proposed site and designated for its ancient plantation mixed woodland. The BHS is separated from the site by the River Irwell, East Lancashire Railway and the A56, with no connectivity to the proposed site itself.

4.10 Alder Bottom Bank BHS located 0.9km to the south west of the proposed site and designated for its floristic diversity. The BHS is separated from the site by the A56, with no connectivity to the proposed site.

4.11 Great Hey Clough BHS located 0.7km to the south west of the proposed site and designated for its ancient plantation mixed woodland. The BHS is separated from the site by the A56, with no connectivity to the proposed site.

4.12 Blackburn Road Pasture BHS located 0.5km to the north west of the proposed site and designated for mosaic of neutral grassland and tall herb flushes amidst open and dense scrub and mature trees. The BHS is separated from the site by the A56, with no connectivity to the proposed site.

4.13 Gincroft Lane Important Wildlife Site located 0.5km to the south east of the proposed site and designated for its mature, well established parallel hedge. There are no hedgerows located at the proposed site therefore it will not impact this important wildlife site.

Habitats and Flora

4.14 There are no notable habitats within or adjacent to the proposed site.

4.15 The improved grassland habitat at the proposed site is likely to offer limited habitat for foraging and commuting mammals including bats, badger and hedgehog, foraging and commuting habitat for amphibians, foraging birds and a range of invertebrates.

4.16 The scattered trees and scrub adjacent to the proposed site boundary are important ecological features and should be retained within any future proposals wherever possible. A suitable root protection zone for the trees and shrubs should be incorporated within the design phase, to ensure that during construction damage to the adjacent is not encountered.

4.17 The proposed development is likely to reduce connectivity between habitats to the west of the site and the fields that lead to the nearby moorland areas, however connectivity from the habitats to the west is already restricted due to the A56.

4.18 The linear nature of the trees that are adjacent to the site boundary and dry stone walls aid connectivity between the proposed site and the wider landscape. Retaining these linear features and creating new features will enhance connectivity and should be incorporated in the design of the proposed site wherever possible.

Invasive and Protected Plant Species

4.19 Montbretia was identified immediately adjacent to the western boundary of the proposed site. Montbretia is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and it is therefore an offence to cause the spread of this species in the wild. Measures will need to be put in place to ensure no spread of Montbretia is encountered during construction.

4.20 No protected plant species were observed at the proposed site during the Phase 1 habitat survey or returned within the desktop records search there are no implications in relation to the site proposals.

Fauna

Amphibians

4.21 No amphibian breeding habitat is present at the proposed site. However, the terrestrial habitats including grassland and dry stone walls may provide suitable cover, foraging and hibernation habitat for amphibians.

4.22 A review of aerial and OS imagery identified three water bodies within 500m of the proposed site. These water bodies would require further survey to determine whether they support amphibians, including GCN, which could range into the site.

4.23 Common frog, common toad and GCN are WCA5 and LBAP species. Common toads and great crested newts are also protected under S41 of the NERC Act 2006, with GCN also an EPS and should be taken into consideration with a view to conserving biodiversity. Therefore there are implications with regard to amphibians and the proposed development.

Badger

4.24 Two badger records noted within 1km of the proposed site were returned in the Desk based Assessment, the nearest is approximately 380m north west of the proposed site and was recorded in 2013.

4.25 No badger field signs were noted at the proposed site during the Phase 1 survey, although the site does have suitability for foraging and commuting badger, although the habitats within the proposed site boundary are not suitable for badger sett excavation. The habitats surrounding the proposed site and within the wider landscape do provide suitable habitats for commuting, foraging and sett excavation. There are currently no implications with regard to badgers and the proposed development.

Bats

4.26 Numerous bat records within 1km of the proposed site were returned in the Desk based Assessment. The closest bat roost record is approximately 1.0km south of the proposed site within a residential house.

4.27 The improved and marshy grassland at the proposed site provide limited foraging habitat for bats. The scattered trees and scrub adjacent to the site boundary also have commuting potential for bats.

4.28 The trees and the dry stone wall around the site boundary may have the potential to support roosting bats and further surveys would be required should they be impacted by any future scheme. The removal of trees and the dry stone wall at the proposed site could result in the loss of a bat roost and therefore should be retained within in any future design if at all possible. Therefore there are potential implications with regard to bats and the proposed development.

