

DRAFT 2009

KIRKSTALL VALLEY PARK

The Riverside Way: Bridge Road to Redcote Lane

Design Proposals



CONTENTS

SECTION 1: INTRODUCTION	1
Kirkstall Valley Park.....	2
<i>A Great Network / The Aim of the Riverside Way Design Proposals</i>	
The Kirkstall Valley.....	3
<i>Area Overview / History and Landscape</i>	
Kirkstall Valley Park Network Proposals Plan.....	4
SECTION 2: THE RIVERSIDE WAY: BRIDGE ROAD TO REDCOTE LANE	5
Kirkstall Valley Park: Land Ownership Map.....	6
Kirkstall Valley Park: Site Boundary and Proposed Routes Plan.....	7
The Riverside Way.....	8
<i>Character / Attractions and Places of Interest / The Goitside Walk</i>	
Current and Potential Visitors.....	9
<i>Existing Users / Potential New Users / Adventure Playground and BMX Facility / Schools and Education / Proposed Uses</i>	
Kirkstall Valley Nature Reserve.....	11
<i>Visitors</i>	
Special Species for Protection.....	12
<i>Otters / Legal Status / Planning Policy / UK Biodiversity Action Plan and Species of Principal Importance / Impact on Design Proposals</i>	
SECTION 3: THE RIVERSIDE WAY DESIGN PROPOSALS	15
The Riverside Way: Entry Points and Associated Features Plan.....	16
The Riverside Way: Entry Point Proposals.....	17
<i>Entry Points / Entry Point Design Proposals</i>	
The Riverside Way: Foot and Cycle Path Proposals.....	18
<i>Bridge Road to the New Bridge / Bridge Road to the New Bridge Landscape</i>	
The Riverside Way: Bridge Proposals.....	19
<i>Construction / Siting / Surface / Safety / The New Bridge Landscape</i>	
The Riverside Way: St Ann's Mills.....	21
<i>St Ann's Mills Landscape</i>	
The Riverside Way; Foot and Cycle Path Proposals.....	22
<i>The New Bridge to Redcote Lane / The New Bridge to Redcote Lane Landscape / Habitat and Maintenance</i>	
SECTION 4: THE RIVERSIDE WAY DESIGN DETAIL	23
The Riverside Way: Relative Position of Detail Maps.....	24
Detail A: Bridge Road to St Ann's Mills.....	25
Detail B: St Ann's Mills and New Bridge.....	26
Detail C: Kirkstall Valley Nature Reserve to Redcote Lane Section 1.....	27
Detail D: Kirkstall Valley Nature Reserve to Redcote Lane Section 2.....	28
The Riverside Way: Foot and Cycle Path Proposals.....	29
<i>Design Proposals / Materials and Path Width / Bituminous Surfacing / Tactile Paving</i>	
The Riverside Way: Foot and Cycle Path Proposals	31
<i>Crossfall and Drainage / Access Controls: Gates and Barriers / Cycle Racks / Other Paths</i>	
The Riverside Way: Furniture Proposals.....	32
<i>Existing Furniture / Design Proposals</i>	
The Riverside Way: Lighting Proposals.....	34
The Riverside Way: Signage Proposals.....	35
<i>Existing Signage / Signage Strategy / Signage Themes Proposal / Signage Types</i>	
SECTION 5: THE GOITSIDE WALK	37
The Goitside Walk.....	38
<i>Character</i>	
The Goitside Walk: Proposed Route, Entry Points, Associated Features Plan..	39
<i>The Proposed Route / Route Gaps</i>	
The Goitside Walk.....	40
<i>Entry Points / Design Proposals / Signage / Design Proposals</i>	
The Goitside Walk: Footpath Proposals	41
<i>Existing Surfacing / Design Proposals</i>	
The Goitside Walk: Furniture.....	42
<i>Furniture / Design Proposals / Gott's Suspension Bridge Restoration / Landscape Improvements</i>	
SECTION 6: THE WAY FORWARD	43
Costs Table.....	44
The Way Forward.....	46
<i>Key Issues</i>	
Source Documents / Acknowledgements.....	47
SECTION 7: APPENDICES	49
Appendix A - Combined Riverside Way and Goitside Walk Plan	
Appendix B - Bridge Construction	
Appendix C - Footpath Construction	
Appendix D - Proposed Cycle Barrier Detail	
Appendix E - Flood Protection Plans for the Kirkstall Valley	
Appendix F - Boardwalk and Gravel Path 1991 Planning Application	
Appendix G - Policy Context	

SECTION 1: INTRODUCTION

KIRKSTALL VALLEY PARK

A Great Network

In 2008 DesignLeeds, the research and practice arm of The Leeds School of Architecture, Landscape and Design published *Kirkstall Valley Park – A Great Network: Movement and Circulation, Feasibility Study*, on behalf of Kirkstall Valley Park (KVP), a not-for-profit company with charitable status which is aiming to establish a new public park in central Leeds.

The Feasibility Study was produced in collaboration with partners including Leeds City Council, Sustrans, Groundworks, BTCV as well as local community groups and explored the existing and potential movement and circulation network throughout the site.

The Aim of the Riverside Way Design Proposals

Building on the Feasibility Study, this document sets out the design proposals for the submission of the planning application for *The Riverside Way*, a proposed principal route right through the heart of Kirkstall Valley Park for pedestrians and cyclists which will link Kirkstall, Armley and the city centre, including a brand new crossing of the River Aire at St Ann's Mills.

The 40 hectare section of the Kirkstall Valley covered by these proposals forms an important element of the much larger West Leeds Country Park, a 3889 hectare swath of the landscape which has been designated as greenspace, buffering the urban edges of west Leeds and Bradford.

Though a mix of countryside, allotments, woodland, parkland, housing, and industry, the West Leeds Country Park aims to secure suitable and sustainable green space, quality recreation areas, diverse habitats and community involvement for the 200,000 people that live in and immediately around it. These proposals aim to provide opportunities to unlock this part of the West Leeds Country Park's potential as a leisure destination and bring the history of the site to life, as well as enhancing the relationship between people and nature and improving the scenic value and character of the landscape.

The Goitside Walk, a secondary pedestrian only-route along the north bank of the river is also referred to because of its close proximity to the Riverside Way and potential for incremental implementation.

As well as forging a direct link between Leeds city centre and the wards of Armley and Kirkstall, the proposals for The Riverside Way assess the existing path network, identify gaps, and examines the opportunities for new links to help visitors easily access places of interest through more cohesive and legible journey through the landscape.

For further information on the vision for Kirkstall Valley Park please visit: www.kvp.org.uk or contact DesignLeeds at designleeds@leedsmet.ac.uk



THE KIRKSTALL VALLEY

Area Overview

The Kirkstall Valley is an area of open space lying just to the west of Leeds city centre. Bordered by Kirkstall Road and the Leeds to Skipton Rail Line and dissected by the River Aire and Leeds to Liverpool canal, this 40 hectare section of the Aire flood-plain is something of a well kept secret - a little known and under used green space with a rich industrial history and providing a haven for wildlife.



Kirkstall Valley from Gott's Park

History and Landscape

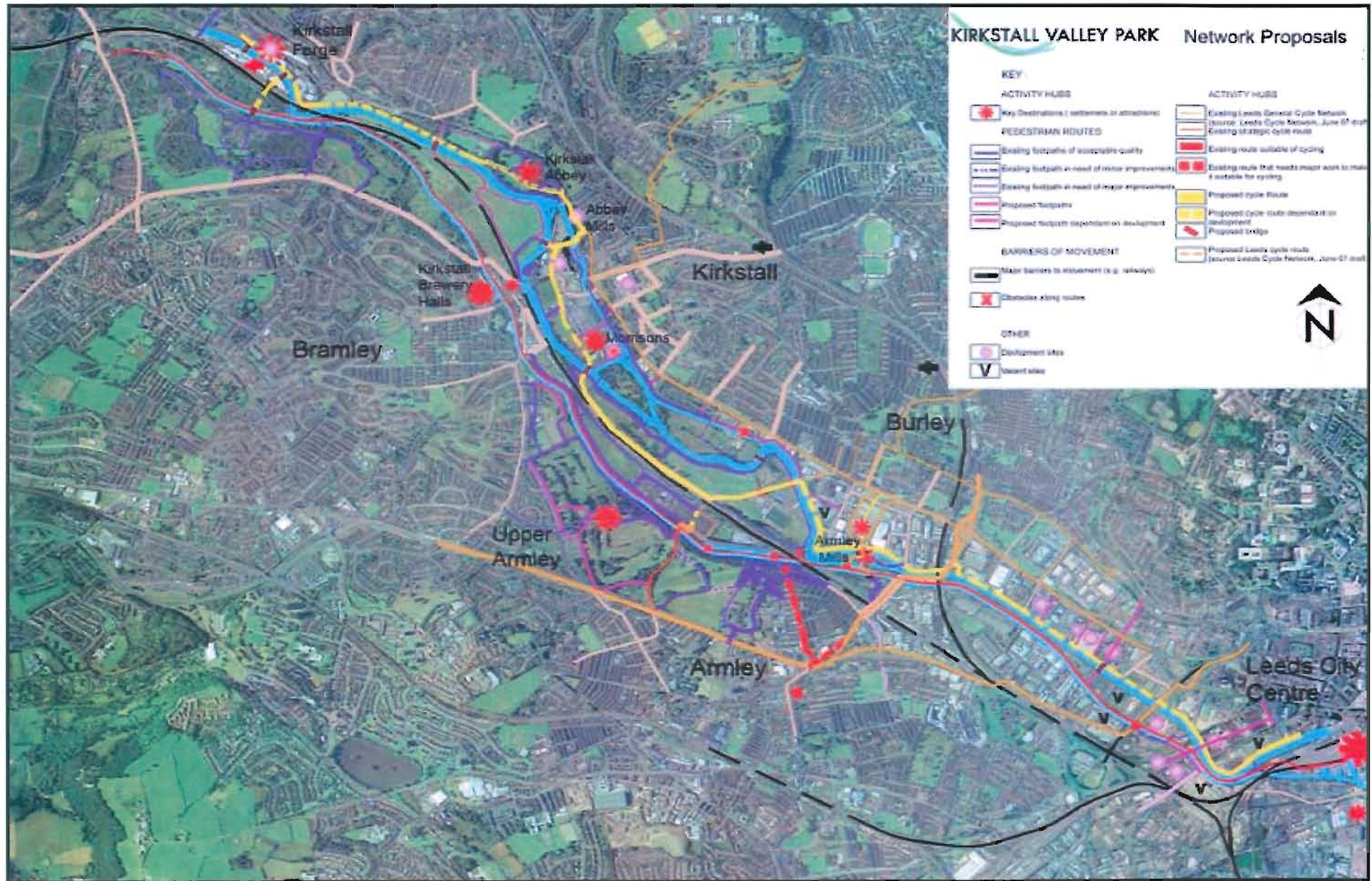
Local history can be traced from the foundation of Kirkstall Abbey in 1152 with the monks among the first to use the river. The weirs at Armley Mills and Kirkstall Abbey date from these times, but during the 18th and 19th centuries the valley became a major centre for the woollen industry, and a complex network of new weirs and goits were constructed alongside the newer mills to supply additional energy. Many of these works survive to the present day including Armley, Burley, and St Ann's Mills. A reduction in pollution and an increase in wildlife make the river an increasingly attractive destination.

The Leeds Liverpool Canal was completed in 1816 has largely unpolluted water drawn from various Pennine catchments. This large body of clean, slow moving water is the home to various rare species of freshwater mollusc that resulted in its designation as a Site of Special Scientific Interest in 1984. The canal was once used to supply the power station with coal, and the former coal basin and loading bay have been converted into a narrow boat marina.

The landscape of the Kirkstall Valley has a wide range of green spaces including woodland, parkland, walled gardens, scrubland, farmland and grassy meadows. Open hillsides and incidental stands of trees provide a setting for footpaths, attractive glades and viewing points combined with a dramatic topography that affords many impressive views.

