MAKING A
NEW BOLTON WOODS

TECHNICAL MASTERPLAN UPDATE

AUGUST 2012

urbo

urbed

This report has been produced by URBO together with their urban designers URBED.

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If you have any questions or require further information then please visit:

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INTRODUCTION

This document has been prepared by URBED working closely with Canal Road Urban Village Limited to develop a vision and masterplan for the regeneration of the Canal Road Corridor area. The working title for this project is 'Making a New Bolton Woods'.

Background

A joint venture company Canal Road Urban Village Limited (The Partnership) was established in October 2010 between Urbo Regeneration, a specialist area-wide regeneration company and Bradford Metropolitan District Council (BMDC). It's purpose is to deliver regeneration of the Central Section of the Canal Road Corridor area of the City as a successful and sustainable new neighbourhood of Bradford over the next 10 – 15 years.

The Corridor has been identified as one of Bradford's four main 'priority' areas for regeneration and investment and has been subject to a major regeneration study undertaken by BDP to establish a strategic development framework for the area, to help inform the future planning strategy for the corridor as a whole. The Council's emerging Core Strategy identifies the requirement for additional housing supply to meet housing demand in the District and population growth in the future. The Core Strategy identifies that the Canal Road corridor could accommodate up to 5000 new homes by 2028, with the central section of the corridor identified as being able to support 3000 new homes.

The Partnership has appointed a design team headed by URBED to develop masterplanning proposals for regeneration of the area. This is being done alongside the work being undertaken by BDP. The first step has been to develop a masterplan for the area in consultation with the community, stakeholders and BMDC. This will be followed with the submission of an outline planning application in spring 2013.

In addition, a hybrid planning application for Phase 1 site will be submitted in late summer 2012. The Phase 1 application will be for approximately 150 houses on a site previously allocated as an area for housing in Bradford's Replacement Unitary Development Plan (rUDP). The Council's Executive Committee in November 2011 reaffirmed that all housing sites previously allocated in the rUDP are to be protected to meet the district's housing needs and are material consideration in determining planning applications. The Phase 1 development is described in Section 8 of this document.

The Opportunity

The Partnership's defined area of operation, the central section of the defined Bradford–Shipley Regeneration Corridor, covers approximately 110 hectares. This includes a mix of open and previously developed land together with buildings, a proportion of which was allocated in the Local Plan for new housing development.

The aspiration of The Partnership is to regenerate the area based on the principles of a 'Sustainable Urban Neighbourhood', to establish a place with a 'village' feel and a mix of uses. This will include up to 1600 high quality new homes, a new local centre, new and improved sports and leisure facilities, all set within an attractive landscape.

The joint venture agreement has been structured as far as possible to ensure The Partnership delivers on its commitment to good design quality and sustainable development and deliverability.

Purpose and Structure of the Report

The purpose of this report is to provide BMDC with information about the proposed masterplan. The masterplan will be presented to BMDC Executive Committee in October 2012 for consideration.

The Partnership has appointed URBED to build on previous work to develop a vision and masterplan for the area based on the principles of a 'Sustainable Urban Neighbourhood'. This concept was pioneered by URBED during the mid 1990s on behalf of the Joseph Rowntree Foundation and subsequently adopted by the Urban Task Force in its ground breaking publication 'Towards a Strong Urban Renaissance - Urban Task Force'. The Partnership believes that this approach can create new places where people will want to live and that they will enjoy living in. This in turn will support property values and make good commercial sense.

The report details a vision and masterplan for the regeneration of the area and has helped inform consultation with the local community and stakeholders prior to the development of an outline planning application in spring 2013.

This report is presented in eight parts.

1. Bolton Woods as it was – a review of the historical growth and evolution of the area.
2. Bolton Woods as it is now – a review of the key physical, technical and regulatory issues.
3. Our Approach to delivering a Sustainable Places to include an overview of our approach and commitment to sustainable development based on the principles of the SUN model.
4. Vision for a Thriving and Sustainable Village to include a nine-point summary of the key principles of the vision.
5. Masterplan Development including an overview of the strategy to develop a spatial masterplan for the area.
6. Masterplan Options includes the development of a series of options for the plan for the area.
7. Developing the Masterplan includes the urban design narrative, how the plan developed through consultations with the community, BMDC and specialist consultants.
8. The Proposed Masterplan describes the initial plan for the area and an initial schedule of uses/areas.

In addition a separate statement of community involvement has been submitted which details the consultation process undertaken to develop this masterplan and it should be read in conjunction with this report.

Partnership Boundary

Part 1

THE STORY SO FAR

Bolton Woods as it was

In this section we describe how Bolton Woods has developed over time from the construction of the village in 1867 up to the present day.

Opposite: Historic photographs of Bolton Woods circa 1900 – 1950s

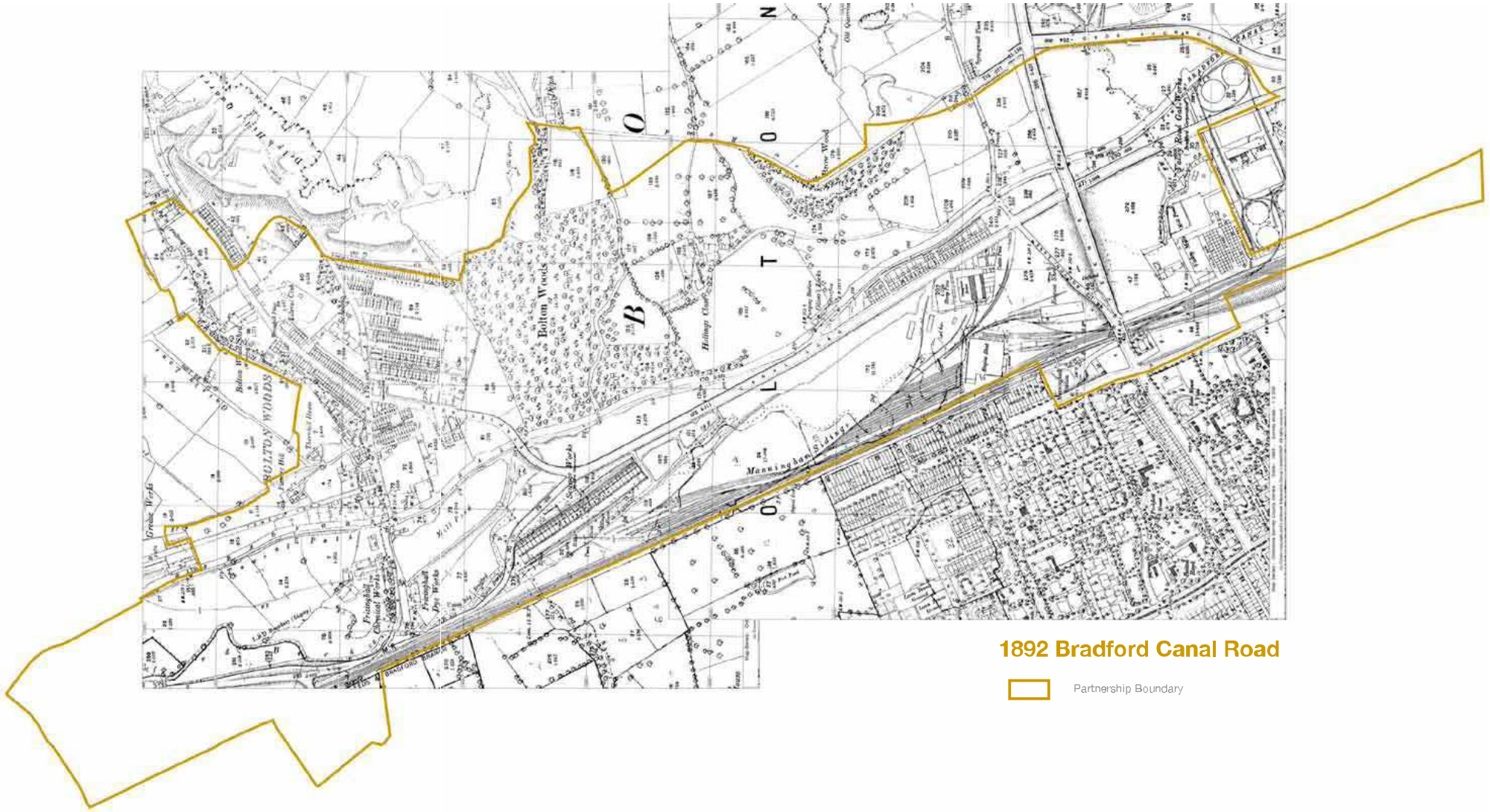
Bolton Woods as it was

Our investigation into the history of the area shows that Bolton Woods has a long history having developed as a small village on a busy junction between Bradford and Shipley then later expanded to serve the nearby quarry. It was once thriving and full of shops but became isolated and declined when Canal Road was cut along the valley bottom depriving it of its passing trade.

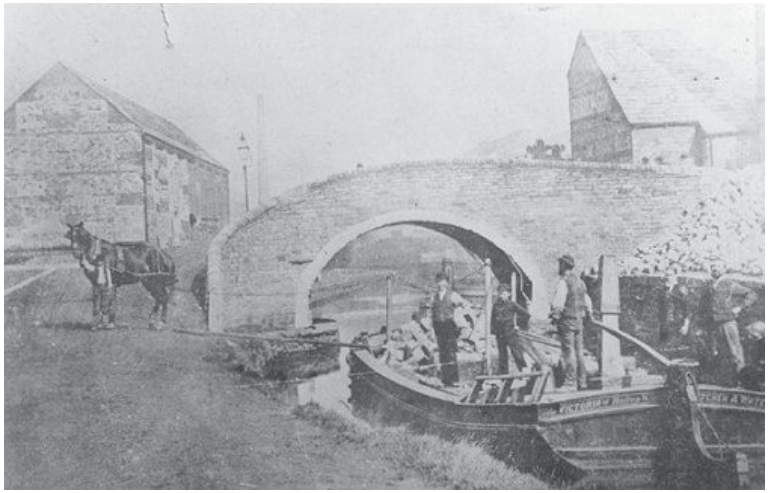
It is a strong and close-knit community that has retained a strong identity notwithstanding social and economic problems. Further problems have stemmed from poor quality housing development such as the former Council flats which are now scheduled for demolition and redevelopment. The Bolton Woods community is however a good nucleus on which to build a new neighbourhood.

Our review of the historical growth shows that Bolton Woods used to sustain a healthy number of local shops. In the 1920's for example Bolton Woods supported 28 shops. Today only 2 small shops exist in the area. Over the following pages we describe how Bolton Woods grew to be a bustling village then began to decline.

View up Bolton Hall Road



1892 Bradford Canal Road



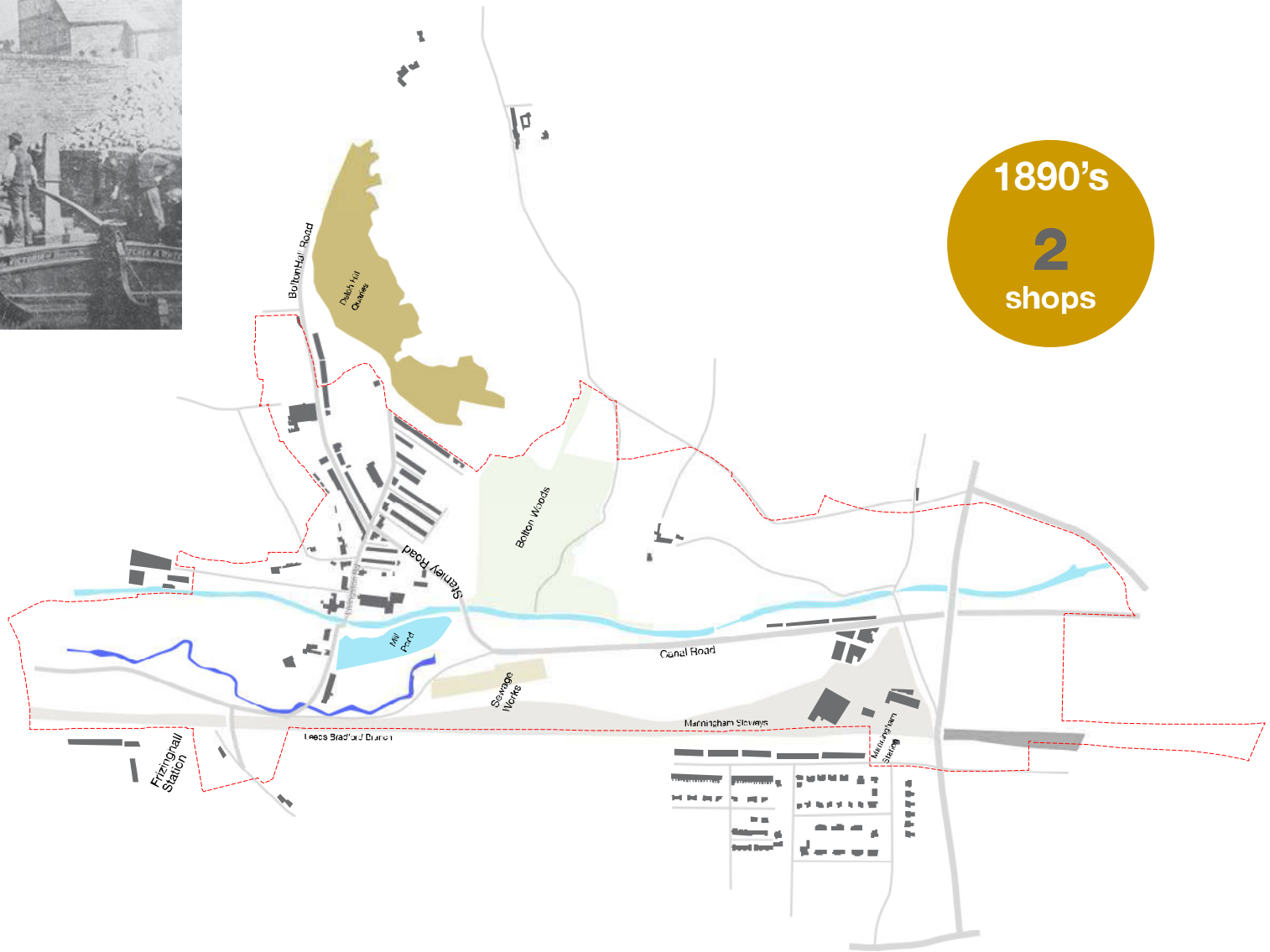
Old Venture Bridge

1892

Bolton Woods developed around the crossroads of Stanley Road and Livingstone Road. At this time Stanley Road was the main road linking Bradford and Shipley. Development of the village began in 1869 to house workers from the stone quarry to the north east of the village and workers from the local textile industries located along the canal to the south west of the village. Building began at the bottom of the hill with the highest quality housing built at the bottom of the hill in order to attract buyers.

The lower quality working class housing was placed 'out of sight' at the top of the hill. By 1892 many of the streets and houses still present today had been built.

The valley bottom contained a number of textile and chemical industries located along the canal. A mill pond and sewage works was also in existence in the valley bottom between the railway and the canal.



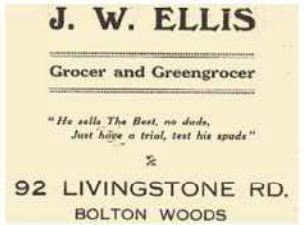
The Venture Pub, Bolton Woods

1920's

The map opposite shows that very little had changed to the form of the streets within the village since the 1890's. The main changes were to the existing buildings with many houses converting rooms facing the street into shops. By 1920 Bolton Woods had 28 shops and one imagines it would have been possible to get most things without having to leave the village. The adverts opposite include 2 grocers, 2 fisheries and a butchers.

Major changes in the area occurred to the south-west of the village. The brook was re-aligned in order for Canal Road to be built along the side of the Railway. For the first time in its history Bolton Woods was no longer on the main route from Bradford to Shipley. The mill pond was also removed and the sewage works relocated to a different part of the valley. To the north-east the quarry continued to expand.

Local shops in Bolton Woods in the 1920's



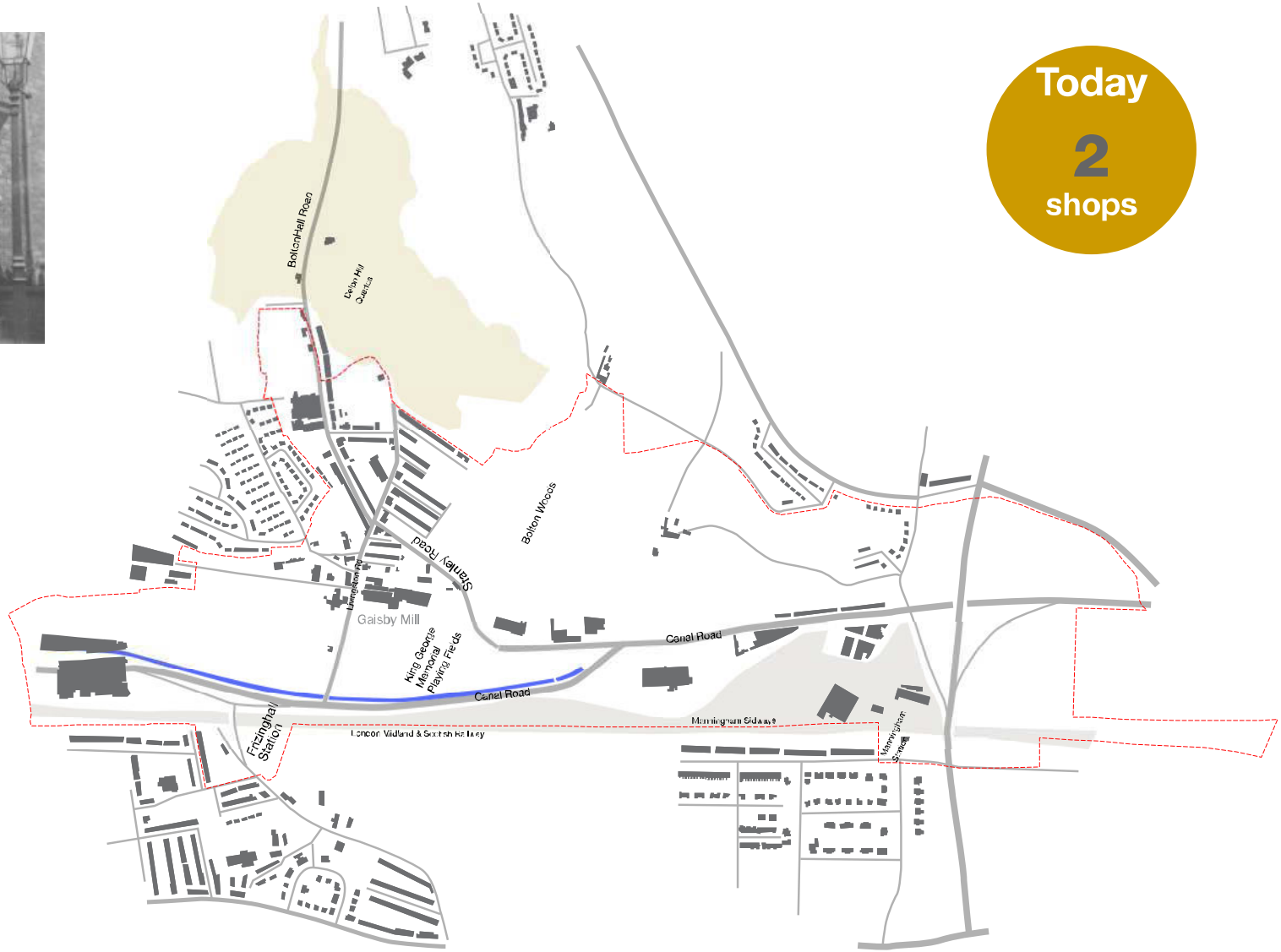
1960's -Today

Again looking at the map opposite very little changed to the original fabric of Bolton Woods village. As individual ownership became more popular many of the houses were modernised with indoor bathrooms and WCs. Electrical lighting was also installed in many of the properties. The only change to the street pattern is the growth of the village to the west along Gaisby Lane.

In the early 1960's (after the map opposite was drawn) a large number of back-to-back houses were demolished. On Bolton Hall Road the land was left vacant but along Livingstone Road the houses were replaced by the existing local authority maisonettes.

To the south-west of the canal the sewage works has been removed and used as a playing field. Along Canal Road a number of industrial buildings have began to develop on either side of Canal Road. Many of these are still here today.

Today the area remains relatively unchanged since the 1960s with the exception of the demolition and redevelopment of Gaisby Mill on Gaisby Lane for 45 new houses by Gleeson Homes and the closure of most of the shops along Bolton Hall Road with only two shops remain; a general store and fish and chip shop.



Historic Plan from 1960

Livingstone Road/Gaisby Lane bottom in 1970 and 2003

Collection of Historic images of Bolton Woods

Part 2

TODAY

Bolton Woods as it is now

In this section we describe Bolton Woods as it is today. Alongside an urban design analysis of the area, this section also includes a summary of the planning context, social infrastructure and technical constraints.

Urban Design Analysis

In order to understand the area as it is now we have undertaken an urban design analysis of the area. Within this we have looked at urban form, movement, open space, public realm and topography.

Urban form

The figure ground plan to the right shows the current urban structure of the area. This plan shows just the buildings and removes all other detail. It is a useful device for showing the density and grain of an urban area together with the extent to which streets and other public spaces are enclosed by buildings.

The figure ground plan shows the site as an open area in the valley surrounded by neighbourhoods on higher ground. On the western side of the valley stands the Victorian neighbourhood of Manningham. This is built along Manningham Lane which can be clearly seen on the plan and around Lister Park. The gallery in Lister Park together with the Bradford Grammar School and Challenge College are within landscaped settings.

To the east the development is more suburban in character built on the eastern slopes of the valley and the stone quarry. The only historic form in this area is the remnant of the original Bolton Wood village centre immediately to the north of the site.

The valley bottom is characterised by large footprint buildings including the Arnold Laver timber yard and the industrial estate between Canal Road and the railway. These buildings do not relate to the road and it is difficult to pick out any urban form in this area.

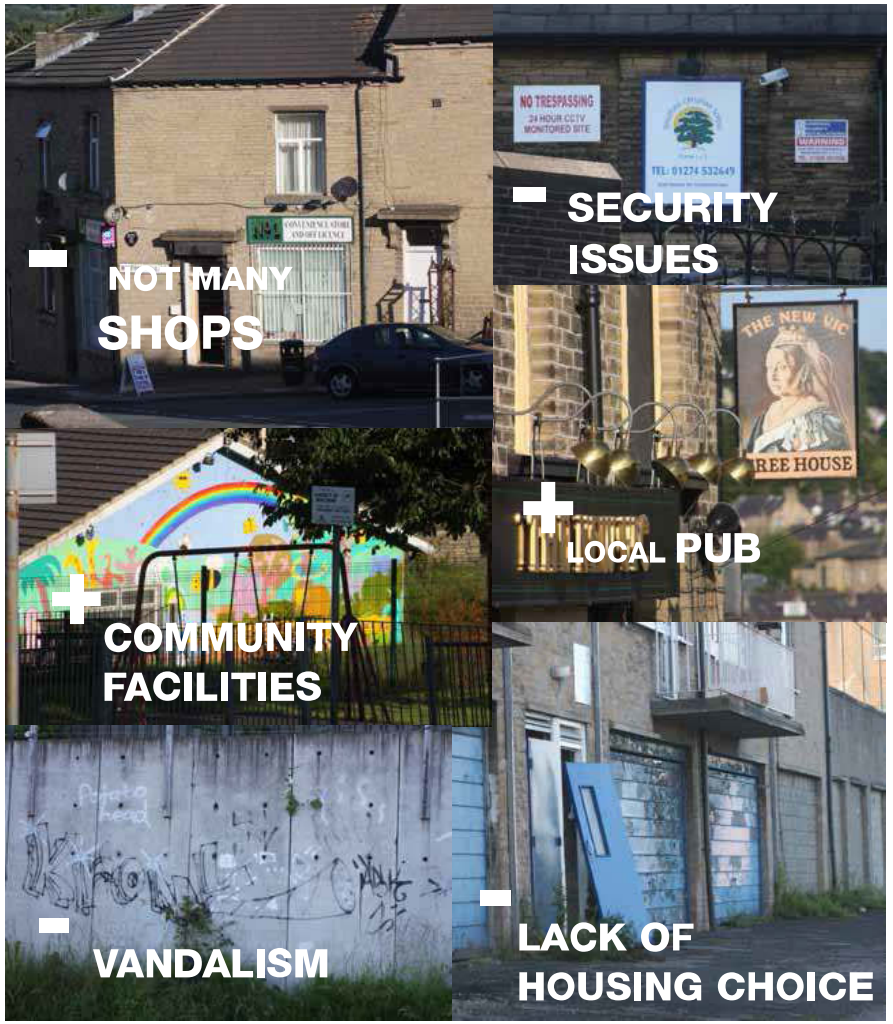
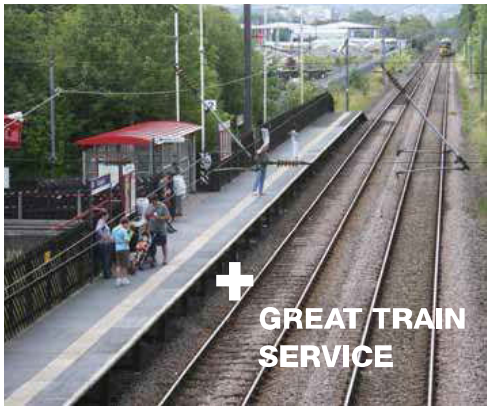


Figure ground Plan

Urban Design Analysis //

Movement

The plan to the right shows the road hierarchy of the area. The red routes are the two primary roads; Manningham Lane is the original route and is a lively high street lined with shops and which is also the main bus route into the city centre.



Canal Road in the valley bottom is the main arterial traffic route to the north of the city linking Bradford to Shipley. This is a much later route dating from around 1900 and now linking directly into the Shipley Airedale Road, which is part of Bradford's ring road. The street carries around 40,000 vehicles a day and is heavily congested during peak periods.

These two roads are linked by Queens Road, a Victorian cross-town route which traverses the valley on a viaduct. There are two links from this viaduct to Canal Road, Bolton Lane and Station Road, both of which create constrained junctions due to underlying traffic issues.

The orange routes show the secondary streets and the green, the local street network. Apart from Queens Road there is only one other cross-valley route at Frizinghall Road. Other than this the street networks within each neighbourhood are very self-contained and the area as a whole feels very fragmented.

Due to the pressure of traffic on Canal Road a number of options for improving capacity and reducing congestion are being considered including junction improvements and better traffic management. Alternative modes of transport will also be important. In the absence of major capital funding alternative alignments/routes appear very unlikely to be delivered now.

The Corridor has a newly improved bus service. A Quality Bus Corridor (QBC) has recently been introduced along Manningham Lane linking Keighley and Bradford.

