Bilston Corridor Canals Conservation Area Appraisal and Management Proposals

Conservation Area Character Appraisal - October 2013





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Conservation Area Character Appraisal

This document is the appraisal for the Bilston Canals Corridor Conservation Area which the Council designated on **23rd October 2013.**

To find out more about appraisals for other conservation areas in the City see the Council's web site at www.wolverhampton.gov.uk/conservationareas



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1. Introduction

The Birmingham Canal Navigations (BCN) Main Line runs through the area defined as Regeneration Corridor RC4 Wolverhampton - Bilston Corridor in the Joint Core Strategy for the Black Country, adopted February 2011. A detailed Historic Landscape Characterisation Study was carried out for the Bilston Corridor in 2009 as a background document for the preparation of an Area Action Plan. Its conclusions included a recommendation to review the canal corridor in order to consider how its valued historic landscape should best be managed in the context of providing opportunities for regeneration of the area including new housing and employment growth

An appraisal of the canal network running through the area was subsequently commissioned to assess the potential options for a conservation area designation. The proposals received broad support during the consultation on preferred options for the Area Action Plan and subsequently The Bilston Corridor Canals Conservation Area was designated by Wolverhampton City Council on 23rd October 2013.

This document defines and records the architectural and historic interest of the canals' passage through the Bilston Corridor and identifies opportunities for enhancement. It identifies the ways in which the canal and its historic environment can contribute to quality of the environment within the regeneration corridor. This includes an assessment of the special historic or architectural interest that the canal corridor provides and management proposals for preserving and enhancing its character and appearance. The omission of a particular building, feature or space should not be taken to imply that it is of no interest.

Conservation Areas are designated under the provisions of Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990. A Conservation Area is defined as "an area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance".

Section 71 of the same Act requires local planning authorities to formulate and publish proposals for the preservation and enhancement of any parts of their area which are Conservation Areas.

Section 72 specifies that, in making a decision on an application for development in a Conservation Area, special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.

This appraisal satisfies the requirements of the legislation and provides a firm basis on which applications for development within and in the setting of the Bilston Canals Corridor Conservation Area can be assessed.



A view along the Bradley Arm in the south of the conservation area

2. Location and Setting

The conservation area runs from the eastern fringes of Wolverhampton City Centre to Deepfields, approximately 4 kilometres to the south east. The meandering course of the canal provides just over five kilometres of waterway and canalside towpath running through this area.

It comprises the Birmingham Main Line, including the Bradley Arm, which runs off a junction with the main line near Deepfields Bridge and follows a sinuous course to the east passing between Highfields and Bradley to the south and Bilston Town Centre to the north, ending 1.6 kilometres to the east at Cross Street. The winding course of the waterway follows a three kilometre route to this destination.

The Conservation Area also includes a short section of the Wyrley and Essington Canal running for just over 800 metres north-eastwards off the main line at its junction near Horsley Fields, in the Union Mill Conservation Area.

The canal runs through areas of changing character including disused former industrial land, some of which has reverted to a semi-natural state. Other areas of recently vacated industrial land would be characterised as wasteland, with a ground covering of demolition rubble and some self-seeded scrub but retaining boundary walls which incorporate the remains of some building frontages. Other areas are still used for industry and employment, including historic industrial sites and recently developed industrial estates. Areas of late 20th century and more recent residential development next to the canal are most evident in the south of the regeneration corridor.

Past interaction between the canals and surrounding road and rail infrastructure is evident with clusters of more intense industrial activity surrounding intersections of the canal with other transport routes.

The canal passes through several Council wards, including Heath Town, East Park, Ettingshall, Springvale and Bilston East and lies within the Wolverhampton south-east Parliamentary Constituency.



The winding course of canal runs through areas of changing character.

3. History of the BCN Main Line Canal

Before the canal

Although this appraisal is focused on the historical environment of the canals, the landscape that existed before their construction had significant impacts on their routes, relationships with surrounding roads, settlements and industries and the activities that took place on their banks.

Before its industrial development Wolverhampton lay in an upland agricultural area with patches of heath and moorland crossed by ancient ridgeways and a mixture of dispersed settlements and larger nucleated settlements surrounded by open fields, such as Bilston and Wolverhampton, with mills located on the fast flowing streams running off the ridge of the limestone hills to the west.

Wolverhampton was an important settlement as early as the 10th century. A charter records the gift of land at 'Heantune' (or high town) from the king to Lady Wulfruna in 985. A minster church was consecrated there in 994. By the late 12th century there are records of a market held in the town and in the 14th and 15th centuries it was a 'staple town' for the wool trade.

Bilston was also recorded in a charter at the end of the 10th century and in the Domesday Survey as a small manor. It is not clear if it was nucleated as a village or dispersed at this date. There are suggestions that a chapel (a predecessor of St Leonard's Church) was located at Bilston by the late 14th century, which is more certainly verified by the dedication of a chantry there in 1458. This would have secured the position of the settlement on the north west to south east road route between Wolverhampton and Birmingham. West to east routes would also have passed through the area and were used to carry cattle from Wales to market towns in the midlands and passed through both Wolverhampton and Bilston.

The exploitation of the area's shallow coal measures is attested from the 14th century, but was undertaken on a relatively small scale, using shallow bell-pits for mining. Coal became an increasingly important domestic and industrial fuel from the late 16th century as the many competing demands for timber supplies began to outstrip the available resource. During the reign of James I (in the early 17th century) controls were introduced on the use of charcoal for industrial processes, adding a significant push for the exploitation of accessible coal deposits such as those of South Staffordshire. Mining flourished around Bradley and Bilston in particular

The area also provided ironstone sources and limestone; completing the materials required for a local iron industry. Much of the manufacturing work undertaken was on a small scale, by men working in small teams in their own homes or back-yard premises. This developed into a regional 'toy' industry producing items such as buckles and chapes, boxes, locks and, later, gunlocks. Bilston's population grew rapidly from the late 17th century in response to the growth of these trades. Further afield, Birmingham had become established as a major centre for manufacturing by the mid 18th century with a rapidly growing population. The first records of lock making in Wolverhampton date from 1606 and Dr. Plot, writing in 1686, recorded that Wolverhampton was a centre for production of 'toys' such as buckles, sword hilts and steel jewellery. By the early 18th century Bilston had developed as a specialist centre for producing buckles, whilst Wolverhampton had become the country's centre for lock making, although other metal working and associated trades (notably enamelling and japanning) were also important sources of employment.

A mill at Bilston is recorded from the 14th century with several sites on Bilston Brook suggested for its location. Yates' map of 1775 records a mill in a position that was later occupied by Woolley's factory (and now either within or just south of the grounds of South Wolverhampton and Bilston Academy). This is probably the premises advertised in the Aris Gazette of 1748 as used for both corn milling and other industrial processes. It has been speculated that a house referred to as Woolley's house may have occupied the site of the earlier medieval mill and that Woolleys Mill was a later replacement.

Yates' map also illustrates the concentration of coal mines surrounding Bilston. John Wilkinson bought land at Bradley in 1748 and probably built smelting furnaces there around 1757. His works were so successful

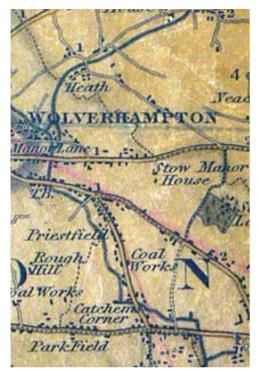
that in 1772 he bought the manor and estate of Bradley. Wilkinson was an industrial pioneer and worked closely with Boulton and Watt to improve the efficiency of steam engines, installing their first rotary engine at Bradley in 1783. A glasshouse was also located between Bilston and Bradley in the late 18th century, and continued in operation until 1815.



Yates map of Staffordshire 1775 showing the meandering course of Brindley's canal between Tipton and Bilston.

The construction of the canal

The origins of the BCN can be traced to a meeting of Birmingham businessmen at the White Swan in Birmingham on 24th January 1767. This was held to consider the building of a canal from Birmingham to the Staffordshire and Worcestershire Canal and to provide access to the South Staffordshire Coalfields. A



Detail from a map of 1820 showing the route of the canal (dark line) from Millfields to Horseley Fields, with the Wyrley and Essington Canal to the north.

route for the canal was surveyed by James Brindley and an Act of Parliament was passed in 1768 to allow its construction. Work began under the supervision of Brindley in March 1768 and had reached Top Hill in West Bromwich by November 1769. The second phase of construction, to continue the canal to Wolverhampton and the Staffordshire and Worcestershire Canal, commenced in 1770 and was completed by 1772. This included the building the staircase of twenty locks descending from the Wolverhampton Level to Aldersley Junction. A twenty first lock was added in 1784 to reduce the water used. The success of the canal in providing transport for coal to markets in Birmingham was reflected in an immediate 50% reduction in the price of coal for domestic heating on the canal reaching the mines at Wednesbury.

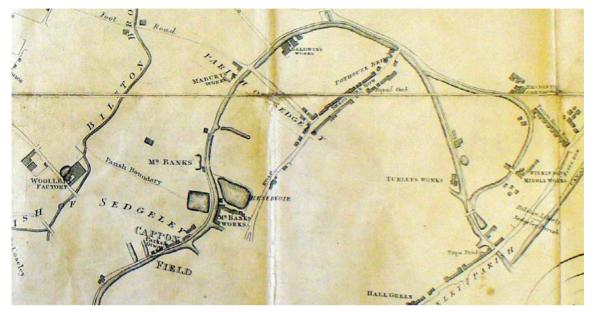
Brindley's canal was constructed to follow contours, resulting in a highly sinuous course and using the cut and fill method to avoid moving large volumes of construction material. However, the sinuous course may have also maximised the area of the coalfields served by the waterway and passed existing premises such as Wilkinson's Lower Bradley Works and the Bilston Glasshouse. The canal's construction promoted the development of other businesses. In 1769 Wilkinson built his new Upper Bradley Foundry adjacent to the canal, to which he later added further furnaces and iron works. Price's furnaces were built between Wilkinson's and Bilston Brook

The Wyrley and Essington Canal, was built to provide transport from coal mines at or near these settlements to the BCN Main Line at Wolverhampton. An Act of Parliament was passed for its construction in 1792 and the canal was open by 1797. It was also built as a contour canal, although locks were provided at its junction with the BCN Main Line to manage access from one canal to the other and to control the flow of water (a valuable commodity for canal companies).

Among the earliest companies that became established on the canal were carriers, including Crowley and Co. of Commercial Wharf north of Horseley Fields and the well known company Pickfords, who were first active on the BCN in 1780. From the 1820 to the 1840s they operated from Pickford's Wharf off Minerva Lane.

Development of the iron industry

In the late 18th century the large-scale iron industry developed around the canal in the south of the regeneration corridor. In 1817 the executors to Wilkinson's estates complained that the canal was overcrowded on the stretch passing through Bradley. They had a new section of canal excavated running more directly from near Bradley Lane to Pothouse Bridge, forming the straight length of canal that now runs south from Loxdale Sidings.



Detail of a 1832 map of the Town of Bilston showing the loop of the older canal serving Wilkinson's Middle Works (far right) and the newer 1817 cut.

Iron Works established next to canal in the early 18th century included The Capponfield Ironworks on the north side of the canal at Bilston by 1805; the Capponfield Furnaces located a short distance to the north west; Mabury's Ironworks next to Glasshouse Bridge (possibly reusing the former glasshouse) by the 1830s and named as Bankfield Ironworks by 1848; Barbors Field Iron works lay between the Capponfield and Bankfield Iron works and operated from, at least, 1825; and Baldwin's Works on the south side of the canal in the present area of Greenway Road. Millfields Furnaces, north of Millfields Road, was recorded by 1812.

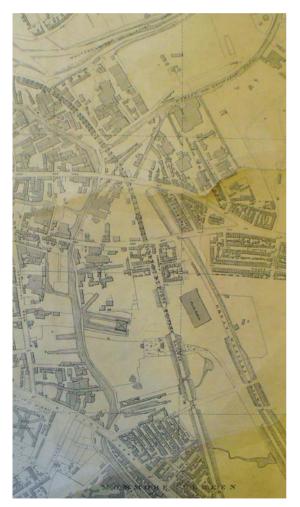
In the north of the study area, the Chillington Works was established by 1822 over a former colliery located approximately 300 metres from the canal at Monmore Green. It had land running up to the canal including an interchange basin for the works' early railways, which may have been inherited from the colliery. This feature has undergone many changes but survives as a unique example of its kind. Just to the north, the Shrubbery Ironworks was established in 1824 on either side of Walsall Street. The Victoria Works was founded further to the south in 1826 on land west of the canal and south of Cable Street by William Bayliss (later becoming Bayliss, Jones and Bayliss). This company specialised in fencing and railings, although they also produced chain for shipping and mining. The Monmore Ironworks, a foundry with rolling mills and puddling furnaces, stood on the north side of Cable Street by 1850 and was absorbed within the growing Victoria Ironworks in 1896. The Eagle Iron Works was established by John Parsons on the south side of Bilston Road by 1830, producing edge tools.

During the 1820s the canal was improved to reduce the number of locks and create a more direct route. Thomas Telford was engaged in 1824 to design and, later, to oversee the improvements, the majority of which were to the south of the present study area. Between 1837 and 1838, after Telford's death, another of his improvements was realised through construction of the Coseley Tunnel, bypassing the long loop around Bradley, which continued, nevertheless, to serve the industrial sites along its course.

The age of steam power brought further investment to the Wolverhampton iron industry and further canalside development. The Britannia Boiler Tube Works were established at Millfields Road in 1825, whilst the Shrubbery Iron Works, supplied rails and axles becoming one of Wolverhampton's largest employers.



One of the surviving buildings of the Shrubbery Ironworks on Lower Walsall Street



1871 map showing the competing GWR and the LNWR Stour Valley lines approaching Wolverhampton. The canal –rail interchange basins of the Chillington and Shrubbery works are shown as well as numerous basins serving works on Commercial Road.

The Grand Junction Railway was opened in 1833 as the county's first trunk railway running for 82 miles from Birmingham to the Manchester and Liverpool Railway via Wolverhamtpon. Several others followed during the railway mania of the 1840s using Wolverhampton as a hub. These included the Shrewsbury and Birmingham Line (opened in 1849), the Stour Valley Railway (operating from 1852), the Oxford, Worcester and Wolverhampton Railway (opened by 1853), the Birmingham Snow Hill to Wolverhampton Line (opened in 1854). The competition between the major railway companies to gain control of these lines had wider effects on the transport landscape.