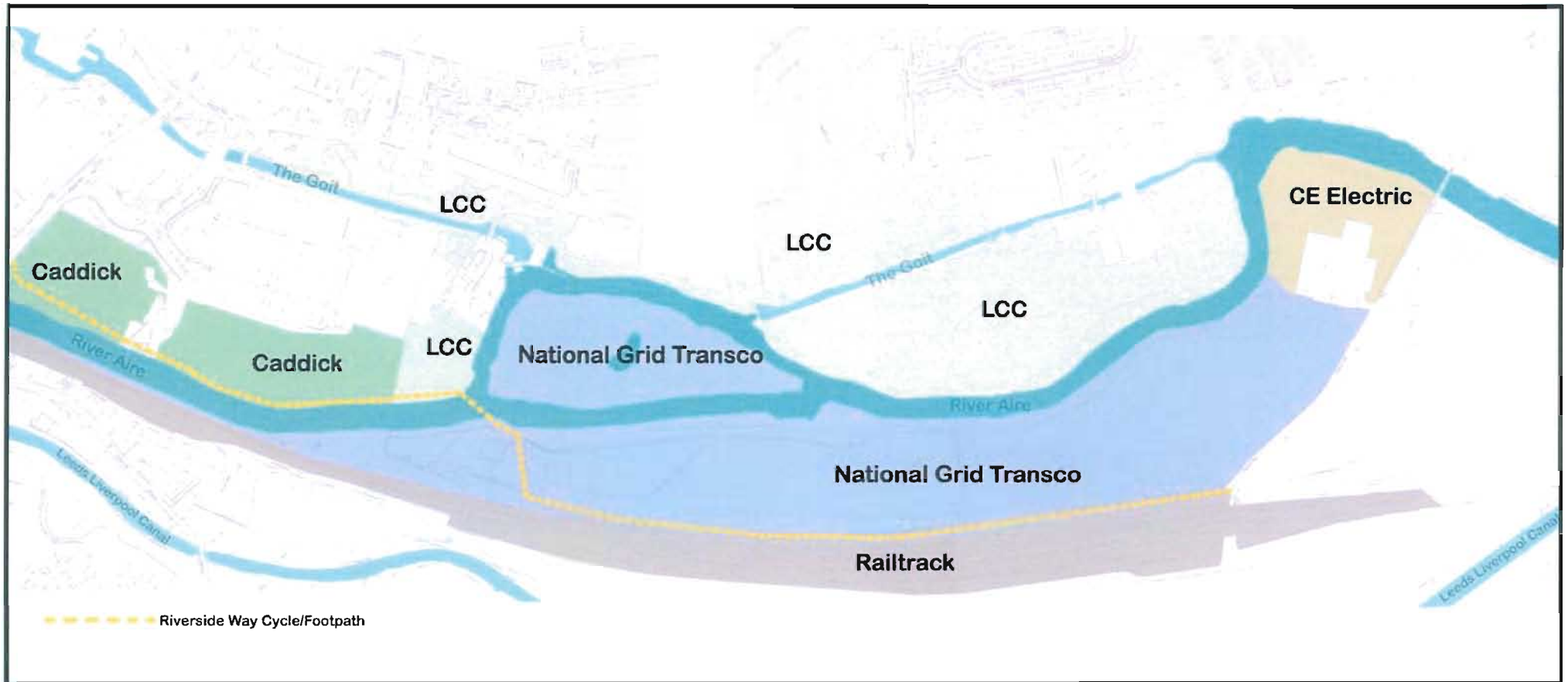
Despite these qualities there are many problems. The site is fragmented and there are barriers to movement. Much of the site is neglected and overgrown and although this can be an asset for wildlife it can feel unsafe and hostile for people. Paths and steps are often uneven and there are dangerous vestiges of previous industrial eras such as unprotected high river banks and rusty railings. Inappropriate signage and other crude details detract from the parkland experience. These aspects combined with a few intrusive developments cast a shadow over the otherwise rich and diverse environment.

KIRKSTALL VALLEY PARK NETWORK PROPOSALS: KIRKSTALL FORGE TO LEEDS CITY CENTRE



SECTION 2: THE RIVERSIDE WAY: BRIDGE ROAD TO REDCOTE LANE

KIRKSTALL VALLEY PARK: LAND OWNERSHIP



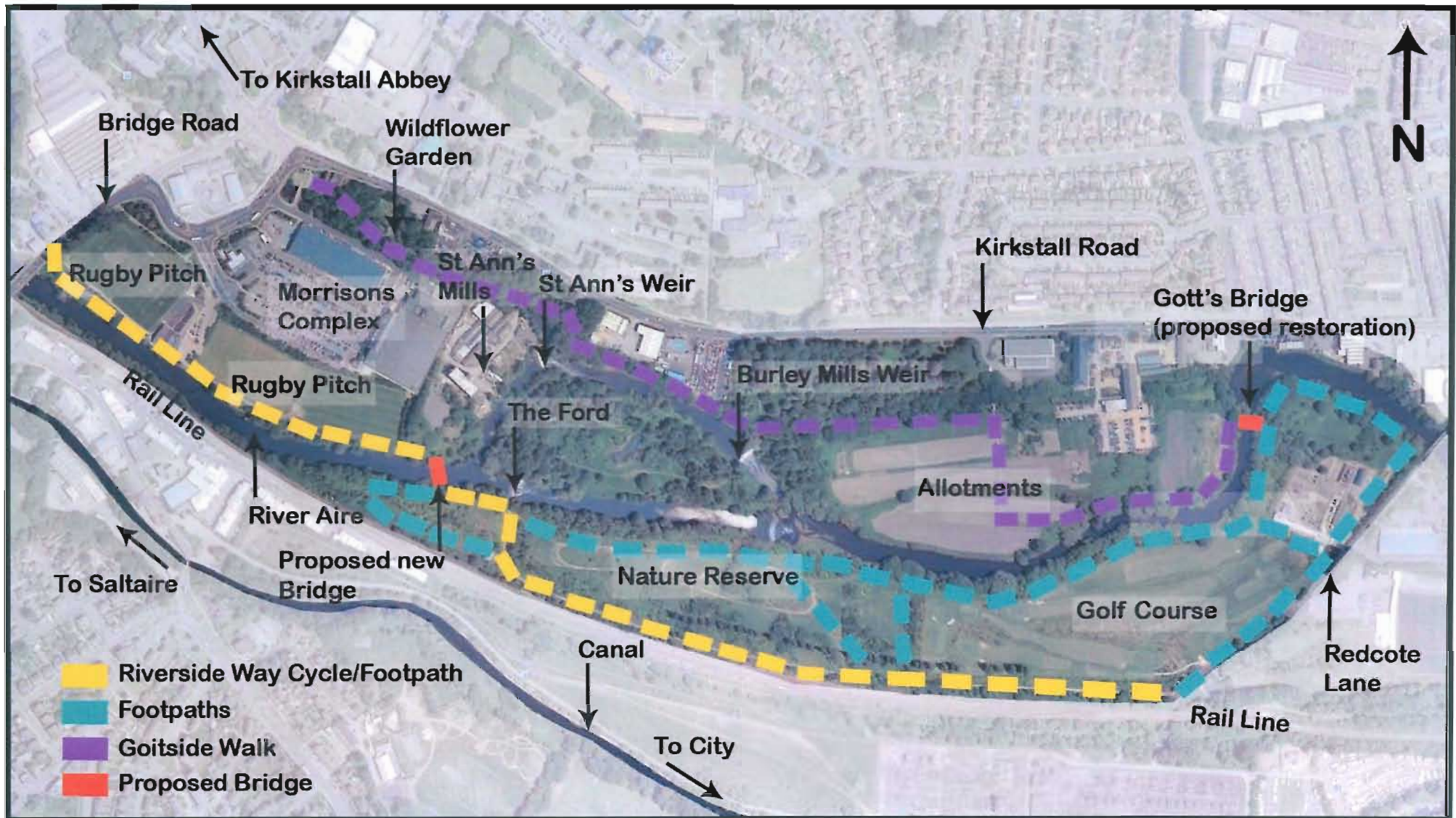
Riverside Way: Bridge Road to Redcote Lane

From the Bridge Road entrance at Kirkstall, the proposed new route follows the course of an existing permissive footpath which runs by the river along the edge of the grounds of the Rugby Academy, owned by Caddick Construction. Path widening and resurfacing, and improvements to the Bridge Road entrance would be the main work along this section.

Leeds City Council already owns the land between the Rugby Academy and the north end of the proposed bridge at St Ann's Mills. South of the river Transco is committed to maintaining the park as a nature reserve under a rental agreement with Yorkshire Wildlife Trust.

It is also worth noting that CE Electric, who own the substation and surrounding land to the north of the golf course might be amenable to opening up this area as a publicly accessible extension to the nature reserve as part of their commitment to environmental stewardship.

KIRKSTALL VALLEY PARK: BRIDGE ROAD TO REDCOTE LANE: SITE BOUNDARY AND PROPOSED ROUTES



The proposed vision is to create two very clear, distinct yet interconnecting routes, that will contribute to a larger circular route throughout the park. (See Appendix A). However the priority at this stage, is to complete a phase 1 of the works - the shared foot and cycle path along the Riverside Way and including a new bridge at St Ann's Mills.

General proposals are therefore included in this document for the re-establishment and upgrading of the Goitside Walk but specific design solutions would need to be explored further as part of any phase 2 works.

THE RIVERSIDE WAY

Character

On its route between Bridge Road and Redcote Lane, the new foot and cycle path will pass through a varied landscape, shaped by its industrial past, but now offering a great opportunity to get close to nature in the heart of the city. The River Aire, with its dramatic weirs, historic mills and quiet Goits provides a dynamic backdrop, whilst the former fly ash tips of the Kirkstall Power Station are now open and expansive meadows, with young woodland providing a developing habitat for plants and animals. Far reaching views highlight the contrast between this green corridor and the heavily urbanised landscape beyond.

Attractions and Places of Interest

A number of attractions lie along or just off the route, giving visitors the opportunity to stop off and engage with the historical and environmental make-up of the area. Although some of these attractions are in need of revitalisation, such as St Ann's Mills, they are intrinsic to the character and experience of the place and add value to a journey through the park.

With good signage and interpretation these stop off points will provide the opportunity to understand the contribution they have made and continue to make to the landscape and community. Highlights include St Ann's Mills with its weir, mill pond and goit, and a Grade II listed ford across the river providing an insight into the industrial activity of the 19th century.

Kirkstall Valley Nature Reserve, as well as a haven for wildlife, offers walks through its meadows and woodland with views to Gott's Mansion and its Humphry Repton landscape. The tranquil reed beds and pond in the north of the reserve offer a chance for relaxation just off the main path.

A new bridge over the Aire at St Ann's Mills would provide a great boost to the success of the park, forging a new connection across the valley and providing a vantage point for views up and down the river.

The Goitside Walk

The Goitside Walk along the northern edge of the park is currently isolated from the Riverside Way by the River Aire, but accessed from Kirkstall Road provide tranquil tree lined walks along the Goit to St Ann's Mills pond and around Burley Mills Weir. The route is broken by an inaccessible stretch of riverbank but has the potential to add to the experience of the Riverside Way if the disconnected routes and pathways are linked up.

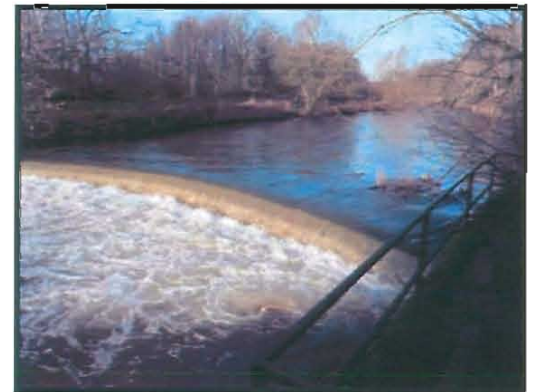
The possible future restoration of the former Gott's Suspension Bridge would further enhance connectivity and complete a great new route network for the area.

Future facilities set out in the vision for Kirkstall Valley Park, including a new canoe training course, horse riding centre and visitor centre at St Ann's Mills will further enhance opportunities for recreation and tourism.

Safe and accessible connections to these attractions are imperative to the future development of the park, whilst establishing new connected routes from Kirkstall and Burley to Armley and the city centre will provide new opportunities for car-free commuting.



The nature reserve meadow



Burley Mills weir



St Ann's Mills mill pond

CURRENT AND POTENTIAL VISITORS

The physical and psychological barriers between the park and the surrounding population present an unwelcoming face to the outside and discourage people from entering and exploring the site. However, for those that do use it, the site is an important resource.

Existing Users

Apart from golf on the 9-hole facility south of the nature reserve, walking is the main activity across the site. In the absence of a river crossing, most people follow meandering circular routes to the south of the river, using informal unmade paths along the riverbank and through the nature reserve.

The nature reserve is managed by Yorkshire Wildlife Trust using paid staff and volunteers to carry out periodic maintenance. The Trust also co-ordinates corporate volunteer groups from the local business community in carrying out site management tasks.

Leeds Canoe Club use a small slipway behind the Rugby Academy to enter the river and paddle either north to Kirkstall Abbey or south around the island nature reserve below St Ann's Mills. The club has between 40 and 70 active members who train on the River Aire primarily in the summer. The reach between St Ann's Mills weir and Burley Mills weir is used for white-water canoeing when river flows are strong enough. Once their run is completed, the canoeists walk back up river across the island nature reserve to re-enter the water at St. Ann's Mills.

Burley Mills weir incorporates a purpose built platform for the Sikh and Hindu communities to scatter the ashes of the dead into the river, and **any** design proposals would need to be sensitive to this.

Potential New Users

A safe through-route from Kirkstall towards the city centre for cycling, commuting, and walking with a new crossing of the Aire as its centrepiece, would enable the park to welcome many new users. Access to the meadows and woodland of the nature reserve and its riverside walks would be easy from the new principal route, which would also link up with National Cycle Route 66 which travels along the Leeds Liverpool Canal. Evidence from other parks shows that greater human activity in the landscape enhances the feeling of security and safety and helps to discourage anti-social behaviour.

In 2004, the proposals for a new white water canoe course were explored in the report *A Detailed and Critical Analysis of the Kirkstall Valley Park White Water Canoe Course Proposals*.

The proposals include the **careful** placing of boulders downstream of St Ann's Mills weir to increase disturbance in river flow and creating the **pools and eddys** necessary to provide a much more challenging and exciting competition level **course**. With this new **facility** it is envisaged that new members will join the club and there is an increased potential to **attract** more visitors and spectators.

To **date** Leeds City Council have yet to agree a scheme to be implemented.