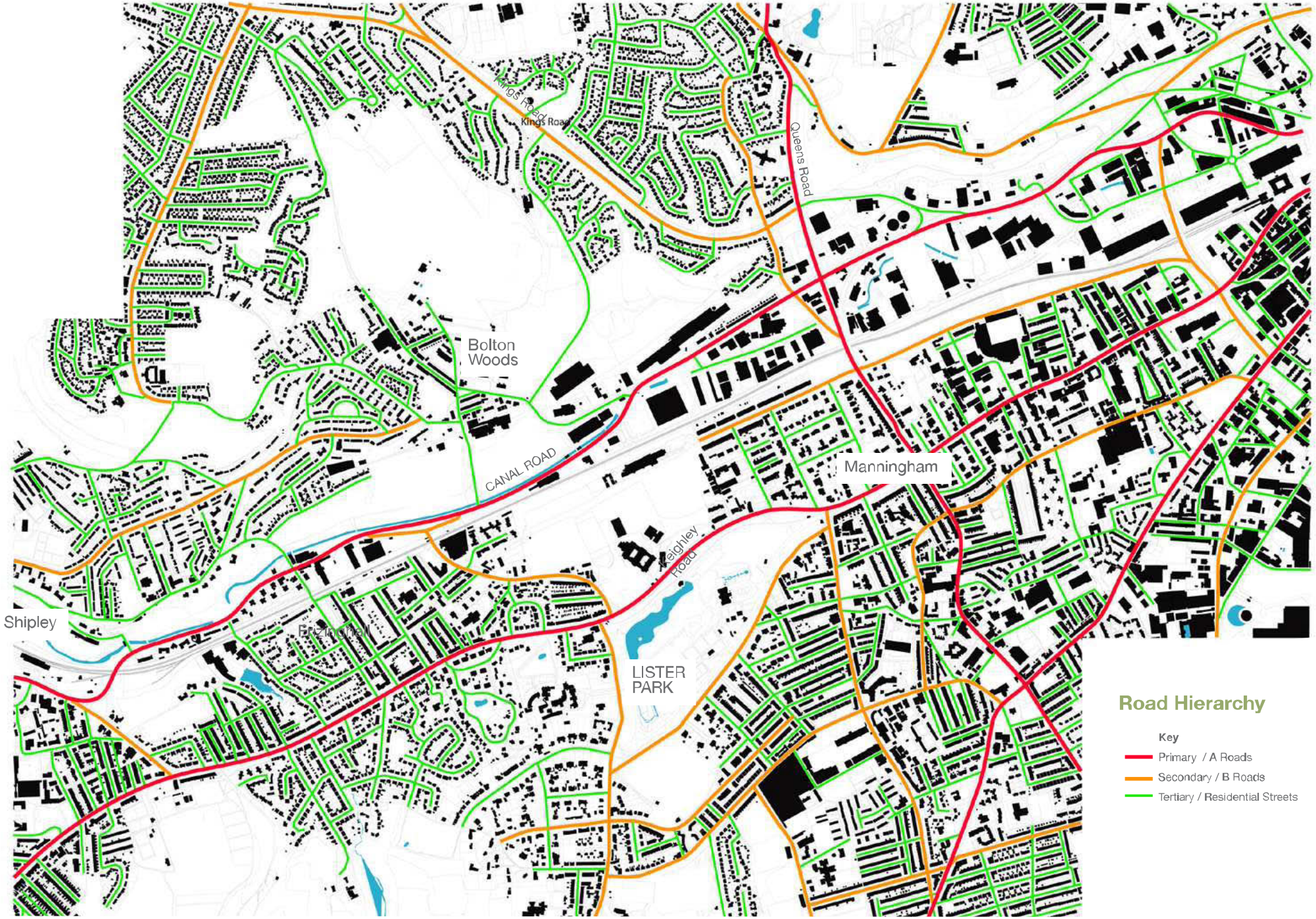
This stretch of the Corridor has a local railway station at Frizinghall on the line from Leeds/Shipley to Bradford Forster Square Station with an excellent service. Trains are half hourly through the day and hourly late evening. Journey time to Bradford Forster Square is 6 minutes and Leeds is 22-27 minutes depending on the exact service. The line also extends to Skipton and Ilkley. Fares to Bradford are also very low; with an anytime same day return under £2.00.

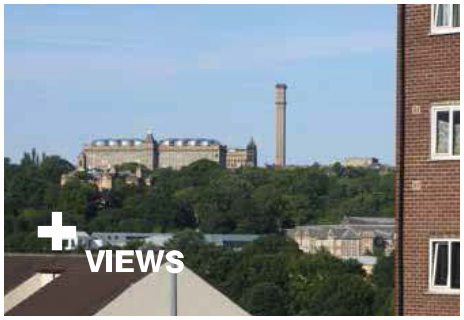
A direct service to London also operates from Bradford Forster Square and connections can be made from Shipley or Leeds to further regional and national stations. Cycling and walking along the corridor are not currently easy. A cycle route has been developed along the valley but is poorly used. A Sustrans route (66) has been proposed for this route and The Partnership is engaging in this delivery process to improve cycling infrastructure.

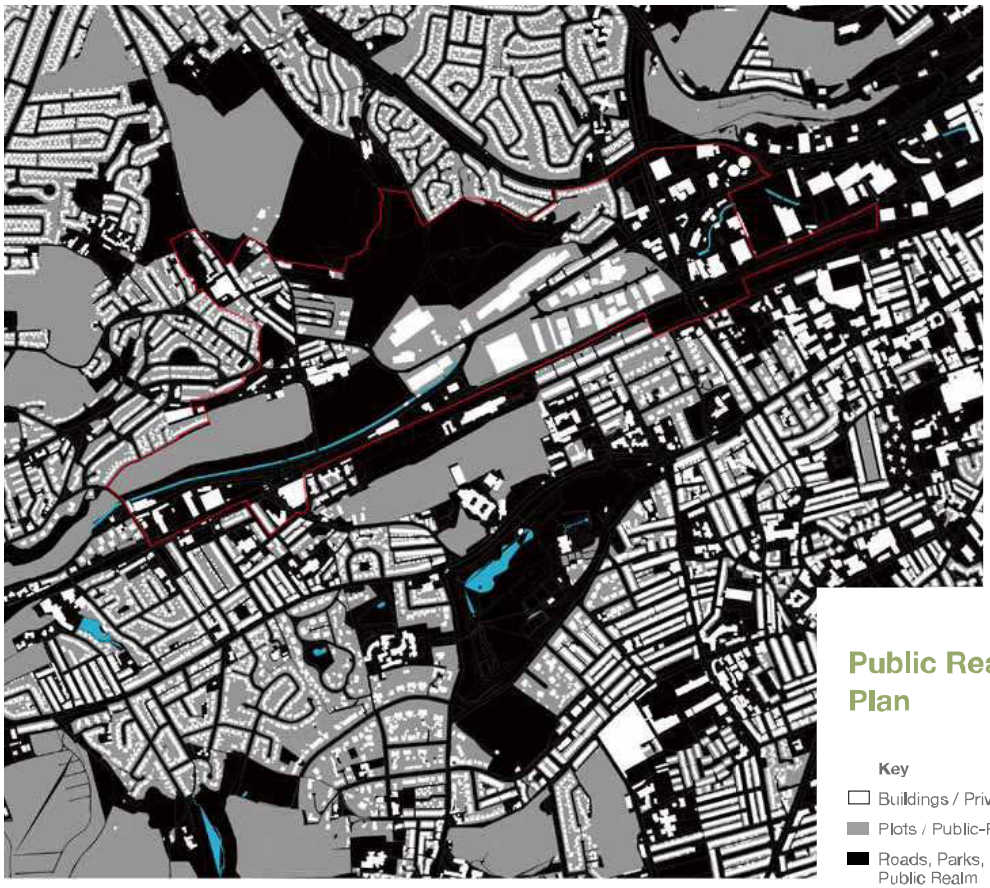
Pedestrians are provided with pavements along side of the Canal Road on broad footpaths. However, this is not a pleasant environment due to pollution, noise and spray. The railway is a highly restrictive barrier to East-West cross-valley movements with a lack of crossings except at road junctions.

The urban nature of the site means that existing connections can be exploited and avoids the need for substantial new infrastructure. This creates opportunities to provide viable alternative and sustainable forms of transport unlike a comparative out-of-town Greenfield sites. These existing characteristics can be capitalised upon to enhance the available services and connections for both existing and new residents.

View down Canal Road


Kings Road
Kings Road
Queens Road
Bolton
Woods
CANAL ROAD
Manningham
Keighley
Road
Shipley
Bradford
LISTER
PARK
Road Hierarchy
Key
Primary / A Roads
Secondary / B Roads
Tertiary / Residential Streets





Public Realm Plan

Key

- Buildings / Private Realm
- Plots / Public-Private Realm
- Roads, Parks, Recreation space / Public Realm

Urban Design Analysis //

Public Realm

A public realm plan (left) shows the areas where public access is possible including streets, public squares and open spaces. This highlights the two major open spaces of Lister Park and Bolton Woods as described below. Other than this the public realm of the area is limited to the street network. While there is a lot of undeveloped space in the valley, most of this is private and the public spaces are of poor quality and dominated by traffic.

The area is however very well provided with open space as illustrated on the plan to the right. The best area of open space is Lister Park, a fine Victorian amenity with a large lake, recreational areas and an art gallery. To the east of this the Grammar School also stands in landscaped grounds. Lister Park is mirrored on the eastern side of the valley by Bolton Woods. This includes a small remnant of woodland and surrounding land. The area has limited public access but is not public open space. This open area runs up the valley sides to the quarry which has been worked in such a way that it can't be seen from within the valley. The valley floor also includes playing fields to the north of the site running into a linear park leading into Shipley.

An important part of the open space located within the partnership area is Poplar's Farm, a site of local nature conservation value and has been designated as a Bradford Wildlife Area (BWA) in the replacement UDP (rUDP). This area is particularly important for biodiversity as well as having community benefits of accessibility to nature for educational value and heritage associations.


Kings Road
Kings Road
Queens Road
Bolton Woods
CANAL ROAD
Manningham
Keighley Road
Shipley
Frizinghall
LISTER PARK
Open Space
Key
Woodland
Quarry
Amenity Space
Sports / Recreation / School land

View down Poplars Park Road

Oblique aerial view of Partnership site (white line)

Urban Design Analysis //

Topography

The site is located in the valley connecting Bradford City Centre to Shipley and other settlements to the north. Transport connections have historically been located on the valley floor with Canal Road, the train line and the filled-in former canal all running along the base of the valley.

Roughly half of the CRUVL site is located on the valley floor with the other half of the site climbing up the Eastern face of the valley. The majority of the valley floor within the site is currently used either as industrial/retail land off Canal Road or as open space.

A large percentage of the eastern face of the valley within the CRUVL boundary is currently underused open space. The original settlement of Bolton Woods works its way up the hillside connecting the quarry with Canal Road. The steep topography of the area has created a series of streets that follow, where possible, the existing contours of the site.

Overall the topography of the site is a great asset to the area and any proposals should look utilise this character and the existing form of the hillside to create visual interest.

Contour Plan

Social Infrastructure

To determine the quality and capacity of existing social infrastructure to meet the needs and existing and future residents within the area a mapping and capacity exercise has been undertaken of the existing social infrastructure located locally to include a review of the existing provision of primary and secondary schools, health facilities, community centres and sports and recreation facilities.

Schools

The performance and reputation of schools is an important consideration in the housing choices of families. Properties in the catchment area of high performing schools attract a premium whereas family homes close to poorly performing schools may take longer to sell.

Primary Schools

Bradford Christian School is the only primary school located directly within the Partnership area with a further four primary schools located within a 1.5 mile radius including the nearby Poplars Farm Primary, Frizinghall Primary, Swainhouse Primary, Grovehouse Primary and St Francis Catholic Primary. The capacity and performance of each school is set out in the table below.

Analysis of the existing primary school capacity and performance data shows that for Poplars Farm Primary area the school is single form entry with a net capacity of 210 pupils and a forecast surplus of 18 pupils between 2012 and 2015. In terms of performance measured against the Key Stage 2 Average Point score the school scored 27.3, which is higher than the Bradford average of 27.1 but slightly lower than the England average of 27.4.

Outside the Partnership area the next two closest primary schools Swainhouse Primary and Frizinghall Primary are both double form entry schools with a net capacity of 420 and 393 pupils respectively and a forecast excess of 58 pupils for Swainhouse Primary but 47 free places for Frizinghall Primary between 2012 and 2015. In terms of performance against the Key Stage 2 Average Point Score the schools measured below the Bradford and England average with scores of 25.2 and 24.3 points respectively.

The development of an estimated 1600 new homes over the next 15 years within the area would, together with forecast population growth generate the need for additional pupil places that, based on the forecast of future capacity, will not be met by the existing primary school network. This would result in the need for additional school places through the expansion of the existing primary schools locally and or through the development of a new primary school to meet the demand for places.

Capacity and performance of Local Primary Schools

School	Distance from Partnership area (centre of Poplar Farm Road)	Capacity (Number of Places)	Surplus Pupils (or Surplus Places if -ve) 2012- 2015	Performance based on Key Stage 2 Average Point Score 2010	Notes
Poplar Farm Primary School	0.1 miles	210	18 (8.5%)	27.3	
Bradford Christian School **	0.4 miles				
Swainhouse Primary School	1 mile	420	-58 (-13.8%)	25.2*	A new extension was built in 2009 to provide a centre of excellence for deaf and hearing impaired children
Frizinghall Primary School	1.1 miles	393	47 (11.2%)	24.3	
Grovehouse Primary School	1.5 miles	420	2 (0.4%)	27.3	
St Francis Catholic Primary School	1.5 miles	243	154 (63.3%)	26.3	Improvements during 2010 included an extension and internal improvements to increase capacity

* 2009

**All years school - no separate data for Primary School

Challenge College

Bradford Christian School

Secondary Schools

The nearest state secondary school to the Partnership area is the Hanson School a large specialist technology college catering for 11- 18 year olds with 1,790 pupils on the school roll of which 288 are sixth form students.

In terms of performance the school was taken into special measures following the publication of the November 2010 Ofsted Inspection Report that found the school to be inadequate in terms of providing its pupils with an acceptable standard of education. A new executive headmaster has been appointed to improve the management and quality of teaching at the school and to improve its performance.

The school has been undergoing a major refurbishment and rebuilding programme as part of Phase 2 of the Building Schools for the Future Programme with the new facilities due to open in July 2011.

A number of other secondary schools are located nearby including a number of faith schools including the Bradford Christian School, St Joseph's Catholic College and Immanuel CE College and Bradford Grammar School a private fee paying school that came top of the Bradford school league table in 2010 based on % of A-C GCSEs and A/AS points.

Education Contributions from New Residential Development

The planning requirement regarding education provision for new residential development is set out in the Bradford replacement Unitary Develop Plan (rUDP) under Policy CF2 which requires 'Where new housing proposals would result in an increased demand for educational facilities which cannot be met by existing schools and colleges, the Council will seek to enter into a planning obligation under Section 106 of the Town and Country Planning Act 1990, in order to secure the provision of, or contribution towards, new or extended facilities.'

The level of contribution required will generally be determined by Bradford Council's Education officers based on the existing surplus of places within the existing school system and the estimated number of new school places generated by the development.

Discussions with the Education Schools and Capital Manager indicates that a new single form entry primary school will be required to meet the education needs of the new community based on the estimated 1,600 new housing numbers and projected population growth with public funding potentially available to deliver the new school.

Further dialogue with Bradford Council's Education officers will be undertaken to explore the education needs of the local community in more detail and the level of contribution required from the Partnership to help meet these needs.

The structure of the delivery Partnership for Bolton Woods however is an alternative approach to Section 106 that directs the maximum available development surplus into the Partnership for regeneration. Any 'excess' sought over and above this only serves to prevent viable development and defeats its own objective. The funding of Education should therefore be viewed in the round against other Partnership objectives of the Council.

We understand from initial discussions that a capital budget is available for investment in new schools from Government and proper provision is important to the regeneration of New Bolton Woods. It is possible that capital funding from Government could fund basic school provision and the Partnership could use some of the overage funds generated from development to ensure a school with high quality design and consequent regeneration impact could be delivered. The masterplan should in any case take account of this in terms of development proposed. Schools should generally belong close to a new local centre at the heart of the community.

Bolton Woods Junior Football Club

Local Pub

Health Facilities

No existing health facilities are located within the Partnership area with the Frizinghall Medical Centre the nearest health facility located approx 1.5 miles from the area to the west of Canal Road, the other side of the railway.

The proposals to develop an estimated 1600 new homes over the next 15-20 years or so and the dearth of existing local health facilities will result in a need for new heath facilities to be developed locally to meet increasing demand for health services. The proposals for the area (set out later) include the development of a new local centre that should therefore seek to provide for new health and community facilities in partnership with the Bradford and Airedale PCT and Bradford MDC.

Car ownership levels are extreemly low in Bolton Woods increasing the need to make health provisions local and within walking distance of residents.

Community Facilities

Existing community facilities within the Partnership area are limited with the Bolton Woods Community Centre, the main facility locally providing a mix of services including an early years nursery, crèche, youth group, programme of courses and advice, social events for the elderly and rooms for hire.

The area also maintains two social clubs the Bolton Woods Social Club and the Owlet Hall Social Club, which provide venues for a variety of social events.

The Frizinghall Allotments located adjacent to Canal Road have been largely disused since 2000 due to contamination with arsenic and other toxic substances present due to historical operations at the former chemical works.

The need for new and/or enhanced community facilities will be determined through a consultation with the local community. The development could include proposals for the expansion and enhancement of existing facilities or even new community facilities if affordable to serve an expanded population locally.

Sports and Leisure Facilities

The area maintains large areas of public open space that include a number of sports and leisure facilities including the Bolton Woods Junior Football Club on Powell Road and the King George V Playing Fields off Canal Road that are home to a number of local sports clubs including Bolton Woods FC and the Bradford Indian Cricket Club.

In addition a privately run 5-a-side football centre is located to the east of the area owned and managed by Goals Soccer Centres with 13 5-a-side astro turf pitches and associated facilities.

A major gap in the provision of sports and leisure facilities is the lack of local children's play facilities with insufficient existing playgrounds located within the Partnership area.

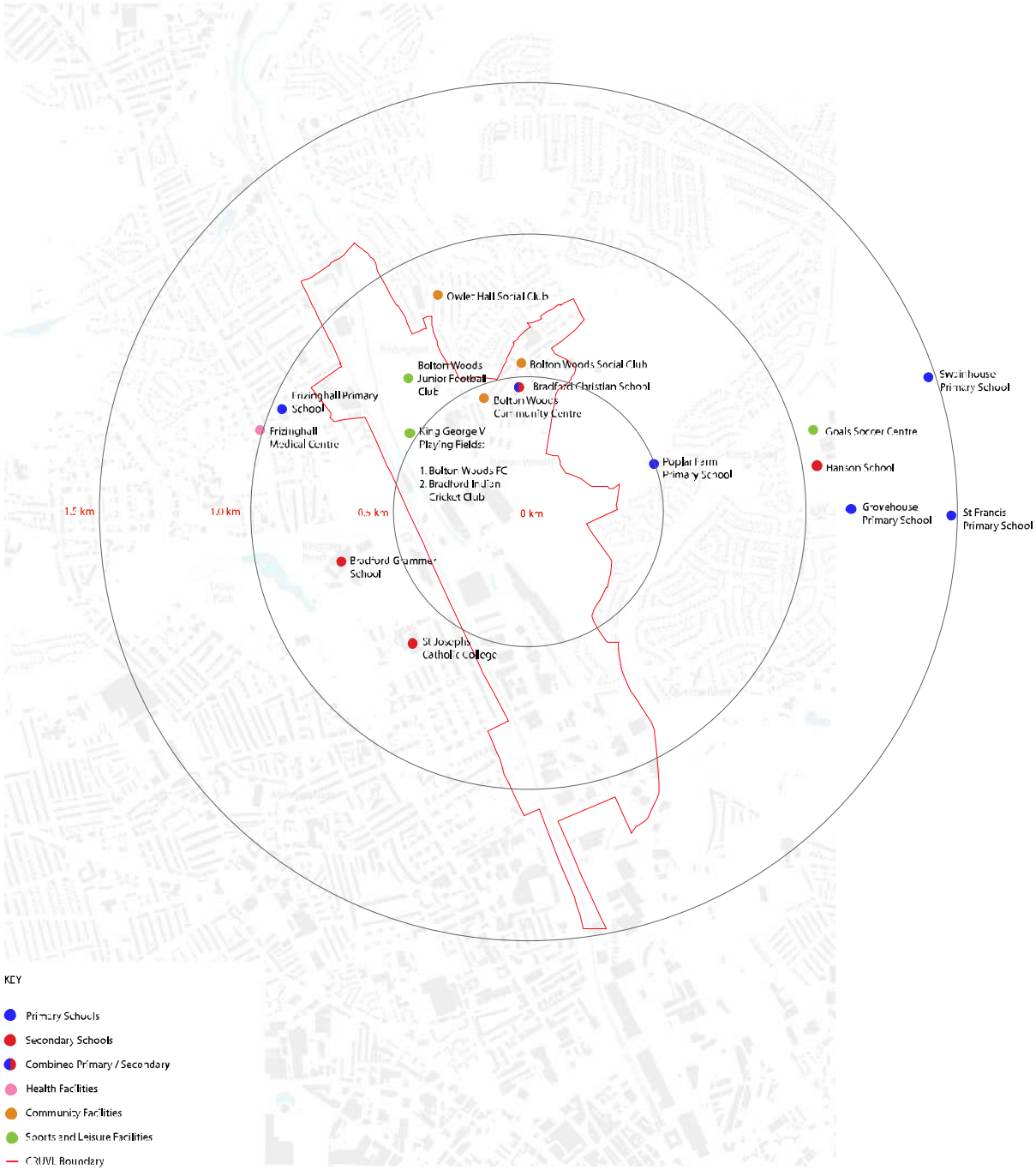
We believe there is strong potential to incorporate and enhance sports and leisure provision within our masterplan as part of a healthy mix of community uses enhancing the vitality of New Bolton Woods. This approach should be thought through carefully in the on-going planning and design work.

Retail

There are very few shops in the immediate site, as identified in the historical analysis of the area. The nearest food shop is approximately 1.5km from the site, along a busy main road.

There is a great need for new retail uses in order to provide for the existing community as well as new residents coming into the area. The local centre will meet the needs of the new population. This will consist of a local food store and a small traditional high street of approximately 10 shops.

This retail need will be consulted on with BMDC and the existing community will be asked about their retail need and what kinds of shops would be appropriate for their area.



Challenge College

Community Centre

Planning Context

This section of the report provides an overview of the current planning and regeneration context to the area informed in part from the baseline work undertaken by BDP as part of the Bradford – Shipley Canal Corridor Masterplan and an up to date review of planning policy documents published since the publication of the BDP paper.

Background

The defined Partnership area is located within the central section of the Bradford – Shipley Canal Road Corridor (CRC) an area identified by Bradford Metropolitan District Council (BMDC) as one of the top four regeneration priorities within the City.

In terms of existing planning and regeneration policy the area is covered by the policies and proposals contained within the adopted Bradford Replacement Unitary Development Plan (rUDP) 2005. The Council's draft emerging Policy is set out in the Bradford Core Strategy Further Issues and Options Reports published in January and May 2008 and the Core Strategy Further Engagement Draft published in October 2011.

The strategy and policy for the area has been informed by previous regeneration strategies including the Shipley / Canal Road Corridor Plan jointly prepared by BMDC and Arnold Laver and Company Ltd published in 2005. The purpose of this Masterplan Report was to present a strategy and vision for the future development of the Canal Road area, including a flexible action plan for delivering the vision.

Following on from the work on the Core Strategy the Council has set out its intention to prepare an Area Action Plan (AAP) for the corridor which in time will form part of the adopted Local Plan.

The first step in preparing the Shipley and Canal Road AAP is the production of an evidence-driven Masterplan that can be tested and taken forward to provide a sound basis in planning policy for the development of the AAP.

In the summer of 2010 the Council produced a brief for a Masterplan for the Canal Road Corridor. BDP were selected and commissioned to produce the Masterplan. This commission is now ongoing and is due for completion in Autumn 2012 paving the way for an AAP to be prepared if BMDC so chooses during 2012/13.

However it is uncertain that an AAP will be produced for the area as the Partnership area accounts for the majority of the development land in the Corridor with the intention to submit an outline planning application during early 2013 that would in effect negate the need for an AAP (which is no longer statutorily required).

Planning Policy Context

National Planning Policy Context

In March 2012 the National Planning Policy Framework (NPPF) was published, consolidating previous national planning guidance. Following the revocation of all Planning Policy Statements (PPS) (with the exception of PPS10), and Planning Policy Guidance (PPG), the NPPF is a material consideration in the determination of planning applications.

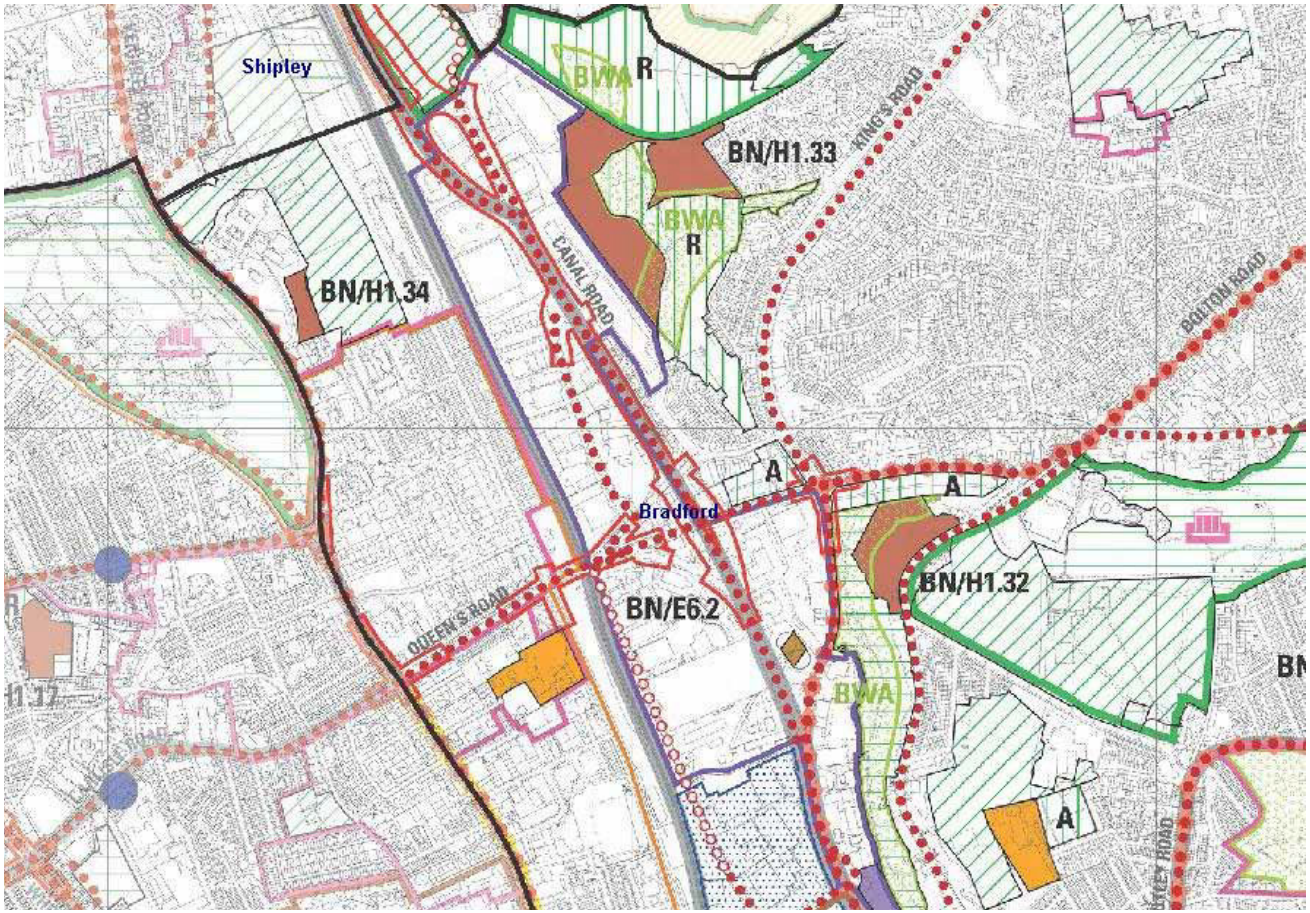
The overall emphasis of the NPPF is to reiterate the Government's key objectives of facilitating economic growth and securing sustainable development. These overarching policies seek to integrate the needs of planning and transport whilst focussing development in the most appropriate locations, thereby protecting and enhancing the environment. A summary of the new key policy requirements relevant to the regeneration of the area include:

- The presumption in favour of sustainable development which should be seen as a 'golden thread' running through both plan-making and decision-taking.
- In terms of plan-making this requires local planning authorities to positively seek opportunities to meet objectively assessed needs of their area.
- For decision-taking this places the onus on local authorities to approve development proposals that accord with the development plan without delay and to grant permission where the development plan is absent, silent or out-of-date unless any associated adverse impacts of doing so would significantly outweigh the benefits.
- The Framework makes clear that local councils should be positive and proactive in encouraging sustainable growth and addressing barriers to investment.
- The Framework also sets out that planning policies should avoid the long term protection of sites allocated for employment use where there is no reasonable prospect of a site being used for that

purpose. Land allocations should be regularly reviewed. Where there is no reasonable prospect of a site being used for the allocated employment use, applications for alternative uses of land or buildings should be treated on their merits having regard to market signals and the relative need for different land uses to support sustainable local communities.