The London and North Western Railway were keen to gain control of the Stour Valley Railway, which had been part financed by the Birmingham Canal Company. They bought the company to gain control of their legal rights and become dominant shareholders. This resulted in a long relationship between the two systems as the canal provided access to the railway from the numerous businesses and wharves along its length and the other canals with which it was linked. This railway followed the line of the canal between Deepfields and Wolverhampton High Level Station, crossing canal course at various points.

LNWR bought the interchange basin at Chillington Wharf after the Chillington Iron Company went into receivership in 1885. They connected the iron works' railway lines with their own to facilitate interchange between the canal and railway. The GWR used the former Shrubbery Iron Works' canal basins, just to the north, for their own canal to rail interchange.

The Wolverhampton and Walsall Railway was opened jointly by LNWR and the London and Midland Railway Company in 1875 requiring another railway/canal interchange accessed from the Wyrley and Essington Canal near the Horseley Fields Junction. Numerous other interchange basins were built along the length of the BCN Main Line (over thirty), although Chillington Wharf is the only survivor.

The 1840s also saw the development of a group of new ironworks around the Horsley Fields Junction. These included the Union Works nail making factory, next to the wharfs at Horseley Fields Junction by 1842; the New Griffin Works further to the east and still partially surviving, set up shortly after 1842 making edge tools; and the Osier Bed Iron Works on the north side of the Wyrley and Essington canal established by 1843 producing tin-plate.

Demand for the canalside and innovations in industry

Wharves had developed where the arterial routes between settlements crossed the canal, such as the canal's junction with Bilston Road. Basins were built off the canals to extend the frontage of waterway accessible from the existing road network. However, demand for canalside frontages was such that new roads such as Minerva Lane and Commercial Road (set out in 1850) were built to open up a greater length of the canalside. The Crown Nail company was opened on Commercial Wharf in 1851. Their office and warehouse building still survives and dates from very shortly after this. Elsewhere the canal frontage was extended by building longer basins. The basin to the south of the Minerva Ironworks (founded in 1857) continued under Minerva Lane parallel to the old roads of Walsall Street and Horsley Fields. Adolphe Crosbie and Company, paint manufacturers, were established on the south side of this basin in 1875 and were just one of a new wave of businesses developing chemical and electrical processes in this area. The

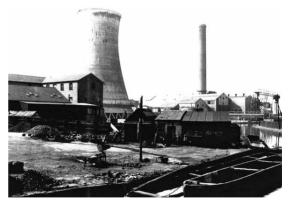


Office and warehouse buildings of the Crown nail Works, Commercial Road.

The Commercial Road location was also convenient for supply of coal to the power station and water from the canal for the cooling towers.

Further to the south, the production of steel was increasingly dominated by the Hickman family who bought the Springvale Furnaces, between Bilston and the canal, in 1866. In 1882 they set up the Staffordshire Steel and Ingot Iron Company Ltd., adopting the Gilchrist-Thomas process for steel making and installing Bessemer converters transported from Merseyside in 1883. This ensured that Bilston's iron manufacturing industry made the leap to the age of steel. In 1897 the companies were amalgamated as Alfred Hickman Ltd. with the Springvale Works covering over 200 acres including adjacent collieries and brickworks. Midland Tar distillers had been established on the north side of Dixons' Road in 1857. John Brotherton's Imperial Tube Works was established on Bilston Road in 1861 supplying tubes for water, gas and steam.

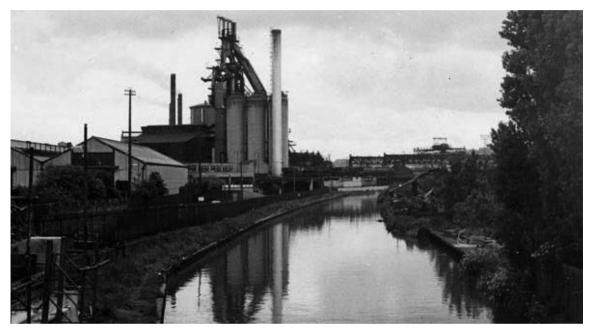
In 1882 the company of Elwell Parker was established on Commercial Road as the first electrical manufacturing company in the West Midlands, achieving many firsts in the supply and use of electricity with installations as far away as the Sydney Tramways in Australia. Perhaps it is unsurprising that this was chosen as the site for construction of an electricity generating power station for municipal lighting and electric tramways in 1894, with a foundation stone laid by Lord Kelvin.



An early 20th centuty photograph of the canal wharfs near Bilston Road, including Commercial Wharf in the foreground, with the Wolverhampton Electric Power Station in the background.

The canal into the 20th century

The canals remained active as waterways well into the 20th century. New industries that were established next to them reflected the technological and ironworking expertise of Wolverhampton's workforce, whilst the canal continued to support the development of the area's traditional industries. In the south of the conservation area the Hickman's continued to invest in the Bilston Steel Works, installing electricity powered rolling mills in 1907 and open hearth furnaces in 1911. A major investment programme in the 1950s ensured the continuing viability of the business up until 1979, when the last billet was cast and the blast furnace, 'Big Lizzie', was blown out. The blast furnaces of the Springvale Works were a distinctive feature of the canalside in the Bilston area.



In 1954 a new blast furnace called 'Elisabeth' was lit, replacing three smaller blast furnaces. Elisabeth alone produced 275,000 tons of steel a year. The furnace was named 'Elisabeth' after the daughter of the chairman of Stewarts & Lloyds Ltd.

Car manufacturing developed as a significant local industry in Wolverhampton from the late 19th century. In 1913 the Briton Car works was established on the north side of Walsall Street with access to a basin on the BCN Main Line just south of Horseley Fields. The car works reused several of the surviving buildings of the iron-works (Two of which remain to this day). Further buildings were constructed up to the edge of the towpath but the car works moved to Chillington Fields in 1922. In 1940 the name of the company was changed to Tractor Spares Ltd., which continues as a business in Willenhall to this day. The works were home to AJS by 1927 building the Clyno 'Nine' light car and the bodywork of the AJS 'Nine' until the company succumbed to the depression in 1931. The site was bought soon after by Ever Ready, who produced torches and batteries and referred to the site as 'The Canal Works'. The company moved their radio manufacturing (for the armed forces) to the Canal Works during the Second World War after their London factory was bombed.

The continued value of the canal for local freight transport was reflected in continuing investment in its infrastructure. In 1930 the Chillington Wharf interchange basin received a further phase of improvement to enable transfer of goods to road, as well as rail transport. This included the installation of the Babcock and Wilcox travelling crane, which remained in operational use until 2000.

Decline and new life

Following the Second World War, use of the canal for transporting freight declined rapidly. Although the mainline of the canal has remained open, several sections of the wider network were abandoned in 1954 and many canalside businesses filled in their basins to gain land. A large part of the Wednesbury Oak Loop was filled-in. The remainder was preserved as the Bradley Arm, running up to a depot and pumping station which supplies water to the canal from flooded mine-workings. The Bradley Locks Branch, which opened in 1849 creating a direct link between the Old Main Line and the Walsall Canal, was closed in 1961. It consisted of a straight flight of 6 locks the filled in remains of which lie within public open space that runs along the city boundary.

The hard winter on 1962-63 was particularly devastating for canal carriers whose boats were frozen in, whilst the waterway gradually ran dry. At the same time many of the area's traditional industries also declined. Coal mining had been in decline since the later 19th century. A large area at Bilston was subject to open cast mining in the later 20th century, although this too came to an end. The iron and steel foundries had been reduced to a handful of very large sites, most of which closed down in the late 20th century and were either converted to new uses or became industrial waste grounds.

Whilst the industrial use of the canals almost entirely disappeared in the later 20th century, the development of a leisure boating industry ensured pressure was maintained to keep them navigable. Canals through rural settings, such as the Birmingham and Fazeley Canal or the Staffordshire Worcestershire Canal have attracted the bulk of canal tourism, however a number of boatyards continued to supply narrow boats or renovate and convert old ones for leisure use. The Bradley arm has survived at least in part due to its practical function of supplying the canal with water from the pumping station, whilst recent work involving the community has focused on making this part of the canal an attractive parkland environment. The in-filled route of the canal is protected so as not to prejudice opportunities to re-open the link between the BCN and Walsall Canal at some point in the future to create a circular cruising route.

More recently, developers have recognised the potential of the canalside as an attractive location for distinctive developments. The Gas Street terminus of the BCN Main Line in Birmingham has seen extensive redevelopment to create a vibrant area of the City Centre, which has attracted canal users. Within Wolverhampton redevelopment at Horseley Fields has created attractive canalside homes integrated with historic buildings. In the south of the study area, the Bilston Urban Village is currently under construction, which will involve further improvements to the towpath and reinstatement of the canal basin of the Capponfield Ironworks.



The Bradley Arm is kept open due to its role supplying water to the wider network and to provide access to the Canal and River Trust Depot.

4. Character and Appearance of the Conservation Area

Summary of special interest

The course of the canal is notable for the following:

- A navigable canal of great historical significance both for the development of the region and the development of nationally significant industries;
- Evidence of the functional features of the canal, including a number of former locks, wharves and basins, including the unique survival of the canal/rail/road interchange basin at Chillington Wharf;
- Buildings relating to the use of the canal and the people who operated it, including a former lock keeper's cottage, wharf manager's house, stable buildings and bridges;
- The survival of canalside industrial buildings of both historic and architectural interest, providing evidence of a number of locally significant companies and industries on a variety of scales;
- Areas of green open space that are semi-naturalised providing opportunities for wildlife;
- The canal provides an ecological corridor through the area, providing areas of habitat and linking other habitat areas;
- Attractive views along the canal, which benefit from surrounding greenery and the activity of the waterway, as well as historic canalside buildings;
- Views out from the canal to green open spaces and other landmarks;
- A route between rapidly changing character areas



View along the canal from under Horseley Fields Bridge including an historic side bridge crossing the entrance to a basin.

Present character: activities and uses

The waterway and towpath are well used for recreation by boaters, walkers, cyclists and anglers, providing a tranquil area away from the sometimes noisy urban environment.

It is a well used walking route between urban areas, away from the busy traffic routes of the main roads, although there is a perception it is not well used. Given the length of some sections of towpath between access points it can sometimes feel lonely and intimidating. This is exacerbated by the visual impact of areas of abandonment and dereliction, the negative impact of graffiti and littering and the measures taken by businesses to counteract the threat of crime.

The canalside uses are highly varied and provide numerous sudden transitions in the character of the area, although these provide a general transition from a green naturalised setting in the south of the regeneration corridor, becoming more intensely urban and industrial both to the north and towards the eastern end of the Bradley Arm. The canal is crossed by numerous transport routes, including roads, railways and the Metro line.

A small number of paddocks, on reclaimed industrial land, are located to the south of the area, whilst large areas of former industrial land have reverted to a semi-natural state, with 'lawns' formed by use for grazing horses and ponies. The locations of these areas reflect the presence of historic extractive industries including shallow mining and later tipping of waste and later use for landfill. A number of large pools or 'swags', such as Ladymoor Pool are further evidence of former mining activity. The in-filled sections of canal and locks to the far south-east are protected in green public open space well used by local communities in surrounding residential areas.

Historic industrial sites include a number of surviving



Wasteland next to the canal is grazed by horses creating rough lawns.

industrial complexes, such as the Waterside and Central Trading Estates, Commercial Street and Minerva Wharf. These have been subdivided to provide flexible sites housing numerous small and medium sized enterprises. The reuse of these sites often requires waste storage that was not part of their original planning and subsequently this has formed an unsightly element next to the canal. The largest of the surviving historic industrial sites, the Central Trading Estate, is also surrounded by vacant former industrial land at Dixon Street and Steelhouse Lane, which is covered by demolition rubble and self-seeded scrub. This has a

negative impact on the appearance of the surviving industrial buildings but could be remedied by redevelopment of the surroundings.

Later 20th century redevelopment of land next to the canal has included a mixture of industrial and residential land uses. Industrial development has included a mixture of large footprint buildings and industrial estates of smaller units. These are often well maintained, whilst some are notable for making a positive use of the canalside to provide interest in their landscaping.

Relatively little canalside residential development survives from the period before the First World War.



The Wulfruna Coal Company at Minerva Wharf preserves the character of a working coal wharf.



Mid 20th century housing turned its back on the canal creating dead frontages.

Some Inter-War and mid-20th century canalside development reused former colliery land and industrial sites, such as the Capponfield Ironworks at Bilston, to provide new housing (now Carder Crescent). This turned its back on the canal, which was an industrial waterway at this time with high brick wall boundaries to the towpath which have a negative impact on the amenity of the canalside.

Recent regeneration of industrial land has included the canalside as public realm, with frontages overlooking the canal, and providing passive surveillance and some enhancements to the towpath

Development of street pattern

The canal's waterway and towpath provide a long, sinuous and level route that is the main feature of its progress through the regeneration corridor. To maintain the height of the canal following the 143 metre contour, the mainline canal has a mixture of winding sections, as well as occasional cuttings and embankments.



The winding course of the canal was designed to follow the contours of the land.



Millfields Lane pre-dated the canal but developed as an important industrial area after its construction.

The winding course may also have been required to ensure the canal passed notable collieries that were active at the time of its construction, as well as making further areas of coalfield viable for exploitation.

The improvements to the canal overseen by Thomas Telford created straighter sections and reduced the need for locks, rendering the stretch from the mainline to Bradley a side loop (the Wednesbury Oak Loop) until the southern part of this was closed, the remainder becoming the Bradley Arm

Routes that pre-dated the construction of the canal, such as Bilston Road, Walsall Street and Horseley Fields, required crossings that also provided access for goods to the waterway, which became nodes of activity. One focal area was the stretch of canal that ran parallel with Millfields Road at Ettingshall, creating a long strip of land between the road and canal on a main route running out from Bilston and into the coalfield. This was developed for industrial sites in the mid 19th century. The old route north from Ettingshall (Ettingshall Road) is also recognisable from Yates's map of Staffordshire (produced in 1775) as an early focus of ribbon development, perhaps due to its parallel course with the canal. In the north of the regeneration corridor, side roads were built on parallel courses to the canal from the important roads east and south east out of Wolverhampton City Centre. These included Commercial Street and Minerva Lane, developed between 1820 and 1850, opening up new canalside land for industrial development. The planned development of these streets can be recognised in their short, straight courses, compared to the more gently sinuous routes of the older highways from which they emanated. Cable Street had a similar role, making land next to the canal accessible from the old road from Bilston to Wolverhampton and has a similarly straight course. The canal basins also reached out on parallel course to the existing roads creating further industrial land with access to the waterway.