Footpath through nature reserve



Limited cycling opportunities currently exist



New canoe course

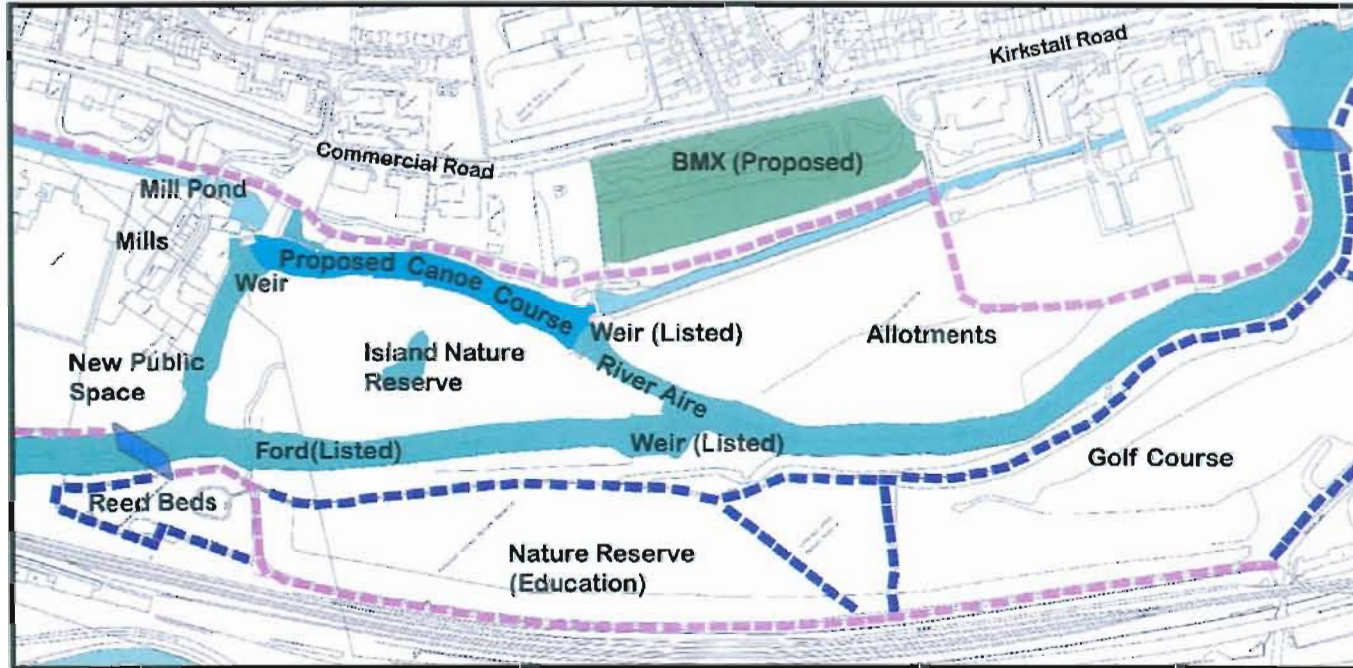
Adventure Playground and BMX Facility

Public consultation is underway on a proposed BMX biking facility between Burley Mills Goit and the A65 Kirkstall Road, the site of a former waste tip that was sealed and topsoiled in the 1960s. The undulating site has been colonised by scrub and trees and has limited ecological value. Planning consent was granted but has not been progressed. BMX cycling became an Olympic sport in 2008, but Leeds lacks suitable facilities. The scheme would involve some site clearance, though all the trees would remain, and it is envisaged that local cycling and community groups would be closely involved in the facility's development.

Schools and Education

Kirkstall Valley Park is a great resource for local schools. The nature reserve provides a great opportunity for children to get involved in ecological and conservation issues. The reed bed and ponds in the north of the nature reserve have provided an educational facility in the past and could be re-invigorated to provide for the needs of today's curriculum.

The management of the nature reserve by Yorkshire Wildlife Trust could also be expanded to involve local children or community groups as well as the growing number of corporate volunteers from local businesses.



Proposed Uses



New BMX facility



Community clean up



A place for learning

KIRKSTALL VALLEY NATURE RESERVE



Managed by The Yorkshire Wildlife Trust, Kirkstall Valley Nature Reserve is a linear reserve sitting between the River Aire and the Leeds to Skipton Rail line. The main body of the reserve which forms an extensive plateau is an area of disturbed ground, being formerly the site of the fly ash lagoons for the Kirkstall Power Station.

The plateau is a mix of grassland and scrub some of which has its origin in natural regeneration, other areas have been sown to provide herb rich meadows or planted with native shrubs and tree species including alder, cherry, birch and hawthorn. The plateau is bordered by the railway and the River Aire and the reserve's diversity is strengthened by the close proximity of the Leeds Liverpool Canal.

Three main habitats exist within the reserve:

The plateau meadows with boundary scrub

The river bank with mature trees and scrub

The 2.8 hectare island with oak woodland

Visitors

It is important to ensure there is a balance between improving public access to this section of the park with the need to conserve and preserve the sensitive habitats that are found within it, particularly along the riverbank. Good signage and interpretation is paramount in ensuring that visitors get the best opportunities to study, learn and experience wildlife without compromising the biodiversity, character and quality of the surrounding landscape.

SPECIAL SPECIES FOR PROTECTION

Otters [Photo: Bernard Landgraf, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=41335>]
Otters are good indicators of river quality, needing clean rivers with an abundant and varied supply of food and plenty of bankside vegetation offering secluded sites for their holts. In the past the destruction of habitat and pollution has led to a large decline in the otter population on the River Aire, however with the improvement to water quality, otter numbers on the river are increasing.

Legal Status

Both within and outside designated sites, otters are fully protected by law. They are protected under Conservation (Natural Habitats & c.) Regulations 1994 (as amended 2007), the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000).

Taken together, these make it an offence in to:

- Intentionally or deliberately kill, or intentionally injure, an otter.
- Deliberately disturb an otter or intentionally or recklessly disturb them in a place used for shelter or protection.
- Damage or destroy a breeding site or resting place of an otter.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by an otter.
- Possess or control any live or dead specimen or anything derived from an otter, unless acquired lawfully
- Sell, barter, exchange or transport or offer for sale otters or part of them.

If proposed action could lead to an offence under the above legislation, appropriate mitigation which seeks to avoid these impacts should be devised and implemented under licence from Natural England, to allow the activity to proceed legally.

Planning Policy

Planning Guidance, Technical Advice Note 5; Nature Conservation and Planning (TAN5) gives further direction with respect to land use and development. It states that not only should existing biodiversity, including the otter, be conserved but importantly that natural habitats supporting this species should be enhanced or restored where possible. Under the Natural Environment and Rural Communities Act, 2006 (NERC Act) local authorities have a duty to have regard to the conservation of biodiversity in exercising their functions. Conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them.

UK Biodiversity Action Plan and Species of Principal Importance

The otter is a priority species in the UK Biodiversity Action Plan (HM Government 2007 et seq.). The UK Biodiversity Action Plan was originally published in 1994 in response to the 1992 International Convention on Biological Diversity. As priority species in the UK Biodiversity Action Plan, otters are considered to be a Species of Principal Importance for the Conservation of Biodiversity. This places a duty on all government departments to have regard for the conservation of these species and on the Secretary of State to further, or promote others to further the conservation of these species.



Otter holt

Impact on Design Proposals

In 2008, Thomson Ecology published an otter survey and habitat assessment on both the River Aire and Leeds Liverpool Canal between Calverley Bridge to Leeds city centre for the Environment Agency. The survey included a search for evidence of otter presence and for the presence of potential, possible and actual resting sites and included an assessment of all weirs and bridges to determine how much of an obstruction they cause to otter movement up and down the river.

Although no definite otter signs were found on the canal, evidence of otter presence was found at intervals along most of the river's length. Evidence of otter presence along sections of the proposed Riverside Way include:

- Actual resting site on the south river bank approx 200m upstream of the nature reserve island and at St Ann's Mills, however 1 possible resting site and a further 25 potential resting sites were recorded on the stretch of river between the Morrisons complex and Redcote Lane with 3 around the proposed bridge site.
- Spraints (faeces) found on the south river bank approx 200m upstream of the nature reserve island and at St Ann's Weir
- Spraints found on the south river bank opposite the allotments
- Footprints immediately opposite on the allotments bank
- Footprints on the south river bank upstream of Gott's Bridge
-

No breeding sites were recorded along the stretch of the river covered by the design proposals.

Taking the above findings into consideration, the development that could have the most impact is the construction and positioning of the new bridge at St Ann's Mills. It is important therefore that the siting of the bridge is constructed downstream of the actual resting site so as to avoid any loss, damage and disturbance.

Bridges may present a physical barrier to otters where they restrict water flow, however as the new bridge is of a single span type construction, it should not restrict movement in this instance.

Where the 3 resting sites classed as potential are recorded, wherever possible, they should be afforded protection, however any potential loss should be mitigated for.

The recommendations from the report include that any "*Potential resting sites identified should be further assessed to determine if they are suitable for use by an otter, before planning permission is granted for developments which are at risk of causing damage or disturbance to these sites, including those which result in increased recreational activity*"

"Prior to any development, all Potential and Possible resting sites be surveyed to determine if they are in use by an otter, i.e. they have become actual resting sites"



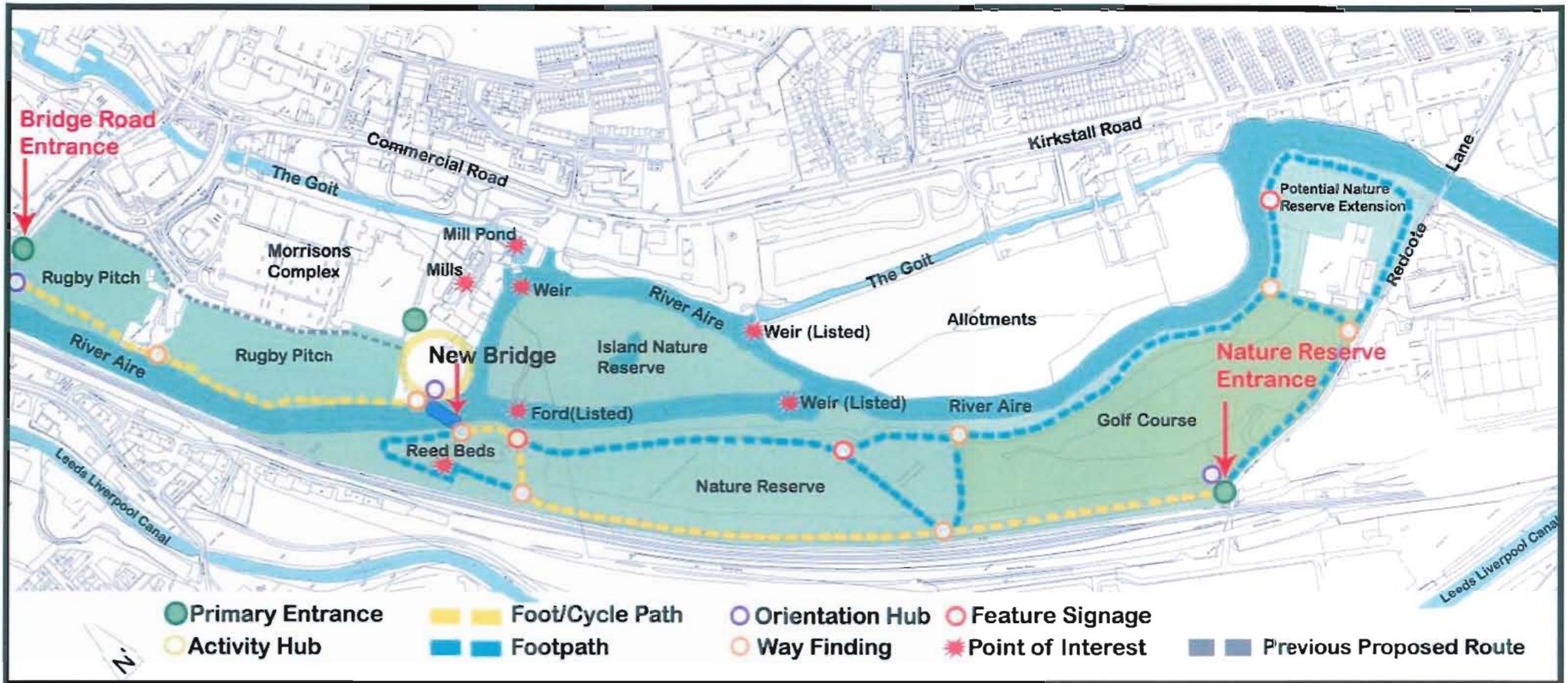
Natural banking and ground cover provide good habitats and resting sites



Man made banking (left) poses an obstacle to existing watercourse

SECTION 3: THE RIVERSIDE WAY: DESIGN PROPOSALS

THE RIVERSIDE WAY: ENTRY POINTS AND ASSOCIATED FEATURES



The Riverside Way would form the principal pedestrian and cycle route through the park between Bridge Road at Kirkstall and Redcote Lane. A new route alignment from the original feasibility study proposal now sees the route following the line of the river. This new alignment provides a more legible line and provides the visitor with pleasant river views.

From this principal route a network of paths from which to explore the nature reserve and riverside walks exists and could be further enhanced with minor improvements to footpaths, particularly along the south bank of the river upstream of the Redcote Lane bridge. There are also opportunities for landscape improvements at the proposed activity hub around the new bridge at St Ann's Mills.

THE RIVERSIDE WAY: ENTRY POINT PROPOSALS

Entry Points

As the Riverside Way has yet to be established, there is no formal entrance onto the route from Bridge Road at Kirkstall. The current entrance, with its ramped wooden walkway, also serves as an access point between the rugby academy and its training facilities on the opposite side of Bridge Road.

At the Redcote Lane end of the proposed principal route, the decorative metal entry gates to the nature reserve were designed by children from two local schools. They are structurally sound but in need of maintenance.

Entry Points Design Proposals

The Riverside Way will be a significant new route across the valley for cyclists and pedestrians, and will provide improved access to the attractions and the landscape of Kirkstall Valley Park. The Bridge Road entrance will be enhanced to provide a more significant entrance to the northern end of the Riverside Way, allowing safe and easy access for cyclists and pedestrians and increasing its presence on Bridge Road.

A new Bridge Road entrance would provide an opportunity for artistic intervention, perhaps inspired by the rich industrial heritage of the valley, and could serve as an orientation hub for visitors to the Park. The existing ramp and boundary wall gap will be widened to accommodate the new shared route.

At Redcote Lane, the decorative gates designed with a strong nature theme will be repaired and modified to allow easier access for walkers, cyclists and wheelchairs.