- In order to boost significantly the supply of housing, local planning authorities should identify and update annually a supply of specific deliverable11 sites sufficient to provide five year's worth of housing against their housing requirements with an additional buffer of 5% (moved forward from later in the plan period) to ensure choice and competition in the market for land. Where there has been a record of persistent under delivery of housing, local planning authorities should increase the buffer to 20% (moved forward from later in the plan period) to provide a realistic prospect of achieving the planned supply and to ensure choice and competition in the market for land; and

- Housing applications should be considered in the context of the presumption in favour of sustainable development. Relevant policies for the supply of housing should not be considered up-to-date if the local planning authority cannot demonstrate a five-year supply of deliverable housing sites.



Replacement UDP, Bradford

HOUSING
H1 Phase I Housing Sites

Regional Policy Context

The Yorkshire and Humber Plan was adopted in May 2008 and sets out the spatial strategy for the region. On 6th July 2010 the Government announced the revocation of Regional Spatial Strategies (RSS) with immediate effect. A subsequent legal challenge by Cala Homes was upheld which re-established the RSS as part of the development plan. The Localism Act received Royal Assent on 15 November 2011 and provides for the abolition of regional planning and the revocation of regional strategies by the Secretary of State. However, following a high court decision the Secretary of State must undertake a Strategic Environmental Assessment (SEA) of the impact of withdrawing the RSS before revoking regional strategies. A SEA is currently being prepared by the Government and as such the Yorkshire and Humber Plan remains part of the development plan.

The Yorkshire and Humber Plan sets out key housing targets for Bradford. Table 12.1 sets a regional target for Bradford of 2,700 dwellings per annum (net additions) for the housing period 2008-2026.

The Plan also establishes the key principles governing housing distribution, housing mix and the provision of affordable housing.

Sub Regional Policy Context

Bradford MDC is one of the 11 local authorities that form the Leeds City Region (LCR) -a sub regional body established 6 years ago to drive the economic growth of the area.

Following the abolition of Yorkshire Forward the Regional Development Agency for the Yorkshire and Humber Region and the creation of the new LCR Local Enterprise Partnership (LEP) in 2010 sub regional policy on regeneration and investment is set out in the recently published LCR LEP Plan 2011.

The Plan builds on the existing published strategies of the LCR to provide a 5-year strategic plan, outlining priorities, delivery mechanisms and outcomes.

The LEPs long-term vision is for a Leeds City Region (LCR) that is 'A world-leading dynamic and sustainable low carbon economy that balances economic growth with a high quality of life for everyone.

To deliver the vision for the LCR the LEP promotes a partnership approach to deliver a number of key outputs as follows:

- A sustainable housing offer that responds to the needs of the local populations
- A workforce that has the skills that local businesses need
- Sustainable green infrastructure that supports economic development
- The growth of a range of key economic sectors including the environmental technologies sector
- A globally competitive economy in which businesses innovate openly, and our universities operate cooperatively to support a growing and evolving business case
- A sustainable and reliable transport system requisite of a globally competitive economy
- An economy capable of attracting quality foreign direct investment.

West Yorkshire Local Transport Plan 3 (2011):

The West Yorkshire Local Transport Plan Partnership (WYLTPP) is a combination of Councils in West Yorkshire including Bradford, Calderdale, Kirklees, Leeds and Wakefield, and Metro, the West Yorkshire Integrated Transport Authority. This partnership published in 2011 Local Transport Plan 3, a 15 year local transport plan setting out West Yorkshires transport needs and ambitions until 2026. The objectives of the West Yorkshire Local Transport Plan 3 (LTP3) are as follows:

- Economy – to improve connectivity to support economic activity and growth in West Yorkshire and the Leeds City Region;
- Low Carbon – to make substantial progress towards local carbon, sustainable transport system for West Yorkshire, whilst recognising transport contribution to national carbon reduction plans;
- Quality of Life – to enhance the quality of life of people living in, working in, and visiting West Yorkshire.

The policy document identifies the key transport challenges across the five district councils:

"In Bradford, there is a high level of congestion on some radial routes into the city (caused by bottlenecks such as the Saltaire roundabout) and the city's outer ring road. Improved connectivity is needed along the Canal Road corridor... Making Bradford's road safer and improving peoples quality of life are also key priorities."

The key transport issues in West Yorkshire are:

- Increasing road congestion,
- Severe rail overcrowding in the peak periods, which discourages use;
- Bus fares are perceived to be high and not value for money;
- Road casualty rates are high;
- Air quality emissions exceed standards in parts of West Yorkshire; and
- Few cycling and walking trips.

The plan's Strategy for achieving its Vision and Objectives are set out below:

- Transport Assets – to ensure effective management of transport assets to gain maximum value for money and meet the Plans objectives;
- Travel Choices – to encourage more sustainable transport choices by managing demand for car travel and enabling people to make informed choices that meet their needs;
- Connectivity – to deliver an integrated, reliable transport system that enables people and goods to move around efficiently and safely ; and
- Enhancements – to make targeted technological and structural enhancements to the transport system for greater capacity and performance.

Local Policy Context

The current planning policy documents relevant to the area include:

Replacement Unitary Development Plan for the Bradford District, adopted October 2005

The Bradford rUDP was adopted in October 2005. The policies and proposals within the rUDP have been 'saved' until superseded by the emerging Local Plan.

The rUDP is the statutory plan for Development Management purposes within the Bradford District. The rUDP provides the context in which the Council will assess planning applications which will be determined in accordance with the Plan unless material considerations indicate otherwise (Section 54A Town and Country Planning Act 1990).

The key saved policies relevant to the regeneration of the area include:

- Policy UR2 – 'Promoting Sustainable Development'
- Policy UR6 – 'Planning Obligations'
- Policy H4 – 'Protecting Allocated Housing Sites'
- Policy H5 – 'Residential Development of Land and Buildings not Protected for Other Purposes'
- Policy H7 – 'Housing Density – Efficient Use of Land'
- Policy H9 – 'Affordable Housing'
- Policy E6 – 'Employment Zones'
- Policy OS2 – 'Protection of Recreation Open Space'
- Policy OS3 – 'Protection of Playing Fields'
- Policy OS4 – 'New Open Space Provision' .
- Policy OS6 – 'Allotments'
- Policy NE9 – 'Other Sites of Landscape or Wildlife Interest'
- Policy TM1 – 'Transport Assessment'
- Policy TM10 – 'National and Local Cycle Networks'

The following policies were not saved under the 2008 Secretary of State saving direction. Accordingly as of October 2008 they no longer formed part of the development plan:

- Policy H1 – Phase 1 Housing Sites;
- Policy H2 – Phase 2 Housing Sites; and
- Policy H3 – Monitoring the housing supply.

The lapsing of these policies, particularly Policies H1 and H2, has effectively resulted in any unimplemented housing sites no longer being allocated in the saved statutory development plan. As set out in the Council's Executive committee report dated 21st November 2011 this was not the intention of the Council's approach to saving policies. The Executive notes that:

"Extensive and robust statutory process through which the sites allocated under Policies H1 and H2 in the RUDP were subjected to and as such all the unimplemented Housing Sites previously allocated under Policies H1 and H2 should be accorded significant weight when considering their use for residential development."

Although not 'statutorily' part of the development plan, Policies H1, H2 and H3 have undergone extensive consultation and therefore should be afforded considerable weight in the preparation of these proposals.

Emerging Local Development Framework (LDF)

The preparation of the Local Plan is ongoing with consultation on the Core Strategy Issues and Options being undertaken during the summer of 2011 and a second round of consultation on further issues and options undertaken between November 2011 and January 2012.

Consultation on the Further Engagement Draft took place between Friday 28 October 2011 and Wednesday 29 February 2012setting out the proposed planning strategy and draft policies to guide development and growth in Bradford to 2028.

The key policies relevant to the area are set out below.

Strategic Core Policy 1 (SC1) Overall Approach and Key Spatial Priorities

'B. Plans, strategies, investment decisions and programmes should aim to:

1. Transform economic, environmental and social conditions of the District, in particular Bradford City Centre, Airedale, Shipley and the Canal Road Corridor and the Leeds Bradford Corridor.'

2.

Strategic Core Policy 6 (SC6) Green Infrastructure

'Bradford Shipley Canal Road Corridor Urban Eco- settlement to establish innovative means of low carbon living and create space for water management and sustainable transport routes.'

Policy 1 (BD1): City of Bradford including Shipley and Lower Baildon Sub Area

B Urban Regeneration and Renewal and new housing provision will be focused on the following areas:

- **2.** Shipley and the Canal Road Corridor will see the creation of up to 5,000 new houses by 2028. The Corridor will be characterised by innovative and contemporary architecture, Bolton Woods wildlife area and a linear park and waterway linking the town centre of Shipley to the City Centre of Bradford. This will all be supported by the creation of new cycleways and footways, new railway station at Manningham and improvements to Frizinghall station and new road infrastructure with the Shipley Eastern Link Road.'

E Environment:

- **4.** Improve green infrastructure network along the Shipley & Canal Road Corridor...

F Transport:

- **4.** Develop new railway stations on the Caldervale line, Leeds-Bradford line at Laisterdyke, Low Moor, Manningham and Apperley Bridge.

- **6.** Develop critical road and public transport infrastructure with the East Bradford Link Road and the Connecting Airedale Transport Improvement Project including the Shipley Eastern Link Road to ensure the viability and delivery of housing and economic growth in the City of Bradford.'

-

Sub Area Policy 2 (BD2) - Investment Priorities for the City of Bradford including Shipley and Lower Baildon

'C. To provide infrastructure to support site assembly, manage flood risk, and improve access to Bradford city centre, Shipley town centres as part of regeneration initiative on the Shipley and Canal Road Corridor.'

Policy EC1 Creating a successful and competitive Bradford District economy within the Leeds City Region

'B. Investment in locations such as Bradford City Centre, Shipley Town Centre and the Canal Road Corridor, Keighley, Bingley and Ilkley, recognising the role of the Regional City of Bradford and the Principal Towns as key drivers of productivity.'

Policy EC3 Employment Land Requirement

'A. The planned requirement for 146 ha of employment land within the district will be met from the following sources:

- 4. Sites identified in forthcoming and emerging masterplans including that for the Shipley / Canal Road Corridor (including Manningham) and the Leeds Bradford Corridor.'

Policy EC5 City, Town, District and Local Centres

'Plans, strategies, investment decisions and programmes should strengthen the role and performance of existing city, town, district and local centres. Centre boundaries, primary shopping areas, primary and secondary shop frontages and sites to meet at least the first five years of identified need will be determined by the Allocations DPD, Bradford City Centre Area Action Plan DPD and the Shipley and Canal Road Corridor Area Action Plan DPD.'

Policy HO2 – Strategic Sources of Supply

'B. Specific area based initiatives to help deliver the supply targets will include:

Growth areas as follows:
i) The development of an Urban Eco Settlement in the Bradford-Shipley Canal Road Corridor.'

Policy HO3 – Distribution of the Housing Requirement

In accordance with the vision and spatial principles set out in this Plan, the forthcoming Allocations, Bradford City Centre and Shipley & Canal Road DPD's will allocate sufficient land to meet the residual housing requirement of 45,500 for the district between April 2011 and April 2028. This requirement will be apportioned as follows:

5,000 (11% of the district total) within the Shipley & Canal Road AAP.

B. The Apportionments between the different settlements of the district will be as follows:

Canal Road 3,000

Shipley 2,000'

Policy HO6 – Maximising the Use of Previously Developed Land

'C. In order to achieve the district wide target of 50%, the Allocations, Bradford City Centre and Shipley and Canal Road DPD's should bring forward land and manage its release so as to deliver at least the following proportions of housing development on previously developed land:

- In the Regional City of Bradford a minimum of 60%
- In the Principal Towns a minimum of 40%
- In the Local Growth Centres a minimum of 15%
- In the Local Service Centres a minimum of 35%'

Policy HO7 – Housing Site Allocation Principles

'In order to meet both the objectives of delivering housing growth and managing that growth in a sustainable way, sites will be identified, assessed, compared and allocated for housing development in the Allocations DPD, the Shipley & Canal Road AAP and the Bradford City Centre AAP based on a range of principles including:
The need to allocate sufficient deliverable and developable sites to meet the targets set out in Core Strategy Policies HO1 and HO3; Prioritising the allocation of sites which would assist in the regeneration of the Plan area; Maximising the use of previously developed land within the Plan area and prioritising their development via phasing policies - subject to the maintenance of a range of sites which meet local need and provision of a 5 year supply of deliverable sites; Prioritising the allocation of sites which would remedy identified deficiencies in local infrastructure and services including open space, community and education facilities, and; Maximising positive environmental benefits of development by prioritising the allocation of sustainably located sites which:

- A. Would result in significant environmental im-

provements to an area for example by reclaiming derelict land

- B. Would enhance biodiversity or contribute to the aim of achieving no net loss of biodiversity
- C. Would provide opportunities to draw energy supply from decentralised and renewable / low carbon sources
- D. Would provide opportunities to create or enhance green infrastructure particularly those that link urban green spaces with the wider countryside.'

Policy HO8 – Housing Mix

'C. Specific guidance on house types and mix on an area or site basis will be set out as necessary in the Allocations, Bradford City Centre and Shipley & Canal Road DPD's.'

Policy HO9 – Housing Quality

'A. The Council will encourage all new housing developments to meet the highest possible sustainable design and construction standards.

B. Subject to viability, the minimum acceptable standards with reference to the Code for Sustainable Homes over the Local Plan period will be as follows:

- Code Level 3 from 1st April 2011;
- Code Level 4 from 1st April 2013; and
- Code Level 6 from 1st April 2016 or any national equivalent.

C. Specific guidance on housing quality on an area or site basis will be set out as necessary in the Allocations, Bradford City Centre and Shipley & Canal Road DPD's. The Council may require higher standards of sustainable design and construction to be achieved on certain sites where it is feasible and / or viable to do so. The Council will also require a Design Stage Assessment of performance against the Code for Sustainable Homes and Building For Life criteria for all residential proposals.

D. The Shipley & Canal Road DPD will seek to deliver housing within the Urban Eco Settlement area, which meets Eco Towns standards as defined in the supplement to PPS1, subject to feasibility and /or viability.

E. New development of more than 10 dwellings should secure at least 10% of their energy from decentralised and renewable or low carbon sources, unless, having regard to the type of development involved and its design, this is not feasible and or viable.

F. In order to meet the strategic challenge of providing for a rapidly increasing elderly population and the needs of the District's growing population all new housing should be built to Lifetime Homes Standards from 1st April 2012.'

Policy HO11 – Affordable Housing

'D. The proportion of affordable housing sought will vary across the district to take account of housing need, property prices and economic viability. Subject to viability, the Council will negotiate for up to the following proportions of affordable housing on schemes being submitted for planning permission:

Up to 30% in the Bradford-Shipley Canal Road Corridor Urban Eco-Settlement area.'

Policy EN7 Development and Flood Risk

'The Council will manage flood risk pro-actively and in assessing proposals for development will:

Adopt a holistic approach to flood risk in the Bradford Beck corridor in order to deliver sustainable regeneration in LDD's and in master planning work.'

Bradford's Sustainable Community Strategy 'The Big Plan' 2008 – 2011

Bradford's Sustainable Community Strategy was published in 2008 and provides an overarching strategy for the City over the period 2008 – 2011 and a vision up to 2020. The strategy identifies a number of key themes and actions to deliver its vision for the area.

The vision is that *'by 2020 Bradford District will be a vibrant, prosperous, creative, peaceful, diverse, inclusive place where people are proud of their shared values and identity and work together to secure this vision for future generations'.*

The key actions relevant to the area include:

- Improve services to investors to attract new business and promote the supply of land for development across the district
- Ensure adequate supply of land for housing development in places with good transport links
- Progress the Shipley Eastern Bypass and Canal Road improvements
- Promote the opening of new rail stations at Manningham
- Improve public transport and promote cycling and walking and access to footpaths and bridleways
- Work with business to improve key corridors into the district and tackle environmental issues
- Bring derelict land back into use for new businesses or housing and ensure new developments and regeneration activities help create sustainable communities through energy efficient buildings, access to green spaces and safe public cycle routes and pathways
- Develop and carry out plans to protect and improve biodiversity and natural environments and the quality of the neighbourhood environment.

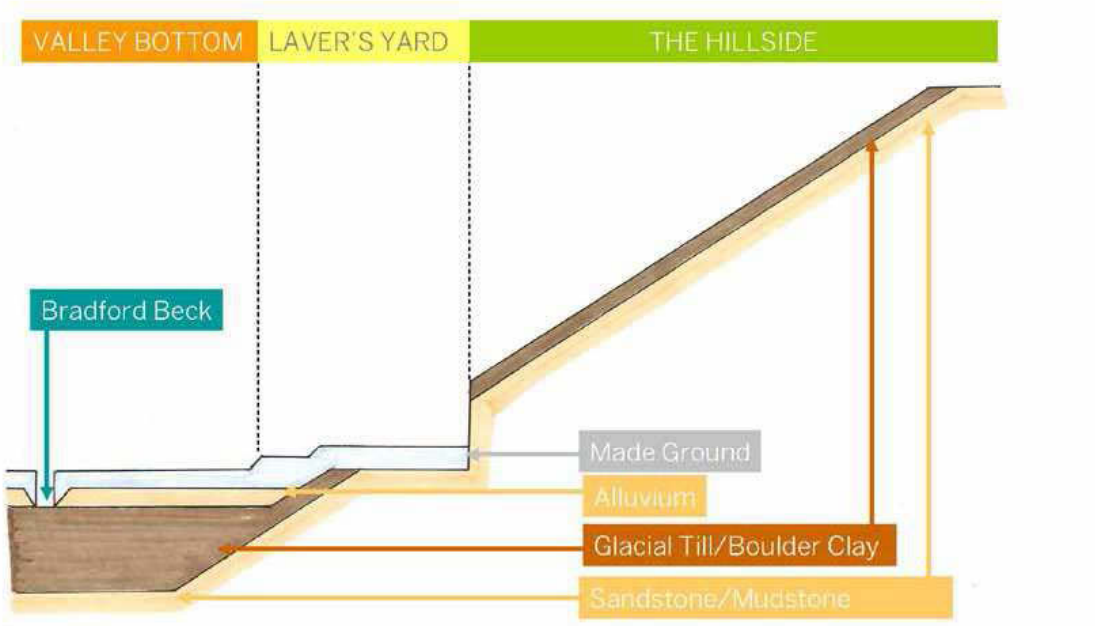
Summary

This section has set out the key adopted and emerging planning policy relevant to the proposals. The case for the proposed development, in light of the above planning policy and other material considerations, will be set out in full within the Supporting Planning Statement (SPS) to be prepared by HOW and submitted with Phase 1 and Outline Planning Applications.

Illustration showing capturing the spirit of New Bolton Woods

Technical Constraints

Stockley the appointed engineers of the partnership have undertaken a review of the key technical issues and constraints to the development of the area. A summary of the key findings is set out below.



Illustrative Section through site looking North (Stockleys)

Levels

A LIDAR Survey of the area has been made available and provides a detailed picture of the topography of the site and the design issues in relation to levels.

The eastern portion of the site sits on a steep hillside with the top of the hill at approximately 162mAOD, with a further stockpile of spoil generated from the adjacent quarry to the top of the hill taking the maximum level to approximately 188mAOD.

The valley bottom sits at approximately 80-85mAOD with the Bradford Beck running from south to north in a cutting along the western boundary of the site with Bed Level varying between 76 to 78mAOD

Topography will be a significant factor in developing the proposals with much of the hillside lying at a gradient of approximately 1in4 with areas of shear cliff face up to 10m in height to the west of Poplars Park Road. The strategy for managing the level differences through the proposed landscape and house types should be a key factor in developing the design.

Geo-environmental

Analysis of the geo-environmental characteristics of the area show that the site can be split into two distinct areas.

Hillside

Varying depths of Glacial Till (from 0m to approx 8m in some locations) over Sandstone/Mudstone should allow spread footings for low-rise properties (3 storey).

Limited previous development should mean that contamination to this area is limited.

It should be noted that reference is made on one of the BGS borehole logs to a potential stone mine shaft, further investigation may be required to confirm the presence, location and condition of this shaft.

Valley Bottom

Deep made ground over layers of alluvium (including peat in places) over Glacial Till over Sandstone/ Mudstone. Piled foundations are likely to be required in the valley bottom and as such it may be efficient to provide higher rise properties in this area ensuring maximum value from the foundation solution.

The historical development in the valley bottom includes a sewage works and filter beds (circa 1890-1950), Chemical Works and Dye Works (circa 1890-1950) and a Refuse Tip (Circa 1950-1980) as well as a number of other Mills and Works from the mid 20th Century to the present day.

The above uses are potentially contaminative and are likely to have left remnant contaminants within the made ground across the area. The key risks associated with potential contamination will be:

- Contact with end users- this will likely require a clean capping layer across soft landscaped areas.
- Migration to the Bradford Beck adjacent to the site- this may require treatment of any ground contaminated with mobile contaminants.

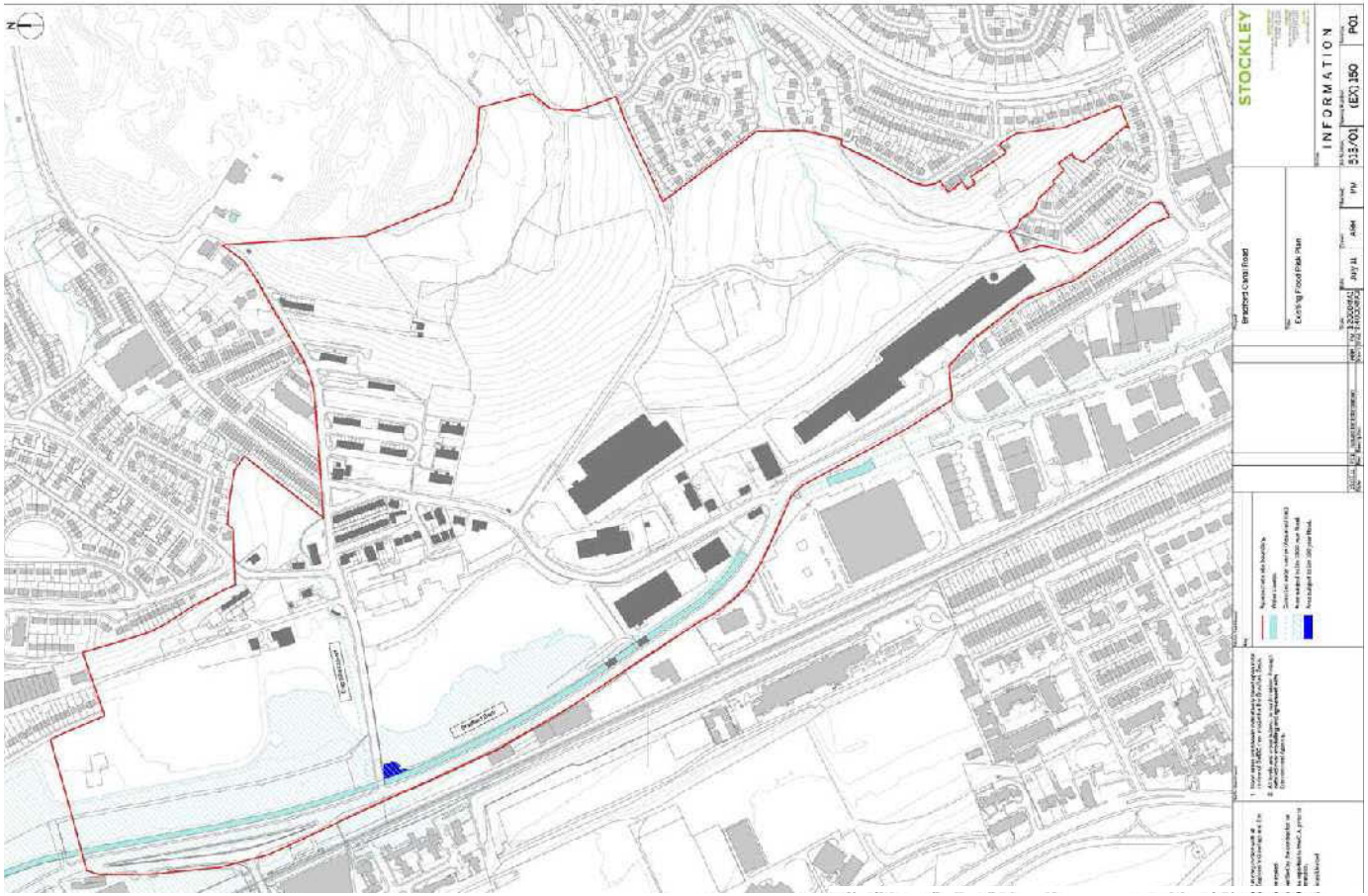
Flood Risk and Surface Water Drainage

Environment Agency Flood Risk maps show the area of the site to adjacent to the Bradford Beck to be at risk of flooding. If the site is indeed at risk of flooding then development within the Flood Zone would be restricted.