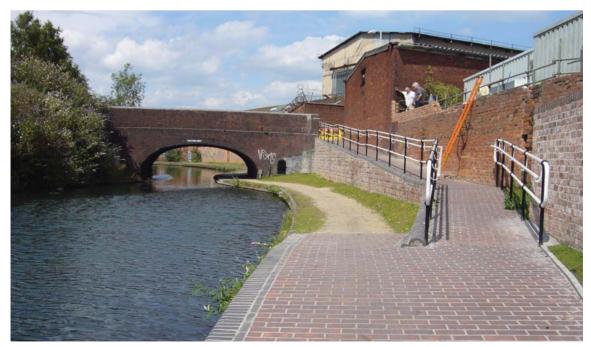
During the early 20th century, land that had been used for extractive industries was reclaimed for housing characterised by semi-detached properties built on formally planned grids of curving streets. The housing was planned to face onto the streets and radiating cul-de-sacs, providing enclosed spaces. The canal formed a boundary to these developments but was not incorporated into them.

During the 1960s the role of the canals in supplying industrial premises along its course had all but entirely ceased and their existence was threatened. Ensuing public pressure to preserve the canals has raised their presence in the consciousness of planners, as an important element of local character. The need to ensure they provide an attractive and safe environment has also been present. As such, development alongside the canals in the later 20th and early 21st century has been designed to incorporate the waterway into their landscaping, more recent housing developments have incorporated the canal into development at Anvil Crescent, Poole Crescent and Canon Drive, or the larger development at Millfields.

Architectural and historic character

The architecture of the canals is represented in both the buildings and structures of the waterways and the industrial and commercial buildings which stand alongside them.

Within this corridor the most striking architectural features of the waterways are the bridges that carry roads over the canals or the towpath over side arms and basins leading off the main branch.



Cable Street Bridge was built in the mid 19th century. Recent towpath and access enhancements were undertaken under the ABCD New Deal for Communities initiative.

These include brick road bridges, such as those at Ward Street, Cable Street and Pothouse Bridge, Salop Street, which have either retained or been reconstructed to the pattern used in the late 18th century with elliptical arches and brick parapets, arches and abutments forming a seamless whole and given the simple adornment of stone or bull-nosed brick parapet copings. Bridges on busier routes, such as Bilston Road, Walsall Street and Horseley Fields Road were upgraded in the late 19th and early 20th century, with bridges built using cast iron supporting arches, with brick piers and parapets. Later road bridges were built using ferro-concrete construction, a less locally distinctive form of construction and are therefore considered to be of less historic or architectural interest.

There are numerous small bridges that carried the canal over the entrances to off-shoots, docks and basins, many of which are now blocked- up, but preserved as hump-backed brick structures within the towpath. Some retain low parapets with broad half-round brick copings. These add interest to views along the canal and provide an indication of its former use to supply canalside industries, as well as transhipment points. Some could still be reinstated within redevelopment projects.



The iron towpath bridge at Deepfields Junction.

Cast iron bridges, like the one at the Main Line's junction with the Bradley Arm (Deepfields Junction), are of greater interest and were made locally. The earliest examples apparently formed part of Telford's improvements to the canal, although those within the area are of later 19th century origin. They have both historic interest, due to their connection with local manufacturing, and aesthetic merit in their long, low sweep and latticed parapets.

The canalside factory complexes are of varied scale and provide a range of small, medium and large Victorian and Edwardian industrial buildings. Architectural ornament was lavished on the office and administrative buildings that formed the roadside

frontages of these sites. The more functional buildings vary in their character, sometimes forming individual blocks as long buildings or as groups of sheds presenting saw-toothed gable ends to the canalside that create enclosure and rhythm to views along it.

A number of transhipment points were located alongside the canal and these combine the waterways infrastructure of canal basins, crossed by bridges at their entrance, with open sided or enclosed sheds and railway lines at the wharf side, set below the level of the canal to allow easy offloading from narrow boats into railway trucks. Chillington Wharf preserves the last surviving example of these on the BCN and is the best surviving example of its type nationally.

Building materials

Materials used in building the canal

The materials of the canal bridges help to illustrate their age and the development of the canal and its relationship with surrounding transport routes over time. The earliest brick bridges were constructed using hand moulded brick. Some of these appear to survive at bridges that received few later improvements, such as Jibbett Lane Bridge, Ettingshall. Elsewhere these bridges were renewed over time, maintaining the same form of bridge but using wire-cut brick with a glossy face. Other bridges were replaced completely using more robust forms, particularly on heavily trafficked routes such Bilston Road and Horseley Fields. These bridges were built in wire-cut brick but with supporting arches of cast iron. Both the ironwork and bricks add to the local character as the product of distinctive local industries that had an intimate relationship with the canal.



Towpath near Cable Street with beaten gravel path with canal bank materials including concrete (marking the entrance to a former basin), bull-nosed blue brick and iron rails adding extra support to the bank.

Brick was used to reinforce the canal bank often with brick copings and metal supporting bands or rubbing strips at narrowing points under bridges and into former lock chambers. Coping bricks marked with the makers name are preserved near Jibbett Lane Bridge. A small area is recorded with reused millstones as a coping south of Horseley Bridge.

Brick sett paving was laid under bridges and on the ramps up to the road level with raised treads which provided grip for boat horses. A section of original brick paving to the towpath is preserved below Hills Bridge at Biddings Lane. Otherwise the canal towpath is a beaten gravel path, replacing the industrial waste or cinder used in the past, often separated from the water by a narrow grass verge.

Wharves were built to be durable, either in brick or concrete with metal supporting bands or rubbing bands. Some brick wharves survive, as at Bradley. It is notable on the Bradley Arm that some banks are now shallower slopes running into the water, creating a softer edge to the water and a more rural character to the waterway. The edge of the canal is softened by plant life, including beds of reeds and irises, as well as overhanging willow and alder trees.



Brick paving on the approach to Deepfields Junction Bridge.

Building materials on canalside sites

This is restricted to buildings that are associated with the operation of the canal.

Factory office blocks: These were often built or re-built in the late 19th or early 20th century to convey an image of prosperity and confidence as the shop window of each business, but often also incorporated practical elements, combining offices and warehousing.

These were built of rich red coloured, wire-cut brick with moulded brick, tile and terracotta to provide ornamental bands and panelling. Some detailing is also provided through use of stone quoins and banding, or use of blue and cream coloured brick to provide detailing around windows and doors, including segmental arched window heads.

Other decorative features include engaged pilasters (which have the appearance of square pillars forming part of and breaking forward from the wall), cornice and parapet detailing, decorative window sill and hood mouldings including 'aprons' below the sill and carefully crafted gauged brickwork to window heads with key stones.

Office buildings at Commercial Road and Millfields Road incorporated vertically sliding sash windows, replicating the architecture of contemporary domestic buildings, although some also use cast metal frames, designed to resemble sash windows.

Roof materials are varied, but include both natural slate and fired clay plain tiles with a mixture of profiles represented.

Factory and other industrial buildings: Few of these have survived as many were very temporary structures built as iron, steel and concrete framed sheds with boarded cladding (particularly at gables) or were open sided with roofs of sheet metal or asbestos. Two at



Detail of the Crown Nail Works building including locally manufactured wire cut and moulded brick, colour contrast brick detailing and iron framed window.

Walsall Street are the best survivors, forming part of the former Crown Nail Works and presently acting as shelters for a van dealership.



These open sided sheds off Walsall Street were once typical of the canalside but are now a rare survival.

More permanent buildings were built in brick, sometimes with decorative colour-contrasted brick banding. Some of these are of a high architectural quality, reflecting expenditure by their builders beyond functional utility. They are normally supported with brick buttressing, sometimes expressed as engaged pilasters marking bays and pierced by tall, iron framed windows with semi-circular arched heads. Some have a second tier of smaller windows set high up. Presumably these were important for ventilation as well as light and are often circular or have semicircular arched heads. The most distinctive example of the use of polychrome brickwork is probably the remains of the New Griffin Works on the Wyrley and Essington Canal.



Buildings at the former Victoria Ironworks, Cable Street.

The roofs of these factory buildings often incorporate more than one material, but include natural slate, sheet materials and normally have large glazed sections.

A number of early and mid-twentieth century industrial sites have survived which tend to have lower level, single-storey industrial buildings with light steel-framed windows. These were generally built in the period after the canals had ceased to provide the main means of bulk transport and although these sites are provided with wharves, they tend to provide little articulation to the canal frontage. Interesting examples in the study area include the former works of the Briton and AJS Car Companies and Ever Ready factory at Lower Walsall Street and the Adolphe Crosbie and Co. building on Walsall Street.

Listed Buildings

A listed building is one that is included on the Government's Statutory List of Buildings of Special Architectural or Historic Interest. These buildings are protected by law and consent is required from the local planning authority before any works of alteration, extension or demolition can be carried out.

The Statutory List contains just one entry within the conservation area which is the Chillington Wharf Canal and Railway Interchange Basin (listed Grade II). It was originally built for the Chillington works by John Urpeth Rastrick in 1829. The ironworks developed a light railway distribution system to connect it with the canal a ¼ mile away. It was later converted for use by the LNWR railway. The travelling crane by Babcock and Wilcox was installed by the London and Midland Railway after 1930 and remained in use until 2000. As a canal/rail/road



Chillington Wharf is the last of some 30 similar canal rail interchanges on the BCN retaining evidence of all the stages of its development. It recognised as a nationally significant heritage asset for its historical and technological interest, intactness and rarity.

transhipment wharf retaining its covering sheds it is probably unique in the country and, arguably, deserves a higher grade of listing than it currently enjoys.

Locally Listed Buildings

The 'Historic Environment Planning Practice Guide', a government endorsed guidance document produced to accompany Planning Policy Statement 5: Planning for the Historic Environment, advises local authorities to compile a 'local list' of heritage assets. Protection of such assets will then become a material consideration when determining planning applications. When applying for planning permission for works that would affect a building included in the City of Wolverhampton Local List, applicants should ensure that the development will not have an adverse affect on features of special character or historic interest.

The Local List includes 15 buildings within the conservation area, which comprise the following:

The Crown Nail Company's Office Building, Commercial Road; Former Power Station, Commercial Road; The Harp Public House, Walsall Street; Cable Street Bridge, Cable Street; Crown House, Millfields Road, Ettingshall; Central Trading Estate selected buildings only (see map); Wulfrun Coal Company office building and basin, Minerva Wharf, Horseley Fields; Ward Street Bridge (Jibbett Lane Bridge); Bilston Road Bridge; Horseley Fields Bridge, Lower Horseley Fields; Deepfields Junction Roving Bridge; Pothouse Bridge, Loxdale Street Canal and River Trust Depot Pumping Engine House, Cross Street, Bradley Highfields Works building, Highfields Road, Bradley New Griffin Works buildings, Stanton Road



The turbine hall of the former power station on Commercial Road

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Building of Townscape Merit

In addition, marked on the townscape appraisal maps are a number of unlisted buildings which have been judged as making a positive contribution to the character and appearance of the conservation area. This follows advice provided in English Heritage guidance on Conservation Area Character Appraisal and Management, which stresses the importance of identifying such buildings.

The buildings are considered to be of good, relatively unaltered examples, of their type where some original materials and details have survived in addition to the basic historic form of the building. Where a building has been adversely affected by modern changes and restoration is either impractical or, indeed, not possible, they are excluded. There is a general presumption in favour of retaining all Buildings of Townscape Merit, which is supported by Policy HE2 of the Core Strategy.

Focal points, vistas and views

The canal provides a number of views of interest.

In the north of the regeneration corridor several interesting views are created where a bend in the canal channels views from the towpath along the waterway to a significant canalside building or group of buildings.



The wharf manager's house at Biddings Lane is still recognisable as an historic canalside building despite alterations that have taken place.

Along the Bradley Arm attractive views are created in several places where the towpath runs alongside semi-naturalised green open space that has been grazed by horses to create areas of grassland interspersed with thickets of trees and scrub.

In some instances the canal infrastructure, such as former locks and bridges, provides the focus of views, with attractive framing provided by canalside greenery. Notable examples include views to Jibbett Lane Bridge, Ettingshall Road or Pothouse Bridge, Bradley.

Open spaces, green areas and trees

In many areas the canal runs through a green setting with thick foliage often running down into the off-side (away from the towpath) with the towpath itself often grassed over or running between grass verges. Reeds and flag irises growing within the canal provide additional greenery whilst many trees line the canalside or appear in views looking out from it, rising above the surrounding built environment. Lines of poplars are particularly notable for the contribution they make to the skyline within the regeneration corridor. In the early twentieth century many canal companies planted poplars to provide an extra income from their canals, apparently partly in the belief that they would be used as aeroplane propeller blades when harvested.



At Millfields the curve of the canal provides a dramatic view along the waterway and towpath to the Jibbet Lane Bridge, with trees and industrial buildings providing framing.

Areas of former coal mining and tipping from the ironworks have regenerated as green spaces next to the canal with ponds, clumps of woodland and grassland grazed by tethered horses. The canal provides a pedestrian (and boating) corridor through these areas and benefits from the green setting.

The southern sections of the conservation area which include the in-filled sections of the Bradley arm and Bradley Locks are green public open spaces. The restoration of these sections of waterway have been the



The canal provides habitat for a range of wildlife.

subject of discussion amongst heritage groups for some years. The green spaces adjacent to the line of the former canal are a product of the reclamation of past industrial sites for largely recreational use in the second half of the 20th century. The area contains playing fields and rough grassland areas further south used for grazing of tethered horses and provides distant views across open spaces in adjoining boroughs. The line of the old mainline canal can be discerned in places and a network of footpaths make these open spaces here readily accessible.

As well as having landscape interest, the route of the canals provides a corridor of wildlife habitat. It

provides opportunities for water birds, fish, amphibians, invertebrates, plant life and mammals including bats and water voles. It also links areas of habitat through the built-up areas of the city.



In several locations the canal and its green edges provide unexpected areas of natural habitat interest.

Public realm

Both the canal towpath and the waterway form elements of the public realm, although the waterway has the obvious limit to public access of requiring a boat. Travelling by narrow boat provides a very different experience of the waterway.

The towpath is generally lacking in furnishings other than the bridges, with their steps or access ramps including brick treads or grips and occasional tubular steel bicycle barriers, designed to restrict the use of the towpath by bicycles and motorbikes. Alongside the canal at Millfields, residential development has provided a wider public area next to the canal (see character area description below) demonstrating the positive relationship that can be created between the canal and new housing development.