Existing entrance at Bridge Road



Existing ramp entrance at Bridge Road



Proposed improved ramp entrance at Bridge Road



Existing nature reserve entrance at Redcote Lane

THE RIVERSIDE WAY: FOOT AND CYCLE PATH PROPOSALS

"Leisure cycling is a high quality way to enjoy the countryside and a good way to introduce people to cycling for their everyday transport needs" National Cycle Strategy

Bridge Road to the New Bridge

This section of the route skirts around the rugby pitch close to the river and passes behind the academy building along the edge of the car park. The hoggin path here is in reasonable condition, however there is some deterioration to the surface layer due to heavy foot traffic between the academy building and the off site training pitch. This section of path will be widened to 3 metres to accommodate the new shared route and resurfaced with tar spray and chippings on bituminous gravel sub base.

From the car park to the academy boundary fence, the path is little used and is overgrown with grass. This section will also be resurfaced to the same specification. From the boundary fence to the new bridge no path currently exists and a new section of path leading to the new bridge will be created.

Bridge Road to the New Bridge Landscape

The new foot and cycle path offers the opportunity for associated soft landscape improvements along the way. Priority should be given to entrances, junctions and points of interest. The area at the entrance ramp will include feature planting to give a sense of arrival. Some pleasant planting already exists between the pitch nearest to St Ann's Mills and the river, providing screening and interest. This would also be extended and enhanced.



Impression of new shared foot and cycle path

THE RIVERSIDE WAY: BRIDGE PROPOSALS



Impression of the new bridge at St Ann's Mills

The installation of a new bridge at St Ann's Mills will connect the northern and southern banks of the river and begin the transformation from two separate and disjointed areas of the park into one connected landscape.

The new bridge along with the potential developments at St Ann's Mills could provide an exciting centrepiece for the Riverside Way with cycling and walking routes converging to cross the river. The proposed crossing is sited just upstream of the island nature reserve, giving a great view downstream as the river breaks into two channels to flow around the island. The higher ground of the nature reserve to the south of the bridge will provide an elevated viewpoint back across the river towards St. Ann's Mills. The installation of the new bridge also offers the opportunity for landscape improvements around St Ann's Mills, creating a new public green space as a central activity hub and entry point for this section of the park and could include picnic area, events space and car and cycle parking.



Example: Kanaaleiland, Bruges by West8



Lighting can add drama at night

Construction

The new crossing of the Aire at St Ann's Mills will span a distance of 30-35 metres carrying the 3 metre wide Riverside Way, supported by new concrete abutments on each bank. A number of construction options are available including steel, timber or combination of the two. A Warren Truss bridge is one option, as is a steel beam bridge. Whatever the final design, it needs to complement the landscape here, where the nature reserve and the industrial heritage of St Ann's Mills are strong features. The potential for vandalism of the bridge should also be considered in the design process.

The construction may also be constrained by the site access and topography. Access for heavy plant and construction traffic is limited, with the only entry point from Kirkstall Road being the narrow Goit bridge at St Ann's Mills. The soft overgrown ground on each bank will need to be engineered to provide bridge abutments.

(For bridge construction details see Appendix B)

Siting

An alignment that spans the river diagonally on a north-south axis would work well. Although a longer span, it could provide great views down the river channels as they flow around the island nature reserve. It would also be more closely aligned with the main routeway to make joining and leaving the bridge easier for users.

Surface

A number of surface options are available to ensure a suitable non-slip surface, including machined grooved timber, machined grooved filled with resin/aggregate or full resin/aggregate overlay. It is recommended that a higher grip specification such as machine grooved and fill or full resin/aggregate be used.

Safety

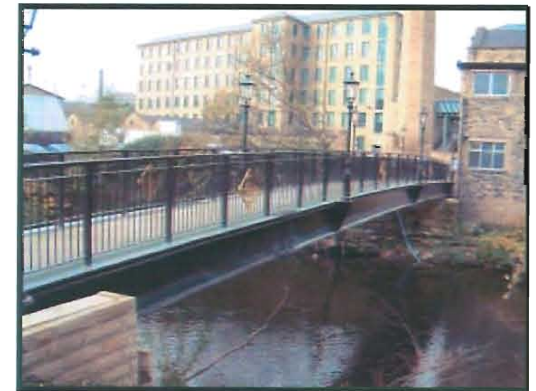
It is recommended that a parapet height of 1.4m is specified as a minimum for cycle way usage. Routine sweeping of the bridge deck is recommended to prevent build up of debris and keep the gaps between deck boards open to ensure slip resistant properties are retained.

The New Bridge Landscape

At a junction of many routes, and providing great views along the river towards the ford and St Ann's Mills, the new bridge is likely to be a focal point for visitors. Landscaping works might include limited land re-modelling to evoke the riverside bunds which could also serve as an attractive feature and informal grassy resting places for visitors. Informal groupings of native trees and shrubs (for example Birch, Alder, Ash, Holly, Blackberry) could provide shade and cover to enhance habitat.



Steel Bridge



Steel Beam Bridge



Proposed bridge alignment

THE RIVERSIDE WAY: ST ANN'S MILLS



Impression of potential activity hub at St Ann's Mills

With its riverside setting, strategically situated close to the site of the new bridge over the Aire, St Ann's Mills has the potential to become an attractive feature of the park in its own right as well as a hub for activity. With easy pedestrian and vehicular access from nearby Kirkstall Road, it would be an important entry point with parking facilities for visitors that wish to arrive by car.

With a rich industrial heritage both in the buildings own fabric and the surrounding external landscape, there is an opportunity to create a new and vibrant community facility, housing an interpretation centre, exhibition and artists space and cafe. Space for park management facilities, nature reserve offices and Leeds Canoe Club storage would also be suitably sited here. The building also has the potential for conversion to residential use. Any development would need to take account of the potential flood risk, which might restrict the use of the building's lower storey. Environment Agency flood protection scheme proposals go out for public consultation in May 2009 and include plans for new defences close to St. Ann's Mills. (See Appendix E).

St Ann's Mills Landscape

The area of land between the building and the proposed new bridge provides an excellent opportunity for landscape improvements and a shared public space including naturalistic planting of native species.



St Ann's Mills stands derelict and unused



THE RIVERSIDE WAY: FOOT AND CYCLE PATH PROPOSALS

The New Bridge to Redcote Lane

South of the river, an informal riverbank path exists and runs to the ford where it meets the main gravel path through the nature reserve. This section of path will be upgraded to a 3m wide path to the same bituminous gravel specification. Some cutting in of the bank will be needed to meet the DfT requirements for cycle path geometry (See Detail B)

At the Ford the path enters a wide cutting, passing the reed bed and pond before turning alongside the railway towards Redcote Lane.

The remaining paths tend to be more informal mown pathways that criss - cross throughout the upper meadows and the area around the reed bed and ponds. This mix of styles works well with and reflects the varying landscapes. The mown paths are suitable and sensitive to the upper meadows, whilst the main semi constructed path on the lower level indicates its role as the main thoroughfare and allows for maintenance and construction vehicle access. The existing 2m wide gravel path will be upgraded to 3m wide again to the same specification.



Existing planting in the nature reserve

The New Bridge to Redcote Lane Landscape

This section offers the opportunity for an attractive new planting scheme along the path to enhance the journey through the nature reserve and also signify the pond and reed bed as a stop off point and place of interest. At the nature reserve entrance feature planting would again give a sense of arrival and would help to obscure some a small railway sub station.



Impression of landscape works

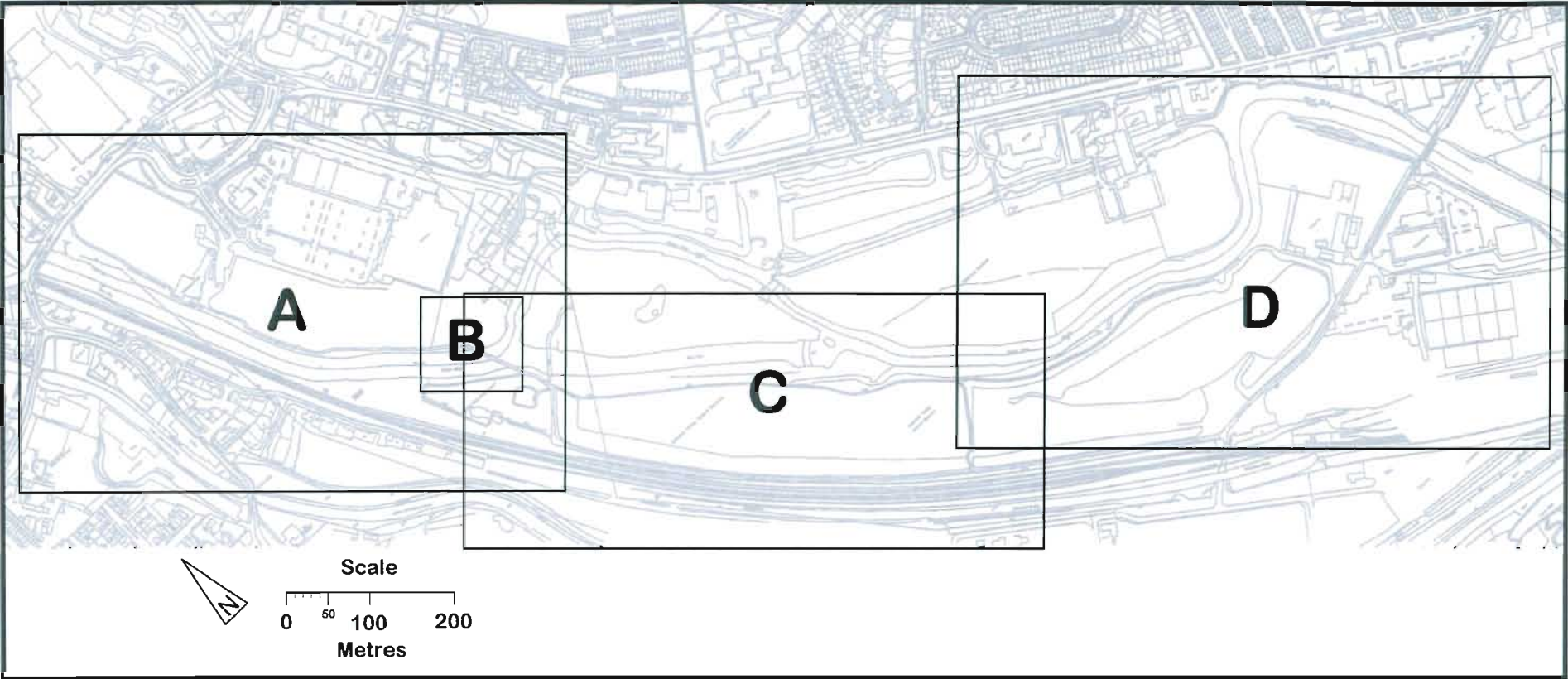


Habitat and Maintenance in the Nature Reserve

The nature reserve is a haven for local wildlife and any proposals would need to compliment the landscape and fit with the vision for the nature reserve. For example, the riverbank is known to provide a habitat for otters. Any planting proposals will need to preserve and enhance wildlife habitats, as well as provide attractive destinations for visitors. Management plans will be developed in conjunction with Yorkshire Wildlife Trust that balance the needs of wildlife with those of visitors.