It is our understanding that BMDC are currently undertaking a Strategic Flood Risk Assessment (SFRA) which will provide more accurate levels information.

There will be restrictions imposed on the discharge of surface water from the site. Whether discharged to watercourse or public sewer the outfall will be limited and as such surface water management measures such as SUDS will be required.

The allowable discharge is likely to be based on the existing discharge from the site which will be calculated based on the area of hard standing which discharges to the sewer or watercourse. The greater the area of hard standing that is introduced the greater the volume of surface water which will need to be managed on site. Potential measures for management of Surface water include:



Existing Flood Risk Plan (Stockleys)

Green Space (including green roofs); providing increased areas of green space will reduce the volume of water which needs to be managed on site and as such maximising the green space provision should be the first step prior to considering means of managing run off.

Rainwater Harvesting; Due to the likelihood that areas of impermeable surface will increase post development the Code for Sustainable Homes may require Rainwater Harvesting to be installed in some or all homes to limit the volume (rather than simply the flow) of surface water discharged from the site. A potential alternative means of limiting the volume of discharge is to provide soakaway.

Soakaway; It may be possible to discharge surface water into the sandstone and other permeable layers beneath the site, particularly to the Hillside areas. If feasible then this method of surface water management may be the most environmentally sustainable and cost effective.

Swales and Ponds; Provision of swales and ponds within the Public Realm and Streets can provide surface water management whilst contributing positively to the amenity and ecology of the place. As the attenuation is provided at surface level the requirement for excavation and buried infrastructure is limited.

Permeable Paving; in suitable ground then permeable paving can be used to collect and discharge surface water to the ground. Where the ground beneath the paving is impermeable then the sub-base can provide a volume of storage but must be positively drained to sewer or watercourse.

Canal freeboard; it may be possible to use the 300mm of freeboard provided within the Canal infrastructure to provide attenuation.

Below ground storage and oversized pipes; The most common mean of providing surface water attenuation is through the provision of below ground storage or oversizing of drainage pipes. This option can require significant infrastructure and excavation.

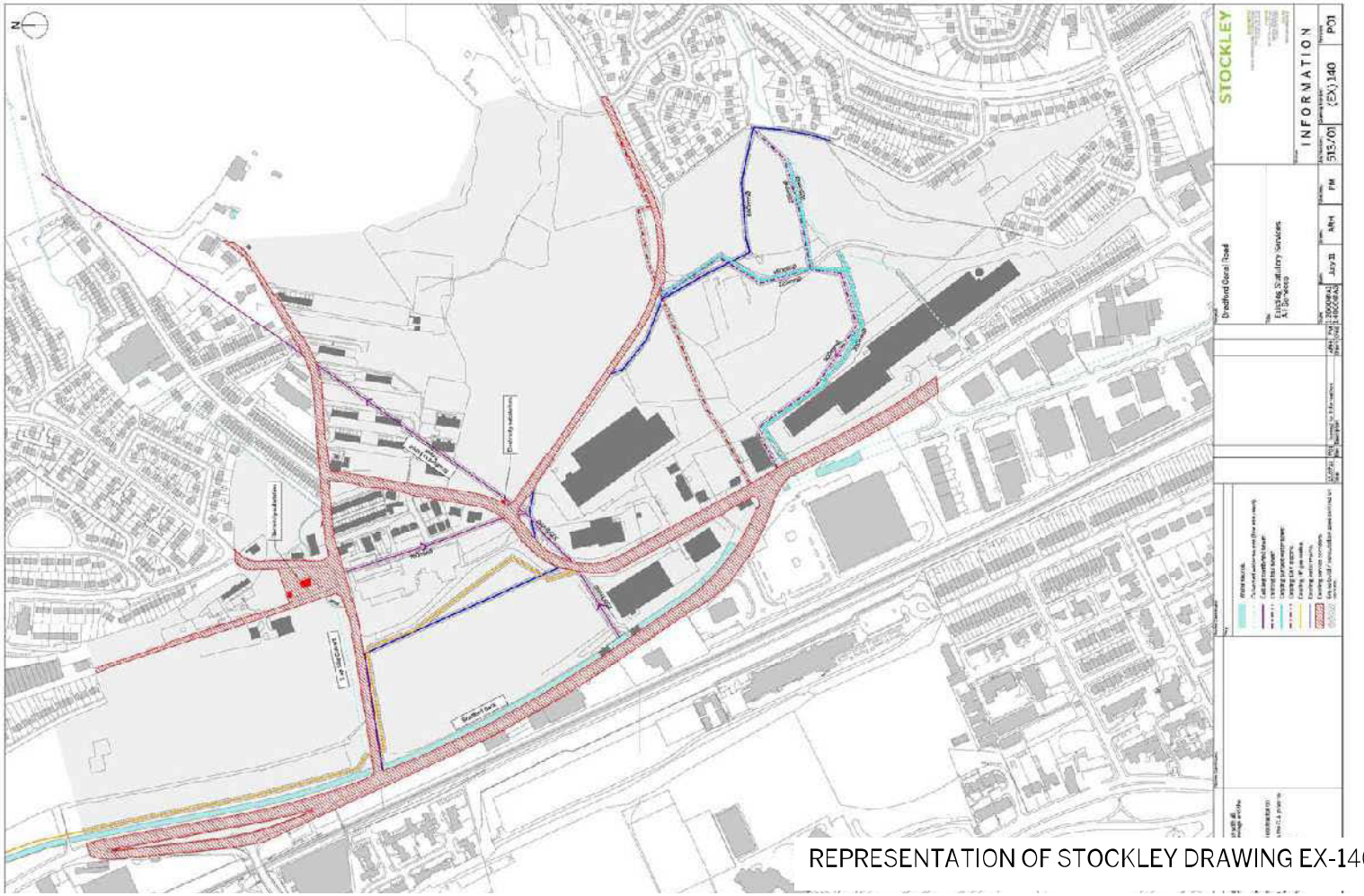
Utilities

GIS information has been provided showing utilities primarily to the west of the site, within Canal Road and Stanley Road. Utility providers' plans have been obtained for the entire site area and those main services and sewers which must be retained or diverted to facilitate development are as shown on Stockley drawing EX-140.

Within the site boundary the majority of utilities are shown running along Stanley Road and as such preserving this alignment within Public open space would limit the requirement for utility diversions.

Further constraints are posed by the following services:

- Gas Mains and Water Mains supply pipes run from south to north across King George's Field
- A network of surface and foul water sewers run across the site from Poplar's Park Road to Canal Road
- An electricity cable runs above ground from Poplar's Park Road to Canal Road.
- The Bradford Esholt Tunnel runs at depth beneath the site although based on the depth of the sewer and precedent it is expected that build over of this sewer will be permitted.
- Large diameter sewers run across the Bradford Beck and outfall to the Bradford Esholt Tunnel.

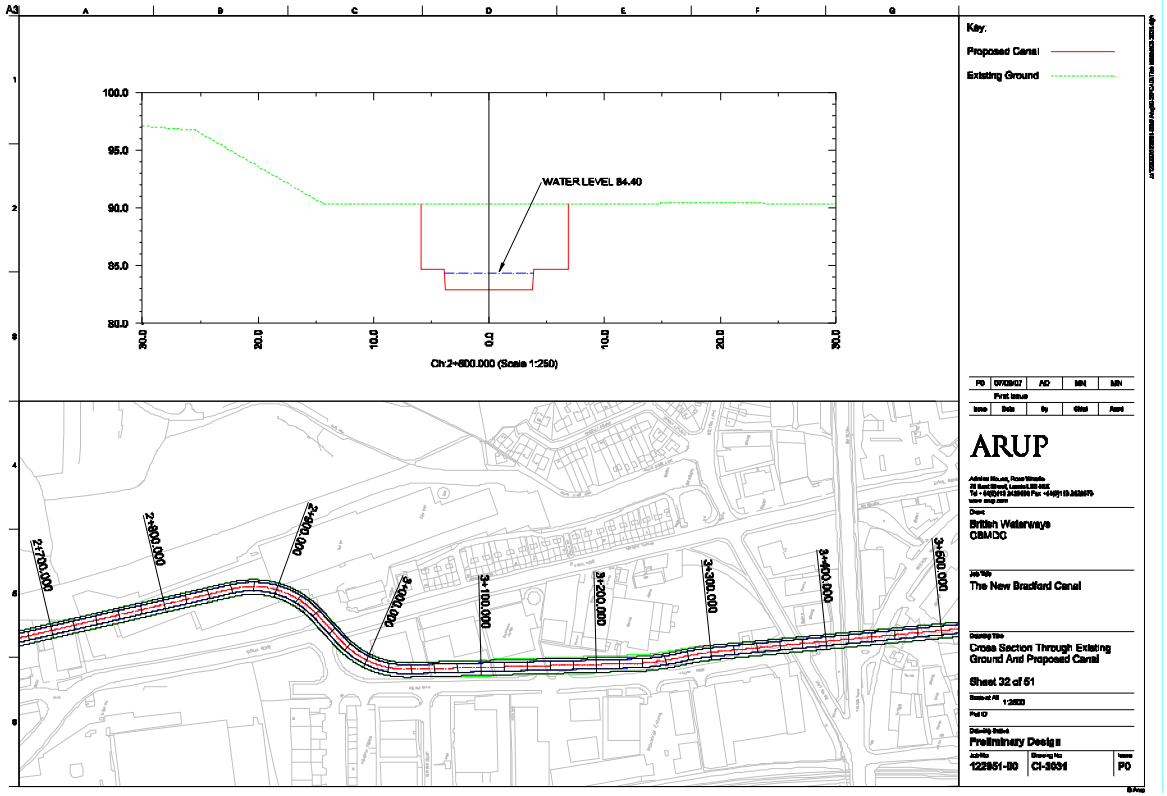


Existing statutory services

As well as determining the presence of utilities it will be important to establish constraints on capacity in the local area as significant reinforcement could potentially be required to serve the development, this will impact on costs and phasing and it may be necessary to provide a Utilities Statement along with any Planning Application.

In order to inform the Capacity Assessment an Energy and Water Supply Strategy should be developed to determine how the demand for energy and water can be reduced minimising the supply required.

Typical Channel Width	7.5m
Minimum Channel Width	4.5m
Channel Depth	1.8m (Water depth 1.5m)
Air Draft	2.4m
Typical Tow Path width	3.0m (+ 0.5m edge detail)
Minimum Tow Path width	2.0m
Typical off side width	1.0m-2.0m
Lock Length	22m
Maximum Standard Lock Lift	3.1m



Cross section through existing ground level and proposed canal. ARUPS CI-3031

Canal Infrastructure

The proposals to restore the former Bradford to Shipley Canal through the area has been an aspiration of BMDC for a number of years and Arup were appointed to review the technical and environmental engineering issues associated with the delivery of the canal infrastructure.

Arup have undertaken a preliminary design for the New Bradford Canal and a proposed alignment has been identified which runs from Shipley to Bradford City Centre and largely follows the alignment of the Historic route of the Canal and part of which passes through the Canal Road Urban Village (CRUV) site.

Arup have produced a number of reports which outline the design of the proposed new canal, key considerations and constraints and a Cost Estimate for the works.

The Arup study was based on the dimensions for the Canal Infrastructure as set out in the table above.

Alignment Currently Proposed

The alignment currently proposed for the Canal has it passing beneath Stanley Road beneath a historical canal bridge structure and running to the east of Stanley Road and Canal Road through the main body of the CRUV site before then cutting back beneath Canal Road beneath a proposed new bridge structure as it exits the site.

Whilst this alignment is understood to be true to the historic alignment of the Canal due to the prevailing levels of the site the canal would sit within a cutting as it passes through the site which would vary in depth from approximately 2m to a maximum of approximately 5.6m this is illustrated on Arup drawing CI-3031 above.

At this depth beneath the development platform level the Canal is unlikely to positively contribute to the amenity of the development and the added value provided by the presence of the Canal is likely to be limited.

As well as the positive contribution to the development being limited, the alignment as currently shown would attract significant cost as it would require secondary retaining structures to the back of towpath up to 5.6m high, and the volume of material which it would be necessary to excavate would be as much as 85m3/m length of canal (or 85m3/15m3 of Canal).

Given the physical constraints to delivery of the section of canal within the site boundary a number of alternative alignments were tested but it was felt that the alignment proposed through the Arup study would provide the most benefit to the development in terms of its location on plan.

In order to ensure that the canal has a positive relationship with the proposed development it is likely that the ground levels to the north of Stanley Road will need to be reduced with excavated material placed elsewhere within the site boundary or disposed of off site.

Due to the significant costs associated with delivery of this section of the canal consideration will be given to whether the canal might terminate in a canal basin at some point within the site, with a route left clear to allow extension of the canal through the development at a later date.

Cost-Benefit Analysis

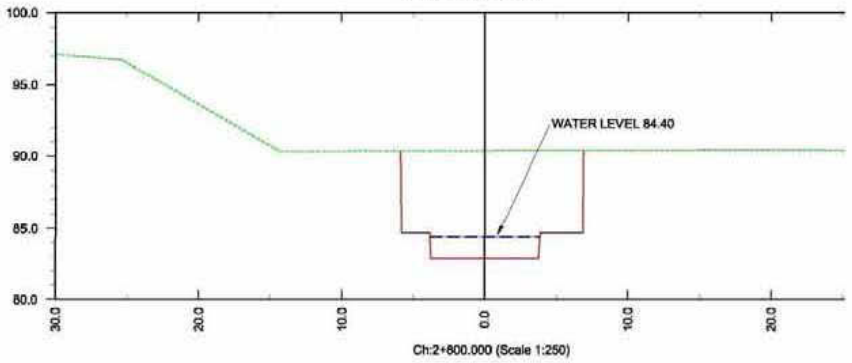
Working closely with Stockley and Urbed, Urbo and CRUVL has been considering the potential benefits and costs of a new/restored Canal to the regeneration of New Bolton Woods.

3No. potential options were tested for the section of the canal as it passes through the development area, each with different horizontal and vertical alignments, assessed against both cost and contribution to the improved local amenity.

The options are shown on the sketches below and whilst not the cheapest solution it was deemed that a variation on Option 2 would offer best value to the development overall.

Broadly the various sections of Canal differ in terms of cost and value implications and the following main conclusions begin to emerge for the masterplaning work.

Sketch Plan

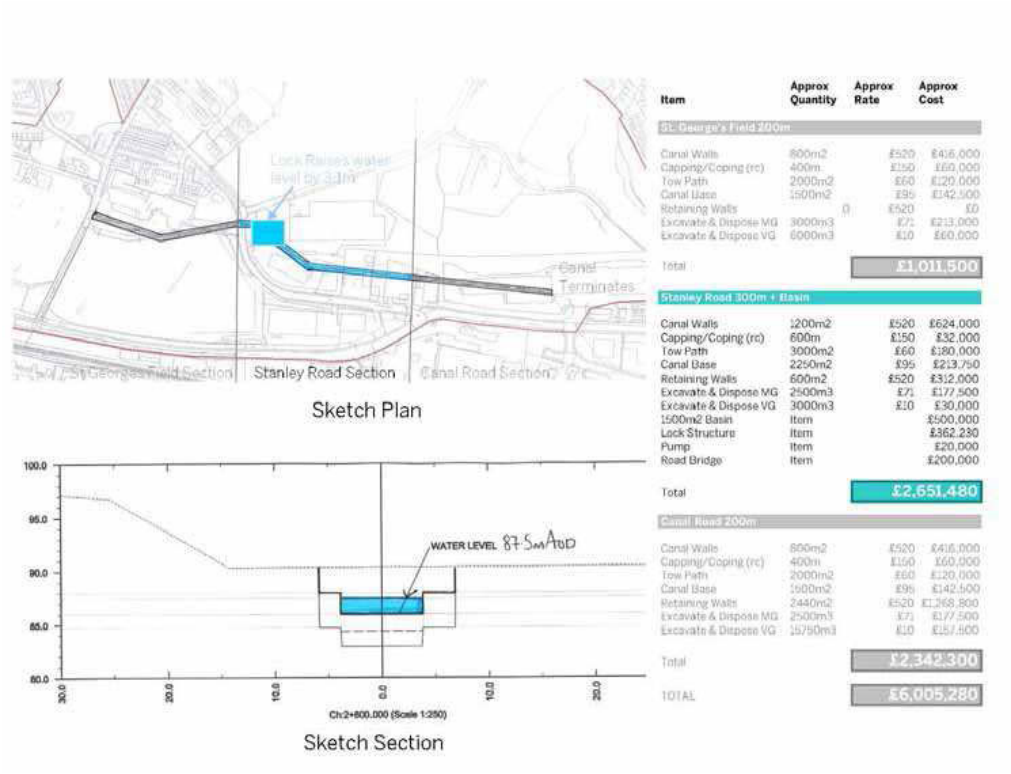


Arup Section

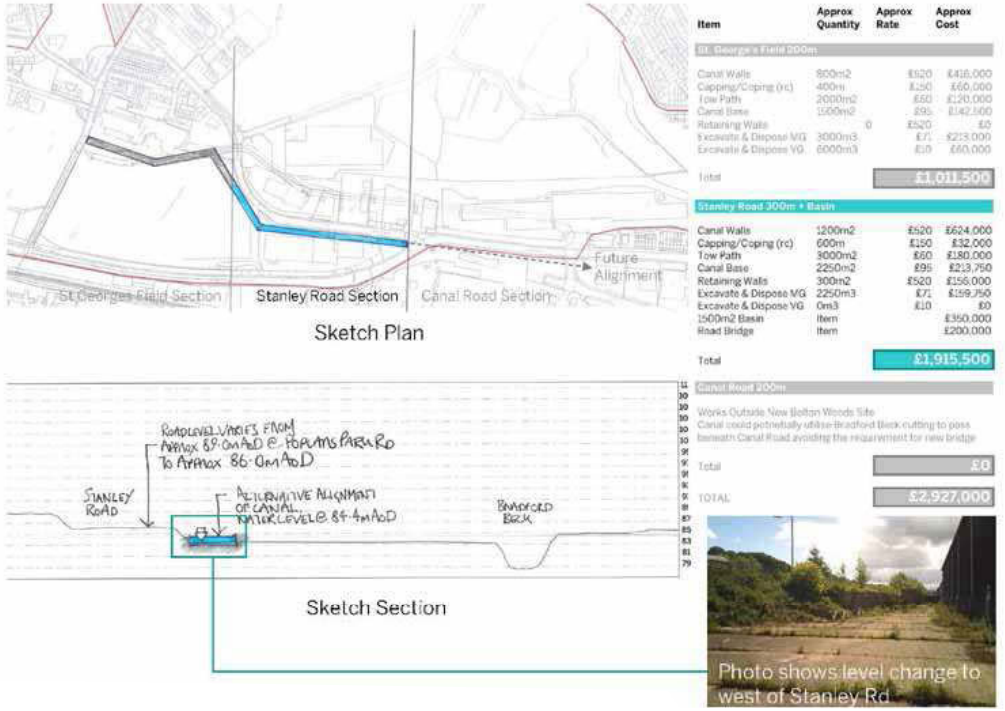
Item	Approx Quantity	Approx Rate	Approx Cost
St. George's Field 200m			
Canal Walls	800m2	£520	£416,000
Capping/Coping (rc)	400m	£150	£60,000
Tow Path	2000m2	£60	£120,000
Canal Base	1500m2	£95	£142,500
Retaining Walls	0	£520	£0
Excavate & Dispose MG	3000m3	£71	£213,000
Excavate & Dispose VG	6000m3	£10	£60,000
Total			£1,011,500
Stanley Road 300m + Basin			
Canal Walls	1200m2	£520.00	£624,000
Capping/Coping (rc)	600m	£150.00	£32,000
Tow Path	3000m2	£60.00	£180,000
Canal Base	2250m2	£95.00	£213,750
Retaining Walls	2460m2	£520	£1,279,200
Excavate & Dispose MG	3750m3	£71	£266,250
Excavate & Dispose VG	16125m3	£10	£161,250
1500m2 On Line Basin	Item		£750,000
Road Bridge	Item		£200,000
Total			£3,706,450
Canal Road 200m			
Canal Walls	800m2	£520.00	£416,000
Capping/Coping (rc)	400m	£150.00	£60,000
Tow Path	2000m2	£60.00	£120,000
Canal Base	1500m2	£95.00	£142,500
Retaining Walls	2440m2	£520	£1,268,800
Excavate & Dispose MG	2500m3	£71	£177,500
Excavate & Dispose VG	15750m3	£10	£157,500
Total			£2,342,300
TOTAL			£7,060,250

Option 1: Alignment currently proposed

The creation of a basin or pool close to a proposed local centre will provide a hugely important focal point for the regeneration of New Bolton Woods. This is an important part of the landscape proposals and will create an important sense of place for a newly built centre. It also serves an important purpose in terms of receiving surface water drainage from the upper slopes of the valley as they are developed. This basin can be created as a naturalistic area of water but designed to accommodate canal traffic as the canal expands and should it become fully connected to the canal network.



Item	Approx Quantity	Approx Rate	Approx Cost
St. George's Field 200m			
Canal Walls	800m2	£520	£416,000
Capping/Coping (rc)	400m	£150	£60,000
Tow Path	2000m2	£60	£120,000
Canal Base	1500m2	£95	£142,500
Retaining Walls	0	£520	£0
Excavate & Dispose MG	3000m3	£71	£213,000
Excavate & Dispose VG	6000m3	£10	£60,000
Total			£1,011,500
Stanley Road 300m + Basin			
Canal Walls	1200m2	£520	£624,000
Capping/Coping (rc)	600m	£150	£32,000
Tow Path	3000m2	£60	£180,000
Canal Base	2250m2	£95	£213,750
Retaining Walls	600m2	£520	£312,000
Excavate & Dispose MG	2500m3	£71	£177,500
Excavate & Dispose VG	3000m3	£10	£30,000
1500m2 Basin	Item		£500,000
Lock Structure	Item		£362,230
Pump	Item		£20,000
Road Bridge	Item		£200,000
Total			£2,651,480
Canal Road 200m			
Canal Walls	800m2	£520	£416,000
Capping/Coping (rc)	400m	£150	£60,000
Tow Path	2000m2	£60	£120,000
Canal Base	1500m2	£95	£142,500
Retaining Walls	2440m2	£520	£1,268,800
Excavate & Dispose MG	2500m3	£71	£177,500
Excavate & Dispose VG	15750m3	£10	£157,500
Total			£2,342,300
TOTAL			£6,005,280



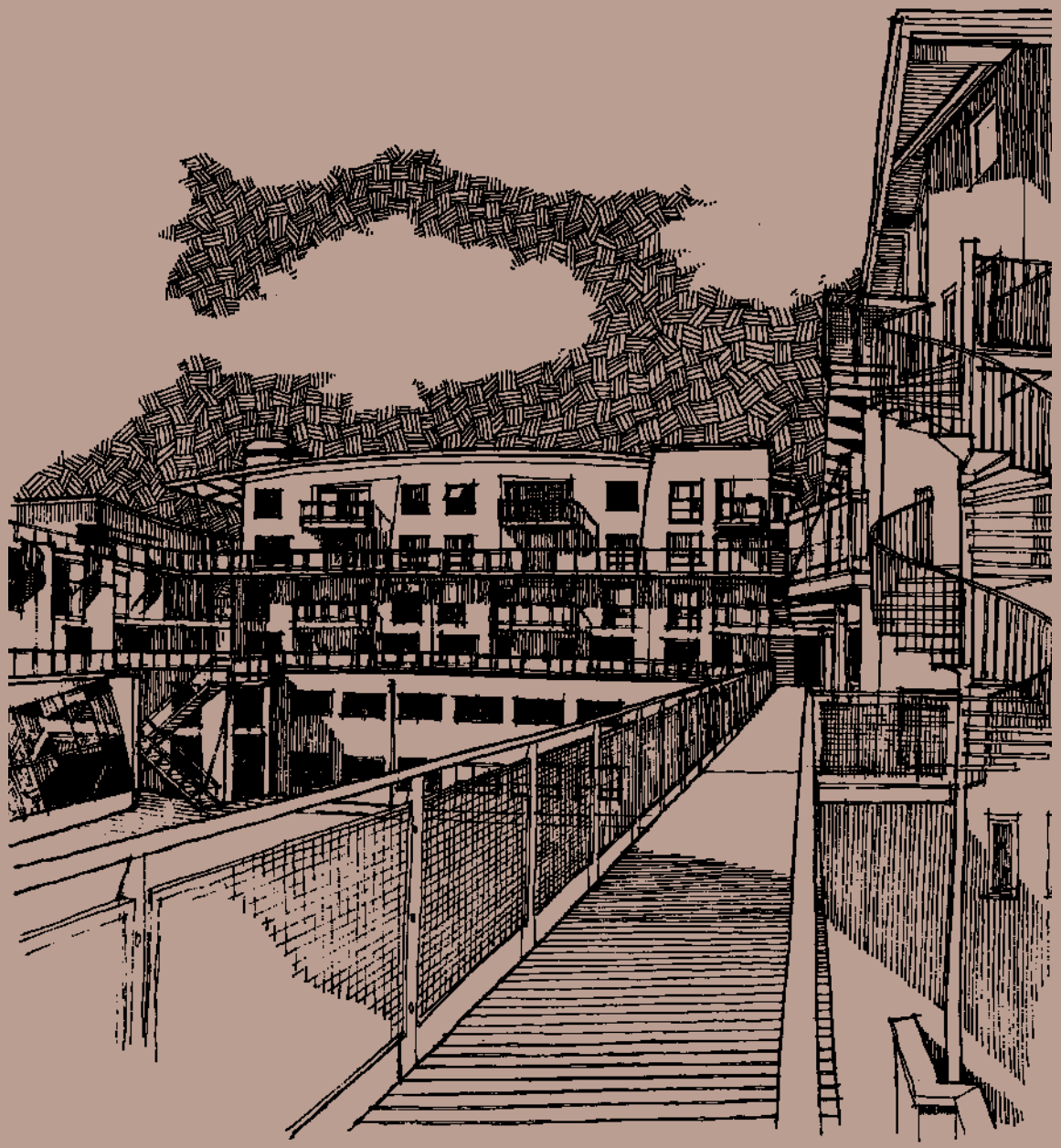
Item	Approx Quantity	Approx Rate	Approx Cost
St. George's Field 200m			
Canal Walls	800m2	£520	£416,000
Capping/Coping (rc)	400m	£150	£60,000
Tow Path	2000m2	£60	£120,000
Canal Base	1500m2	£95	£142,500
Retaining Walls	0	£520	£0
Excavate & Dispose MG	3000m3	£71	£213,000
Excavate & Dispose VG	6000m3	£10	£60,000
Total			£1,011,500
Stanley Road 300m + Basin			
Canal Walls	1200m2	£520	£624,000
Capping/Coping (rc)	600m	£150	£32,000
Tow Path	3000m2	£60	£180,000
Canal Base	2250m2	£95	£213,750
Retaining Walls	300m2	£520	£156,000
Excavate & Dispose MG	2250m3	£71	£159,750
Excavate & Dispose VG	0m3	£10	£0
1500m2 Basin	Item		£350,000
Road Bridge	Item		£200,000
Total			£1,915,500
Canal Road 200m			
Works Outside New Bolton Woods Site			
Canal could potentially utilise Bradford Beck cutting to pass beneath Canal Road avoiding the requirement for new bridge			
Total			£0
TOTAL			£24,927,000

Option 2: Alignment currently proposed with addition of a lock

The southern stretch would be necessary for any future connection into the City Centre. We believe this connection is unlikely due to the major costs associated with achieving the route to the Centre however we have designed this into the masterplan as a green/blue corridor . It can be brought forward either as a landscaped route or as a short canal arm if it adds sufficient value to waterside housing etc. These decisions can be taken later provided the line is protected. CRUVL feels it is important that the Partnership keeps all options open for the future.