There is a section of surviving Rowley Rag setts in Minerva Lane. This type of traditional surfacing for industrial areas may survive in other places beneath later tarmacadam road surfacing

The green public open spaces created where the southern section of the Bradley arm and the Bradley Locks were filled in provide pedestrian routes associated with nearby residential development and areas popular with dog walkers.



The route of the now in-filled Bradley Locks is protected in public open space - today and in c 1960.

Local identity

The canal is an important symbol of the industries, labour and resources that were combined to enable the industrial development that fuelled the growth of Wolverhampton and its surrounding towns. It is a part of the cherished scene and has been the subject of artwork and filmaking (see for example the work of Arthur Arrowsmith and Edwin Butler Bayliss - artists or Phillip Donnellan – film maker). It provides routes between local communities, particularly those established through development over the former industrial land in the early and mid-20th century. The canalside factories and industrial sites are now a rapidly vanishing element of the local landscape, but at one time were the pride of the region's business community.

Archaeological potential

The area contains a number of sites of buried archaeological deposits of importance, particularly those relating to its early industrial history. These sites need further investigation and definition in order that they may be managed and protected. The Bradley Branch also will contain material of archaeological interest including the in-filled lock structures and possibly other material abandoned when the flight was in-filled.

Introduction to Character Areas

The main line of the canal varies along its course as it runs from the former coalfields around Bilston in the south towards the former manufacturing district that extended from the canal to Wolverhampton City Centre. The canal arms also have their own character, which will need to be respected.

From north to south the canal corridor can be divided into several areas of changing character including 3 distinctive sections of the BCN main line and a section of the Wyrley and Essington Canal north of the Union Mill Conservation Area and the Bradley Arm, including the in-filled sections of canal through to the city boundary

- Area 1 The Wyrley and Essington Canal;
- Area 2 Commercial Wharf, Minerva Wharf and Walsall Street: The BCN Main Line from Bilston Road to Horseley Fields;
- Area 3 Ettingshall and Monmore Green: The BCN Mainline from Millfield Road to Dixon Street; and
- Area 4 Springvale: The BCN Mainline from Deepfields to Ettingshall;

Area 5 The Bradley Arm.

These character areas have been defined based on the changing character of the canal and its setting through the Bilston Corridor, including the buildings, urban and green landscape and activities on the canalside.

This appraisal provides a fine grain of character description and is focused on the specific environment of the canal, which may not follow the character changes of the wider environment as experienced from surrounding roads. Nevertheless it should be recognised that many character areas have only notional boundaries and that features of character change more gradually than a hard line on a map might suggest, whilst other characteristics may be common throughout several areas.

Area 1 - The Wyrley and Essington Canal

Principal Features (outside the Union Mill Conservation Area)

- Long, straight and broad section of canal waterway;
- Mid-19th century buildings of the New Griffin Works (currently derelict);
- Parkland setting to north bank with cast iron railings;
- Long straight sections of canal creating channelled views along the waterway;
- Broad towpath with grassed edges;
- This is considered to be one of the best areas within the study area for biodiversity.



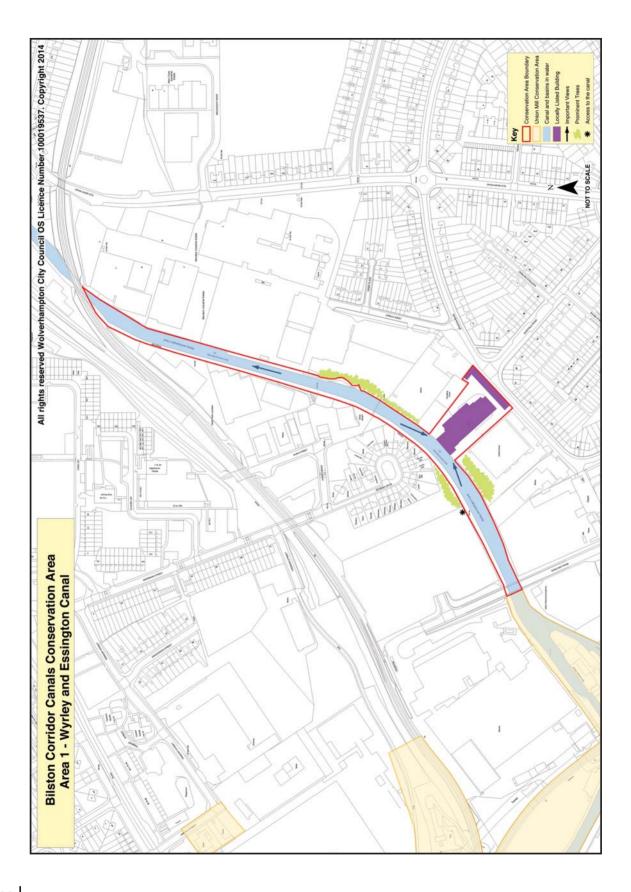
The green fringes of the canal frame views into neighbouring industrial sites.

General character and townscape

In contrast with the very urban and enclosed character of the BCN Main Line and the Union Mill Conservation Area, the Wyrley and Essington Canal provides a sharp change in character to a greener setting. This character is created by the breadth of the canal and towpath, which have wide green verges and tree lines on both sides and a general lack of enclosure by buildings. The long, straight sections of the canal add to the feeling of openness by creating more expansive views along its course.

In the south west, the canal forms part of the Union Mill Conservation Area, emerging from under a pair of parallel railway bridges to a broad grassed area where the canal is narrowed by a stop lock. This was once one of a parallel pair used to manage access between the two canals, as well as controlling the flow of water from one to the other. Presumably the infilled second lock chamber lies beneath the sward.

Just to the north east of the stop lock (still in the Union Mill conservation area) is a surviving basin and slip wharf, recorded as Limekiln Wharf on the 1st Edition Ordnance Survey Map. Single-storey brick sheds preserve some of the historic wharf-side surroundings, although the area is very derelict and overgrown.



The towpath facing this wharf runs over brick bridges that crossed the access to wharfs on the north side of the canal. These served the former Osier Iron Works and the Horseley Fields Canal and Railway Junction, built for the Wolverhampton and Walsall Railway Company and the LNWR in 1872-80. Whilst the transhipment depot has now been redeveloped the bridges provide interest to views along the towpath. The large, half-round copings to the bridge parapets are an attractive and locally distinctive feature stamped with the names of local brick-makers.

North east of the Union Hill conservation area, the canal runs under the modern Qualcast Road Bridge. Views along the canal to the north east are focused on the former New Griffin Works (an edge tool manufacturers), which retains mid 19th century canalside works buildings standing at the bend in the canal. Further historic buildings of this complex stand on the road frontage to Stanton Road and are a very rare surviving example of such a complex. However, the buildings are in need of considerable refurbishment and maintenance to ensure their preservation.



Remains of the New Griffin Works with its distinctive polychrome brickwork and cast iron windows.

Directly to the north east of Qualcast Road is a large area of vacant and derelict industrial land with selfseeded woodland running up to the towpath.

Other surrounding buildings are generally modern industrial portal-frame shed-style buildings, clad in composite metal sheet, including the Corus Steel company buildings that maintained the tradition of iron



View north east along the canal with Tithe Croft providing a prominent landmark.

and steel working on the site of the former Osier Bed Iron Works until 2009. The modern buildings tend to stand back from the canalside and so do not necessarily intrude into views along the waterway. Trees on either side of the canal help to further reduce their visibility.

An area of Mid-20th century semi-detached housing lies on the west side of the canal at Inkerman Grove. As with other areas of similar housing this was built facing away from the canalside with high fences and walls to the towpath. However a part of the parkland surrounding this development runs up to the towpath's edge with cast iron railings marking the boundary. In the north east of this character area, the industrial land adjacent to the canal is increasingly visible from the towpath and waterway, with chain-link fences and steel palings providing views into industrial sites at Alma Street and Osier Street. The high-rise block of flats at Tithe Croft is framed in the view along the canal to the north east.

Local Features

- Green verges to the towpath;
- Railings to small open space at Inkerman Grove;
- View to Tithe Croft high-rise block;
- Archaeological interest of the surrounding iron and steel works sites including the Beaver Iron and Steel Works, Swan Garden Iron Works, Osier Bed Iron Works, Horseley Fields Iron Works and Cleveland/Beaconsfield Works.

Negative features

The poor condition of the surviving buildings of the New Griffin Works suggests that they are at risk of loss of further original fabric, jeopardising their future preservation and continued contribution to the character of the area. While their poor condition has a negative impact on the character of the area, ideally this would be resolved through their reuse and renovation rather than clearance of the site.

- A derelict industrial unit at Alma Street is accessible from the towpath and has been used for illicit waste dumping, adding to the negative impact of the building's dereliction.
- Unattractive boundary treatments.

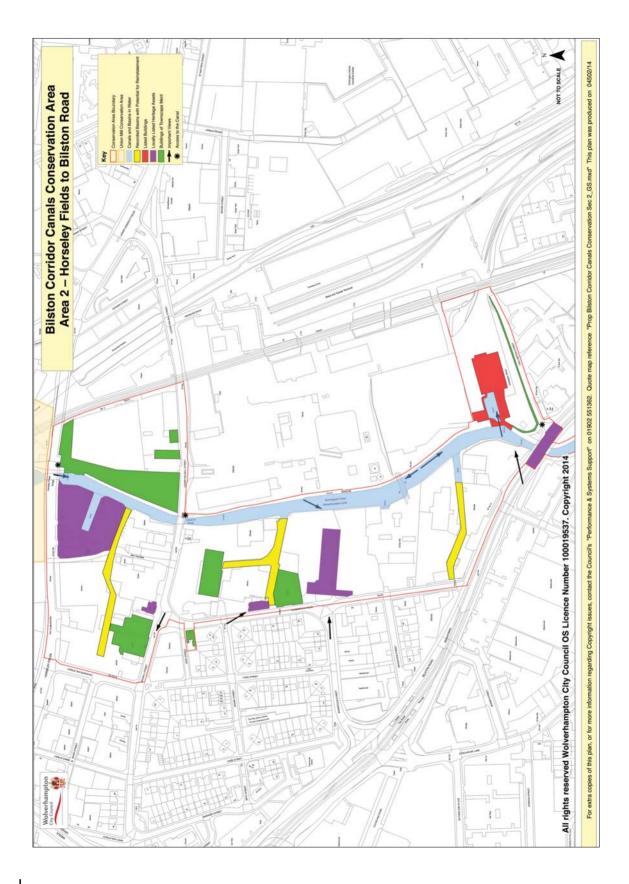
Area 2 - Commercial Wharf, Minerva Wharf and Walsall Street: The BCN Main Line from Horseley Fields to Bilston Road

Principal Features

- 1820s Chillington Iron Works transhipment basin with later additions for use by LNWR Railway and road transport including the travelling crane by Babcock and Wilcox. This includes a tow path bridge over the basin entrance and tall red and blue brick boundary wall;
- Partially surviving late 19th century electrical power station, including large turbine hall and office buildings at Commercial Road;
- Working canal basins and wharfs at Minerva Wharf, including early 20th century wharf manager's house and other buildings;
- Crown Nail Works office building and partially in-filled basin and wharf, Commercial Road;
- The Harp Inn, Walsall Street (early 20th century 'improved' public house);
- Buildings of the Shrubbery iron Works Briton's (and later A.J.S.) Car Works, Lower Walsall Street;
- Late 19th century road bridges at Bilston Road and Horseley Fields Road;
- Towpath bridge over former canal basin between Horseley Fields Road and Walsall Road
- Distinctive factory wall around transhipment basin.



Wharf manager's house and other buildings at Minerva Wharf are a distinctive landmark in Horseley Fields.



General character and townscape

Within this area the canal runs into one of Wolverhampton's former manufacturing districts. The canalside on the west side was divided into numerous plots, each of which was once served by a basin, whilst the east side was once the Shrubbery Iron Works and interchange basin for the Chillington Works and, later, the Briton Car Works, transhipment basins for the LNWR Railway and an 'Oxygen Works', now a British Oxygen Depot.

There is a gradual change in the level of enclosure of the canalside with buildings moving closer to the canalsides in the north of the character area, rising from the rear of the towpath between Walsall Street Bridge and Horseley Fields Bridge.

Views under both the Horseley Fields Bridge and Bilston Road Bridge are enhanced by the rhythm of the painted cast iron bridge arches with rivets creating an unusual feature. The shapes of the towpath bridges over former and surviving basins adds interest to views along the canal. The view south under Horseley Fields Bridge is one of the iconic images of the canal with the enclosing walls of the former car works and Walsall Road Bridge providing a classic Black

Country canalside vista.

There is a sense of continuity in the use of the canalside as a result of activity at the Minerva Wharf with two canal basins in use. The wharf manager's house was the last canal cottage built by the BCN (Ray Shill, pers. comm.).

The brick turbine hall of the former Municipal Lighting Works at Commercial Road rises to three storeys above the surrounding industrial townscape and acts as a landmark in views from the canal, as does the travelling crane over the Chillington Wharf interchange basin. Commercial Road provides several of the ostentatious late Victorian and Edwardian frontage buildings of the industrial sites,



The 1930s travelling crane at Chillington Wharf is part of the grade II listed structure.

which is continued on Walsall Street. A large electricity transformer station located to the south of the former power station is the legacy of the site's role in the supply of energy to Wolverhampton. This occupies a tidy and well maintained site but emits a continuous noisy hum.

Several distinctive local industries are represented including the premises of the Crown Nail Works, the Elwell-Parker electrical engineering company and the Briton Car Works.

Between Chillington Wharf and Walsall Street the LPG storage plant provides a more open area with views across yards, plant and buildings, although these are closed off by a large building and tall traditional brick wall running up to Walsall Street and the bridge. This depot retains a connection with the mainline railway that is part of the long history of interaction between the canal and railways.

There is little green landscaping in this area, reflecting it's more industrial and urban nature.

Local features

- Towpath bridges over surviving and former canal arms;
- View south along canal from under Horseley Fields Bridge;
- Locally distinctive building materials of canalside industrial buildings, including open-sided and boarded sheds;

- Locally distinctive building materials of canal and bridges;
- Rowley Rag setts surviving in Minerva Lane;
- Functioning coal wharf;
- Evidence of historic local industries;
- Wolverhampton Civic Society Plaque at the former Briton Car Works;
- Art plaques at historic bridges produced with involvement of local schools and depicting symbols of the canal, local industries and community identity.

Negative features

The majority of the historic industrial buildings in this area are unoccupied and threatened by deterioration of fabric through lack of maintenance, or demolition to provide new uses.