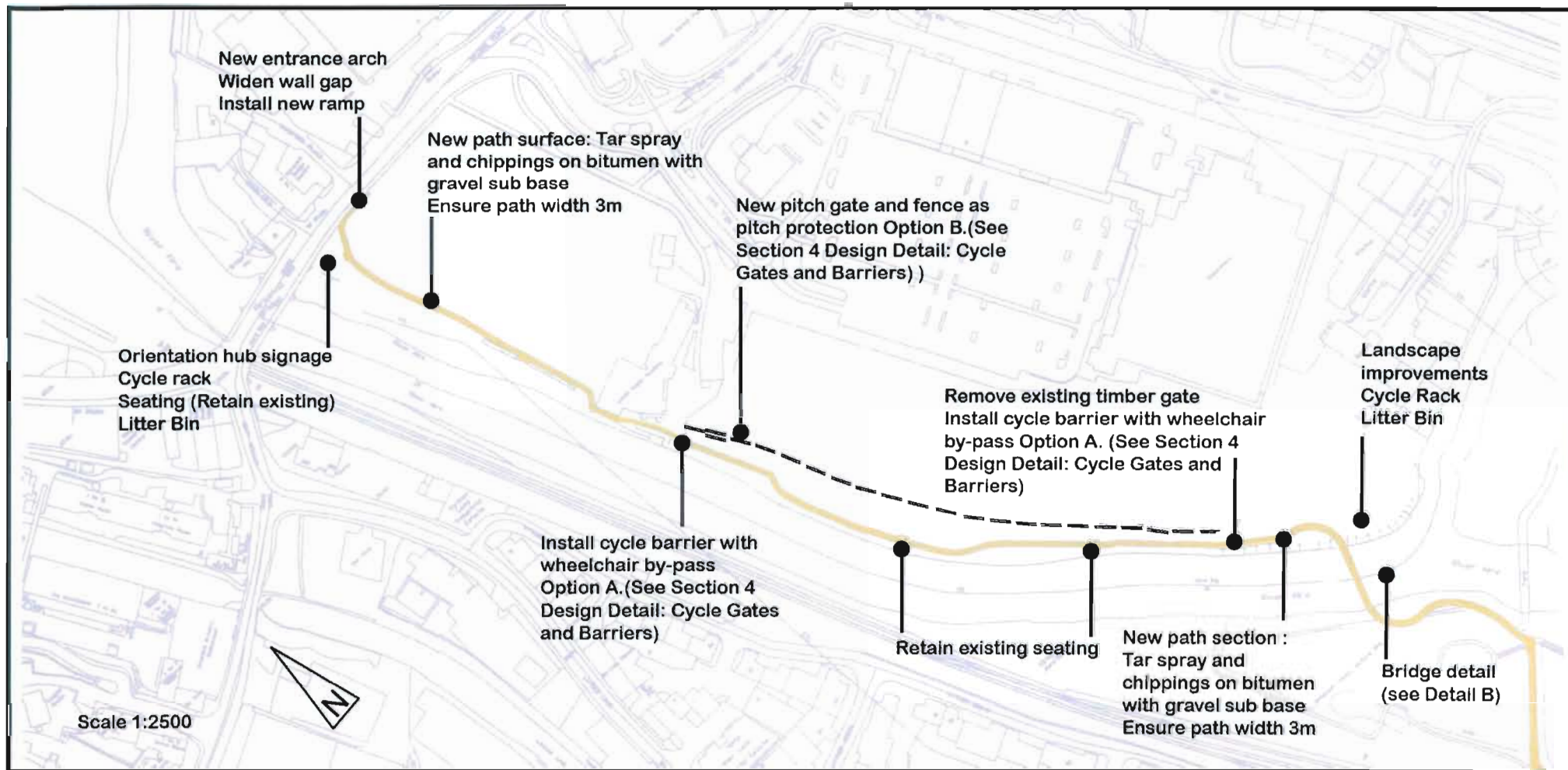
SECTION 4: RIVERSIDE WAY DESIGN DETAIL

THE RIVERSIDE WAY: RELATIVE POSITIONS OF DETAIL MAPS

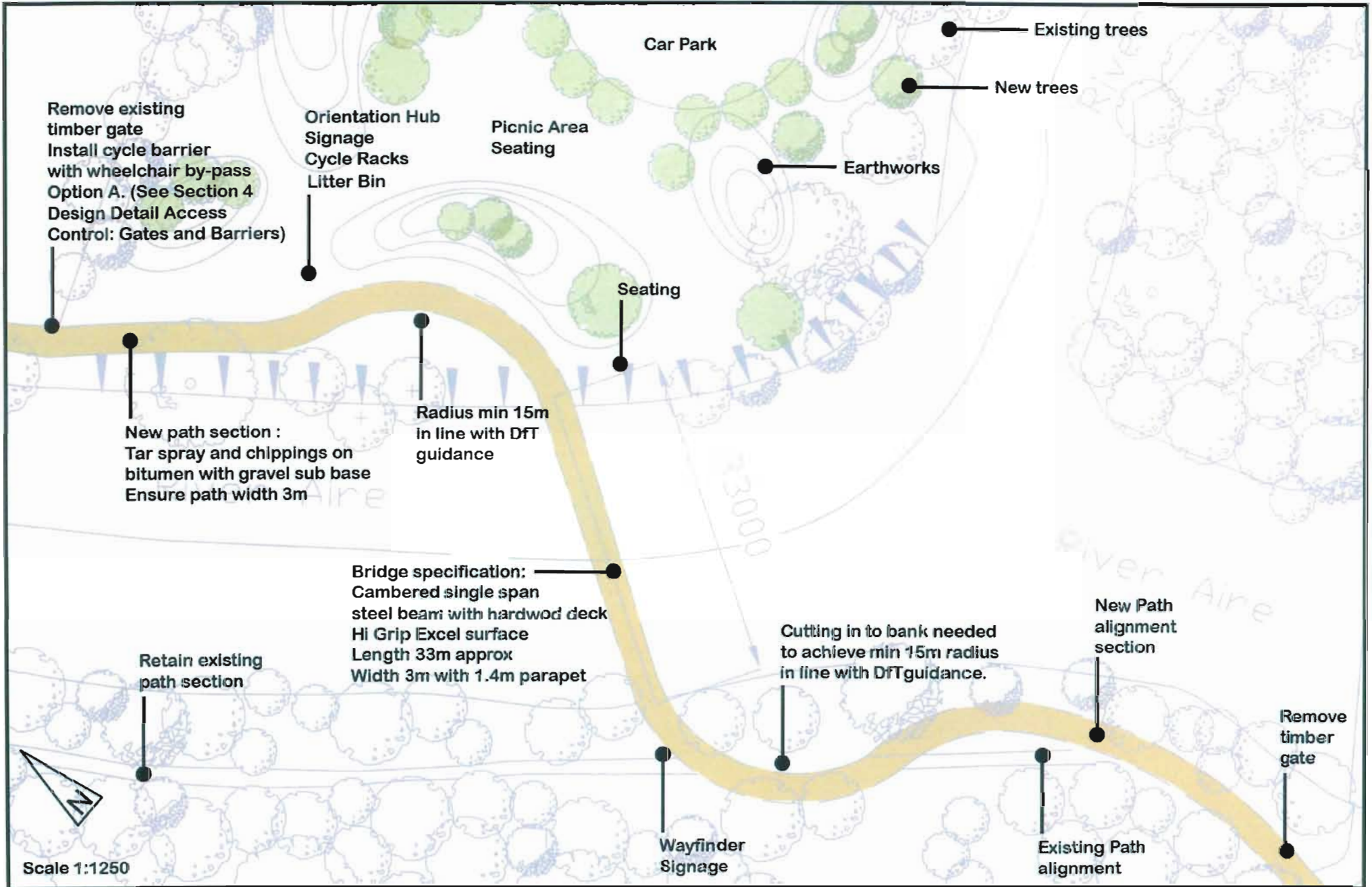


Bridge Road to Redcote Lane journey

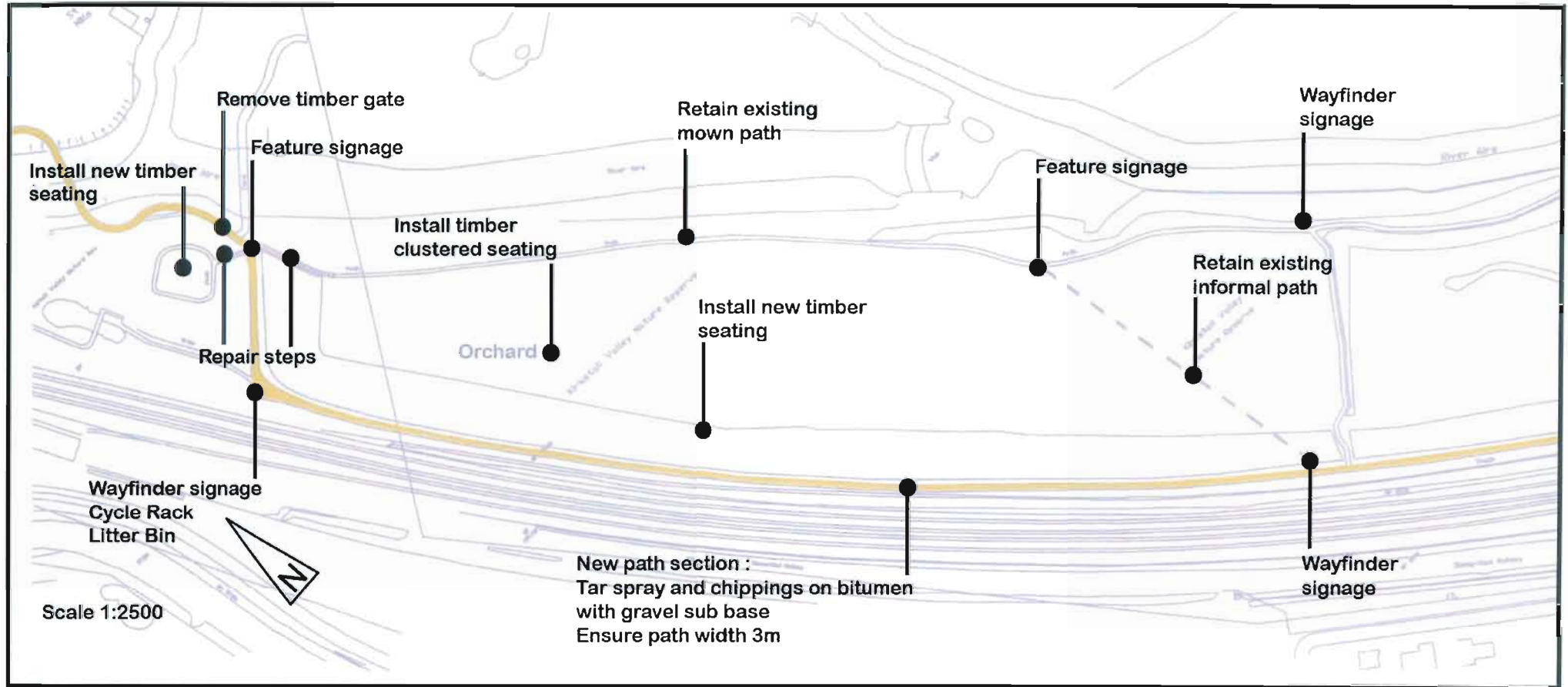
DETAIL A: BRIDGE ROAD TO ST ANN'S MILLS



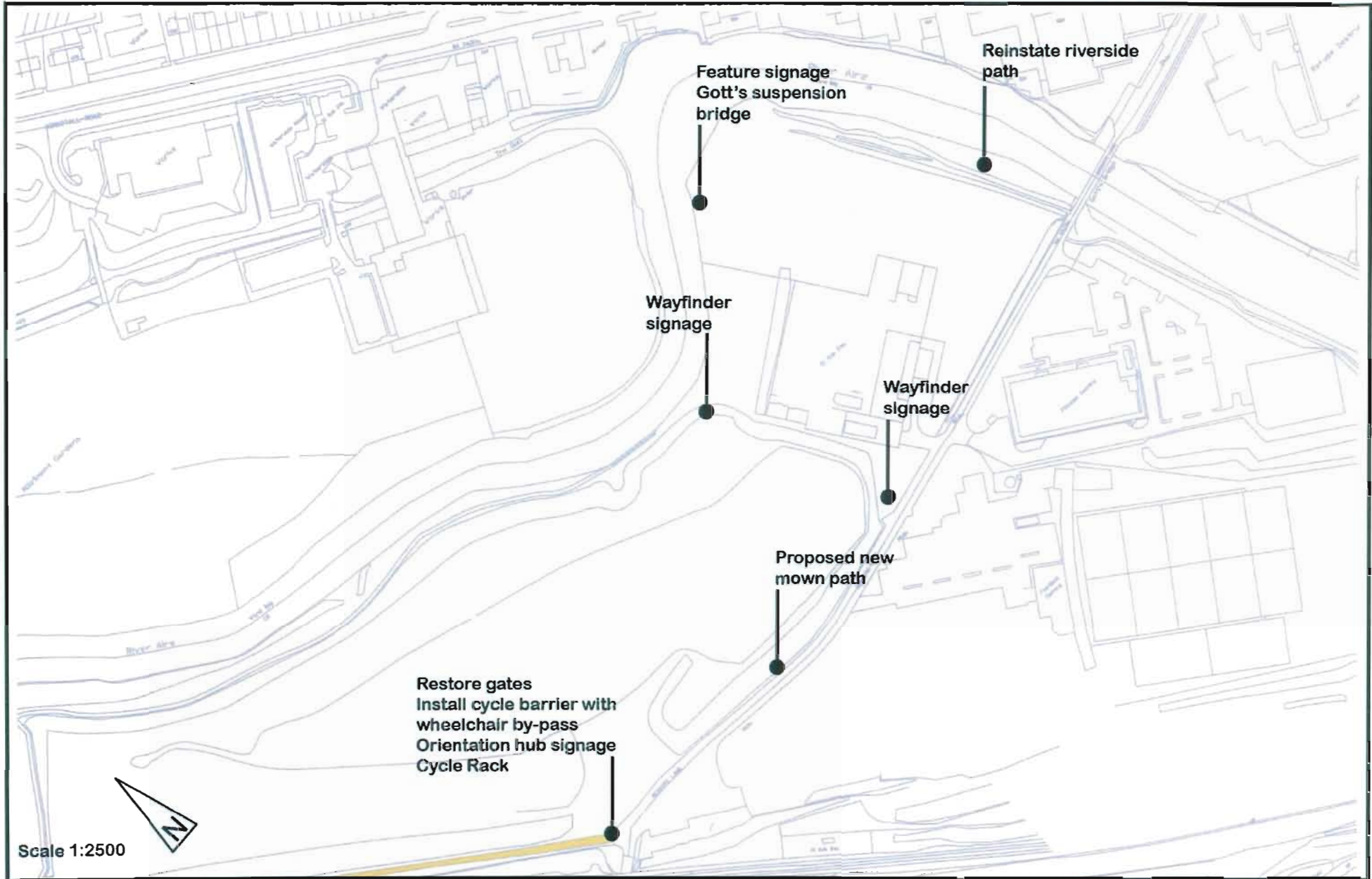
DETAIL B: ST ANN'S MILLS AND NEW BRIDGE



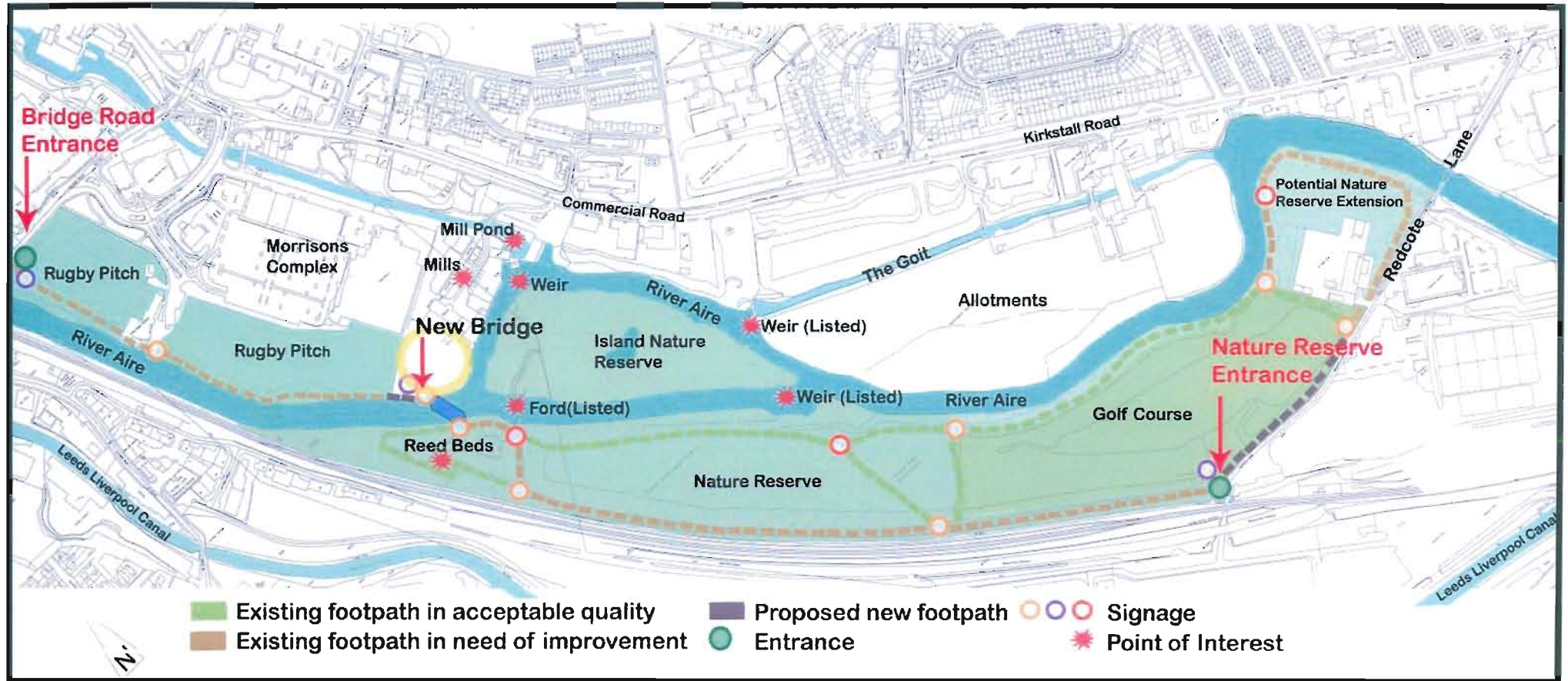
DETAIL C: KIRKSTALL VALLEY NATURE RESERVE TO REDCOTE LANE SECTION 1



DETAIL D: KIRKSTALL VALLEY NATURE RESERVE TO REDCOTE LANE SECTION 2



THE RIVERSIDE WAY: FOOT AND CYCLE PATH PROPOSALS



Design Proposals

It is proposed to maintain the current mix of both formal and informal path styles that currently run through the site whilst improving the main route of the Riverside Way to a bituminous surface to cater for both pedestrians and cycles. The expected level of pedestrian to cycle flow on the main path is unlikely to require a segregated facility and both pedestrians and cyclists should be able to share the path freely and equally.

Where the least environmental impact is the intention, for example through the plateau meadows, the mown pathways should remain with the intention to be used by pedestrians only.

Materials and Path Width

The surfacing of the shared Riverside Way needs to be of a good standard to ensure a comfortable and safe ride for cyclists and a safe walk for pedestrians. A range of surfacing materials could be used, but the surface selected should be appropriate to the landscape of the park. The most common recommended minimum width for cycles is 2m. A width of 3.0m is preferable for this shared pedestrian and cycles surface.

Bituminous Surfacing

A bituminous surface with a sprayed gravel wearing course is recommended for this route. It should be laid by machine, to highway standards with the same stringent vertical tolerances.

Coloured surfacing options should also be considered to improve route legibility, particularly at junctions. Colour can be incorporated into the surfacing, or veneers can be laid over the top. Natural coloured chippings, with a longer lifespan, better colour retention and less vibrancy might be more appropriate in the park landscape.

A minimum clearance of 0.5m between the edge of the route and objects such as vegetation or fence posts is recommended.

Tactile Paving

Where footpaths join the shared main route at potentially busy junctions, for example at the bridge, "corduroy" tactile paving is proposed to warn pedestrians of the transition onto the shared surface.



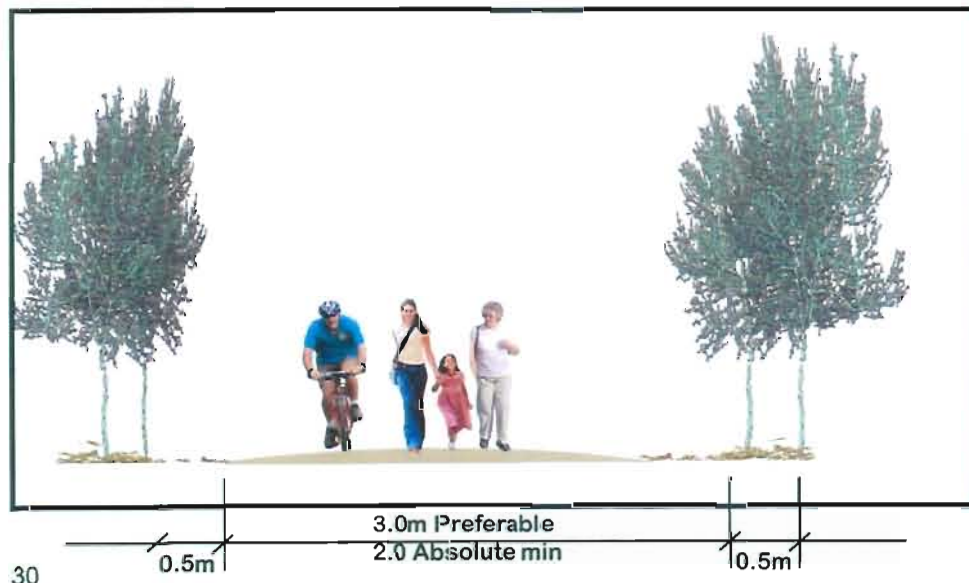
Bituminous base course with sprayed gravel surface



Different colour options



Tactile paving studs



THE RIVERSIDE WAY FOOT AND CYCLE PATH PROPOSALS

Crossfall and Drainage

The path will generally be 75mm above existing ground level, with at least a 1:40 cross fall or 25mm central camber to eliminate ponding, and 1:200 longitudinal fall. On bends a camber falling at 1:40 from the outside edge of path will reduce the risk of skidding. Any drainage gullies would need to be set flush with surface, with grating slots at right angles to the line of travel. The use of French drains will need to be considered if the construction is likely to become waterlogged, with a low causeway through wet or flooded areas. Gradients should be no greater than 1:12.

Access Controls: Gates and Barriers

Sustrans advocates the removal of access barriers in order to attract as many legitimate users as possible. Whilst this might not be appropriate for the Riverside Way, any barriers will need to balance the need to prevent unauthorised entry against ease of use by legitimate users, including the disabled. Bollards are the preferred method of control for larger vehicles, placed 1.5m apart, perhaps in two staggered rows to increase the deterrent effect.

'A Frame' barriers allow cycles and most wheelchairs to pass, but may exclude mobility scooters and bicycle trailers. The potential for unauthorised motorcycle access is likely to be the most problematic in terms of balancing security against ease of use. Effective barriers could exclude those using tricycles or trailers and wheelchairs. In any event, the barriers would only be as good as the weakest point in the route boundary, and should only be installed where a clear need exists. One option might be to install part barriers in the first instance, and add the rest of the control if a problem arises. Details of the access gate option are included at Appendix D.

Cycle Racks

Places of interest along the route would be provided with cycle parking as well as seating to encourage people to explore the park. For example, the new bridge will become an interesting vantage point, and the reed bed and pond in the nature reserve will provide a resting place off the main route.

Other Paths

Informal mown paths, in keeping with those already in place, are proposed for the meadows of the nature reserve. These should be mown once a month between April and October in addition to the normal meadow mowing regime. The informal dirt path along the riverside is of acceptable quality for its current use and routine management would involve keeping the path accessible and clear of vegetation.



'A Frame' cycle barrier



Bespoke cycle barrier



Mown path through nature reserve

THE RIVERSIDE WAY:FURNITURE PROPOSALS

Existing Furniture

From Bridge Road, a hoggin path skirts the Rugby Academy pitches close to the river. Simple, chunky timber benches provide a couple of rest points along the way, two with views of the rugby pitch and, further along the path, two looking out over the River Aire. All are in good condition though the two at the riverside are being gradually overwhelmed by ivy.

On the opposite bank of the Aire, where the main route meets the ford, there is currently no seating provision, though there are good views across the ford and along the river. Views from the path as it leaves the river are restricted by the site's topography as it passes between areas of higher ground in the nature reserve.

Just off the principal route, are a reed bed and pond that were installed in an earlier phase of landscaping works as part of an outdoor teaching space. The hard landscaping features are falling into disrepair but there is no evidence of vandalism. A long timber bench provides seating for larger numbers of visitors and is useful for schools and community groups. This is a natural stopping off point and with restoration should continue as an educational facility.