Birds

4.29 Dunnock, house sparrow and starling were recorded within 1km of the proposed site.

4.30 During the Phase 1 habitats survey no birds were noted using the proposed site.

4.31 The removal or modification to trees, other vegetation and the dry stone wall within and adjacent to the site could risk the destruction of bird nests including eggs and young if this is undertaken during the core nesting bird period (March to August inclusive). All wild birds and their nests and eggs are protected under the Wildlife and Countryside Act 1981, as amended. Some species are also protected under S41 of the NERC Act 2006 and should be taken into consideration with a view to conserving biodiversity.

4.32 The loss of the scattered adjacent trees, scrub and the dry-stone wall will reduce bird nesting opportunities at the proposed site. The improved and marshy grassland will also reduce the amount of foraging habitat for a small number of foraging birds. Therefore there are implications with regard to birds and the proposed development.

Hedgehog

4.33 One hedgehog was recorded approximately 470m to the north of the proposed site in 2019.

4.34 No hedgehog field signs were observed during the Phase 1 habitat survey, however the grassland within the site provides good foraging and commuting habitat for hedgehogs. No hedgehog hibernation habitat is available at the proposed site.

4.35 The removal of grassland will reduce the foraging and commuting habitat available to hedgehog. However, suitable habitat is available in the wider areas. Therefore there are no implications with regard to hedgehog and the proposed development.

Invertebrates

4.36 No protected invertebrate species records were returned within 1km of the proposed site.

4.37 The habitats at the site are not considered to be suitable for significant invertebrate populations or notable species. Therefore there are no implications with regard to invertebrates and the proposed development.

Reptiles

4.38 One slow-worm record was returned in the Desk based Assessment approximately 1.1km south of the proposed site.

4.39 No reptiles were observed during the Phase 1 habitat survey.

4.40 The habitats within the proposed site are unsuitable for the majority of reptile species, which tend to prefer a mosaic of habitats, however, slow-worm exhibit a wide habitat preference and the grassland at the proposed site could provide suitable foraging and basking habitat for slow-worm. However the site is relatively isolated, surrounded by housing and playing fields on all sides, therefore it is considered unlikely that the site will support any reptile species. There are no implications with regard to reptiles and the proposed site.

Water Vole

4.41 No records of water vole within 2km were returned in the Desk Based Assessment.

4.42 No water voles or field signs were observed during the Phase 1 habitat survey.

4.43 The habitats within the proposed site are unsuitable for water vole. Therefore there are no implications with regard to water vole and the proposed development. Water vole are not considered further in this report.

5.0 Recommendations

5.1 This section provides recommendations to avoid or, where this is not possible, mitigate for any adverse impact on wildlife in relation to the development of the site. Opportunities for appropriate enhancement are also set out.

Habitats and Flora

5.2 The trees and shrubs adjacent to the proposed site boundary should be retained within any proposals. Construction within the root protection zone could result in damage to the trees along site boundary. Therefore an appropriate root zone protection buffer should be implemented between the proposed development and the trees adjacent to the site boundary.

5.3 All retained trees will be protected from incidental damage and disturbance during construction in accordance with current standards (BS5837:2012 Trees in relation to design, demolition and construction – recommendations).

5.4 The dry stone walls should also be retained within any proposals if possible.

5.5 Areas of improved and marshy grassland should also be retained within any proposals, to provide commuting and foraging routes for terrestrial mammals and amphibians and areas for invertebrates and foraging birds. This habitat should where possible be provided along the site boundaries to provide connectivity to the wider area.

5.6 Montbretia is present immediately adjacent to the proposed western site boundary. A pre-commencement invasive species walkover will be required to determine if the montbretia has spread since the initial inspection. Following this site visit an invasive species management plan will be required detailing appropriate removal, disposal and control methods.

Fauna

Amphibians

5.7 A Habitat Suitability Index (HSI) assessment and eDNA analysis of the three water bodies within 500m of the proposed development, to test for the presence or absence of GCN should be undertaken prior to any construction or development. HSI assessments and eDNA analysis should be undertaken between March and June.

5.8 Based on the results of the HSI assessment and eDNA analysis mitigation may be required at the proposed development in the form of Reasonable Avoidance Measures (RAMs) to reduce the risk of harm to amphibians.

Bats

5.9 All scattered trees, shrubs and dry stone walls should be retained within any proposals if at all possible. If any of these features are to be lost/impacted by the proposed development a ground based roost assessment should be undertaken to determine the suitability for roosting bats.

5.10 The ground based assessment of the trees should be undertaken during the winter when the trees are bare of leaf foliage, however the dry stone wall can be assessed at any time of year. Following the ground based assessment, if any trees or the walls are deemed to have suitability for roosting bats, aerial inspections and/or nocturnal surveys will be needed.