View of the 19th century power station in Commercial Road.

A number of the former canal basins in this area have been either in-filled or closed off from the mainline reducing the sense of connection between the canal and surrounding industrial land. This reflects the economic reality of the waterway. However, the large number of these former basins does provide potential in future to re-establish the activity of the waterway in the area as use changes.

Land on the canal edge is used for storage and disposal of waste, creating a poor quality environment.

Both the electricity transformer station and the British Oxygen Storage Company depot are unattractive neighbours for new development, the latter requiring an extensive surrounding HSE consultation safety zone for consideration of new development proposals.

The land surrounding the former transhipment wharf is largely disused and has become scrub covered, with scrub and small trees now colonising the wharf and threatening the preservation of this structure.

Area 3 - Ettingshall and Monmore Green: The BCN Main Line from Millfields Road to Bilston Road

Principal Features

- The BCN Main Line;
- Historic industrial buildings of the Britannia Boiler Tube Works, including office buildings, industrial buildings and wharf at Millfields Road;
- Gibbet/Jibbet Lane Bridge, Ward Street;
- A series of unfolding views along the sinuous course of the canal;
- Disused stop lock or gauging lock chamber with a keeper's cottages, off Ettingshall Road next to the mainline railway bridge;
- Buildings of the former Victoria Iron Works (of Bayliss, Jones and Bayliss and later GKN Machinery Ltd.), Cable Street, including late 19th century office and works buildings;
- Boundary walls and gates of the Monmore Iron Works, Cable Street;
- Views across the site of Monmore Iron Works to All Saints Church on Steelhouse Lane and the frontage buildings of the former Victoria Ironworks
- Enclosure provided by canalside wall of the former E. P. Jenks tube works.



Typical view along this section of the canal.

General character and townscape

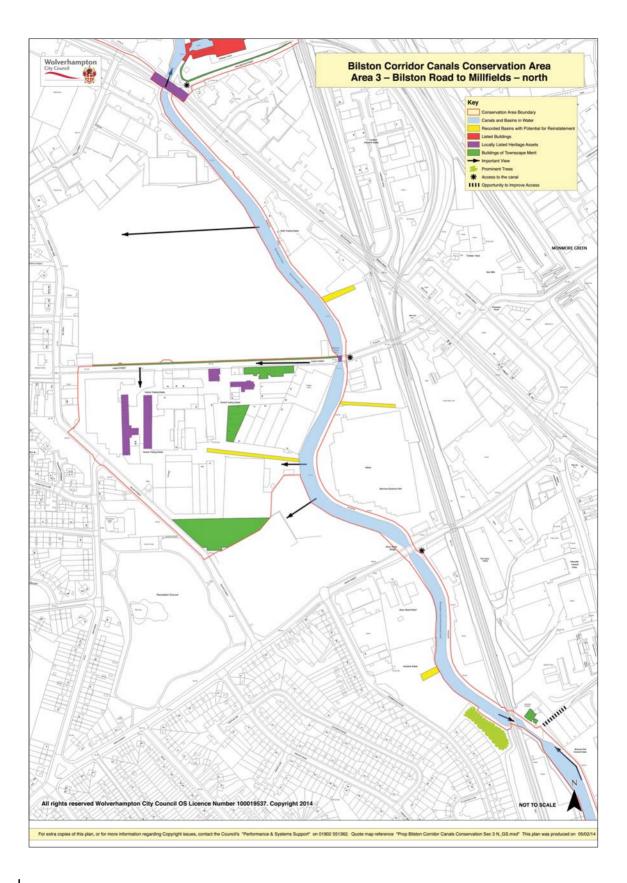
This is a more industrial area of the canalside. Several large industrial sites next to the canal have been cleared and are soon to be redeveloped. Surviving large scale Victorian and Edwardian industrial sites provide a greater depth of history and character to the canalside representing an expansion of industrial sites between Bilston and Wolverhampton in the mid-19th century and subsequent phases of development.

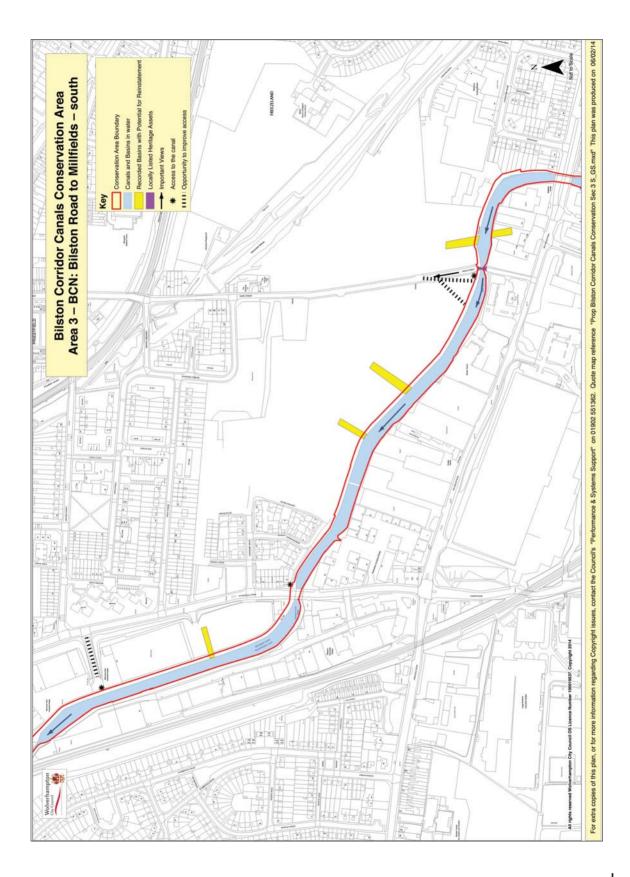
Bridges crossing the canal include a greater number of road bridges, which include late 18th century style bridges at Ward Street (Jibbet Lane Bridge) and Cable Street, as well as more modern bridges at Ettingshall Road and Dixon Street.

Large (four storey) industrial buildings run back along plots fronting Millfields Road to the canal with gableended roofs creating a complex saw-tooth frontage to the canal. A small wharf survives at the canal's edge for the former Britannia Boiler Tube Works, amidst well developed beds of reeds and irises.

The green, naturalised character of the character area to the south gradually disappears and is replaced by hard landscaping of modern industrial estates directly at the edge of the canal. The modern industrial units at the Webner Industrial Estate, off Ettingshall Road, are built overlooking the canal with a well maintained green verge running down to it from the service road. On the east side of the canal, further modern industrial and commercial units at the Monmore Park Industrial Estate are separated from the towpath by tall steel paling security fences, which nevertheless allow views out from the canal, creating a more open character.

A narrower point is created by another bridge carrying the mainline railway over the canal. This narrowing is accompanied by an increase in greenery which provides the setting for a small disused stop lock or gauging lock chamber, with a keeper's cottage, albeit much modernised. These locks would not have raised the







Stop-Lock chamber between Ettingshall Road and Dixon Street with the railway bridge behind and altered canalside cottages possibly once associated with the management of the lock.

level of the canal but for measuring the cargo of boats passing through in order to charge the correct toll and as a group they are an important survival of the canal's economic infrastructure.

North of this point land on the western bank of the canal includes much cleared or derelict former industrial land, whilst on the east bank the towpath is bounded by early and mid 20th century industrial buildings, often enclosed by red brick walls. These provide an increasing level of enclosure as the canal continues north and, after passing Cable Street Bridge, provide a continuous high built frontage to the towpath that constrains views out to the east and includes evidence of numerous phases of building.

On the west side of the canal, the former Victoria Iron Works (now The Central Trading Estate) is a feature in views from the canal and surrounding roads including several buildings of interest, mostly representing the late 19th century expansion of the iron works amongst more basic industrial buildings. This is a complex site, with multiple phases of construction represented. Nevertheless, many of the buildings have been altered, at least externally, to a point where any architectural interest they may have is obscured, and only a small number would be considered to make a significantly positive contribution to the historic character of the area. Those buildings that do make a significant positive contribution provide both an indication of the industrial history of the site and a degree of architectural interest in design, preservation and original ornamental detail.

Whilst the site of the former Monmore Iron Works and its successors Bayliss, Jones and Bayliss and GKN Machinery Ltd., were recently cleared to allow redevelopment, its high boundary wall, built of red brick on a contrasting blue brick plinth and with a stone coping, provides an indication of the industrial past of the site. The several pairs of gate piers include architectural ornament which adds interest to the street scene and provides some indication of the investment in the built environment made by the area's industrialists. The wall also includes parts of another office building. A small area of self-seeded woodland occupies a corner of the site and provides welcome greenery that frames views along the canal. At present, the relatively open western bank of the canal and the more enclosed eastern bank provide an interesting contrast that creates notable views along its sinuous course.



Jibbet Lane Bridge – one of a series of historic bridges along the canal. Whilst altered this bridge retains much original fabric.

The northern edge of this character area includes sites of the former Mitre and Eagle Iron Works (later the British Oil Works), which have been redeveloped for shed-style commercial premises. These are of large scale and relatively bland. These premises include areas of landscaped car parking with well maintained, low-level shrubbery borders to surrounding roads and the canalside. At the approach to Bilston Road Bridge, the east bank of the canal is bounded by a narrow open area of disused land with a low brick wall to the roadside and a ground covering of rough grass and gorse. This area could be adapted to provide better access to the towpath from Bilston Road.

Local features

- Historic industrial sites and areas with archaeological potential for industrial remains;
- Buildings of local interest, including the former Victoria Ironworks Works office and gatehouse building (locally listed);
- Historic canal bridges and footpath bridges of former basins;
- Improved access to the canal and community art project at Cable Street Bridge;
- Evidence of in-filled basins as diversions in the canal bank, with potential for reinstatement;
- Boundary walls to historic industrial sites at Steelhouse Lane (clinker wall), Major Street, Durbeville Road and Ward Street;
- Some attractive areas of greenery including several landmark trees.

Negative features

At present, parts of this area have a generally run-down character, due the development of scrub on the canalside or use of canalside edges on industrial land for storage or dumping of refuse. Views into some active sites have been obscured by uncontrolled growth of scrub, whilst the general lack of activity has created risks for security of buildings on this land. This provides a poor environment for the historic

waterway and serves to reinforce the sense of its loss of connection with the surrounding environment, to which it was once so influential. An area of particular concern is the small scrap yard just south of the Dixon Street Bridge where refuse runs down the bank to the waterside.

Although near to residential areas at Durbeville Road, the canal has little connection to these areas.

The loss of industrial buildings diminishes the historic interest of the canal by reducing the visibility of the industries that it encouraged to develop and the communities who were attracted to the area in response. Some of these buildings are attractive and have interesting architectural detailing.

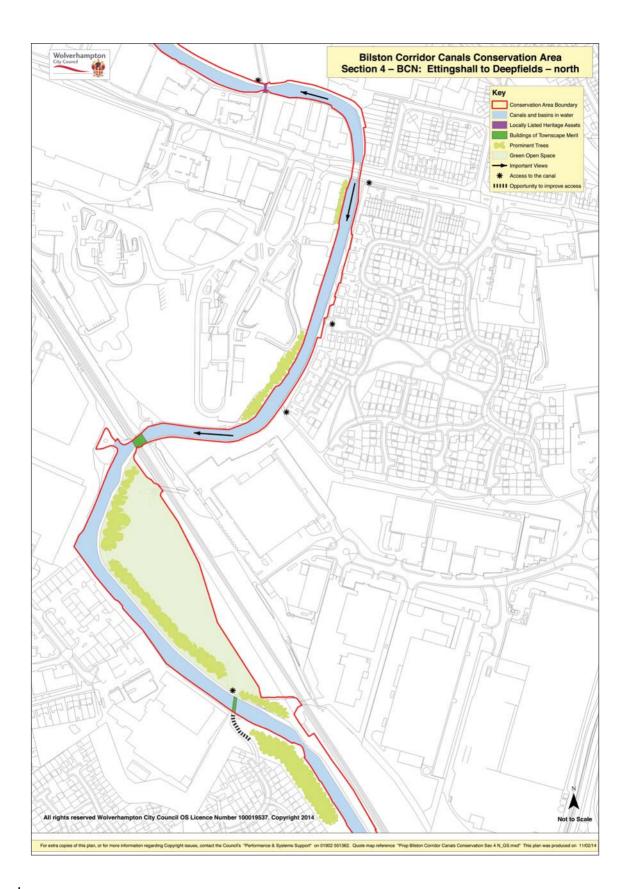


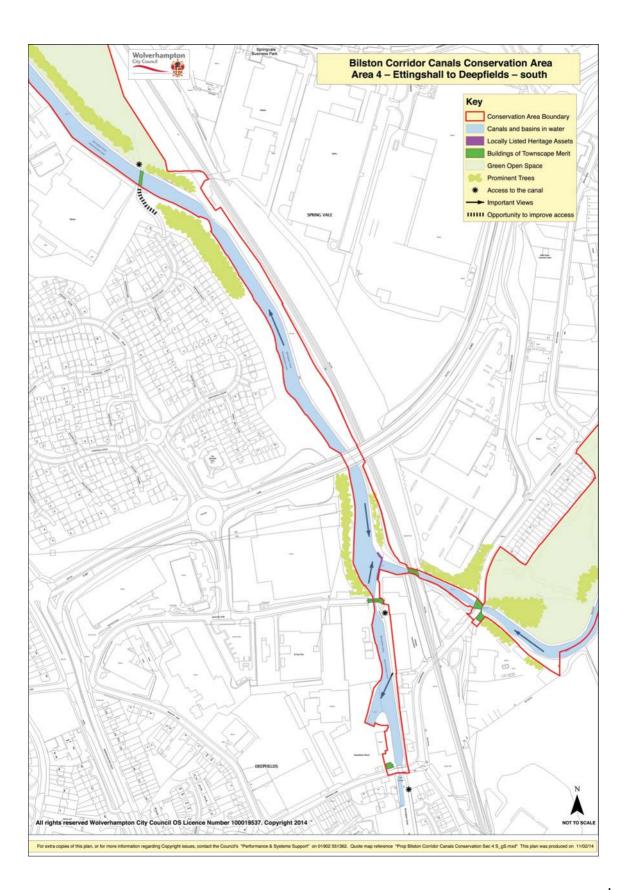
Original gatehouse building for the Victoria Ironworks in Cable Street now part of the Central Trading Estate.

Loss of architectural detailing from the group of

buildings forming the Cable Street frontage of the former Victoria Iron Works has had a particularly disappointing impact on the character of the road, although these changes are, potentially, reversible given sufficient control over development and incentives to reinstate lost architectural detail.