The principal route then turns to run against the railway fence down to Redcote Lane. On the opposite side of the path, the ground slopes up towards the meadows of the nature reserve, with the rise crested by a long line of Poplars. Very limited seating, in the form of a single timber bench, exists along this section, though the ridge provides a sunny vantage point for great views across to Gott's Mansion and park.

The meadows of the nature reserve are crossed by mown footpaths, and a simple smoothed log bench seat is provided at the top of the rise for a view towards St Ann's Mills.

There are no litter bins on site.



Path side bench at the rugby academy



Pond side seating at the nature reserve



Log Bench at the nature reserve

Design Proposals

Furniture needs to reflect the character of the landscape, with fittings being robust, bold and simple with below ground fixings wherever possible. Furniture should only be placed where it will be useful and not used solely to provide interest along the route. Visual clutter should be avoided with groupings carefully sited. Where vandalism is likely, alternative provision for rest, such as ground shaping or changes in level can provide places to sit. Where possible local materials should be used to promote local distinctiveness and colour.

Though Kirkstall Valley Park lies just outside the area covered by the Leeds Waterfront Strategy (now incorporated into Leeds UDP) any new furniture proposals should be based on the same principles.

From the Bridge Road entrance, the existing seating in the form of simple, chunky timber benches provides views across the Rugby Academy pitches and along the river bank. Any additional benches, perhaps by the canoe slipway, would need to match the existing. Some grounds maintenance work is required to prevent the riverside bench disappearing into the undergrowth.

Around the new bridge at St. Ann's Mills, where routes will converge, there is an opportunity for wayside resting places as well as informal clusters of seating for taking in the views of the bridge and the river or eating refreshments. Cycle parking could also be incorporated here, perhaps through dual-purpose seating /cycle parking furniture.

On the meadow plateau of the nature reserve, additional simple timber bench seats would give more resting places.

Towards Redcote Lane, where the principal route runs along the foot of the west facing slope of the nature reserve, there is the potential to create safe, raised resting points along the crest of the ridge above the principal route for both cyclists and pedestrians. This is the "wildest" part of the park, and seating would need to harmonise with the surroundings of the nature reserve. Seating along the ridge would also help improve informal visual surveillance by users, which could help to discourage anti-social behaviour.

The pond and reed beds, situated just off the principal route have the potential to become a restful stopping off point away from the main path, as well as continuing in use as an educational facility. Informal clusters of seating in this area are suggested to compliment the linear timber bench already in place.

Litter bins and dog waste bins are proposed at strategic points across the site. Again they will need to be simple and robust and designed to fit as harmoniously as possible with the park landscape.



Examples of cycleway seating



Examples of timber and metal seating

THE RIVERSIDE WAY: LIGHTING PROPOSALS

An important consideration in the design of the new route will be whether or not to light it for night-time use. If cycling is intended as a genuine alternative to car journeys then cycle journeys will often be made after dark, particularly during the winter months, and cycle tracks have specific lighting requirements. Lighting the route will also improve the night time environment for pedestrians using the route.

If lighting were to be installed, the proposed route through the park traverses open ground which is not overlooked, and should be lit to allow orientation and improve a feeling of safety and security.

Visibility of boundaries and objects/hazards along the route and the surrounding area (visibility zones) should be taken into account. A visibility zone of at least 3 metres wide is recommended on either side of a lit cycle track, unless it is bounded by a fence, with the zone lit to allow objects to be seen. It is recommended that the average illuminance of the visibility zone to be at least 50% of that on the cycle track. Vegetation within the visibility zone should not exceed 500mm in height when fully grown to prevent danger of unseen hazards.

The new river crossing at St Ann's Mills could be given an interesting new dimension with night time illumination, further enhancing the possibilities for it to become a major feature of the park. Lighting would also be an important safety consideration near the river if the site was to be open for night time use.

Whilst lighting would enhance security and safety, it would need to be designed sensitively. Artificial lighting is increasingly seen as detrimental to wildlife and alters behaviour patterns of insects, birds and mammals. This will be particularly important where the route passes through the nature reserve and over the river.

Nocturnal birds are likely to be disturbed by the presence of bright illumination. Barn Owls, Long-eared Owls and Nightjars are already under threat and their ability to catch prey may be affected by artificial light.

Nocturnal mammals are likely to be disturbed by the presence of bright illumination and could be deterred from using established foraging and breeding areas, e.g. Badgers and Otters.

Yorkshire Wildlife Trust have produced further information entitled *Some Effects of Artificial Lighting on Wildlife* which is available on their website.

Glare might be considered an intrusion, particularly across the nature reserve, and it could be that potential security risks for users outweigh the advantages of a permanently open park.

As a general rule public parks managed by Leeds City Council are not currently lit. Further discussions are needed between Leeds City Council, KVP and Yorkshire Wildlife Trust to ensure any decision balances the needs of wildlife with the aims of the project.



Westergasfabriek, Netherlands



Bollard style lighting as way marking

THE RIVERSIDE WAY: SIGNAGE PROPOSALS

Existing Signage

The only signage that currently exists is within the nature reserve. This includes a set of metal numbered interpretation posts decorated with elements from nature. Many have disappeared under vegetation and little is known of the original intention and context in which they were installed.