Option 3: Potential alternative alignment

The northern stretch from the basin to Shipley is a much cheaper and simpler length of canal to delver. We believe it fairly likely that the project can generate value growth from the presence of a canal to assist or even cove delivery costs particularly considering that even a green corridor would carry a landscaping cost. In common with all UK canal restoration projects, we believe a long term restoration plan would be sensible with a general pursuit of capital funding over tie to deliver parts of the canal until a fully navigable route from New Bolton Woods to Shipley and the national canal network can be secured. The worst case is that non-connected but nevertheless attractive waterway is a focal point of the regeneration in this area.



Part 3

Our Approach

Delivering sustainable places

In this section we set out the Partnership's approach to the regeneration of the area based on a number of key objectives to deliver a development of the highest quality based on the principles of a 'Sustainable Urban Neighbourhood'.

The Objectives of the Partnership

The partnership was established to deliver the positive regeneration of the area based on a number of key objectives as set out in the Partnership agreement as follows:

- The creation of a high and medium density, mixed-use series of neighbourhoods comprising residential, business, leisure and retail uses in a sustainable form
- Residential space, whether apartments or houses, shall be of mixed tenure
- **Affordable housing will be provided throughout the scheme to an agreed level and in an agreed form of tenure to meet housing supply demands in neighbourhoods**
- The Master Development Plan and Phase Development Plans shall apply best practice approach to urban design ensuring the area can be established as a new settlement
- Building architecture will be of a high quality of design using a variety of designers to achieve variety within an overall planned form and design code
- Public realm works shall be of a high design quality applying a large area strategy and using individual designers to ensure variety
- The project will seek to provide sustainable solutions for the Development in terms of form and delivery
- Public art will be provided within the building and landscape design to enhance the attractiveness of the area paying due regard to the policy of the Council
- Delivery will seek to apply the principles of local labour policy
- Paying due regard to accommodating other key Council strategic objectives
- Working to ensure the continuity of employment through the relocation of affected business where possible within the Bradford District.

To begin to deliver on the objectives set out in the Partnership Agreement the Partnership has appointed URBED to develop a vision and masterplan for the area based on the principles of a 'Sustainable Urban Neighbourhood'. This concept was pioneered by URBED during the mid 1990's on behalf of the Joseph Rowntree Foundation and subsequently adopted by the Urban Task Force in its ground breaking publication 'Towards a Strong Urban Renaissance - Urban Task Force'.

Urbo believes that this kind of thinking can help us to plan and deliver a successful project measured by the desire of existing and new community to choose to live in a New Bolton Woods. This can make good sense from both commercial and regeneration perspectives. A place people wish to live in due to its attractive design and mix of uses will enjoy strong demand and tend to thrive. New houses will not by themselves transform the fortunes of an area. Urbo will take a more comprehensive view of what is needed and seek to deliver it. Working with Urbed on master-planning is the start of this process.

What is a 'Sustainable Urban Neighourhood'

The Sustainable Urban Neighbourhood (SUN) is an urban design model which is part of 21st century urban reform theory, moving away from the typical suburban development of the UK and US towards more continental city styles. It emerged in the UK in the 1990s, specifically from pioneering work by URBED (The Urban and Economic Development Group), an urban regeneration consultancy and research centre in Manchester.

Brighton New England Quarter

Brighton New England Quarter

Bristol Temple Quays

The SUN model is based on a number of defining elements as follows:

Location

The SUN is located within existing cities, and is an urban vision that works with the complexity and disorder of existing urban areas.

High density

A compact built environment increases the sustainability of the urban form. For example, influential research suggests that the higher the density of an area, the lower the energy uses for transport purposes. The key to increasing the amount of walking, cycling and public transport use is compactness: if housing is built near to existing facilities then travel time is reduced, and sustainable methods of transport are encouraged. Various options include the development of brown field sites and car parks, redevelopment of council estates, conversion of empty commercial space, intensification of existing housing areas, better use of empty homes, and subdivision of larger houses.

Rich mix of uses

The accommodation of different uses in proximity to each other encourages people to walk and cycle to school, work, and the shops. Whilst, horizontal mixed-use is more common, small-scale development that mixes uses vertically within the building, with an active commercial ground floor and residential flats and apartments above, creates the high streets and secondary streets that form the heart of a neighbourhood.

Permeability

This refers to the ease with which people, not cars, can move through an urban area by a choice of routes. It relies on a framework of streets, where each street leads to another street which leads to another, and avoiding long stretches with no junctions. This means all parts of the neighbourhood are accessible, with an emphasis on nodes of activity like shopping centres, adding to its pedestrian-friendliness and urban character.

However, the urban street has a dual role as a route and a high street, and through-traffic is important to the commercial vitality of an area. Designing streets that accommodate traffic without affecting pedestrian life is crucial to maintaining permeability for both. SUNs are vibrant places, entailing a rediscovery of the Roman maxim via vita est (streets are life).

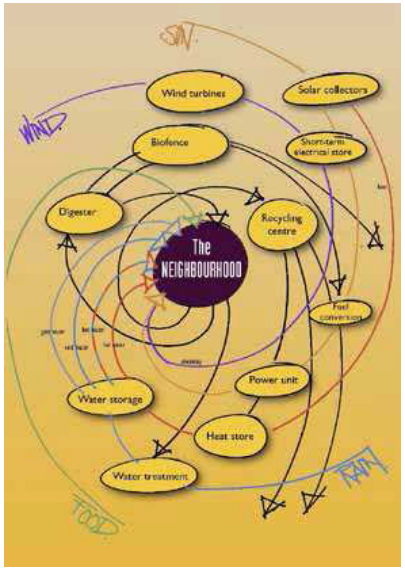
Urban blocks

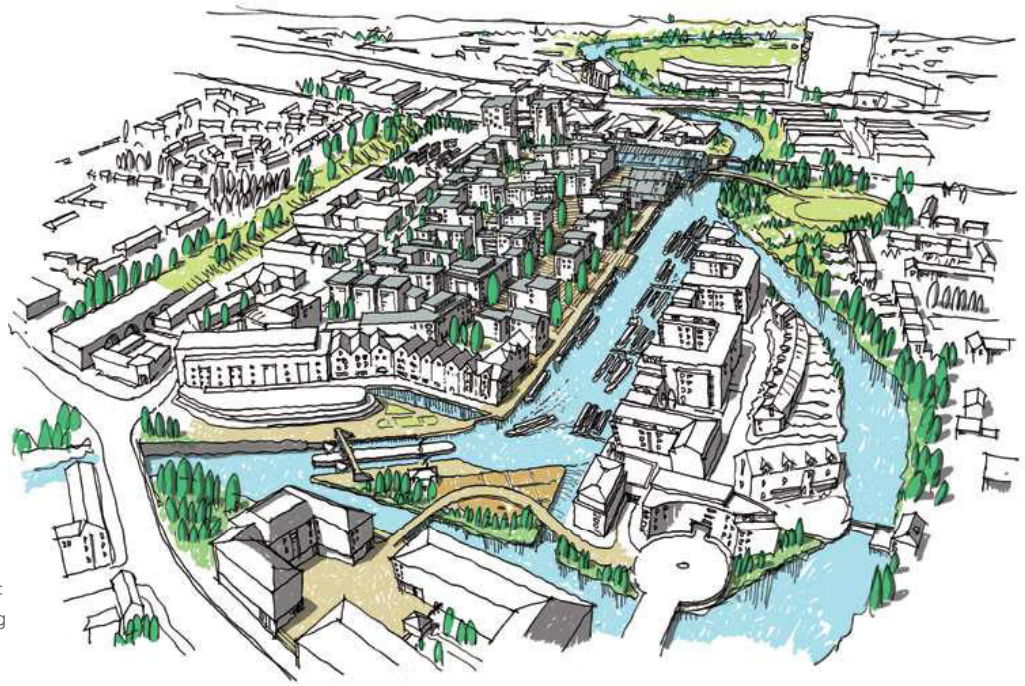
A strong framework of streets is not just about movement. It is a key organising element giving structure and form to an area. In the UK this tends to be an unplanned grid that grows out over time like a spider's web. The SUN entails a hierarchy of streets which define urban blocks for development. Buildings front onto the public realm of the street with private domains separated to the rear. This is different to suburban development where cul-de-sacs often leave houses backing onto the street. The urban grain of a neighbourhood is important to a vibrant public realm.

Small-scale development by lots of different developers creates variety in the buildings which create the backdrop to urban life. This is missing or artificially produced if a developer is given a large block to develop, failing to capture the traditional nature of urban areas. A fine urban grain creates a sense of place, not space, generating vibrancy and unity in the neighbourhood.

Good transit

An efficient public transport system is vital and the SUN should be organised to this end, so that bus/tram stops are safe and accessible to the maximum amount of people giving a real public transport alternative to the car.





Brentford Lock West: A masterplan developed by URBED and Tovatt Associates from Stockholm for Brentford Lock in London. This received planning consent in March 2011 and has been designed as an alternative model for family housing drawing on Scandinavian models. This type of thinking is currently happening in London but not elsewhere in the country

Walkability

Reducing car use is a profound influence on future development forms. As discussed, the internal permeability of the SUN is key to creating a pedestrian-friendly area where walking or cycling is the most convenient mode of transport for all trips. Also significant is legibility, which refers to how easy it is to read an urban area and understand its structure. Landmarks, variation in buildings and traditional street layouts of grids or where main routes lead to the centre, all improve the legibility of a neighbourhood.

Environmental sustainability

The priorities for urban development now require environmental sustainability to be integrated into spatial planning, as well as economic and social concerns.

This cannot be achieved by focusing either on the technological design of individual buildings or on broad (inter)national policy. The challenge is to raise standards and change behaviour at a local (neighbourhood) scale – wide enough to address broad environmental issues but small enough to effect practical change in people's lives. The aim is to reduce the linearity of resource systems, by closing some of the loops to create sustainable, circular systems at the local level.

Energy: urban housing tends to be more energy efficient due to its high-density nature and location within existing facilities and infrastructure. Urban buildings are also flexible to reuse and recycling for different functions, like the redevelopment of an old warehouse for example. SUNs are also well-suited to Combined Heat and Power (CHP) technologies, which have a major impact on energy use efficiency and lower the environmental effects of electricity generation.

Water: there are many local level mechanisms that can help close resource systems. For example, recycling water from baths and sinks for toilet flushing is known as grey water restoration, which can benefit from economies of scale when serving a whole neighbourhood.

Recycling: urban densities are an advantage as they produce a sufficient volume of collected waste to support economically-viable urban recycling systems where waste is segregated by collection operatives, not in the home. Related to this is the potential for neighbourhood scale recycling activities, for example, the informal exchange of goods like furniture.

Another environmental priority is the incorporation of green spaces in the SUN. It is about quality not quantity, as open space takes away from the vibrant, high-density nature of the neighbourhood. Therefore, opportunities to maximise wildlife and diversity are more important than having large, uniform areas of grass, like street trees, parks, squares, balconies, window boxes, courtyards, private gardens and roof gardens.

Community

Whilst environmental sustainability is a priority, it should not be at the expense of social concerns. The SUN is a civilised place for people to live and communities to prosper. Specifically it is about creating popular neighbourhoods that are a joy to live, work and play in, and which continue to attract people and investment over the years.

The middle-classes and upper working classes should be attracted back to the city, so as to remove the stigma of living in inner city areas, generating a diverse community rather than deteriorating ghettos of the socially deprived.

By integrating a mix of tenures and uses in a neighbourhood with a balance between gentrification and decline, a sense of belonging and pride in an area is created. This tends to go hand-in-hand with incremental, small-scale development that allows urban areas to grow and change organically over time.

China: Dongtan near Shanghai

UAE Masdar

Germany Freiburg

Sweden Western Harbour, Malmo

Development Case Studies influenced by the SUN model

Urban Villages

The Urban Village Forum is perhaps the best established advocate for new sustainable models of development in the UK. Nicholas Falk, URBED's founding director claims to have coined this phrase in a speech he wrote for Prince Charles in the late 1980s. The idea took route with the publication of the Urban Village book by Tony Aldus in 1992. This described the urban village as a freestanding town with 30,000 people. This has never really been attempted, the nearest being Poundbury an extension to Dorchester in Dorset. By the mid 1990s the Urban Village had evolved into something more likely to describe a neighbourhood of an existing town or city. This happened in particular after Dave Lunts (who had been closely involved in Hulme in Manchester) became the chief executive of the Urban Village Forum.

A series of areas across the country were designated as urban villages including West Silvertown in London, Holbeck in Leeds and Little Germany in Bradford. None of these developed into a model of an urban village in an urban setting. Indeed the urban village concept has become mixed up in a debate over traditional verses contemporary design the forum is seen by some as a reactionary influence. So while the name for the Partnership is Canal Road Urban Village Ltd this doesn't necessarily help shape the model. A better guide is Urbo's desire to build a relatively self-contained 'Village' with a good range and mix of uses and facilities and a strong sense of identity. We are about making a 'New Bolton Woods'.

International examples

There are models for eco settlements of various kinds across the world. In the US the Congress for New Urbanism and architects like Peter Calthorpe have been promoting Pedestrian Pockets while academics like Richard Register have been exploring Eco-Neighbourhoods. In Germany and the Netherlands there have been new low carbon neighbourhoods, the best known of which is Vauban in Freiburg recently codified through the Academy of Urbanism's Freiburg Charter.

In Scandinavia there are models like the Western Harbour in Malmo and Hammarby in Stockholm while the French had a programme called Les Ecoquatiers which is very like our Eco-Town programme (but a lot cooler!). Further afield there are a whole clutch of Eco-Towns of staggering proportions in China. The most well-known is the ARUP-designed, Dongtan near Shanghai, a city of half a million people. There is also Foster and Partners Masdar, a 6M square meter zero waste, zero energy walled city in Abu Dhabi.

UK Poundbury

UK Hackheath Ecotown

USA Congress for New Urbanism //Pedestrian Pockets

UK Telford Millennium Community

Millennium Communities

These were an initiative promoted by John Prescott in the late 1990s to explore innovation in housing. The first one was Greenwich in London which was followed by Allerton Bywater in Leeds, New Islington in Manchester, East Ketley in Telford, South Lynn in Kings Lynn, Oakgrove in Milton Keynes and Hastings. These were fraught with difficulty because they attempted to innovate on too many fronts at once without provision for additional costs. The elements that have been built are however some of the best recent examples of innovative family housing,

Eco-Towns

These were an initiative of Gordon Brown, announced in 2007. Bids were invited and a shortlist of 15 sites were announced in 2008, including a site in the Leeds City Region of which four sites have been short listed including the Bradford-Shipley Canal Road Corridor. Most of the others were repackaged urban extensions or the development of former airfields or questionable eco-credentials.

Four sites were announced in 2009 including Whitehill-Bordon and North West Bicester in Oxfordshire, St. Austell and Rackheath in Norfolk. They were allocated £60 million to support local infrastructure along with up to £5 Million for up to six councils to conduct further planning work. One of these was the Leeds City Region which commissioned work to find a suitable site. This study concluded that the site should be in Selby (also part on an URBED masterplan). However this was eventually rejected by members in Selby and after further work three potential sites were selected including the Canal Road Urban Village. This never went any further and the Coalition has recently repealed the eco town planning policy effectively bringing an end to the programme. Of the first four only Whitehill-Bordon is said to be retaining its eco standards at the insistence of the local council.

Each of these models started as freestanding settlements and have developed into responses to existing neighbourhoods. The starting point was often the same as the Garden City and involved a network of 'traditional' places (towns or villages) grouped around train stations or public transport nodes. The SUN had a very different aim, namely the repair of existing urban areas and the reconstruction of traditional patterns of neighbourhoods and neighbourhood centres. The question is which is more appropriate to Bradford?

Viability / Deliverability

The preceding summary about Sustainable Urban Neighbourhoods gives an indication of the main thrust of our design approach without going into too much detail in this document. Nevertheless URBED have worked to develop these principles over many years and are engaged in delivery of projects with a small number of clients who are putting this type of approach into practice such as Igloo, Isis and Urbo. The Directors of Urbo have worked alongside Urbed for many years and are familiar with the thinking this approach is based on.

We must stress however that this is not an academic exercise that assumes all the aspects of Sustainable Neighbourhood planning and design are possible or even desirable in all circumstances.

The delivery Partnership, Canal Road Urban Village Ltd (CRUVL), has been very carefully structured to allow for a pragmatic approach to regeneration. Whilst ambitious in terms of design it is primarily about getting the project delivered on site and creating the best supply of high quality housing in a mixed-use environment, actually possible in practice.

Urbo believes that good planning and design makes commercial sense. This is because by achieving a wholesale positive change over a large area, values can be increased and the area can become one that is 'aspirational' in that all types of people will feel welcome and enjoy living there. This is not the same as being 'exclusive', indeed it is about being 'inclusive', but very firmly pro-active. Everyone should benefit from healthier demand for housing and better amenities, services and environment, all designed for quality and convenience of use.

If we design well and pay attention to the over-riding importance of viability and delivery we can achieve an on-going process of development to achieve the best project we can. To make a New Bolton Woods, we believe a good guide will be to look at the Neighbourhood as a relatively self-contained Village with as many amenities as possible available locally. This will lead towards a more sustainable solution by reducing the need for journeys. It will also ensure local support for shops and other facilities ensuring they are economically sustainable.


NO PARKING
ON GRASS
THE GREEN

Part 4

VISION

for a thriving and sustainable village

This section sets out the vision for the area based on the principles of a 'Sustainable Urban Neighbourhood' and although the work and activity will change over time as issues are addressed and opportunities created, we must pursue an informed and clearly focussed Vision for what the area can become. The following pages set out the 9 key points of the Vision. We now need to work with all partners including the local community to see what can be achieved.

"The New Bolton Woods - a thriving village with all its own amenities."

A VISION FOR NEW BOLTON WOODS

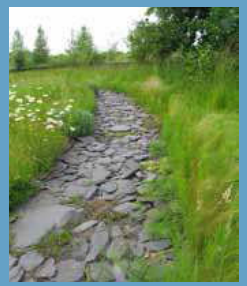
1. A CHOICE OF HIGH QUALITY HOUSING
2. A NEW LOCAL CENTRE AT THE HEART OF THE COMMUNITY
3. A SUSTAINABLE PLACE
4. ATTRACTIVE LANDSCAPE AND OPEN SPACES
5. NEW AND IMPROVED SPORTS FACILITIES FOR THE COMMUNITY
6. STRONG IDENTITY AND UNIQUE CHARACTER
7. A STRONG SENSE OF COMMUNITY
8. CONTEMPORARY DESIGN THAT IS BUILT TO LAST
9. A PLACE WITH A VILLAGE FEEL

1 A CHOICE OF HIGH QUALITY HOUSING

One of the most important objectives for our Partnership will be to deliver a wide range of high quality sustainable homes for a variety of age groups. This will range from affordable housing to higher value housing in the sort of mix that can be seen in any popular village or small town. The houses will be of contemporary design but will use materials appropriate for their setting in West Yorkshire. This is a vital part of Bradford's requirement to meet housing needs locally.

2 A NEW LOCAL CENTRE AT THE HEART OF THE COMMUNITY

Any successful village has a strong centre where shops and other shared facilities are located. Bolton Woods used to have this when it was thriving and we now have the opportunity to re-establish a new centre in a location that will ensure it's success and sustainability. It will serve the local community and be a focal point for activity and interaction.



3 A SUSTAINABLE PLACE

Our challenge is to regenerate Bolton Woods as a sustainable place so improvements are long-lasting. Buildings will be designed to the best modern standards of high quality. We will look to minimise the carbon footprint in our design and construction and provide homes that will be cheap and efficient in their use of energy and other resources. We will encourage cycling and walking by making routes safe and attractive and managing traffic movements as far as possible. We will also encourage travel by train improving access to Frizinghall station.

4 ATTRACTIVE LANDSCAPE AND OPEN SPACES

Bolton Woods benefits from open space and green areas at present although some of these are already allocated for new housing development and others are difficult to access and poorly maintained. The Partnership intends as part of the project to provide a series of well-landscaped, high quality open areas and linear parks for the community to enjoy. These will be a major part of the area's attractiveness and could also include new water-spaces as part of the restored canal.

5 NEW AND IMPROVED SPORTS FACILITIES FOR THE COMMUNITY

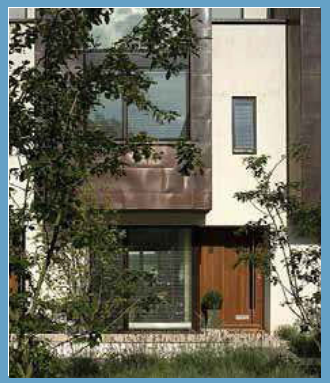
Bolton Woods already has some good sports facilities, and we believe there is an opportunity to support these through investing in improved facilities including a new cricket pitch at the heart of the community. They can be linked to the new centre and be a valuable attraction representing the New Bolton Woods.

6 STRONG IDENTITY AND A UNIQUE CHARACTER

We recognise the unique history and character of Bolton Woods and will look to create a successful place, having full regard to it's past but very much looking to the future. We believe it's possible to make an attractive new village by planning in all the things that people would choose to have there. We can do this whilst still ensuring that it is founded on the historic context of Bolton Woods.

7 A STRONG SENSE OF COMMMUNITY

By creating a place with a wide range of housing and community facilities, people of all ages and backgrounds will feel at home. By working to make a New Bolton Woods more attractive we can foster a continued sense of local pride. We hope this will build on some of the good work done in the community to date.



8 CONTEMPORARY DESIGN THAT IS BUILT TO LAST

We believe that design quality is hugely important in ensuring the New Bolton Woods is built to last. We will work with leading designers to ensure the place is attractive and pleasurable, to live, work or enjoy leisure time in. Attention will be paid to landscaping and public spaces and routes. Play areas will be provided for children and safety and security will be 'designed-in'. Where possible streets will be home-zoned to ensure residents have priority over cars. Houses will be built to be long-lasting and 'low-energy' in accordance with the latest standards.

"People will choose to live in New Bolton Woods, a thriving and sustainable Village."

9 A PLACE WITH A VILLAGE FEEL

In many ways this summarises the entire vision.

We hope to create a New Bolton Woods that builds on its history and becomes a well-defined and well-connected Village between Bradford and Shipley. Like all successful villages it will have a strong centre as a focal point for the community. This will include good shops, community, sports and leisure facilities, places to work and open spaces to enjoy. The population will be able to live in a wide range of new houses in addition to the current streets, to suit a broad community from young families to elderly residents.

Part 5

Masterplan Development

Establishing an approach

In this section we describe the strategy and principles of the emerging masterplan for New Bolton Woods to inform a series of masterplan options for the area.

Our Approach to Masterplanning

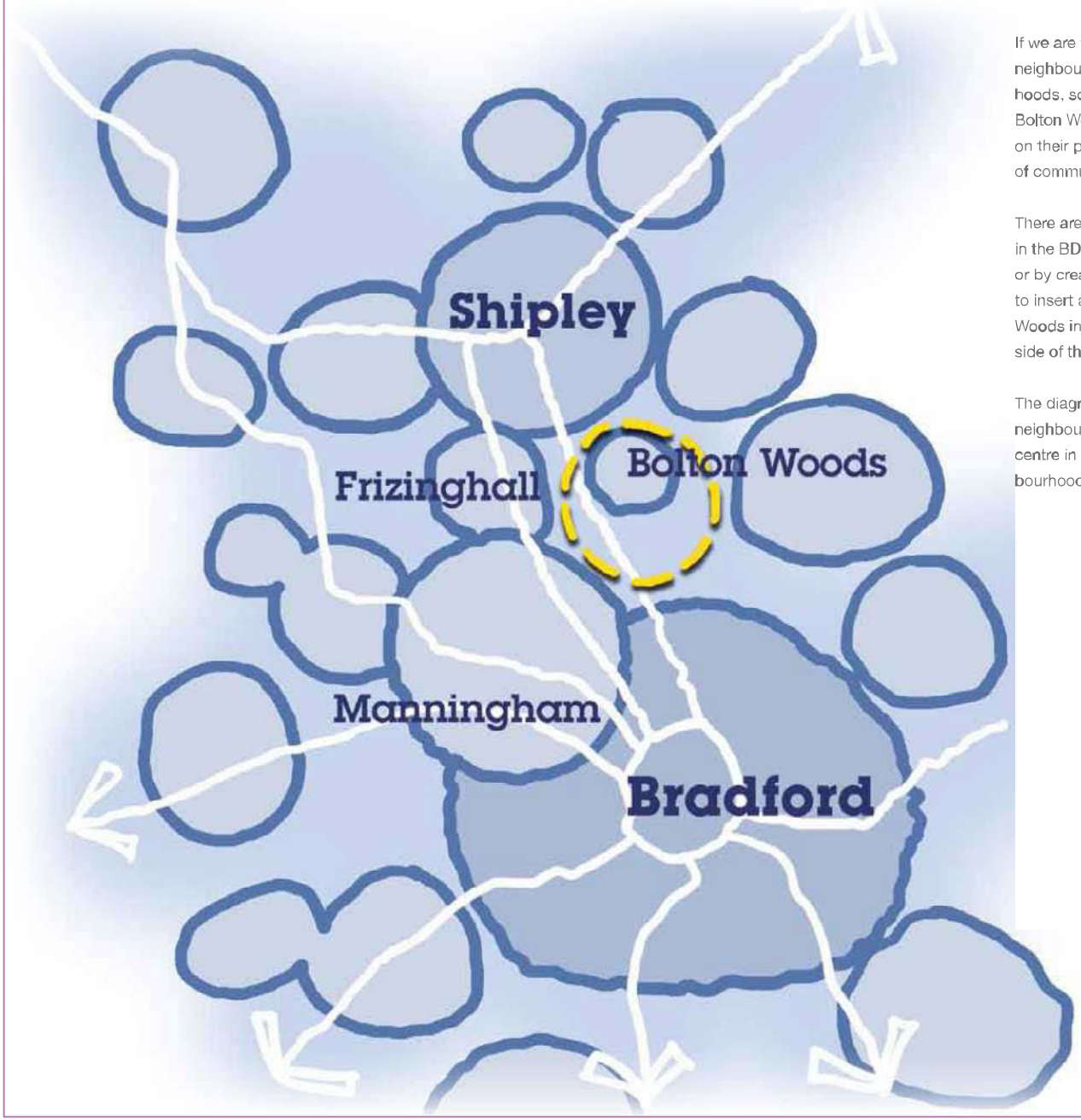
Our approach to masterplanning is to create a framework into which development can grow over many years. We have concluded in the earlier sections of this report that our approach to the central part of the Canal Road Corridor should be to create a new sustainable urban neighbourhood based on Bolton Woods. The masterplan therefore needs to establish the structure and form of this neighbourhood, how it functions, how it is seen, how people move about, how it is divided up into sub neighbourhoods and how it can grow over time.