The window and door openings on many canalside buildings, particularly on the towpath side, have been blocked in response to threats to security. This has reduced the interest and vitality of the canalside environment and increases the impression that this area might be prone to crime.





Area 4 - Springvale: The course of the BCN Main Line from Deep Fields to Ettingshall

Principal Features

- The Mainline of the BCN;
- The Deepfields junction towpath bridge and attractive setting to the junction;
- West Coast Mainline railway bridge and ironworks tramway/railway bridge;
- Edwardian wharf manager's house at Biddings Lane with partially surviving basin and surrounding traditional canalside industrial buildings, as well as more modern style industrial buildings;
- Victorian era road bridge and lock chamber at Anchor Bridge, including area of traditional brick sett paving on towpath;
- Archaeological remains of basins serving furnaces and iron works, collieries, brick and lime kilns;
- Long, straight sections of canals with channelled views;
- Enclosed areas within cuttings enhanced by greenery and wildlife;
- Connection between canal and modern industrial estates through green landscaped canalside;
- Connection between canal and modern housing estate through landscaped canalside and public realm enhancement;
- Surviving canal basin at Biddings Lane (used until recently as a boat repair yard;
- Reclaimed canalside land at Tank Farm Open Space, used for recreation ground and wildlife habitat.

General character and townscape

Between Biddings Lane and Anchor Bridge, the canal's connections to the local road network encouraged



Deepfields Junction where the mainline meets the Bradley Arm

the development of an area of small-scale industrial land use, including the remains of a basin and wharf (formerly known as Massey's Wharf) at Biddings Lane marked by an early 20th century two-storey wharf manager's house next to Hills Bridge. Indeed this may be the final remaining section of the Hurst Hill Branch of the canal. One, large timber clad industrial building stands near to the former basin. A large, modern industrial building (currently a plant hire company depot), built in red brick with metal sheet cladding, occupies the former wharf.

Buildings on Anchor Lane, east of Hills Bridge, are generally single-storey light industrial buildings with those on the towpath's edge built in red brick and with a complex roofline.

The canal broadens significantly at the junction with the Bradley Arm, which is marked by a cast iron foot bridge on brick abutments bearing a date plaque of 1896.

North of the junction, the canal runs through a long green cutting or is otherwise enclosed by tall hedgerows and tree lines to either side. These screen some of the views out to industrial land and modern housing, although a large mid-20th century industrial unit with a narrow (disused) canalside wharf lies just to the north

of the Ten Score Bridge at Turtons Croft. Ten Score Bridge and the brick bridge abutments next to the mainline railway bridge indicate the locations of industrial tram and railways that crossed the canal.

The canal runs in long, straight sections, which provide several lengthy views of its green corridor. The Black Country route crosses the canal's broad cutting and is unfortunately unattractive when viewed from the canal, also creating a 'dead-space' in its shadow.

Before passing under the West Coast Mainline railway (formerly the Stour Valley Railway), the canal's west (offside) bank opens out to landscaped areas forming part of the modern Lanesfield Industrial Estate, which include mown lawns edging the canal with trees providing additional softening of the industrial buildings and some vertical interest. The buildings of the industrial estate are relatively low and built of a dark red brick that provides a good match to the brick stock produced locally in the 19th and early 20th centuries. Waste storage areas are not overtly conspicuous from the canalside and green landscaping continues from the canal into the industrial estate. The development provides a good example of modern industrial development on the canalside, without having an overtly 'canalside character'.



View over the canal into the Lanesfield Industrial Estate.

A large redistribution depot lies just to the north on Spring Road with big sheds clad in corrugated sheet facing away from the canalside. This development has an unattractive barbed-wire topped fence running along the canal's edge to provide security.

The canal bends sharply where it is crossed by the Mainline Railway, with the remains of a bridge serving the former Springfield Steelworks directly adjacent to the railway bridge. The bridges and their abutments increase the feeling of enclosure, creating a pinch-point, which marks a change in character in this area between the greener area to the south and a more built-up area to the north.

As the course of the canal straightens to run north, the eastern side of the canal opens out to provide views into the Millfields residential development. Consideration was given to the canalside in planning for this development which provides a high degree of overlooking to both the canal and towpath from the new housing. An area of formal green open space at its southern edge runs down to the canalside and includes a large galvanised steel sculpture (reflecting the industrial history of the area). The development also includes a paved seating area overlooking the canal with steps and ramps providing access to the towpath.



The canalside at the Millfields development.

On the west side of the canal a large industrial site (the headquarters of Tarmac) is screened from view by greenery on the canal banks and by lines of tall trees (mostly poplars) beyond. An adjacent car scrap yard is hidden by a tall fence of corrugated metal, which is softened by the greenery in and next to the canal.

Throughout this area the canal has a very green character with the off-side colonised by self-seeded scrub that is now developing as succession woodland in addition to trees planted to screen views to industrial premises. The water's edge has been softened by the development of stands of reeds and irises, which have a high potential wildlife value, encouraging amphibians, invertebrates and birds.

Local features

- Various tramway bridges and bridge abutments representing visible remains of historic industrial sites;
- Remains of canal basins, which formerly provided access to industrial sites such as the Springfield Steelworks and the Manor Iron and Tin Sheet Works;
- Reclaimed industrial land providing public green open space between the canal and mainline railway;
- Trees including notable stands of poplars;
- Corridor of greenery providing wildlife habitat;
- Clinker, dark red/blue brick and limestone wall running up to Anchor Lane Railway Bridge.



Remains of the tramway bridge that once served Bilston Steelworks.

Negative features

Much of the modern industrial development has turned away from the canal creating an inactive frontage. Some of these buildings are of a very large scale with relatively featureless elevations and rooflines, creating a monotonous environment to the canal. This is exacerbated where surrounding yards at the canal's edge are also featureless and lacking in greenery. Use of chain link fencing and barbed-wire creates an aggressive boundary to the canal.

Many of the canal basins, which provided opportunities for greater interaction between the canal and surrounding industrial sites, have been lost. Some of these extended for considerable distances and would have provided greater access to both the canal and its towpath from the surrounding area.

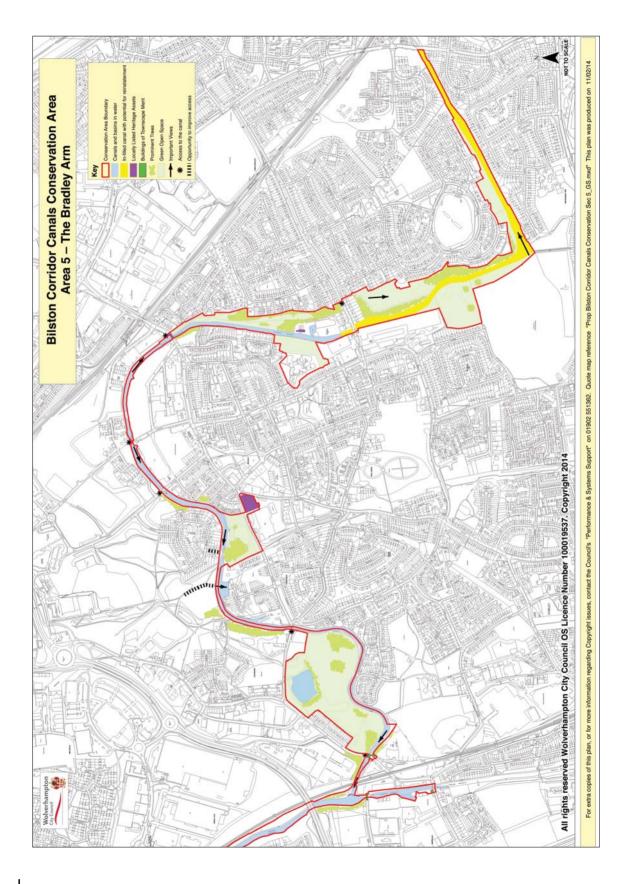
The buildings either side of the canal at Biddings Lane and Anchor Road are in a poor condition, particularly on their canalside frontage with openings to the canalside largely blocked due to concerns over security. Surrounding land is derelict and has been used for fly-tipping, whilst a large section of wall has collapsed across one of the footpaths between the towpath and Anchor Road.

The recreation ground on the reclaimed industrial lane at Ten Score Bridge is only accessed from the canalside at one point, with other potential routes blocked by intervening scrub. The bridge itself is in need of redecoration to create a more inviting route to the canal and open space beyond.



Ten Score Bridge provides access to Tank Farm public open space and the canal towpath but could be improved.

The area under and around the Black Country Route road bridge is an unattractive area, partly as a result of the shading created by the bridge and the poor impression created by graffiti.



Area 5 - The Bradley Arm

Principal Features

- Long, highly sinuous course of the canal;
- Surviving basin and wharf at Highfields Road (in Dudley Metropolitan Borough Council area);
- Surviving wharf at Udall Road (in Dudley Metropolitan Borough Council area)
- Highfields Iron Works building, Highfields Road;
- Archaeological remains of the Capponfields Iron Works;
- Road bridges at Glasshouse Bridge (Bankfield Road) and Pothouse Bridge (Salop Street);
- Canal pumping engine house, basin and towpath bridge abutments at Canal and River Trust depot off Cross Street;
- Factory office building/manager's house (or toll house) and factory building at Anchor Road;
- Archaeological remains of John Wilkinson's Bradley Hall and Upper Bradley Furnaces, including remains of former industrial landscape in the school grounds;
- Works' gates and cast iron gate piers at Bankfield Road;
- Archaeological remains of former lines of the canal and basins now in-filled, including a towpath bridge over the entrance to the loop and another marking the entrance to a basin at the former Capponfield Iron Works;
- Infilled canals through open space at Weddell Wynd and surrounding area with potential for reinstatement.



The Bradley Arm looking south from Pothouse Bridge to Loxdale sidings. The blocked side bridge marks the access to the old route of the canal which once served John Wilkinson's Ironworks.

General character and townscape

Until the 1820s the Bradley Arm was the main line of the Birmingham Canal with busy through traffic, as well as boats serving the area's many mines and iron works. The early origin of the canal is reflected in the style of the late 18th century bridge which crosses it at Pothouse Bridge. Early 20th century bridges including Glasshouse Bridge and Deepfields Bridge use locally distinctive brick in their construction, including bullnosed copings and may retain elements of earlier bridges, particularly in their abutments which can be recognised by their use of English Bond for brickwork. The section of the canal serving the Bradley Hall Iron Works and Upper Bradley Iron Works became so congested that a shorter route was constructed turning the original channel into a side-loop, the entrance to which can be seen under a blocked towpath bridge just south of Pothouse Bridge.

After the construction of the Coseley Tunnel, the old main line running thorough Bradley became a side channel or loop. The reduction in congestion allowed even greater use of the canalside for industry. The fragmentation of larger estates during the recession that followed the Napoleonic Wars also encouraged the development of numerous furnaces and iron works. The construction of the Bradley Locks established a link through to the Walsall Canal in 1849.

The sites of the iron works provide opportunities for the survival of archaeological remains of both



Pothouse Bridge.

national and local interest. John Wilkinson's Ironworks at Bradley were among the first in the country to use Boulton and Watt steam engines to power blast furnaces, freeing iron producers from their reliance on water power. They would also have been involved in the development of his process for boring iron canons for the Royal Navy. The site of his Upper Bradley Furnace is now marked by the Canal and River Trust Depot off Cross Street and the Wilkinson Primary School, off Walter Road, both of which retain high potential for survival of subsurface remains. Indeed the likelihood of later industrial tipping on this land means that archaeological remains of the works could be buried to a considerable depth and, as such, be well preserved.

Where land wasn't developed for industrial premises much of the canalside ran through coal mining land which was either, redeveloped for housing, used for landfill or otherwise abandoned after it had been worked out.

This history has left a distinct trace in the character of this area's landscape. It is the greenest part of the corridor, with large areas of former industrial and mining land now covered by a mixture of grazed grassland and succession woodland. Large pools, such as the Ladymoor Pool, off Ladymoor Road are another legacy of the extractive industries. It also includes areas of mid-20th century housing and more recent late 20th century housing on areas of reclaimed land. As mentioned above, the mid-20th century houses, such as those at Carder Crescent, turn their backs to the canal, with high brick or concrete panel walls between their gardens and the towpath. The rhythm of change in the character of



A stop-lock chamber just south of Carder Crescent and, just beyond on the right, the entrance to the former basin that served Cappon Field ironworks.

canalside land is an attractive element of its environment, maintaining a green setting, whilst providing a sense of activity, often with overlooking adding to the feeling of security and with garden planting adding formality to the more naturalistic greenery of the canalside.

A few areas of historic industrial landuse survive next to the canal. These include the James Durrans and Sons Works at Anchor Road (once a small foundry on the site of an earlier cement works), with singlestorey red-brick office building fronting the road, which has been identified as a former toll house, and another red-brick works building rising from the canal's edge. The large winding hole just to the east of this site has developed an attractive reed bed.

A large basin lies on the southern side of the canal where Udall Road runs down to the waterway. This now has an attractive green setting as part of a private garden with reed beds and trees hanging over the water.

The entrance to the basin of the former Capponfield Iron Works is marked by a brick side bridge in the towpath just south of Carder Crescent. This forms a group with the abutments of a former railway bridge that passed over the canal and a stop lock chamber, used for controlling the flow of water through the canal or as a gauging point to extract tolls from passing boats.

The large foundry building at Highfields Road is connected to the canalside by an area of green open space although the basin leading from the water's edge to Highfields Road has been infilled. This building is part of a larger industrial site used by C&S Steels, which forms part of a group of historic industrial premises either side of Ash Street, representing parts of the former Highfields Ironworks.

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The Highfields Ironworks building which is a significant landmark building and a rare survivor.

altered premises either side of Ash Street, representing parts of the former Highfields Ironworks.

Between Dudley Street and Bankfield Road, the canalside is dominated by a large industrial unit with a well preserved canal wharf and early 20th century factory gates.

At the eastern end of the canal large areas of industrial development have recently been cleared. Those on the north of the waterway are currently being redeveloped for new housing. Integrating the canalside into the new development has been a consideration in planning the new housing with the canal forming part of the roadside environment and housing providing overlooking of the towpath. The

houses are two storey, fronted by gardens, with the road and a thin grass verge, which separate them from the towpath. This provides a human scale of development that is suitable in a suburban setting. Towpath improvements as part of this development are planned up to Salop St Bridge.

More modern commercial usage of the canalside is found at Northcott Road, although this does not address the canalside, the palisade fencing used does provide some visual permeability.