Signage Strategy

The overall aim is to gain maximum cultural and visitor benefit from the signs through a set of two trail themes that relate to the historical and environmental make up of the area. This way the trails will be easily identifiable and visually consistent. It is also important that the signs be situated in intuitive locations and are easily visible.

Signage Themes Proposals

Industrial Heritage: The industrial heritage of the Valley has played host to many historical events of local and regional importance. It is the aim to highlight and explain these events and their significance in a stimulating and engaging manner.

The locations of these signs will allow the visitor to appreciate the locations while also clearly viewing the information on the sign. The most important information for each location of interest needs to be located so that there is a very obvious connection between the sign and the object, view or artefact to which it is referring.

Information regarding relevant date or period, physical location and context, title of event or artefact, and a relevant image or quotation should be made explicit to the view.

Nature and Environment: The Kirkstall Valley Nature Reserve takes in a wide range of flora and fauna habitats. The plateau meadows, river banks and island all have a role to play in the education and awareness raising of visitors. The signage should have a broad context of the larger ecosystem whilst also drawing attention to the small and hard-to-see features of the environment such as interesting plant species. Yorkshire Wildlife Trust should have a key role in advising on the provision of information and images that will be used on the signs.



Existing nature reserve interpretation



Example of orientation hub signage



Example of feature signage

Signage Types

It is proposed that there are three signage types. Each signage type has a different hierarchy within the trail network.

A. Orientation Hubs

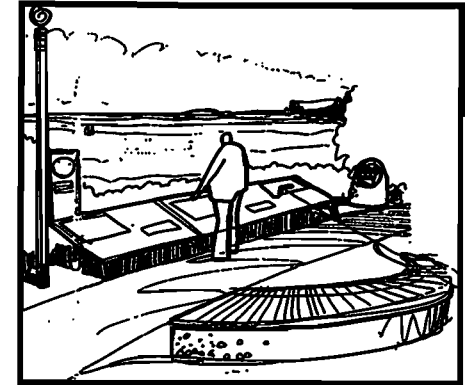
The inclusion of orientation hubs sets up a hierarchy of experience, from orientation and information, to way finding, to site experience and interpretation. The Hubs are the introduction to the journey. These are situated at strategic activity nodes and should be located in areas with high accessibility, visibility and at the three main entry points at Bridge Road, Redcote Lane and St. Ann's Mills.

B. Way Finding

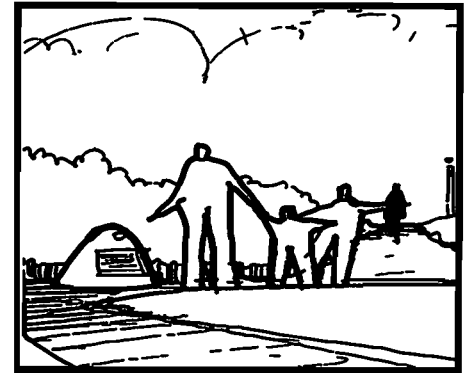
These are the small signs that guide the user along the route and point them in the right direction to get to the next site. These are located at points along the route as required. For example, where paths connect or change direction or where a point of interest is off the main trail, such as at the ford and up on the meadows.

C. Feature Signs: Industrial Heritage, Nature and Environment

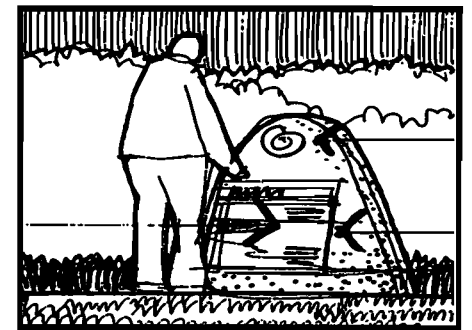
These are the individual signs that contain interpretive text and images. These are located at identified points of interest and cover the two signage themes. Examples of such sites include: the ford, the nature reserve meadows and the remains of Gott's suspension bridge.



Orientation hubs



Way finder



Feature signs

Images courtesy of Bayside City Council

SECTION 5: THE GOITSIDE WALK

THE GOITSIDE WALK

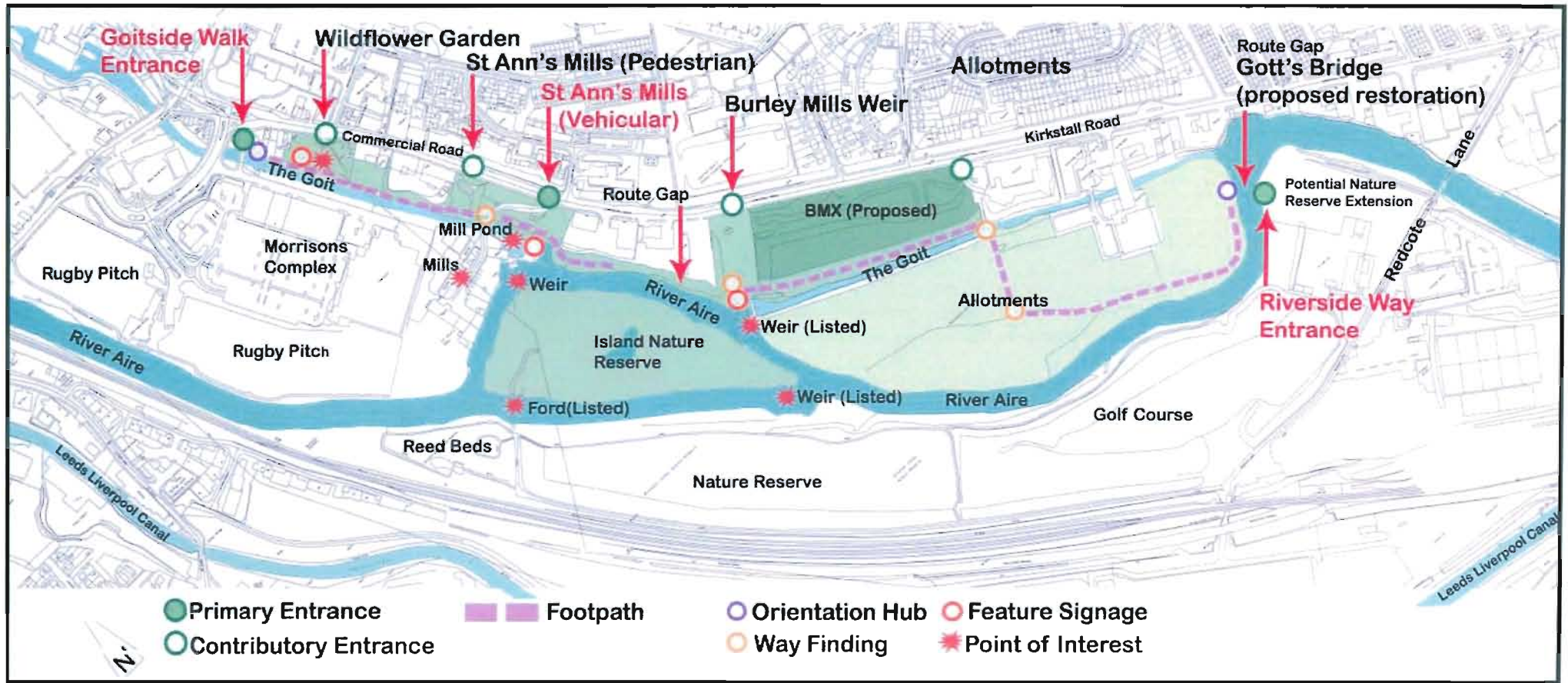


Character

Currently the Goitside Walk is a disjointed and under used route. Lack of maintenance and vandalism has seen the route fall into disrepair and has an overall feeling of neglect. Fly tipping is evident and the vegetation has become overgrown. Despite this, the route has immense character and despite its close proximity to Kirkstall Road, the goit, mills, weirs and areas of woodland combine to provide an area of tranquility and due to the strip of land between the road and walk acting as a buffer.

Its industrial character compliments the more natural feel of the nature reserve, whilst the reserve has far reaching views from the areas of high ground and an open and expansive feel, the goitside, in contrast, has a much more enclosed and intimate feel. Its hidden aspect however, at times, along with the visible signs of neglect, debris and overgrown vegetation, could be perceived by visitors as somewhat unsafe. Addressing these issues would make for a much more pleasant experience.

THE GOITSIDE WALK : THE PROPOSED ROUTE, ENTRY POINTS AND ASSOCIATED FEATURES



The Proposed Route

The route follows the existing path to the north of the goit and section of river, crossing the entrance to St Ann's Mills and continuing towards the Burley Mill allotment entrance. At this point the route veers away from the goit and crosses the bridge into the allotments, the path heads towards the river bearing left and follows the rivers edge to the site of the now demolished Gott's suspension bridge.

Route Gaps

Two clear barriers exist to creating a linear walk from the western entrance to Redcote Lane. A stretch of impassable river bank east of St Ann's Mills, and the lack of a river crossing on the site of the former Gott's Suspension Bridge.

THE GOITSIDE WALK

Entry Points

Currently there are a number of entry points onto the Goitside Walk from Kirkstall Road. The majority of these were established as part of a series of landscape improvements during the 1980s including pathways, signage and the introduction of a wildflower garden.

Most of the existing access pathways and entrances still exist, however much of the original work carried out has fallen into disrepair and some entrances have been closed or have almost disappeared due to lack of maintenance or growth in vegetation.

Design Proposals

Remedial works to all entrances and access paths, such as clearing vegetation and upgrading surfaces would “reactivate” the existing route.

The Kirkstall entrance within the small Savins Mill Way car park is a weak gateway due to its location and appearance and needs upgrading and establishing as the primary entrance at the western end of the route.

The St Ann’s Mills vehicular entrance suffers from a large number of business signs and causes visual clutter. Any landscape or building improvement works to the mills complex should also include entrance and approach improvements.

Signage

A number of wayfinder and information signs still remain from the 1980s landscape improvements, however none are in an acceptable condition, and many have been vandalised.

Design Proposals

Any new signage installed should be consistent with the signage strategy for the Riverside Way. For proposed signage locations refer to previous plan.



Entrance at Savins Mill Way car park



Signage clutter St Ann's Mills entrance

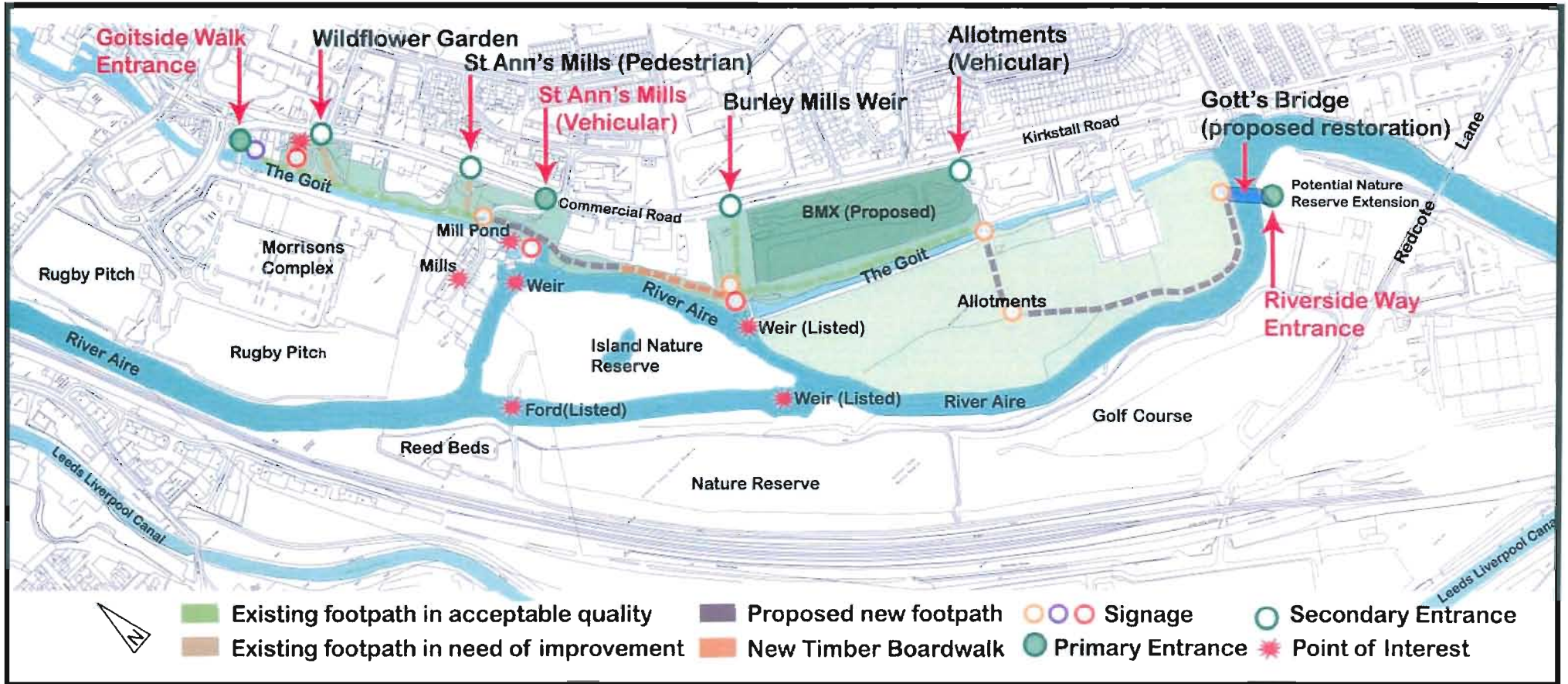


Existing signage in disrepair



St Ann's Mills pedestrian entrance

THE GOITSIDE WALK: FOOTPATH PROPOSALS



Existing Surfacing

Existing surfacing to the path along the goit is primarily hoggin with stone or timber edge. Lack of maintenance has resulted in some sections showing signs of deterioration but on the whole the surfacing is in need of only minor surface repair such as a re-dressing of the hoggin layer. The path also has a number of level changes and steps, so forms a barrier to access for wheelchairs and cycles. Access paths from Kirkstall Road show signs of further deterioration. The entrance steps in the wildlife garden are in need of repair and the St Ann's Mills pedestrian steps are almost lost to vegetation. These contributory entrances appear to be used to a lesser degree than the main entrance at the car park on Savins Mill Way. The entrance to Burley Mills Weir comprises of a hoggin path through a pleasant line of Beech trees and Burley Mills Allotments are via a track leading from the adjoining business access road.