It is important not to see a masterplan like this as a piece of large-scale architecture. We shouldn't assume that it will be built exactly as drawn. Over the coming years different parts will be designed by different architects and elements will inevitably change in detail. Nevertheless the vision and structure should be a strong and constant guide. This is how it should be and will create the natural grain and variety that you get in a place that has developed gradually.

Many of these people will not have been involved in the initial masterplan and it is an unfortunate fact that many over prescriptive masterplans are undermined as people take it on themselves to rethink its design. The intention of this plan is to create a clear but loose-fit framework that can serve the neighbourhood for many years. This is a very traditional form of masterplanning similar to the plans produced by John Nash for parts of London that continue to shape the city today.

This structure is developed in nine stages on the following pages. Each adds another layer of detail to the plan and feed into the options plans in the following section.

1. Neighbourhood

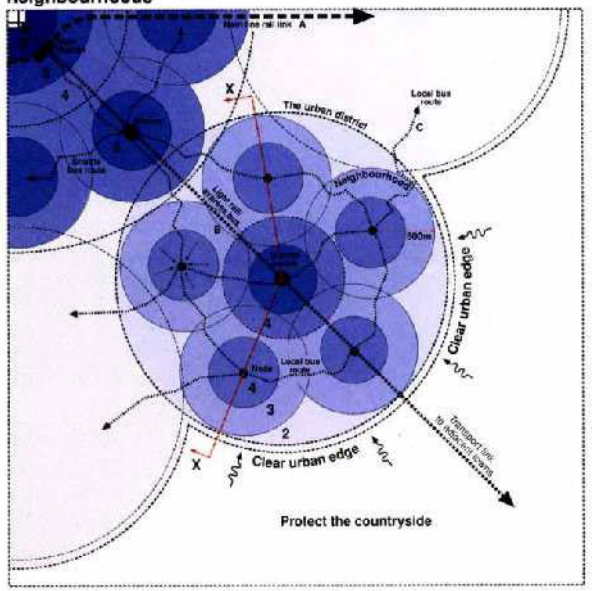


If we are to create a new neighbourhood we need to understand how it fits within the existing neighbourhood structure of North Bradford. Like many cities, this is a patchwork of neighbourhoods, some built recently and others based on original towns and villages (like Shipley and Bolton Woods). To different extents these neighbourhoods have their own identity based partly on their physical character and partly on their communities. Each also has a centre and a range of community and recreational facilities such as pubs and churches, parks and clubs.

There are a number of ways in which the Canal Road Corridor could be developed as explored in the BDP work. It could be developed by expanding each of the surrounding neighbourhoods, or by creating links between them or by a series of smaller 'villages'. We however have opted to insert a substantial new neighbourhood into this structure, building the village of Bolton Woods into a neighbourhood that has as strong an identity as Manningham on the opposite side of the valley.

The diagram below from the Urban Task Force report in 1999 shows the structure of an urban neighbourhood such as this. This shows a series of neighbourhoods clustered around a city centre in dark blue each of which has a strong centre and is in turn surrounded by sub neighbourhoods. This is what we are seeking to achieve in Bolton Woods.

Compact urban area: clear urban districts and distinct neighbourhoods



2. Identity

Two examples of places built on steep hills, top Telegraph Hill in San Francisco and below the hillside where Ruskin built his retreat in Barmouth Wales.

The high street of Moseley Village in Birmingham creates the identity of the neighbourhood. A new pedestrianised high street in Boston Lincolnshire above showing how identity can be created with modern retailing.

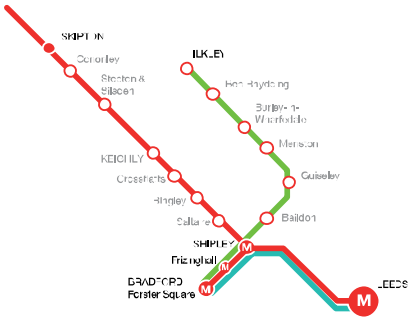
Centre: There are a number of issues that define the character of a neighbourhood. The most important of these is its centre which tends to be what people bring to mind when they think about a neighbourhood. In traditional places people have this image of the centre because they pass through it on a regular basis. The main roads and bus routes pass through the centre of the neighbourhood so it is not only the focus for the community but also the most visible part. In the Canal Road Corridor this would suggest that the centre should be on Canal Road which clearly has the greatest passing trade. Indeed as the history of Bolton Woods illustrated in Part 1 shows, the village began to decline losing the majority of its shops and services when passing trade was diverted onto the newly built Canal Road in the 1920s.

It is not however possible to position the centre on Canal Road, partly because of the volume of traffic but mainly because the western side of the street is not available for development and a one-sided high street rarely works (Princess Street in Edinburgh being the exception). We could also base the centre on the original centre of Bolton Woods in an attempt to replace some of the shops it has lost. This would however be largely hidden from the outside world and would have no passing trade. We have therefore focused on centres that are linked to and visible from Canal Road. Each of the options above would be seen by traffic on the road and bus services could be diverted through the centre so that it can become a central part of the neighbourhood's new identity.

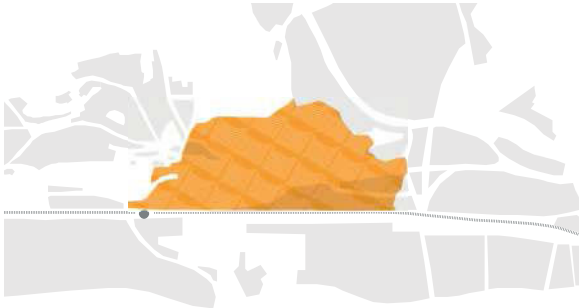
Edge: Some neighbourhoods have no edge, they just feather into the surrounding neighbourhoods seamlessly. However edges can also be used to create identity as happens in coastal towns and neighbourhoods next to parks and open space. In Bolton Woods we have a very important edge running along Canal Road. This will be the public face of the new neighbourhood and the most important in creating its image.

Sub-neighbourhoods: The identity of the neighbourhood will not be homogeneous. As with the diagram on the previous page, the neighbourhood centre will be surrounded by sub-neighbourhoods. Each of these should have its own distinctive identity derived from the type of housing, the topography and its design. Its also likely that these sub neighbourhoods will have their own names and be reflected in the structure of community organisations.

3. Accessibility



Top: The Bradford / Leeds Train Line and above the 10 min isochrone from the station. Below the 10 minute isochrone around one of the possible centres.



It is no coincidence that the US version of the Sustainable Urban Neighbourhood is called the Pedestrian Pocket because fundamental to its character is walkability. This is important partly to reduce the need to use the private car, but also because it creates lively safe streets and helps supports shops and local facilities.

The first principle of walkability is to reduce distances between places that people need to go. So as many people as possible should be able to live within 5 minutes walk (400m) of the local centre. A mix of uses, particularly within the centre therefore means that people can work and shop locally without needing to use a car. In terms of wider travel the aim is that every house should be within 5 minutes walk of a bus stop and as many as possible within 5 minutes of a station.

These walking distances are measures as isochrones which are based on the road network, barriers such as the railway line and topography. The plans above show the five-minute walking isochrones from the station and around one of the potential centres. These zones suggest the area where higher density housing should be concentrated to maximise the number of people in the walkable zone. We will also need to develop a bus plan showing public transport penetration into the neighbourhood and access to stops.

A further aspect to accessibility is permeability, which is a measure of how easy it is to get around by a variety of routes. We need to create a permeable street network with links to the neighbourhoods to the east. In terms of traffic this will avoid pushing all traffic onto Canal Road and reduce travel distances. It is counter intuitive but is also the case that permeable road networks encourage walking because distances are reduced and streets with traffic feel safer that pedestrian only routes. The plan above therefore explores the potential to create a series of road connections to the east. Permeability is also about the layout of the plan, a connected road network, even where the hills become very steep and the humanising of canal road.

The accessibility of the area and Masterplan will be appraised using ACCESSION Accessibility Mapping which utilises public transport timetables and walk times to provide a visual illustration of journey time and connectivity. This work will support future travel planning undertakings as well the development of the Masterplan.

Attractive walkable streets will reduce the need for car use. These can include steep gradients as in Robin Hood's Bay above as well as Canal Road that could be developed like the Amsterdam Boulevard above and residential streets ti the home zone to the right also in the Netherlands.

4. Integration

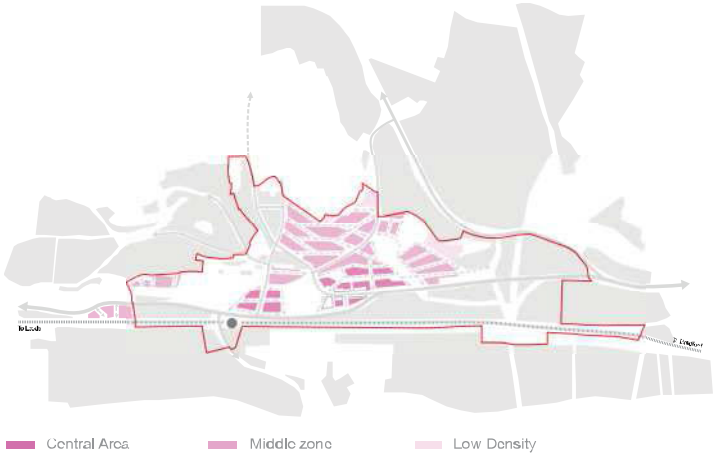
There is often a danger that new development is inward looking and fails to relate to the surrounding neighbourhood. The permeability principles in the previous principle therefore need to be extended into the surrounding neighbourhoods taking any opportunity available to make links into the existing housing areas. In this way existing residents in Bolton Woods, the Kings Road area and in the future the Marshall's Quarry development will feel part of the area and able to use the shops and other facilities. The plan of the new neighbourhood needs to be designed to knit together these surrounding neighbourhoods like the fingers of the hands below so that the scheme becomes part of a wider integrated whole.

5. Mix of uses

Sustainable neighbourhoods should have a mix of uses to create activity and ensure that a range of facilities are within walking distance of the residents. This includes retail uses, likely to be concentrated in the local centre and to be anchored by a supermarket. The neighbourhood should also include community facilities such as doctors, dentist, places of worship, schools and meeting space. In some cases it may be sensible to invest in existing facilities rather than create new ones.

There is also the potential for leisure use, particularly if the canal is reopened with scope for food and drink uses around a basin plus canal related activities. The team is currently also exploring the viability of the canal. Ideally the neighbourhood would also include employment uses and many of the development models suggest that there should be as many jobs as there are residents. This however is limited by the likely demand for employment space and the likelihood is that the existing employment on Hillam Road would be part of the provision. There is also the potential to explore live work units and home working hubs to encourage people to telework.

6. Variety and diversity



Sustainable places don't put all their eggs in one basket by creating a monoculture of one type of housing. The aim is to explore a variety of housing typologies, densities and designs so that the neighbourhood is able to accommodate a wide range of people to create a diverse lively community.

The map shows three potential density zones, drawn from the isochrones work shown earlier. The central area would be developed at urban densities of up to 70 units/ha and the middle zone at more urban densities of up to 45 units/ha with some peripheral low-density zones of individual villas incorporated into the landscape. All three density zones would include a strong element of family housing although the high-density areas would also include apartments. The design would also be influenced by the sub neighbourhoods described earlier with each developing its own character based on topography and density. Further variety will be added by employing different designers within these sub-neighbourhoods and indeed within them.

Overall the aim is to achieve a high quality of contemporary design throughout the neighbourhood so that the overall image is of somewhere that is very different from the standard developer offer. It is important to remember that the build period will be extended over a number of years so that the scheme should not be confined to the limited range of housing that is currently attractive to the market. In the medium and long term it is likely for example that there will be demand for apartments and urban house types that can form part of later phases.

Greenfield, Gr. Manchester

Accordia, Cambridge

Essen, Germany

Upton, Northampton

Freiburg, Germany

Meier House

7. Open Space

The next layer of the plan relates to the open space network. The valley is currently a green corridor and there is an opportunity to continue this through the scheme by creating an eco-neighbourhood that enhances biodiversity.

The open space framework includes the wooded copse of trees on the valley side at Hollings Close together with the green area to the east of this. This includes the retention, protection and enhancement of Bradford Wildlife Area where possible, and we will increase net gain in ecological value across the site. The various options look at different approaches to the King George V playing fields. In some these are retained as a village green in other options they are replaced elsewhere in the valley. All of the schemes retain the Bolton Woods football club as part of a string of open spaces along the Beck. We have also explored the potential for a larger piece of open space to create a neighbourhood park between this scheme and the Marshall's Quarry site that would be a city park mirroring Listers Park across the valley.

This would all be linked together to create a continuous green web across the site. The opportunity to do this is the line of the canal which if it were not opened would be a green link through the site. These green areas would be used for recreation as well as being incorporated into a site wide SUDs network. These green spaces would also be linked to opportunities for greenery within the housing stock in gardens and on roofs to create a net positive contribution to biodiversity.

8. Sustainability

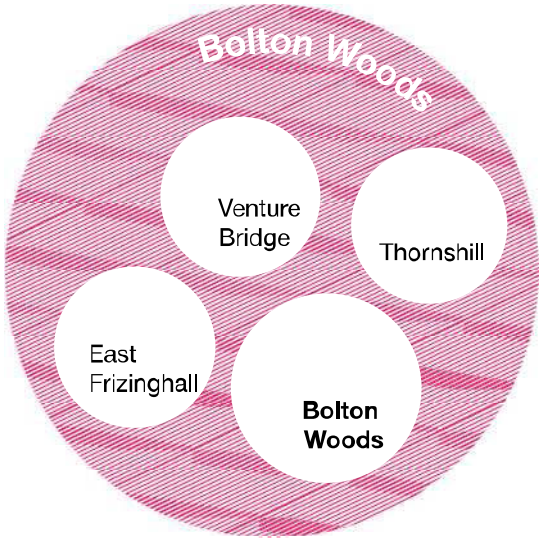
The principles of sustainable development are embedded in the Sustainable Urban Neighbourhood model that has informed the development of the masterplan.

The scale of the development provides the opportunity to reduce the energy requirements of the scheme. The higher density areas located in the valley bottom are suitable to support a localised heat network connected to a chp plant. Reduction of the energy needs of the areas outside of the heat network will be achieved through micro-generation such as solar PV and solar hot water.

The site currently contains a major timber company. This presents the opportunity for onsite production of timber frames and other elements in the early phases of construction. This will help to reduce the level of embodied energy in the construction of the scheme by reducing the transport energy costs.

A sustainability strategy will need to be prepared as part of any outline planning application to explore the potential for sustainable approaches and technologies including renewable energy, green transport, food production, recycling and waste minimisation, water use and SUDs, biodiversity and micro climate issues.

9. Stewardship



The final layer of the masterplan relates to the software of the neighbourhood, the work that can be done to build the social capital of the area and assist the growth of a strong community. This starts with the development of the scheme and the engagement of local people in the design of the scheme. There may be scope for an element of self-build. Once the housing starts to be occupied there is also scope to involve people in the management of the neighbourhood. This can range from residents organisations to direct management of community facilities, open space, local energy systems etc... There is scope to facilitate this through a community Intranet linked to high-speed broadband provision.

Part 6

OPTIONS

Masterplan Development

In this section we present a series of development options to test and explore different ideas for the regeneration of the area based on the principles of a Sustainable Urban Neighbourhood.

Option 1

Option 1 was based on a street layout that followed the contours of the topography. The local centre was positioned on Stanley Road where it would be clearly visible from Canal Road. The canal alignment was based on the preferred alignment drawn up by Arups.

Local Centre

The local centre was located on Stanley Road. This had the advantage of being visible from Canal Road as you drove into and out of Bradford. The centre is also located on the way back from the train station meaning you can pick up your shopping on the way home from the station.

Street Layout

The streets have been designed around a permeable network of streets, which follow the contours of the site. The resulting form was a series of grids, which weaved together.

Canal

The canal alignment was based on the preferred alignment drawn by Arups. The potential for a connection to the town centre was retained.

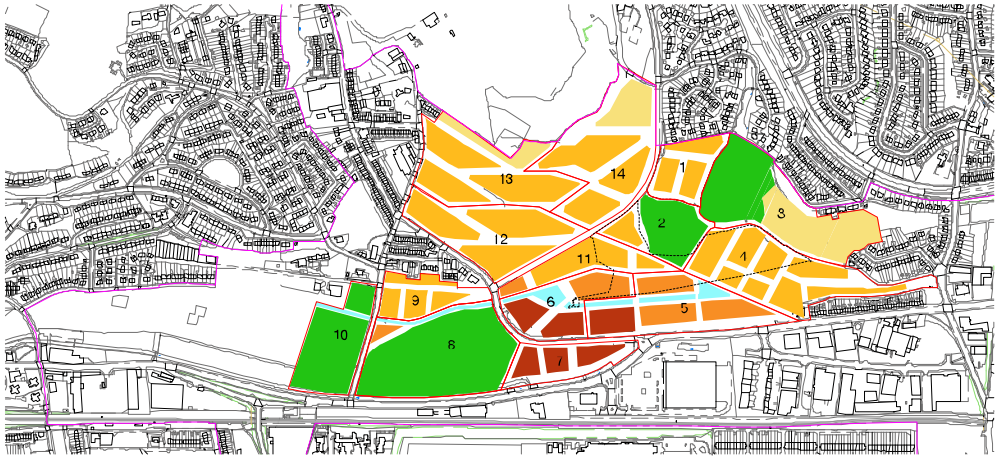
Open Space

The cricket pitch was retained and would have operated as a 'village green' next to the local centre. The football pitches were also all retained along the valley floor. The canal would have run through the site with 2 canal basins along its length. The existing collections of trees were retained along with the historic wall running along the lane to the south of the site.

Housing

Higher density housing was located around the local centre and canal basins. Housing density then stepped down as you moved up the slope with the lowest density housing nestled within the existing trees.

OPTION 1	
Total Site Area	39.26
Total Housing Units	1216
Open Space	9.94 ha
Canal	1.42 ha



Option 2

Option 2 adopted a more geometric approach to the street layout. The local centre was located closer to the train station and the canal alignment ran closer to Canal Road.

Local Centre
In the second option the local centre was located on Gaisby Lane. This would have also been visible from Canal Road as you drove into and out of Bradford as well as being the closest location to the railway station.

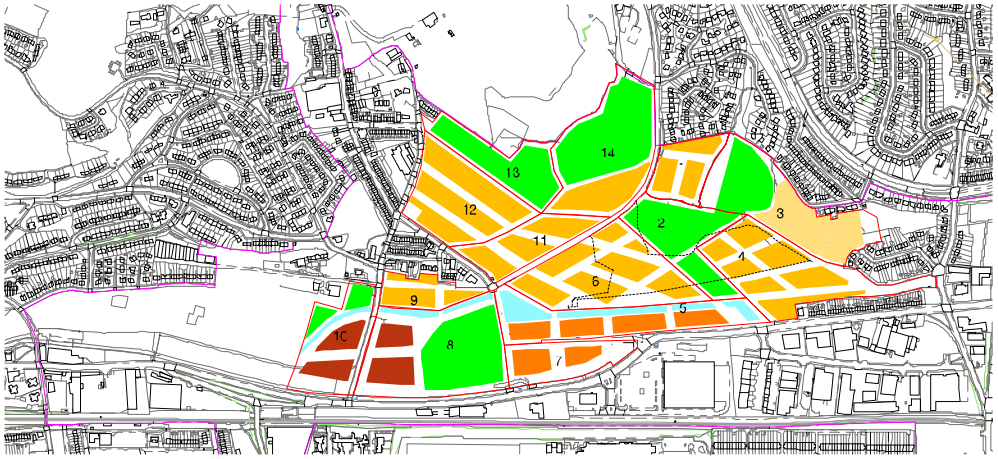
Street Layout
The street layout in this option had been designed around 2 clear grids which set up a strong geometry across the site. The grid along the valley bottom ran perpendicular to the canal while the grid on the slope runs at a 45° angle to the slope.

Canal
This option contained 2 basins, one on Canal Road and a second further into the site. Towards the northern edge of the site the canal was positioned closer to the Beck to avoid disrupting Bolton Woods Junior football club.

Open Space
The cricket pitch had also been retained and again operateed as a 'village green' next to a local centre. In this option the ground was enclosed by development on 3 sides. The local centre on Gaisby Lane would have resulted in a small loss of open space along Canal Road but the football club and football pitches were again retained along the valley floor. The canal ran along the valley bottom and again had 2 canal basins along its length. The existing collections of trees were retained along with the historic wall running along the lane to the south of the site.

Housing
Higher density housing was located around the local centre and canal basins. Housing density then stepped down as you moved up the slope with the lowest density housing nestled within the existing trees. Additional housing was included around the local centre on Gaisby Lane.

OPTION 2	
Total Site Area	38.29 ha
Total Housing Units	1101
Open Space	12.36 ha
Canal	2.21 ha



Option 3

Based on the layout and form of Option 1, this option increased the level of development by moving the local centre onto the site of the existing cricket ground.

Local Centre
In the final option the local centre was located on the existing site of the cricket ground off Gaisby Lane. This would have been visible from Canal Road and was located close to the train station. It was also the closest location to the railway station.

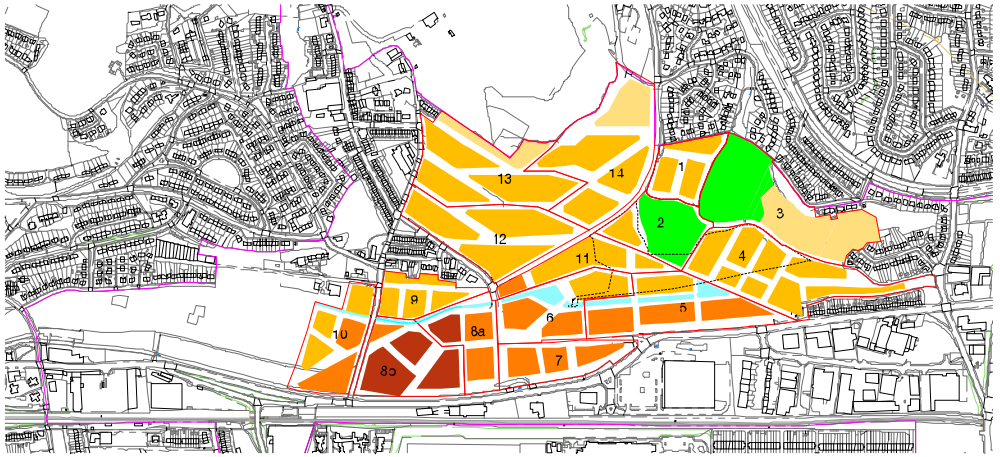
Street Layout
The street layout was based on the same system as in option 1 with the streets designed around a permeable network, which follow the contours of the site. The resulting form is a series of grids, which weave together.

Canal
The canal followed the same alignment as Option 1.

Open Space
Open space was more limited on this option than in the other 2 options. The canal ran along the valley floor and again had 2 canal basins along its length. The existing collections of trees were retained along with the historic wall running along the lane to the south of the site. The cricket pitch and playing fields were to be re-located.

Housing
Higher density housing was located around the local centre between Canal Road and the proposed canal. As with the other two options housing density then stepped down as you moved up the slope with the lowest density housing nestled within the existing trees. The additional development along the valley bottom meannt that this option included high levels of housing.

OPTION 3	
Total Site Area	39.54 ha
Total Housing Units	1620
Open Space	3.62 ha
Canal	1.51 ha



Option 4

Option 4 took on different elements of the three previous options to move towards a more refined single option which was then developed and detailed further. The key changes were:

Local Centre
In this option we located the local centre on Stanley Road as this was the most visible location from Canal Road. This was seen to be vital commercially if it was to succeed. The site was also the closest location to the main body of housing and is located on the main route from the train station to the housing, meaning you could pick up your shopping on the way home from the station.

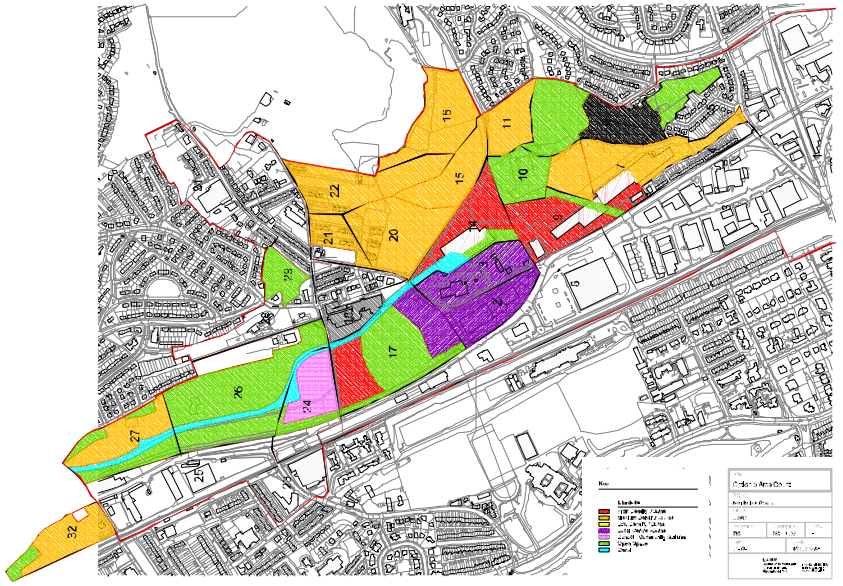
Street Layout
We selected different parts of the options and combined them to develop a permeable network of streets, which followed the contours of the site. The resulting form is a series of weaving grids.