The most easterly section of the Bradley Arm runs through an area of parkland, forming part of a late 20th century housing estate at Loxdale Sidings. This provides an attractive green setting to the canal with footpaths and a mixture of lawns and woodland running up to the towpath and the canal's edge. On the canal's off-side, the rear boundary fences of mid-20th century housing development create a blank, inactive frontage that detracts from the otherwise pleasant scene.



Surviving former towpath abutments at the Canal and River Trust Depot. The basin here is all that remains of the old route, that ran between here and Loxdale sidings. The current straight stretch of canal dates from improvements made in 1817.

The Canal and River Trust Depot at the terminus of the Bradley Arm is surrounded by tall fences and hedgerows restricting views in, although the historic, red-brick pumping engine house, towpath bridge abutments and basin can be glimpsed at various points. South of the Canal and River Trust Depot the canal has been filled in and part of its course is covered by the car park of the Bush Inn on Bradley Lane. The former line of the canal can be traced across the yards of industrial units south of Bradley Lane and then through public parkland at Weddell Wynd. Within the parkland the former line of the canal splits into two with Brindley's original contour canal running through land in Sandwell Borough around a loop to the west and the latter embanked Wolverhampton Level following a straight line to the city boundary to the

south. The Bradley Locks Canal ran to the east off the latter route and along the present line followed by the city boundary. This canal connected the Birmingham Canal with the Walsall Canal to the east and its line canal can be traced through parkland south of Rocket Pool, Melton Drive and Constantine Way up to the City boundary at Great Bridge Way. The in filled sections of both the Bradley Branch and the Bradley Locks Canal are protected by saved Unitary Development Plan Policy HE23 to ensure that the possibility of its reinstatement as a link to the Walsall Canal is preserved.

There is considerable potential for the preservation of archaeological remains of these sections of canal within this area, including the remains of the four



The now filled in route of the Wolverhampton Level as it passes through open space at Weddell Wynd.

locks on the Bradley Locks Canal. Local experts point out that the line of the canal may have been affected by subsidence following coal mining and that reinstatement of the canal would not necessarily follow all of the historic line.

Local features

- Bridge and street names referring to late 18th century industrial sites;
- Archaeological remains of iron and steel works not otherwise considered as nationally significant;
- Reclaimed industrial land used as public green open space including Coronation Park and Ladymoor Pool;
- References to John Wilkinson in local street names and the primary school;
- Use of locally distinctive materials in road and towpath bridges over the canal;
- High ecological value of the canal as a wildlife route in this less trafficked area;
- Views out from the canalside to local landmarks including the towers of St Mary's Church and St Leonard's Church in Bilston;
- Tree Lines, particularly willows leaning over the waterway and tall lines of poplars in the wider landscape that add to the greenery and scale in views from the canal;
- Attractive parkland setting to the canal at Loxdale Sidings;
- Locally distinctive 'swag' at Ladymoor Pool, including a rare surface coal seam exposure.
- Archaeological interest of infilled canals south of Bradley Lane.
- Surviving canal basin and sheds (built of reused canal boat timbers), north of Highfields Road.

Negative features

This section of the canal is now a dead-end and has become relatively weed choked. The lack of flow has also resulted in an accumulation of litter in this section, detracting for the quality of the canal's environment. This might be addressed if the Bradley Arm were reconnected to the Walsall Canal via the Bradley Locks Canal, generating the possibility of through traffic.

Mid-20th century housing development was built facing away from the canal, which was considered an undesirable environment at the time. As a result, these areas are poorly connected with the canal, creating monotonous and inactive boundaries to the canal and towpath, often formed of unattractive concrete slab fencing. Access from the towpath to the rear and side boundaries of residential properties creates a risk for security.

This area has lost much of the heritage of canalside industrial buildings. A number of surviving examples are identified as making a positive contribution to the historic character of the area. Loss of these buildings would result in a significant loss to the area's character.

Areas of redundant and cleared industrial land at William Street and Edward Street, provide a poor environment for the canal, nevertheless, new development should aim to provide a secure and attractive environment to the canalside and, ideally should provide some reference to the industrial heritage of the waterway.

5. Issues

Positives

- Historic interest of the canal and canalside industries supported by buildings and structures reflecting the construction and development of both the canal and surrounding works and transport infrastructure;
- An area of tranquillity providing alternative movement corridors with numerous access points to surrounding roads and paths;
- Views along the canal and out to the surrounding landscape;
- A linear green space with waterside greenery of the towpath and on the canal's off-side, including areas with ecological value;
- Green open space on former industrial land next to the canal;
- Surviving canal basins and wharfs illustrating use of the waterway;
- Archaeological potential of surrounding industrial sites and former canal routes;
- Leisure opportunities boating, walking, cycling, fishing;
- Links to the wider canal system.

Negatives

- Derelict condition of canalside land, including dumping and storage of waste;
- Loss of locally distinctive industrial buildings, including frontage buildings and works' boundary walls;
- Poor maintenance of traditional industrial buildings;
- Lack of vegetation control on canal structures, including bridges;
- Lack of overlooking and areas with little activity creates lonely and intimidating areas. This is exacerbated by evidence of vandalism, waste dumping and other crime;



The canal is a significant linear green space providing opportunities for wildlife and leisure activities such as walking and cycling.

- Introduction of dominating boundary treatments for industrial sites, including chain link, palisade fencing and blank boundary walls. Positive examples of integration of industrial estates with the canalside suggest this may not always be necessary;
- Loss of activity to the canalside through security measures (e.g. closing up canalside doors and windows);
- Insensitive development adjacent to the canal or sterilising nearby areas due to neighbour issues;
- Litter and pollution in the waterway particularly notable in the Bradley Arm Character Area;
- · Poor access between the canal and nearby residential areas; and
- Lack of opportunities for interaction between the canal and surrounding area, such as moorings or basins.

Threats

- Loss of remaining historic canalside industrial buildings through lack of use and imaginative reuse and adaptation;
- Increasing dereliction of canalside land, particularly cleared sites, but also including Central Trading Estate, Cable Street, scrap yard south of Dixon Street, industrial unit off Alma Street, former Wolverhampton Municipal Lighting Electricity Company site and land off Anchor Road;



- Chillington Wharf Canal/Rail/Road Interchange Depot
- Municipal Lighting Company office building and turbine hall, Commercial Road
- New Griffin Works, Stanton Road
- Crown Nail Works Wharf, Commercial Road
- Monmore Iron Works Boundary Wall, Cable Street
- Failure of new development to provide an attractive, active and safe environment;
- Dereliction of the waterway, including lack of vegetation control on canal, banks, towpath and bridges, littering and pollution;
- Further loss of architectural detail from unlisted historic buildings;
- Loss of viability of the waterway and loss of remaining basins and wharfs;
- Loss of variety in the canalside as a result of the design of new development.
- The intrusion of highly competitive non-native species has the potential to have a significant effect on the canalside environment, including difficult to remove species such as Japanese Knotweed, identified along side the canal north of the study area and Buddleia which spreads rapidly to buildings that are not well maintained and can have a serious impact on their preservation if uncontrolled. The waterway can act as a conduit for invasive plant and animal life and so is particularly susceptible to the changes they introduce.



Caption: Historic boundary treatments at the former Monmoor Ironworks, Cable Street.



In the recent past some development has failed to address canalside locations in a positive way.

6. Management Proposals

Guidelines for new development

The Black Country Core Strategy provides proposals for new developments in the canal corridor which will be implemented through the Bilston Corridor Area Action Plan. New development has the potential to change the character of the canal and its local environment, including opportunities to enhance its environment. Thoughtful use of the canal could provide opportunities to make new developments distinctive and provides other opportunities to add value to the development.

Scale and positioning of new buildings

The scale of buildings surrounding the canal makes a significant contribution to the character of the area, whilst their positioning strongly influences the enclosed or open nature of the canal. Some guidelines for the positioning of new residential buildings relative to canalside areas in new development are set out in the Black Country Environmental Infrastructure Design Guidelines (pages 34-37). It is recommended that the scale of new building reflects the changing character of the development in the setting of the canal from lower scale development in the south to taller, denser development in the north. This reflects the historic pattern of industrial development and provides opportunities to provide denser development near to the urban core of the city. Where development lies on the off-side of the canal, it may be possible for new buildings to run up to the water's edge and this provides the opportunity to create some dramatic townscape in views along the canal, as well as providing interaction between the waterway and new development. In most cases it will be more appropriate to set new development back from the canal with intervening areas occupied by highways, footpaths or cycle-ways and landscaped open space, although development at the water's edge should be used to provide points of interest and activity. New developments should avoid creating long, monotonous frontages to the canalside, instead providing blocks with numerous gaps providing permeability to spaces beyond. Nevertheless it is a characteristic of historic canalside buildings that they have a horizontal emphasis with ordered schemes of fenestration and this may be used as an inspiration for the design of new buildings.

Redevelopment of the larger former manufacturing sites could reflect the history of industrial development by adopting formal grid patterns for new development, whilst areas of former extractive industries could be less formally planned with more sinuous road alignments, providing a more organic character.

The public realm, public open space and green open space

- Enhancing access to the canal and towpath as a distinctive feature of the public realm with multiple sustainable benefits should be a key objective of the Area Action Plan. Access points should be clearly marked.
- It is not desirable to construct a waterways 'theme park', however, areas of public realm within new development should be designed with consideration for their impact on the canal's setting.
- Traditionally the canalside environment used robust, locally produced materials; paving of footpaths was kept to a minimum normally with only a narrow beaten path between grass verges;
- Towpaths often have a gently sinuous quality where they are kept free of grass by pedestrians (and historically horses) this should be reflected in canalside paths;
- Wharf areas featured larger areas of hard standing, with strongly defined edging to the canal, typically in bull-nosed brick or stone. Simple blue or red brick paviours would represent a good quality, local material for larger areas of paving on the canalside;
- New open space next to the canal should be designed with the security of users in mind, including
 provision of passive surveillance through overlooking from nearby properties and clearly defined
 access points;

- New development should maintain and enhance the mixture of character areas along the canalside, using areas of different building style and with changing relationships to the canal and towpath, including a mixture of varied step-backs, development at the water's edge and green and hard landscaped areas of public realms.
- Developments should exploit opportunities to provide interpretation of the history of the canal, possibly by revealing evidence of its past uses and infrastructure, or through public art.



New canalside development can open up opportunities for leisure activities uses such as fishing. Such canalside activity also helps create a safer environment for other towpath users.

Materials and style

Red brick is the pre-eminent local material used on both industrial buildings and local housing. However, canal buildings also include examples with timber-boarding and steel framed construction, providing some possible variety.

Former industrial buildings often had detail added in contrasting colour (blue and white/buff) brick and featured iron framed windows with rounded arched heads and segmental brick arches above, often with smaller clerestory windows and vents above. These features might be reflected in the design of new buildings, albeit as a modern take on traditional forms and materials.

Traditional roofing of industrial buildings near the canal provides potential inspiration for new developments using combinations of different materials including natural slates, glazing, plain tile and sheet materials. They are normally pitched but might include several angled planes or clerestory, or north lighting providing further potential influences to new design.

Traditional canalside buildings generally have regularly ordered schemes of fenestration, with long elevation providing rhythm in views. This could be used in new developments to create character and interest.

Character mix

Regular changes in character provide rhythm and vibrancy to journeys along the canal corridor. These include areas of green open space, residential frontages and industrial/commercial sites. New development

should aim to build on the vibrancy of this changing character in order to avoid the development of a monotonous environment along the canal. Areas of different canalside character may be provided within individual development sites, potentially providing contrasting areas of green open space, commercial and residential areas and other formal open spaces next to the canal.

New development should also reflect the general change in character along the regeneration corridor from greener, semi-rural surroundings and low scale development in Character Areas in the south and along the Wyrley and Essington Canal, to larger scale and more urban/industrial development in the north Character Areas.

Active frontages

Where development has turned its back to the canal, the public access to the towpath has created security problems for businesses, requiring remedial measures such as installation of additional security fencing and wires. Whilst this creates an unattractive canalside environment, it is often only partially successful in preventing unwanted access to premises. By incorporating the canal into the roadside environment and

providing an active frontage to the canal, as at the Ward Street housing site, or the new housing development at Dudley Street, the environment of the canal is improved, whilst overlooking improves security and the vulnerability of rear and side property boundaries is reduced.

New developments could also provide canalside activity by providing temporary or permanent residential moorings on the canalside. This might include opening infilled basins, as is proposed within the plans for Bilston Urban Village, using the former basin of the Capponfield Ironworks. These could be used either as active waterways with moorings or as locally distinctive features within public open space, potentially also providing wildlife habitat.



New residential development in Ettingshall overlooks the canal and provides improved access to the towpath.

Conversion and reuse of historic buildings

Many of the area's historic industrial buildings have already gone. Indeed the continuing industrial use of land over the past two centuries often required their replacement. Those that survive are often no longer used for industrial purposes and are empty and increasingly derelict. The historic industrial buildings in the setting of the canal that have been identified as contributing positively to its character could make a valuable contribution to the interest of new development through renovation and conversion for new uses. Many of the industrial buildings are large floorplan structures with relatively open interiors that could be adapted to a multitude of uses through subdivision, whilst the numerous window openings and glazed roof sections add to the flexibility of the buildings. Where possible the Council will seek to retain these buildings and secure their preservation through their adaptation to new use.

Opportunities for enhancement

Restoring lost detail

When development proposals are being prepared these should seek to restore lost architectural detail or reverse unsympathetic alterations where there is sound evidence of the originals, especially timber windows, chimney stacks, original roof covering and removal of paint from brickwork;

Protecting the factory walls

Whilst many historic factory buildings have been lost, in many cases the boundary walls, which surrounded

them have survived and provide both an indication of the former industrial use of the land and provide a degree of architectural interest. Proposals for new development should be encouraged that reinstate and repair the prestigious historic boundary treatments of former industrial premises where there is documentary or physical evidence to determine original form or detailing;

Promoting the identity of the canals

Proposals for new development should promote awareness of the canal as a distinctive feature of the local landscape. Proposals that include schemes that utilise the canalside in delivering the public art contribution should be encouraged. A recent example of good practice is the art project by local schools to create

plaques mounted on bridges provides a good example of art used to highlight the historic role of the canal, whilst providing an attractive new feature in the landscape. Public art could be integral to buildings as decorative details contributing to the public realm or include the restoration and reinstatement of canalside infrastructure that provides interpretation of the canal's industrial history and communities, in addition to formal works of art.

Improved signage of routes using the canal and identification of former canal basins and wharves in the naming of new routes would help to raise awareness of the canal, which is often hidden from the surrounding townscape.