Birds

5.11 All scattered trees, shrubs and dry stone walls should be retained within any proposals if at all possible to ensure nesting bird habitat is not lost.

5.12 Clearance of trees, scrub or demolition of walls should be carried out outside of the nesting bird season (March - August inclusive). If it is not possible to complete works outside of the nesting bird season, a nesting bird check must be carried out by a suitably qualified ecologist no more than 24 hours prior to the works commencing, to establish that no active bird nests will be disturbed or destroyed. If active nests are found all works should be delayed and/or a protective buffer should be retained around vegetation until the young have fledged. The length of time and size of buffer is species-specific.

Opportunities for Biodiversity Enhancement

5.13 Under the National Planning Policy Framework 2019 (NPPF), developments should aim to minimise impacts on biodiversity and provide net gains, where possible. It is also recommended that biodiversity net gain is quantified through the use of a biodiversity metric.

5.14 To comply with the NPPF and local policies, a number of opportunities for further habitat enhancements which will benefit biodiversity are identified below.

5.15 Enhancement is recommended in the form of bat and bird boxes to compensate the loss of nesting and foraging / commuting habitat within the centre of site. These should be sited at an appropriate height and aspect, close to the suitable habitat upon trees within the development close to commuting corridors.

5.16 If any trees and shrubs are to be lost within the proposals they should be replaced with native species including berry-bearing or nectar-rich species of locally sourced stock.

APPENDIX A: Desk Based Assessment Report

THE ENVIRONMENT PARTNERSHIP

LAND AT BURNLEY ROAD

EDENFIELD

ECOLOGY DESK STUDY

CONFIDENTIAL

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APPENDIX B: Target Notes Report

Target Notes Report
Land at Burnley Road Extended Phase 1 Habitat Survey

Target Note 1 (TN1)

Improved grassland field that had been recently cut for haylage. An un-cut buffer strip was present along the field boundaries. The field undulated throughout with a distinct dip in the middle of the field.

Cynosurus cristatus	Crested Dog's-tail	A
Lolium perenne	Perennial Ryegrass	A
Poa annua	Annual Meadow-grass	F
Ranunculus repens	Creeping Buttercup	F
Anthoxanthum odoratum	Sweet Vernal-grass	O
Juncus effusus	Soft Rush	O
Rumex acetosa	Common Sorrel	O
Rumex obtusifolius	Broad-leaved Dock	O
Trifolium repens	White Clover	O
Urtica dioica	Nettle	O
Agrostis capillaris	Common Bent	R
Cirsium vulgare	Spear Thistle	R
Deschampsia cespitosa	Tufted Hair-grass	R
Stellaria media	Chickweed	R

Target Note 2 (TN2)

Linear area of marshy grassland along the southern site boundary.

Juncus effusus	Soft Rush	D
Urtica dioica	Nettle	R

Target Note 3 (TN3)

A small fenced area containing two compartments. Likely to be used for holding sheep. A small narrow drainage channel containing shallow non-flowing water was present in the south of this area.

Target Note 4 (TN4)

A small pipe protruding from the ground with water flowing from it.

Target Note 5 (TN5)

Shallow flowing water into a drain in the north west of the site.

Target Note 6 (TN6)

A small fenced area in the south west of the site containing haylage bales.

KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

DRAWINGS

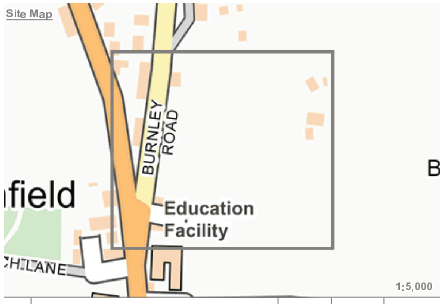
G7820.002 Phase 1 Habitat Survey Burnley Road

KEY

- Survey boundary
- Target note
- Montbretia
- Scattered scrub
- Scattered broad-leaved tree
- Scattered coniferous tree
- Standing water
- Running water
- Fence
- Wall
- Improved grassland
- Marsh/marshy grassland
- Tall ruderal

Note:
The locations of habitats and habitat features are indicative.

Site Map



Rev	Description	Drawn	Approved	Date

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Project
Blackburn and Burnley Road, Edenfield

Title
Phase 1 Habitat Survey
Burnley Road

Drawing Number
G7820.002

Drawn	Checked	Approved	Scale	Date
SA	MK	LJ	1:700 @ A3	22/08/2019

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