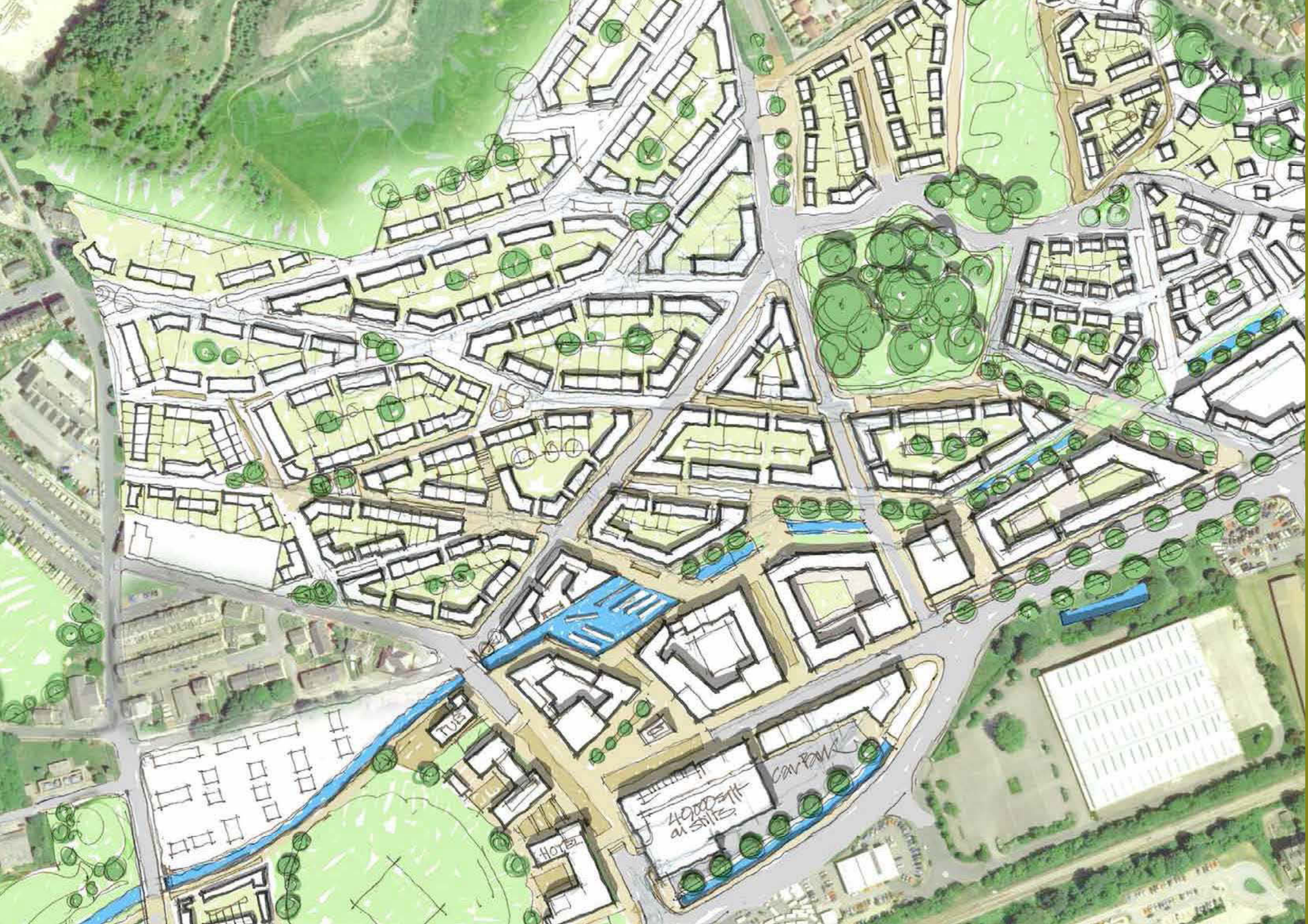
Canal
The canal basins from options 1&3 were combined with 2 smaller basins at the southern end of the site.

Open Space
As in option 1 and 2 the cricket pitch was retained and improved with a new pavilion and would have operated as a 'village green' next to the local centre. The football pitches were also largely retained along the valley floor. A canal would run through the site with two canal basins along its length. We extended the line of the canal through to the City Centre.

Housing
In the same manner as the previous options, the higher density housing was located around the local centre and canal basins. The housing density stepped down as you moved up the slope with the lowest density housing nestled within the existing trees. We included additional housing around the junction of Canal Road and Gaisby Lane to help improve the route from the train station to the local centre. The housing also framed the cricket ground and provided a gateway into the neighbourhood. We also included a small amount of housing on the valley bottom around the junction of Poplar Place in order to provide frontage onto Canal Road.

OPTION 4	
Total Site Area	47.72
Total Housing Units	1429
Open Space	14.13 ha
Canal	2.24 ha




TUB
HOTEL

Part 7

DEVELOPING THE MASTERPLAN

In this section we describe the emerging preferred option for the area.

Masterplan Proposal Revision 1

The next stage in the design and development process was the development and refinement of the masterplan based on more detailed design work and viability testing. This involved speaking with key stakeholders, the local community and specialist consultants. Below outlines the details of the first attempt at a masterplan for the wider partnership area:

Emerging Preferred Option	
Total Site Area	53.46 ha
Total Housing Units	1609
Open Space	15.43 ha
Canal	2.57 ha

Connections

In this masterplan we proposed a new road network based around Stanley Road, Livingstone Road and Poplars Park Road. The new network was designed to work with the existing topography to ensure the area retained its character while ensuring the area was accessible and permeable.

The area of housing to the south of the site around Brow Wood was designed around the existing utility services which gives it a different character to the area in the north which follow the contours of the hill.

In this version we limited the number of connections off Canal Road to ensure that traffic was able to continue to flow. This required futher testing from traffic consultants Aecom, as well as investigating the junction of Stanley Road and Canal Road.

Train station

A new pedestrian / cycle bridge was proposed across Canal Road to provide better access to the train station to encourage use of the train.

The Local Centre

The local centre was positioned along the southern end of Stanley Road where it meets Canal Road. This was to ensure the centre was within walking distance of the heart of the development and was also clearly visible from passing traffic moving in both directions along Canal Road. The local centre included a mix of shops that would be anchored by a supermarket along with a hotel and pub overlooking the cricket pitch.

- Supermarket

  At this stage we also explored different options around the size, scale and location of a supermarket within the local centre. The inset drawings show a number of iterations using standard size supermarket footprints. A number of alternative options are shown in the pull out boxes on the opposite page.

Open Space

The scheme aimed to enhance the quality of the existing open spaces that ran through the site and retained the copse and surrounding Bradford Wildlife Area. A linear park was established along the canal with a series of larger open spaces positioned along the route. These included the junior football pitches, an improved cricket pitch and Brow Wood to the South.

- Canal-line

  The proposal here was to bring the Canal-line through to a basin at the heart of the scheme. The basin would help to provide animation and vibrancy to the centre. A future alignment into the town centre was safe-guarded but would be landscaped as part of the linear park running through the scheme. The sustainable urban drainage system integrated into the linear park was proposed to deal with run off down the slope of the hill.

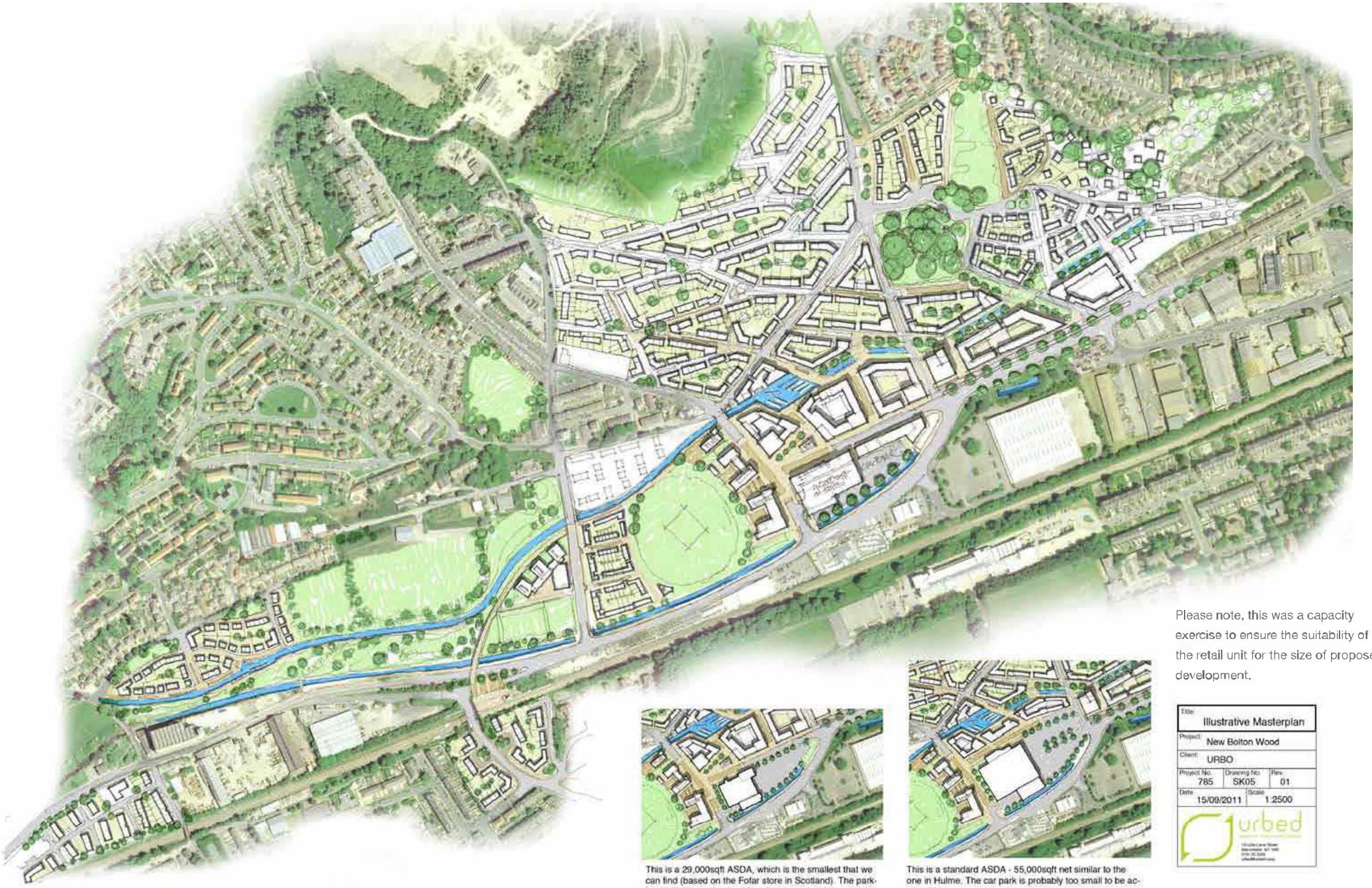
School

A new primary school was proposed to the North of Gaisby Lane. Locating the school close to the junior football pitches provided the opportunity for the facilities to be shared. The school was also located close to the train station allowing parents to drop their children off on the way to and from work. A variant option for the school located next to the cricket pitch can be seen to the right if development was not suitable on the preferred site.

Housing

A variety of housing was to be included in the scheme achieved through commissioning a number of different architects. At this stage we identified three different housing density areas. Higher density housing built at 70u/ha around the local centre, medium density housing at 45u/ha moving up the slope and a number of lower density areas which lend themselves to a tailored approach. These areas were drawn at 20u/ha.

We also included a proposal for the site within the wider Partnership boundary on the Western side of Canal Road. It was imagined that this would come online towards the end of the development.



This is a 29,000sqft ASDA, which is the smallest that we can find (based on the Fofar store in Scotland). The parking is slightly undersized for what they would want but is probably acceptable

This is a standard ASDA - 55,000sqft net similar to the one in Hulme. The car park is probably too small to be acceptable.

Please note, this was a capacity exercise to ensure the suitability of the retail unit for the size of proposed development.

Title:	Illustrative Masterplan
Project:	New Bolton Wood
Client:	URBO
Project No.: 785	Drawing No.: SK05 / Rev.: 01
Date: 15/09/2011	Scale: 1:2500
urbed	

Masterplan Proposal Revision 2

We then went through a process of assessing the masterplan in terms of viability and design quality. This involved the whole team working closely together, along with inputs and advice from Bradford Council. The main changes are described below:

Connections

The design team looked in depth at the levels and contours of the steepest part of the hillside and the land around Phase 1. We began to get a clearer picture of what gradients we could achieve and agreed to try to achieve 1 in 20 roads wherever possible but to allow a gradient of 1 in 9 where that was not possible. Stockleys and URBED tested several road layouts for the hillside, trying to get a balance between gradients and developable plots of land. We also had to take existing roads in consideration and connections through to the wider network.

Open Space

The green link was strengthened by the reduction of roads under Phase 1 near to the local centre and as before includes the retention of the copse. This would link into the green network of cycle path and canal route. We began speaking with the Bolton Woods junior football club to discuss options for improving their facilities and it was noted that these were very well used facilities. This was the impetus for maintaining the cricket pitch site and moving development nearer the local centre.

Local Centre

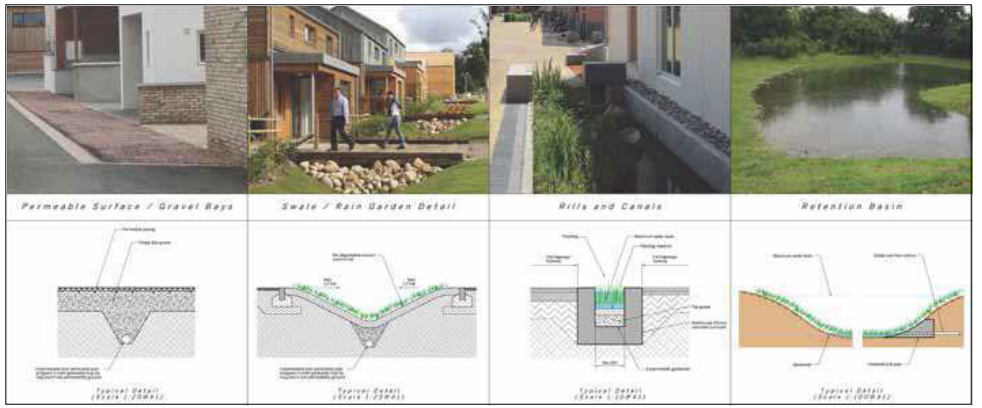
The local centre had begun to change with the removal of development from the cricket pitch. This was moved to the other side. There was an option drawn for a much larger supermarket, but it was felt this would not be required and may harm the character of the village centre. This design also introduced a second basin along side the canal.

School

During this time discussions were ongoing within the design team and between the client and key stakeholders. The location of the school stayed the same in this revision and it was thought that the school would come in the latter stages of the development process.

Housing

Through looking at Phase 1 and other test sites we began to get a clearer idea of how housing on hillsides could really benefit from their location looking out towards Manningham. The housing numbers fell in this version due to the steep cut near the larger basin.



Stokleys drawings for the Sustainable Urban Drainage systems in Phase 1.

Option explored and then rejected for a larger supermarket.

Title: Illustrative Masterplan		
Project: New Bolton Wood		
Client: URBO		
Project No. 785	Drawing No. SK006	Rev. 01
Date 03/03/2012	Scale 1:2500	
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Phase 1 Development

Along with developments in the wider masterplan Phase 1 was developed by architects OMI, with input from URBED. This involved gaining an understanding of the topography and levels of the sites, creating house types appropriate for the area and taking the opinions of the local residents into consideration. Below sets out some of the key moves in developing this area:

Phase 1
This site was a designated area for housing in the rUDP, with the Bradford Wildlife Area (BWA) adjacent to this. The developing plans for this area have been consulted on with the public and during a number of pre-app meetings with planners. A planning application is expected in early September. Below are some of the issues which have helped form the final layout for development in Phase 1.

- The Wood
This was a key feature of Phase 1 and forms part of the BWA. Enhancements will be made to the area of woodland. After discussions with our ecology consultant TEP it was proposed to have woodland walks through this area to retain the wildlife value of the area. There are several high grade trees and efforts will be made to ensure the best are retained and enhanced as part of a long term management of site.

- Right of Way
The path to the east of the site is a designated right of way and the design has changed to reflect this. We have responded to comments by West Yorkshire Police's Secured by Design team and the planning authority and created a wider green finger leading into the area known as Phase 1A.

- Road layout
Due to issues relating to the ownership boundary the original layout was changed to only include one road through the portion of the scheme to the west of the wood. This connects into the wider masterplan with a later phase creating a link road to go right through to the other side of the neighbourhood.

House types
OMI, with input from URBED have worked to develop house types which would benefit from the hillside locations, working with the contours to make desirable and attractive homes. The sketches to the right show some of these ideas. The principle of building into the hill has been established in Phase 1 and can now be replicated in other sites across the masterplan.

Topology
Stockleys and URBED worked closely together to gain a better understanding of the contours of the site. This work included an in depth study of the steep hillside.

Phase 1 OMI Suggested street scene

Right: Photomontages showing the how the open space may feel like.

CRUVL has appointed Planit as landscape architects to work with URBED on a landscape strategy for the masterplan. This area shows housing in a green setting, part of a common theme through the masterplan.

Phase 1 OMI Revision D

Phase 1 OMI Revision J

Masterplan Proposal Revision 3

This next version takes into consideration the opinions of local residents, statutory consultees and our own team of specialist consultants. This plan started to give a real idea of what the masterplan will look like. The main moves are described below:

Connections

This plan reflects the work done on the road layout to the hillside with routes connecting around the hill following contours. This plan shows a balance between getting suitable gradients and developable plots of land.

While the route of the canal has been kept, the re-introduction of the canal became much more difficult and expensive due to a house being built on the site which would allow the required turning circle for narrow boats. The route will now act as a cycle and pedestrian link across the site from the local centre whilst protecting the canal-line for the future if required.

The link road across the site is now clear from the south of the site up over the hillside. This route will have a 1 in 20 gradient.

Open Space

This plan has changed quite a bit on the amount of open space. This takes on board comments from the local community, our newley appointed landscape consultatnts Plan-it and our ecology specialists TEP. The main change is a newly formed park central to the hillside. This helpes connectivity in the form of a wildlife corridor from the quarry to the copse. The top part of this part could be a location for a NEAP.

We also aligned the canal / green route with Gaisby Lane to allow space for a new all-weather pitch to be provided for the junior football club. This would also be complete with a pavilion. The football fields have the potential for being shared by the school.

The canal has been removed from the plan although the line of the canal has been retained and protected. We have however maintained a basin as an attractive focal point to the village centre.

Local Centre

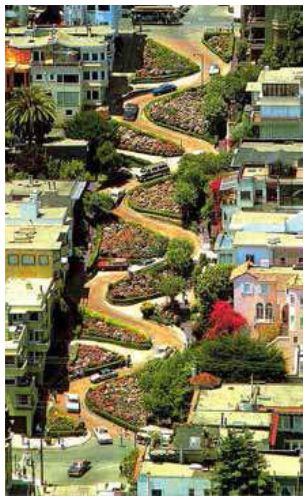
This area has changed with the relocation of the school. The size of the supermarket has been assessed and in this version has stayed at 40,000sqft, which would form the basis of a new high street. We have proposed 3 medium size units which could be retail units or possibly a hotel.

School

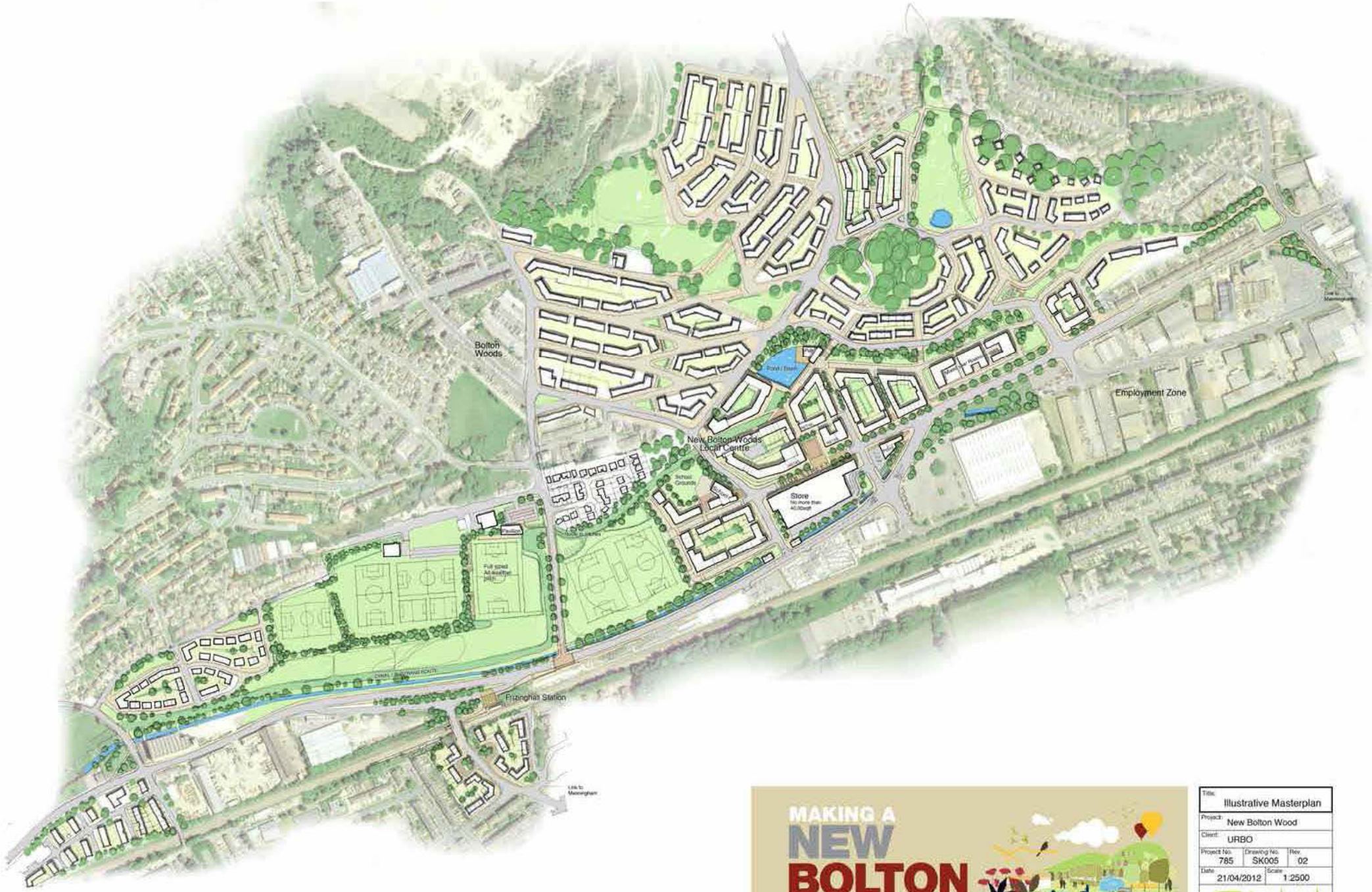
One of the key changes to this plan was the location of the school becoming much more central to the local centre. With the removal of the pedestrian bridge it was felt the school should be more central. The school is now at the turning of Stanley Road at the end of the newly created high street. It is still close to the station and is situated on the green cycle / pedestrian route.

Housing

The neighbourhoods start to take form here and gain their own subtly different characters from their location, the gradients of the roads and eventually from the architecture. Housing within Brow Wood has been thinned out to reflect the importance of the natural habitat in that area. An area of housing next to the school was deemed more appropriate than apartments as a key gateway into the scheme.



Images of hilly streets inspired parts of the masterplan.



MAKING A
NEW
BOLTON
WOODS

Title:	Illustrative Masterplan
Project:	New Bolton Wood
Client:	URBO
Project No.: 785	Drawing No.: SK005 / Rev.: 02
Date: 21/04/2012	Scale: 1:2500

urbed


FORLARS PARK ROAD
CANAL ROAD
NEW BOLTON WOODS

Part 8

THE PARTNERSHIP'S PROPOSED MASTERPLAN

In this section we describe our proposed masterplan for the area.

The Partnership's Proposed Masterplan

Our masterplan has now been developed in more detail. This plan requires further testing and consultation with key stakeholders but below we set out the principles of this initial proposed masterplan.

Emerging Preferred Option	
Total Site Area	113.44 ha
Total Housing Units	1271
Open Space	15.4 ha

Connections

The first task was to address canal road which is very busy and prone to backing up at peak periods. One of the proposals is to create three sets of traffic lights as shown above at Gaisby Lane, Stanley Road and Hillam Road. This will allow traffic to get out onto Canal Road and will also pulse the traffic making the road easier to cross. These junctions will give access to a set of secondary roads into the site. These include Gaisby Lane, Stanley Road/ Bolton Woods Road and Poplars Park Road. Our highways consultants Aecom are looking in detail at Canal Road and will provide a detailed Transport Assesment which will accompany the outline planning application.

Poplars Park Road, a road that was constructed through the site some time ago but which has never been opened. We are aware of concerns about possible rat-running on this road and our highways engineers are working on ways of preventing this.

The scheme also includes a new secondary road from the Hillam Road junction up through the site, which will act as one of the main routes out of the site for new residents. The remainder of the roads are local roads that will not take through traffic. Some of these will be traditional local roads with kerbs designed as 20mph zones. Other roads will be homezones with a shared pedestrian/ vehicle surface and a 5mph speed limit.

The final set of connections are the pedestrian/cycle routes for moving though the area and into surrounding neighbourhoods, creating a largely car-free set of routes for moving through the area and into surrounding neighbourhoods. Part of this network links into the proposed cycle route along the valley bottom funded by Sustrans.

There is an excellent opportunity to encourage a mode-share in favour of sustainable transport and we will be actively appraising this to offer smarter travel choices. This will in turn seek to reduce the number of single occupancy car journeys and associated carbon omissions.

Train station

Improvements have been proposed to the Gaisby Road junction in order to aid pedestrian movement towards the train station. The initial proposals for a new pedestrian / cycle bridge were discounted as it would split the pedestrian movement. There is an opportunity to provide at-grade pedestrian and cycle facilities within a new signalised junction which are both integrated with the Cycle corridor proposals and consistent with desire lines. This is a clear and safe route to the train station.

The Local Centre

The location, size and scale of the local centre has been explored and tested. As it will form the heart of this community, this was an area we focussed on during the consultation process. Of the responses we have had 60% felt that the centre was in the correct location. Also important to note, retail was the third most popular choice for what the area should be used for, after housing and open space.

The local centre is located along the end of Stanley Road where it meets Canal Road ensuring it is close to neighbourhoods within the development and also clearly visible from passing traffic along Canal Road. The local centre will include a mix of maybe 10 shops, anchored by a supermarket along with a Pub on the pond and possibly a Hotel and petrol service station.

- Supermarket
  A number of different sizes, scales and locations of supermarket were explored within the local centre. We have shown a medium-scale store of 40,000sqft on this masterplan. The location is easily accessed by the main road and helps form a new high street on Stanley Road.