Public art can highlight the historic interest of the canal.

Cleaning up the waterway

Proposals for new development should contribute to

the provision of an attractive environment by clearing accumulated rubbish from particularly badly affected sections of the canal. During surveying the Bradley Arm was noted as being particularly badly affected by littering.

Improving access to the waterside

The canal was built to serve large industrial sites and further industrial developments were built along its course. Their access to the canalside was normally via their own wharfs and basins, rather than from surrounding roads and, as a result many nearby residential areas have little access to the canalside environment. Following the decline in use of the canal for industrial transport access to the canal has been lost. Proposals for new development should seek to create better access both for new developments and surrounding communities to the canalside, including access to both the towpath and areas of the off-side. The Area Action Plan should set out a clear strategy for enabling access to the canalside for both new development and existing communities. This should include production of access plans and audience development plans following the example of those produced by Canal and River Trust for sites in the Canal Quarter.

Enhancing the tourism offer of the canals

The BCN Main Line has the potential to be a popular route for tourists on route from central Birmingham to the Staffordshire and Worcestershire Canal. There is potential for an attractive ring via Stourton, Kinver and the Stourbridge and Dudley Canals. However, it was noted during survey that there are few opportunities along the canal for boaters to stop and access local services within Wolverhampton or any of the other settlements along this part of its course. Only one area of secure moorings is located within Wolverhampton at Little's Lane (north of the present study area). New development provides an opportunity to restore access to the canal and use of the waterway, especially where former industrial sites with infilled



basins are the subject of proposals. Proposals for new development should exploit opportunities to create secure short-term moorings and other services for boaters.

Potential for residential moorings

A market for more permanent residential moorings has developed elsewhere and can provide an, albeit limited, alternative source of affordable housing. Proposals for new canalside development should explore the potential for creating new, secure permanent moorings as a positive use of the canalside in partnership with Canal and River Trust. Character Area 2 presents several opportunities for reinstating canal basins for long or short term moorings, including the former basin at Pickford's Wharf, which ran up to and under Minerva Lane, the basin of the Crown Nail Works off Commercial Road and the former Commercial wharf just north of Bilston Road. These sites would also benefit from access to the city centre and could provide the mixture of security and access needed.

Development Sites

The Bilston Corridor Area Action Plan will deliver regeneration of sites alongside the canals for new housing and employment. This section sets out principles that new development on sites identified as having particular sensitivity to change should adopt in order to protect and benefit from the historic environment of the canals.

Cable Street/Steelhouse Lane

This site has outline planning permission for 350 new homes and a care home with a development brief prepared by the City Council (approved by Cabinet in 2005), which promotes a mixed-use development including residential, light industry, office and commercial uses.

- Potential to replace former large scale industrial buildings with large scale development.
- Building blocks ideally tall, narrow and long, with fenestration providing rhythm to frontages and with angular roof lines, ideally presenting gables to the canal, allowing permeability to the canalside and views through the site to Steelhouse Lane and historic church.
- Should reuse historic boundary walls with monumental gateway details, potentially providing boundaries to car parking areas
- Development should follow a regular street grid, with hard landscaping, providing a significant feature. This may be necessary to reduce difficulties of ground contamination from historic use.
- Greenery and planting could be kept low-level, with well-spaced accent trees in public open space and, potentially, of a green square located in the centre or south west of the site (the location of the former iron works' bowling green).
- Possibility of providing footbridge over canal to enhance access to Bilston Road and towpath.
- Formal open space on the canalside with hard landscaping (e.g. blue brick paving 'promenade wharf' to reflect former industrial use and potentially including the reinstated canal basin as a landscape feature or practical amenity providing services to canal users or other canal uses such as permanent moorings for services such as floating restaurants;
- Set back frontage to the canalside providing activity and overlooking.

Dixon Street (south): Land off D'Urberville Road

- A small site, probably suitable for one and two storey housing in keeping with scale of development on D'Urberville Road and development on the east side of the canal.
- Reuse the surviving factory wall but provide permeability to the canalside from D'Urberville Road;
- Potential for footbridge crossing to towpath.

- Create green verge to canal with shrub planting and low scale frontage overlooking the waterway and towpath; reflecting canalside treatment to the south of the site.
- Open views from the canal into public areas within the site by removing sections of the canalside wall but retain section where these form boundaries to rear gardens as a characteristic boundary treatment.

Bilston Road to Millfields Road (northern): Bilston Road to Ettingshall Road

- This opportunity area is formed of a series of industrial estates lining the canal as it travels north from Catchem's Corner to Bilston Road.
- In the north, the canalside frontages of buildings on Bilston Road provide an important boundary to the towpath, creating enclosure and architectural interest.
- New development should retain the proximity of the building line to the towpath and the long built frontage, although potentially creating routes through to Bilston Road. An active frontage could be created at a level raised above the towpath.
- Careful choice of the type and colour of brick should be required to preserve the industrial character. Interest could be added to the building line by using a varied roof and eaves line. Re-opening the canal basin of the Imperial Tube Works should be considered as a contribution to enhancement of the public realm and public art.
- The four storey high machine shop on the north side of Cable Street provides a landmark building and could provide a precedent for a structure of similar scale, potentially using the large areas of glazing on the present building as an inspiration for design.
- South of Cable Street the canalside industrial land is relatively bland providing little architectural or historic interest in this opportunity area. Proposals for new development should aim to maintain or enhance the openness of the towpath edge and to create permeability between the towpath, new development and Ettingshall Road. Tree planting should be used to add vertical interest and greenery to the views along the towpath, using poplars or species with similar habit to provide vertical interest.
- Buildings should not exceed three storeys in this area and should contrast areas of contemporary and more traditional design in order to maintain a lively mix of character.
- The former lock and keepers' cottage provides an opportunity to reinstate lost canalside detail through renovation of the buildings and public realm enhancements.

Bilston Road to Millfields Road (southern): Former Britannia Boiler Works Millfields Road

- Retain locally listed office building on Millfields frontage with potential for change of use for residential or commercial use at entrance to development.
- Retain scale of development on the road frontage and canal edge, with prominent gable ends. Potential for three to four story townhouse terrace blocks, with back-to back single-aspect housing running back at right angles from the road and overlooking the canal, reflecting the scale and alignment of the current built form.
- Retain and enhance canalside wharf as hard landscaped area, potentially as landscaped edge of communal parking area.
- Potential footbridge to towpath and public open space within the Ward Street Masterplan site to the north of the canal.

Northcott Road/Bankfield Road, Bradley

This opportunity site is made up of three plots of land around the former Bankfield Works development site. The buildings are of relatively poor quality but preserve an industrial character that illustrates the heritage of the area. Surrounding land is being redeveloped for modern two-storey housing that has been designed with a mixture of contemporary and more traditional house styles.

- Retain views through the site to church towers in Bilston and tree lines in the foreground.
- Protect views along the canal to Pothouse Bridge.
- Retain mature tree group on Greenway Road.
- Protect wildlife value of the waterway, including green environment on the towpath approaching Pothouse Bridge but use opportunity of development to secure clean up of rubbish and maintenance.
- Maintain or enhance the mixed character of the canalside by introducing new development with an industrial scale.
- The warehouse site, between the canal and Greenway Road, retains the last of the large canalside industrial buildings in this character area, including a large wharf area. New development on this site should provide a building of similar scale and alignment to preserve the mix of character alongside surrounding green spaces and make use of the former wharf as public open space.
- The smaller industrial units off Hatton Street provide an interesting industrial roofscape seen from the canal, which contributes to the area's historic character. New development replacing these buildings should reflect the form of these roofs, creating a saw-tooth roofline climbing the hill.
- The Northcott Road Industrial Estate adjoins an area of the canal with an attractive bed of reeds and flag irises next to the towpath and with trees framing views to the Pothouse Bridge but has an unattractive palisade fence topped with barbed wire, which forms a poor boundary to the towpath. New development at the Loxdale Industrial Estate should increase access to the towpath with naturalistic green open space extending to the towpath and providing access to the road network. There is some potential to open a former basin in the north of this area, which could be used to enhance the wildlife potential of the area or to serve a canalside business. New buildings should contribute to the mixture of character alongside the canal rather than replicating the style of the adjacent development.

Land south of Cross Street, Bradley

- This site contains long industrial sheds set perpendicular to Cross Street with the former course of the canal running through a long hard surfaced yard on the eastern site boundary.
- New development should conform with Policy ENV4 Canals of the adopted Black Country Joint Core Strategy. This states that "... development will not be permitted which would sever the route of a disused canal or prevent the restoration of a canal link where there is a realistic possibility of restoration, wholly or in part." As such proposals for new development should not include buildings that intrude into the footprint of the historical course of the canal. Moreover, the provision of services should be design to prevent any conflict with the potential for future reinstatement of the canal, whilst landscaping works that prevent future reinstatement will also not be allowed. If it is not possible to reinstate the canal in water the route should be preserved as a linear open space and would probably be most appropriate as public green open space within a development.
- New development of the site will be required to explore the potential for reinstatement of the canal. This
 may involve connecting the waterway to the section in water to the north, but if this is not feasible at
 present other options for returning the canal to water should be explored.
- The route of this part of the canal provides an opportunity for a pedestrian and cyclist link from the parkland at Loxdale siding through to the large green open space at Batman's Hill. New development should utilise the former canal corridor to improve access from Cross Street and the Loxdale Siding parkland to Batman's Hill. This should form an element of the public realm of the new development.

- The line of the canal provides a distinctive curving line at this point (a feature of the canal as set out by Brindley rather than the broad straight lines of Telford's later improvements. This should be used to create a distinctive and interesting frontage line to new development overlooking the line of the canal.
- The scale of new development will need to be sympathetic to surrounding buildings, which are generally of two stories only but could develop a greater scale nearer to the canal, perhaps reflecting the traditional scale of industrial buildings elsewhere on the canalside.
- Whether, new uses are for employment or residential, the land immediately adjacent to the canal should form part of the public realm with an active frontage to prevent this are attracting antisocial behaviour or providing opportunities for crime.
- By retaining and enhancing existing mature tree plating alongside the canal route, potentially including under storey management or scrub clearance, landscaping of the towpath side of the infilled or reinstated canal should create an attractive tree lined edge to the Batman's Hill open spaces with views out between trees across green open space. Planting should reflect the scale of the open space and include large broad-leafed trees with a spreading habit such as oaks, or groups of beeches or limes.
- The locations of other infilled canal routes leading off this section of the canal (such as that recorded on the first edition Ordnance Survey map, could be identified through public art, where reinstatement appears an unrealistic option.

7. Implications of conservation area designation

Designation as a Conservation Area brings a number of specific statutory provisions aimed at assisting the "preservation and enhancement" of the area. These are as follows:

- The local authority is under a general duty to ensure the preservation and enhancement of the Conservation Area, and has a particular duty to prepare proposals (such as Conservation Area Appraisals or grant schemes) to that end;
- In the exercise of any powers under the Planning Acts with respect to any buildings or other land in a Conservation Area, the Council must take into consideration the desirability of preserving or enhancing the character or appearance of that area;
- Extra publicity is given to planning applications affecting Conservation Areas. This is usually achieved through the use of advertising in the local newspaper;
- Planning permission is required for the demolition of most unlisted buildings and boundary walls in a Conservation Area and the local authority or the Secretary of State may take enforcement action or institute a criminal prosecution if consent is not obtained;
- Written notice must be given to the Council before works are carried out to any tree in a Conservation Area;
- The display of advertisements may be somewhat more restricted than elsewhere;
- The Council or the Secretary of State may be able to take steps to ensure that a building in a Conservation Area is kept in good repair (similar to the powers which protect listed buildings);
- Limited financial assistance may be available for the upkeep of a building in the Conservation Area through grant schemes with English Heritage or the Heritage Lottery Fund, (though these are usually targeted to areas of economic deprivation).

It is recommended that any proposals for new development or alterations of existing buildings in a Conservation Area and major developments affecting the settings of the canal, should be discussed with a planning officer at the Council before commencing work on site. Telephone enquiries should be made to Planning (01902) 556026.

Bibliography and maps

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- British Waterways Heritage Recording Project, 2004, Desk based assessment of the Birmingham Main Line Canal, Wolverhampton Level (also called Old Main Line), Wolverhampton and Sandwell, West Midlands
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- English Heritage, 2010, Historic Environment Planning Practice Guide
- M. Wills and T. Williams, Images of England: Bilston, Tettenhall and Wednesfield
- M. Mills, 1993, Mapping the Past: Wolverhampton 1577-1986,
- R. Shill, 2002, The Birmingham Canal Navigations: At the heart of the British Canal System
- Wolverhampton History and Heritage website at www.historywebsite.co.uk
- A Plan of the Navigable Canal from Birmingham in the County of Warwick to Aldersley near Wolverhampton in the County of Stafford 1771
- William Yates' Map of the County Of Stafford 1775
- Wolverhampton Tithe Map 1842
- Ordnance Survey Map 1889, 1919, 1938

Sources of further information

Historic Environment Service

Education and Enterprise, Wolverhampton City Council, Civic Centre, St. Peter's Square, Wolverhampton WV1 1RP. Tel: **01902 555622 / 555617**

www.wolverhampton.gov.uk/conservationareas

For information about Conservation Areas in Wolverhampton. Conservation Areas: A Brief Guide and List of Conservation Areas in the City of Wolverhampton (copies available from the Historic Environment Service at the City Council).

English Heritage – West Midlands Region

The Axis, 10 Holliday Street, Birmingham B1 1TG. Tel: 0121 625 6820

Public body that advises the government on historic environment policy and in cases such as registering listed buildings and scheduled ancient monuments.

Inland Waterways Association

Island House, Moor Road, Chesham HP5 1WA. Tel: **01494 783453** A charitable organisation which campaigns for the use, maintenance, and restoration of Britain's inland waterways. The IWA will provide technical advice on reopening and renovating canals.

Canal and River Trust

West Midlands Waterways, Peels Wharf, Lichfield Street, Fazeley, Tamworth, Staffordshire B78 3QZ Tel: 01827 252000

Canal and River Trust own and manage the canals within the regeneration corridor and some adjacent land. Their recent publication 'England's Historic Waterways' provides guidance on designing high quality canalside developments. All developments adjacent to or requiring access to the waterways should be informed by consultation with Canal and River Trust, who will also help in identifying opportunities to transport materials to and from development sites using the canals.

Historic Environment Service

Education and Enterprise Wolverhampton City Council Civic Centre St. Peter's Square Wolverhampton WV1 1RP