Title:	Illustrative Masterplan
Project:	New Bolton Wood
Client:	URBO
Project No.: 785	Drawing No.: SK005 / Rev.: 03
Date: 28/07/2012	Scale: 1:2500@A1

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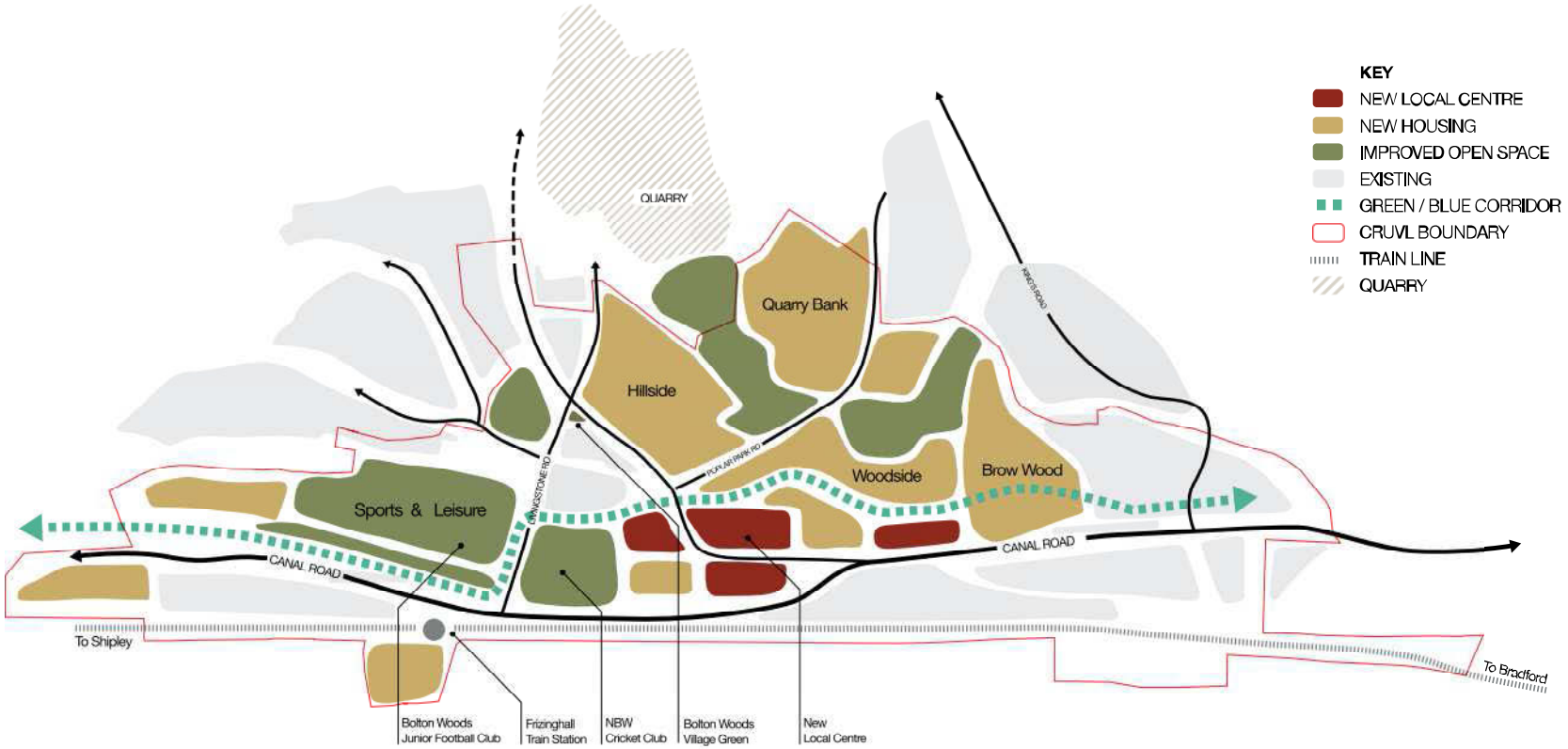


Open Space

The scheme aims to enhance the quality of the existing open spaces that run through the site. This has been thought of as an ecological network which enhances existing habitats. Of particular note is the Bradford Wildlife Area which is located south of the Phase 1 area. The proposals limit development on this wildlife area. A linear park has been established along the route of the old canal with a series of larger open spaces positioned along the route. A pond has been proposed on this green route to give a focus for the local centre. The larger open spaces include connected belts of tree planting, improvements to junior football club pitches, an improved cricket pitch and Brow Wood to the South.

School

Either a new single form entry primary school is proposed within the heart of the local centre. The new facility is also close to the cricket and football pitches and provides the opportunity for the sports facilities to be shared. The school is also located within 10 minutes walking distance to the train station allowing parents to drop their children off on the way to and from work. The school is on the cycle path/ green route providing a pleasant route from school to football pitch to station.

Housing

The variety of housing will allow each sub neighbourhoods its own individual character. This will be achieved through the development of a design guide which will ensure quality and a consistency of approach while ensuring diversity and uniqueness. Variety will also be achieved through commissioning a number of different architects to develop the scheme over the next 15-20 years. We have identified 3 different housing densities. Higher density housing built at 75u/ha around the local centre, medium density housing at 45u/ha moving up the slope and a number of lower density which have been drawn at 30u/ha.

Masterplan illustration shown at public consultation events in May, June and July. The results of this consultation are written in the attached consultation report.

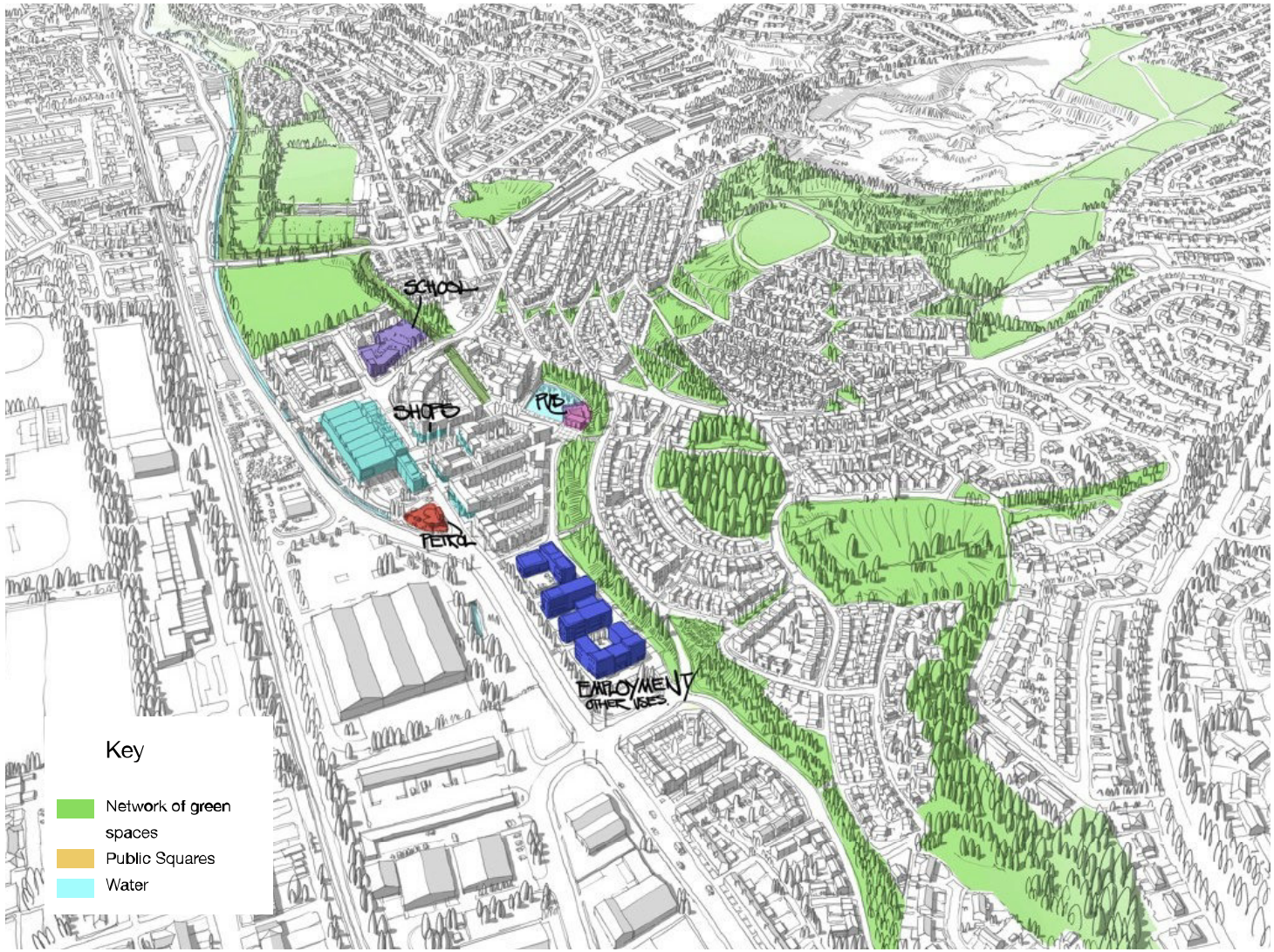
New and Enhanced Neighbourhoods

Like all good neighbourhoods, Bolton Woods is made up of sub-neighbourhoods. The names on the drawing are indicative at this stage and likely to change. However the idea is that each develops a subtly different character based on where it is, the topography, the architecture, the types and densities of housing, etc. To help develop these character areas we have drawn on ideas from existing places.

New Local Centre

The heart of this new neighbourhood will be a new local centre. A new primary school is planned on Stanley Road. The centre will also include facilities such as a doctors and dentists and possibly some small-scale office space. At the junction of Stanley Road and Canal Road is a proposed petrol service station.

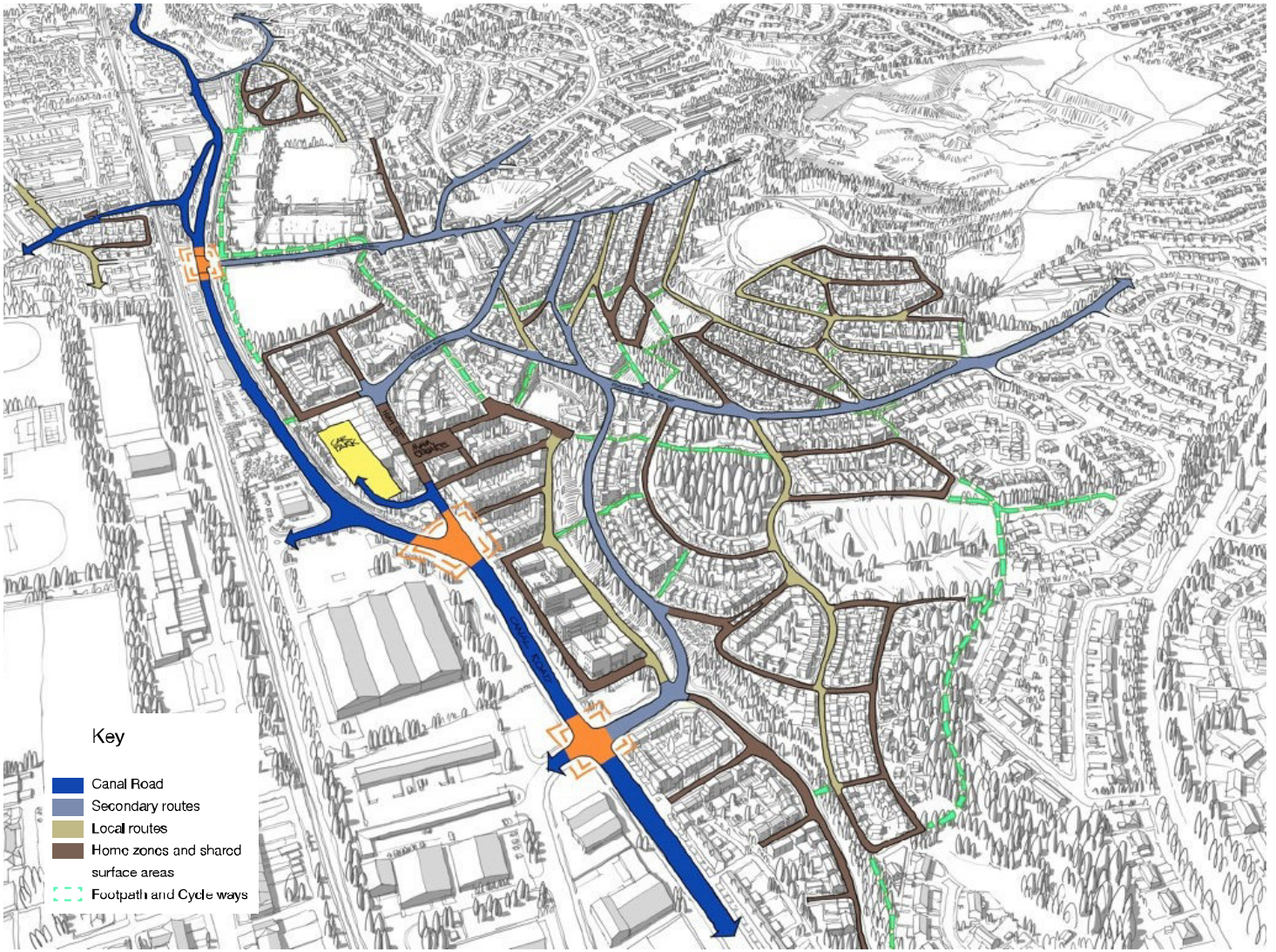
The plan includes a new pub on a pond within the village centre. The pond will be where the canal terminates if it were re-opened. This, however, is not currently part of the scheme. The scheme includes three blocks on Canal Road which could be a range of uses including workspace, showrooms, a hotel or apartments.



Improved Connections

A new road network has been constructed based around Stanley Road, Livingstone Road and Poplars Park Road. This road system has been designed to work with the existing topography to ensure the area retains its character while ensuring the area is accessible and permeable.

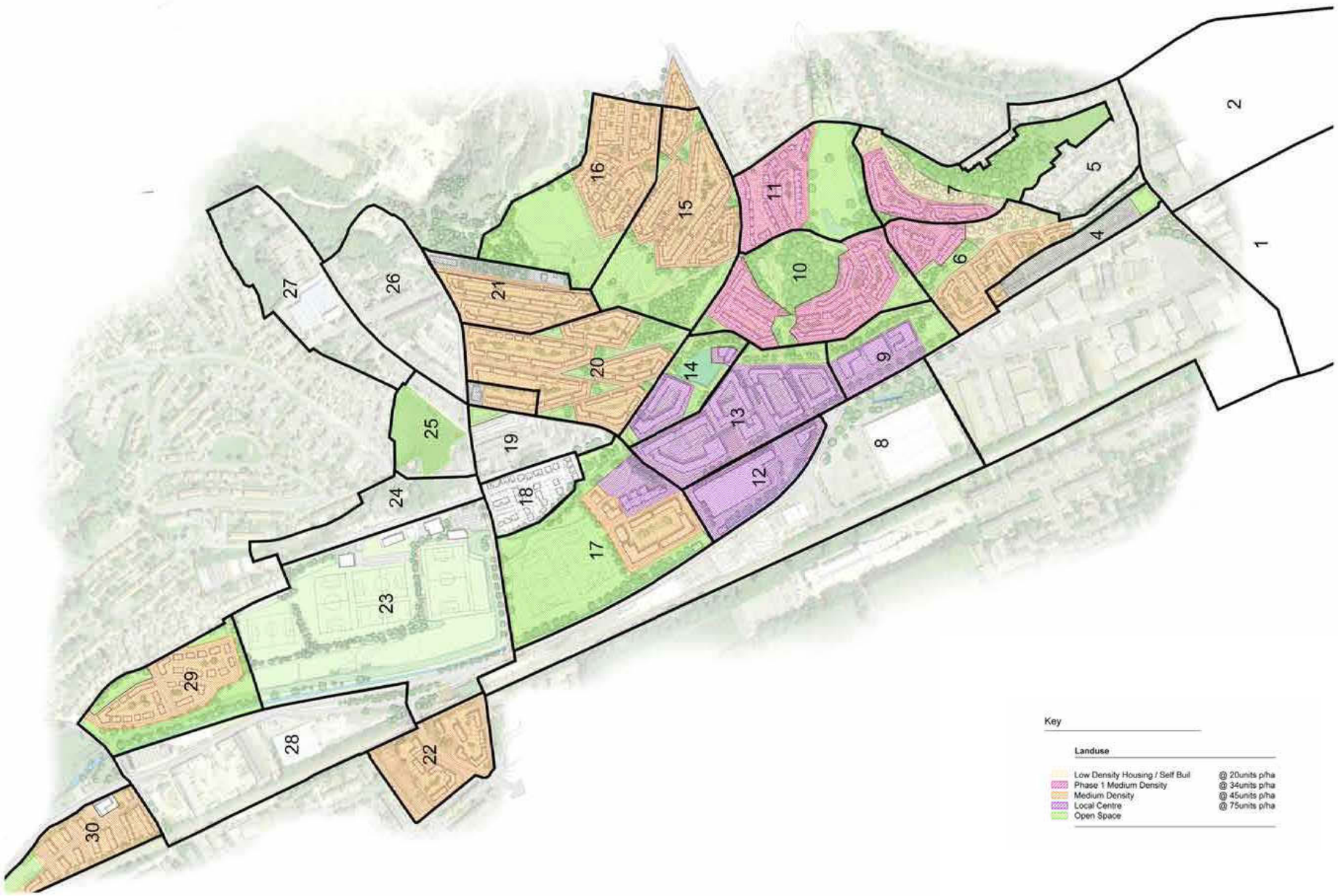
The area of housing to the south of the site around Brow Wood has been designed around the existing utility services which give it a different character to the area to the north which follow the contours of the hill.



Upgraded Open Space and Sports Facilities

As has been described earlier in the principles of Making a New Bolton Woods the scheme will have an ecological green network though the plan. This will include the enhancement and creation of green spaces. This drawing shows these green spaces and how they link to the wider open space network along the valley and up to Wrose.

CRUVL is working closely with Bolton Woods Junior Football Club with the aim of creating a broader and better range and quality of sports facilities around the local centre for the community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Key
Landuse
Low Density Housing / Self Buil
Phase 1 Medium Density
Medium Density
Local Centre
Open Space
@ 20units p/ha
@ 34units p/ha
@ 45units p/ha
@ 75units p/ha

Approximate Area Count

The drawing to the left identifies the land parcels that have been used for the purpose of the approximate area count opposite. The has been developed with the masterplan and will continue to change over time to better reflect the land ownership details and the Partnership draw down terms.

Emerging Preferred Option Areas

Rev 3. 24.07.2012

Housing Density	u/ha
Low Density	20
Phase 1 Density	34**
Medium Density	45
Local Centre	75

Site	Low Density Housing		Phase 1 Medium Density Housing		Medium Density Housing		Local Centre		School / Community Facilities Area (ha)	Open Space	Existing fabric	Total Site Area (ha)	Total housing units
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units					
1		0		0		0		0			10.63	10.63	0
2		0		0		0		0			8.61	8.61	0
3		0		0		0		0			11.05	11.05	0
4		0		0	0.8	4		0		0.14	0.8	1.02	4
5		0		0		0		0			2.29	2.29	0
6	0.48	10	0.67	23	1.31	59		0		0.76		3.22	91
7	0.65	13	0.87	30		0		0		1.66		3.18	43
8		0		0		0		0			7.3	7.30	0
9		0		0		0	0.89	0		0.67		1.56	0
10		0	2.35	80		0		0		1.76		4.11	80
11		0	1.42	48		0		0		1.5		2.92	48
12		0		0		0	1.66	0				1.66	0
13		0		0		0	3.01	226		0.34		3.35	226
14		0		0		0	0.56	42	0.10	0.77		1.43	42
15A		0		0	2.56	115		0		1.87		4.43	115
15B		0		0	0.22	10		0				0.22	10
16		0		0	2.02	91		0		2		4.02	91
17		0		0	1.18	53		0	0.54	0.6		2.32	53
18		0		0		0		0			1.1	1.10	0
19		0		0		0		0		0.11	1.36	1.47	0
20A		0		0	0.3	14		0			0.08	0.38	14
20B		0		0	3.22	145		0		0.7		3.92	145
21		0		0	1.48	67		0			0.49	1.97	67
22		0		0	2.00	90		0				2.00	90
23		0		0		0		0			9.19	9.19	0
24		0		0		0		0			1.7	1.70	0
25		0		0		0		0		0.88	0.71	1.59	0
26		0		0		0		0			3.29	3.29	0
27		0		0		0		0			3.3	3.30	0
28		0		0		0		0			5.09	5.09	0
29		0		0	1.86	84		0		1.37		3.23	84
30*		0		0	1.55	70		0		0.27	0.07	1.89	70
	1.13	23	5.31	181	17.78	800	6.12	268	0.64	15.4	67.06	113.44	1271

* previously Incommunities site 32

** density based on OMI plans for Phase 1

Sites 9 and 12 assume no residential due to supermarket and retail units.

Next Steps

This masterplan technical document will be considered at the Council Executive In October 2012. CRUVL will submit a hybrid planning application for the Phase 1 area in September 2012 and an outline planning application for the partnership area in March 2013.

- **Phase 1 Planning Application: September 2012:**
  A hybrid planning application will be submitted for the Phase 1 area with full planning sought for 46 houses and outline permission for the remainder of the site.

- **Cabinet Submission: October 2012:**
  The masterplan and this supporting technical document will be considered at BMDC's Executive in October 2012.

- **Outline Planning Application: March 2013:**
  An outline planning application for the Partnership area will be prepared and coordinated by HOW Planning (planning consultants) with support from CRUVL and the wider professional team to include the following outputs:

- **Supporting Planning Statement:**
  This will set out the planning case for the proposed development.

- **Retail Impact Statement:**
  This statement will assess the proposed retail uses on the site and particularly any proposed food store.

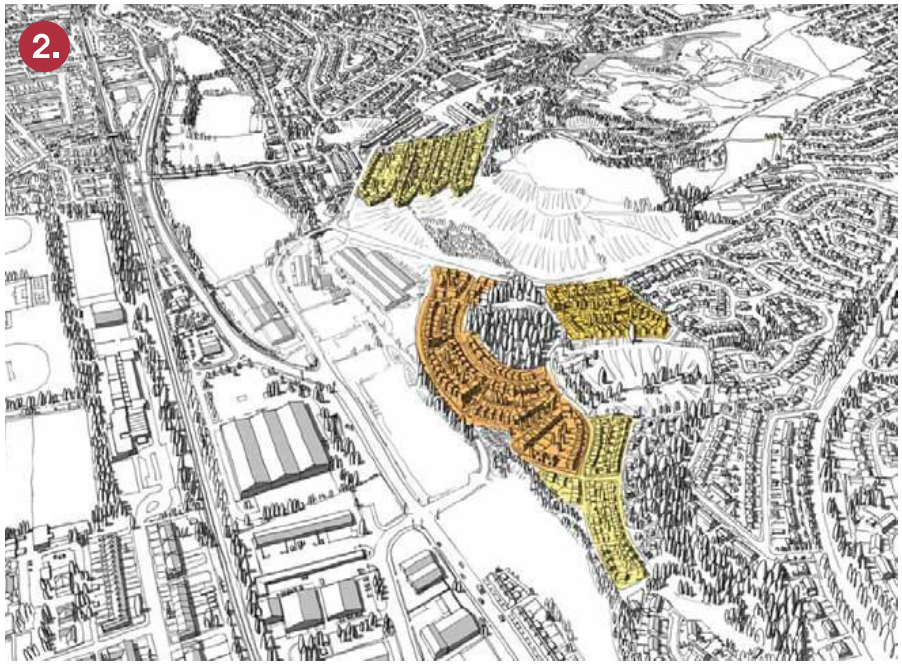
- **Design and Access Statement (D&A):**
  The D&A will be informed by the work completed to date on the vision and masterplan for the area and the subsequent design coding and character area studies.

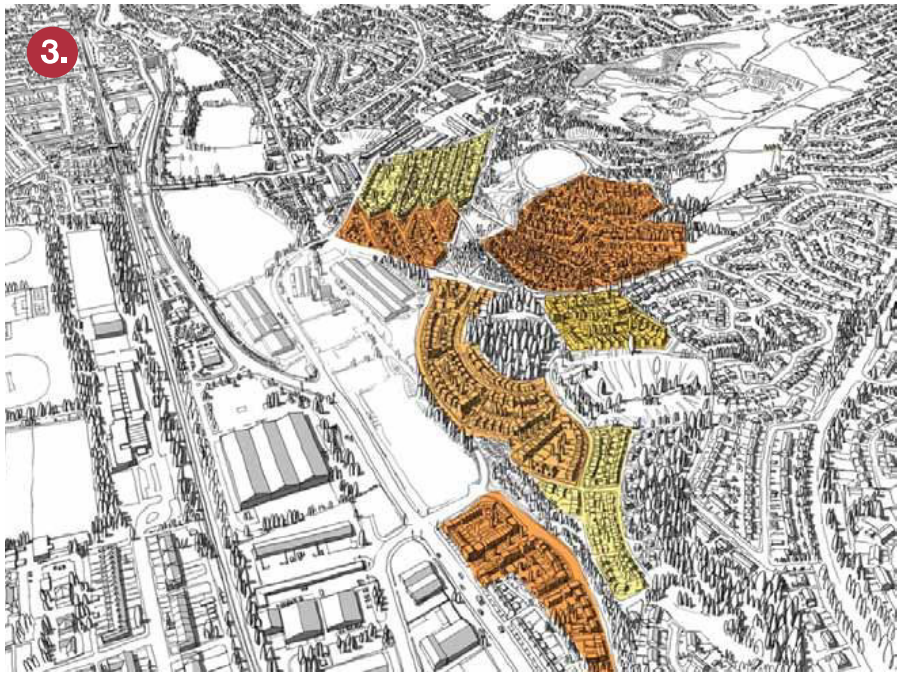
- **Transport Assessment and Framework Travel Plan:**
  An assessment to examine the impact of the proposals on the existing transportation network and a Framework Travel Plan to encourage the use of non-car modes of transport.

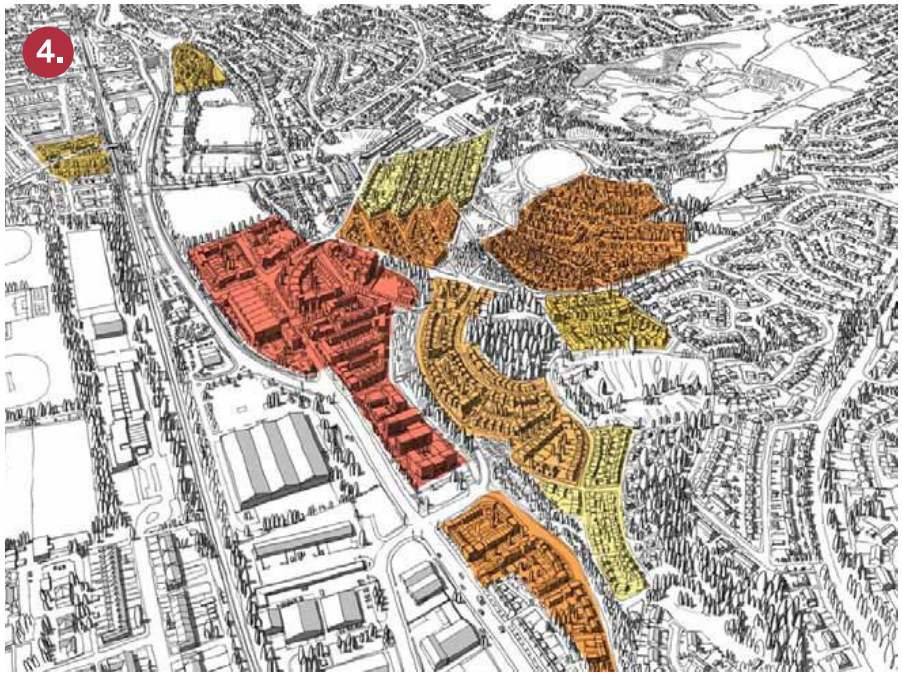
- **Environmental Impact Assessment (EIA):**
  An EIA will assess the likely environmental effects of the proposed development. This will include the following technical assessments: townscape character & visual impact; archaeology and cultural heritage; socio-economic; sustainability; air quality; noise and vibration; waste; flood risk and drainage; ground conditions; ecology; and arboriculture.

- **Statement of Community Involvement (SCI):**
  A SCI will detail the consultation undertaken as part of the application process. Further public consultation will be undertaken by URBED on the outline application proposals.

Indicative Phasing







NEW BOLTON WOODS

urbo

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This report has been produced by URBO together with their urban designers URBED.

If you have any questions or require further information then please visit:

www.newboltonwoods.co.uk