Design Proposals

Creating a boardwalk to link St Ann's Mills with Burley Mills Weir and restoring Gott's Suspension Bridge would therefore complete this interesting and characterful route. A previous planning application for the timber boardwalk was granted in 1991 and it is proposed that this be reassessed as part of the phase 2 works. Details of the planning application can be found in Appendix F. Again there are opportunities for landscape improvements at the identified attractions and viewing points along the way.

THE GOITSIDE WALK

Furniture

A Goitside Walk runs along the northern edge of the site from the car park on Savins Mill Way to St. Ann's Mills. Access points exist from Commercial Road and Kirkstall Road, and for most of its length a hoggin path passes through a thin strip of rough woodland which screens the road and the backs of commercial buildings. The path passes through a wildflower meadow garden which is screened from Commercial Road by an attractive line of silver birch.

An off-path raised stone seating / viewing area with wooden slatted seats is provided. It looks well used, though maybe not for the activities originally intended. The site is strewn with rubbish and shows evidence of vandalism and a lack of maintenance.

The Goitside Walk continues beyond St Ann's Mills in much rougher and narrower form to a point on the north bank of the river just beyond the weir, where it peters out. There is no seating provision around this interesting area of industrial remains with its weir and reflective mill pond.

Design Proposals

Seating consistent with the design proposals for the Riverside Way should be installed at a few strategic points along the goit, for example by the mill pond at St Ann's Mills and in or around the revamped wildflower meadow at its northern end.

The removal of the damaged stone seating area just south of the wildflower meadow would improve the appearance of the pathway and remove the potential for further damage and deterioration to this feature.

South of St Ann's Mills, the installation of a new section of path and timber boardwalk along the river bank to link with the Burley Mills Weir would provide an opportunity to incorporate a viewing /seating platform with views along an attractive stretch of the river and across to the island nature reserve.

Further opportunities for seating also exist southwards along the Goitside Walk between Burley Mills Weir and Burley Mills.

Gott's Suspension Bridge Restoration

To ensure the completion of the path network and circular route, the restoration of the original Benjamin Gott's Suspension Bridge is proposed. Little of the original bridge remains, except for the cast iron pillars on either side of the river banks but photographic records will aid the restoration project.

Landscape Improvements

Again there are opportunities for landscape improvements at main entrances, attractions and viewing points along the way such as the car park entrance at Savins Mill Way, Burley Mills Weir and the wildlife garden.



Signs of vandalism Goitside Walk



Remains of Gott's suspension bridge

SECTION 6: THE WAY FORWARD

COSTS

DESCRIPTION	DETAIL	NOTES	COST
New Bridge	Approx 33.0m length.3.0m width Cambered single span steel beam with hardwood deck. Hi Grip Excel Surface. Steel 1.4m parapet	Design, manufacture and delivery CTS Bridges	£80,000 + VAT
New Bridge Installation	Installation to install on abutments prepared by others		£12,000 + VAT
New Bridge Access	Laying of temporary trackway for crane and delivery vehicles	To enable access for 95 tonne crane and delivery vehicles	£10,000 + VAT
Bridge Abutments			£50,000
Higher Specification Bridge	Bespoke design bridge creating focal point and more artistic intervention	Chris Bramall or other suitable	£160,000
Path Construction and Surfacing	New tarmac surface with gravel surface dressing and regrading		£120,000
Bridge Road Entrance and Wall Alteration	Decorative metalwork arch Widening of existing wall gap	Design, delivery and installation Involvement of local community in design process	£10,000
Bridge Road Entrance Ramp	Replace or repair existing timber ramp		£3,000
Nature Reserve Entrance Gates (Existing)	Restore and modify existing gates Install x1 cycle barrier with wheelchair by-pass (Optional)		£5,000 Dependent on condition
Access Gates	Design, manufacture and installation of x2 cycle barrier with wheelchair by-pass (Optional)	Removal of existing timer gates x 2 at the ford and corner of rugby pitch at St Ann's Mills	£1,200 + VAT
Signage Orientation	Design, manufacture and install x3 Orientation hub signage boards at Bridge Road, St Ann's Mills and Nature Reserve entrances		£8,000 + VAT

DESCRIPTION	DETAIL	NOTES	COST
Signage Wayfinder	Design, manufacture and install x8 Way Finder signage (refer to plan)		£2,000 + VAT
Signage Feature	Design, manufacture and install x3 Feature signage at the Ford, the Meadows and remains of Gott's Suspension Bridge		£6,000 +VAT
Seating (New single)	Install x2 timber seat as similar to existing design (refer to plan)		£800 + VAT
Seating (New cluster)	Install timber cluster of seating (X4 of above) to existing design at the orchard		£3,200 + VAT
Seating (Existing)	Retain and repair if required Clear existing vegetation where necessary		£1,000
Cycle Racks	Install 4 x3 cluster of cycle racks at Bridge Road entrance, St Ann's Mills, reed bed entrance and nature reserve entrance		£1,200 + VAT
Litter Bins	Install x4 litter bins at Bridge Road entrance, St Ann's Mills, reed bed entrance and nature reserve entrance		£1,600 +VAT
Soft and Hard Landscape Works Design	Planting Plan design and specification		£18,000 +VAT
Soft and Hard Landscape Works	New planting to gateways and junctions	Planting to be native trees and shrubs	£40,000 +VAT
Specialist Consultancy	Engineering Survey Works Project Direction		£20,000 +VAT

THE WAY FORWARD

The Riverside Way is of particular importance and its establishment will act as a catalyst for the establishment of the broader network. It will provide for and encourage access into the park and to other destinations such as the city centre. In this way the necessary shift from using cars to other greener forms of transport, including cycling and walking, will be assisted.

Key Issues

In order for the planning application to be carried forward, a number of key issues need to be further addressed including:

Potential Funding Sources

Only small amounts of funding have been raised to date, however securing major funding for the project and ongoing maintenance is paramount to its success.

Land Ownership

Liaise with relevant landowners and stakeholders regarding all aspects of scheme.

New Bridge

Detailed survey to be carried out for bridge abutments /foundations.

Lighting

Liaise with Leeds City Council regarding parks lighting policy.

Access

Liaise with Leeds City Council access officer on issues relating to suitable access barrier options.

Further Design Developments

Further design developments also need to be considered in relation to the submission of the planning application.

Planting Plan

Draw up planting plan and specification for soft landscape works along The Riverside Way.

Signage Design

Liaise with Yorkshire Wildlife Trust, Thoresby Society, Leeds City Council and other relevant organisations regarding suitable format, information and images for the signage themes.



SOURCE DOCUMENTS

Kirkstall Valley Park - A Great Network: Movement and Circulation, Feasibility Study, Leeds Metropolitan University, 2008

Leeds Waterfront Strategy, Leeds City Council, 2002

National Cycling Strategy, Dept for Transport, 1996

Otter Survey and Habitat Assessment: River Aire and Leeds to Liverpool Canal, Calverley Bridge to Leeds City Centre, Environment Agency, June 2008

A Detailed and Critical Analysis of the Kirkstall Valley Park White Water Canoe Course Proposals, Emma K Waterhouse, University of Leeds, Leeds City Council 2004

Some Effects of Artificial Lighting on Wildlife, Yorkshire Wildlife Trust www.ywt.org.uk

ACKNOWLEDGEMENTS

The following have contributed in an advisory capacity:

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Don Vine - Conservation Officer, Yorkshire Wildlife Trust

Andy Millard - Leeds Metropolitan University

DesignLeeds Project Team:

Sarah Chapple, Fleure Gething, Emma Oldroyd

Chris Royffe, John Walker

Leeds Metropolitan University

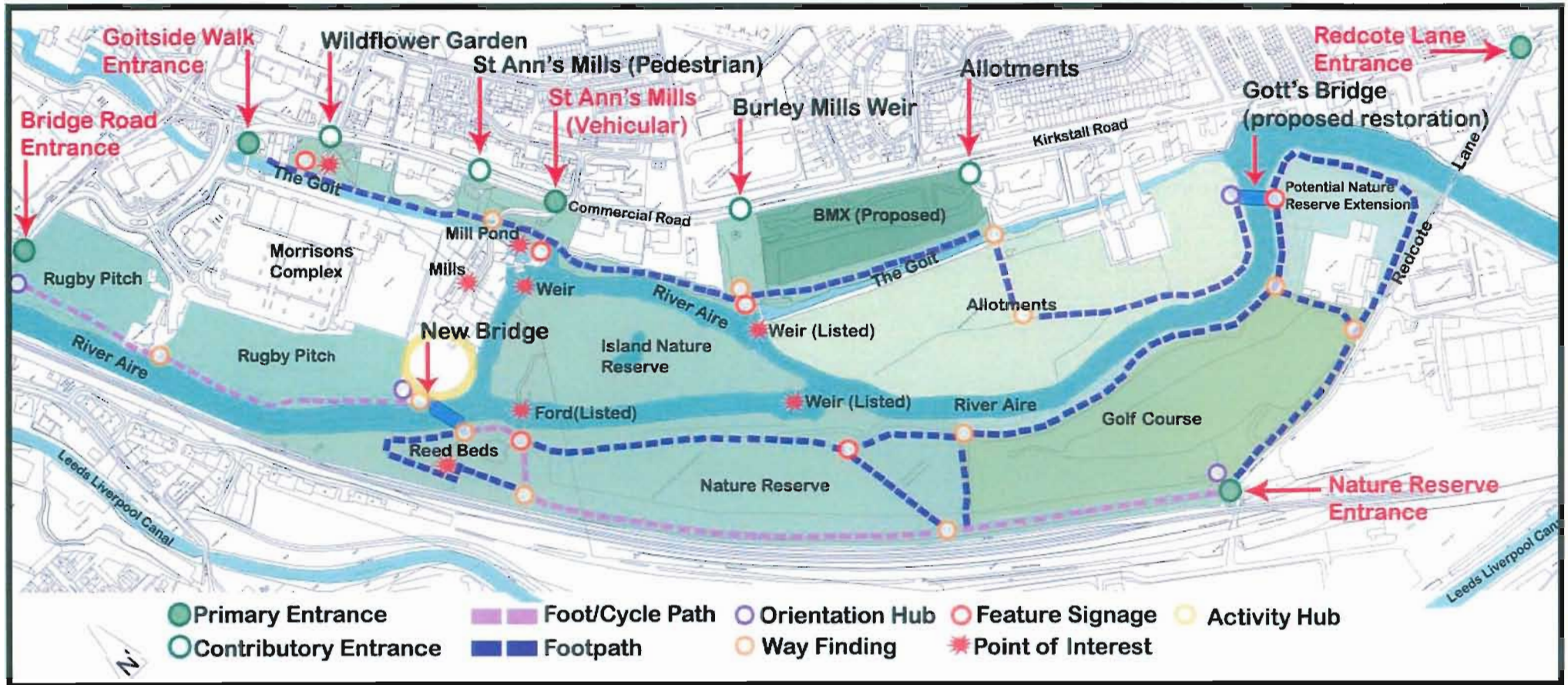
www.kvp.org.uk

designleeds@leedsmet.ac.uk

JANUARY 2009

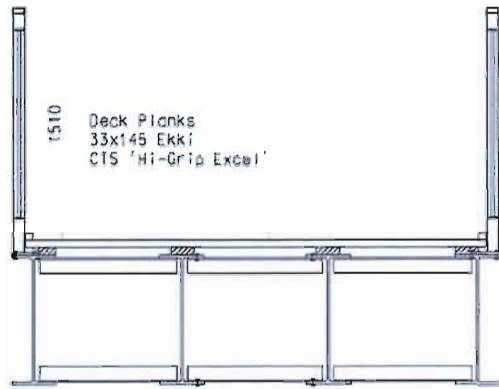
SECTION 7: APPENDICES

APPENDIX A: COMBINED RIVERSIDE WAY AND GOITSIDE WALK

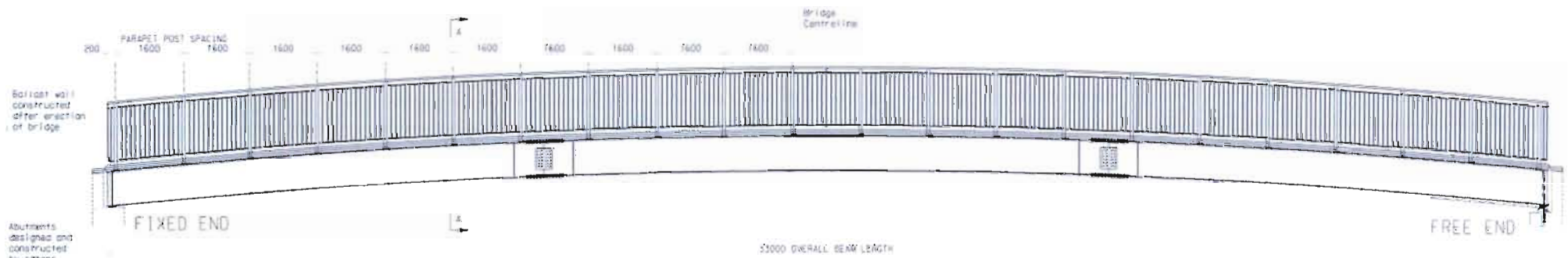


APPENDIX B: BRIDGE CONSTRUCTION

3010



SECTION A-A



33000 OVERALL BEAM LENGTH

ELEVATION

NOTES

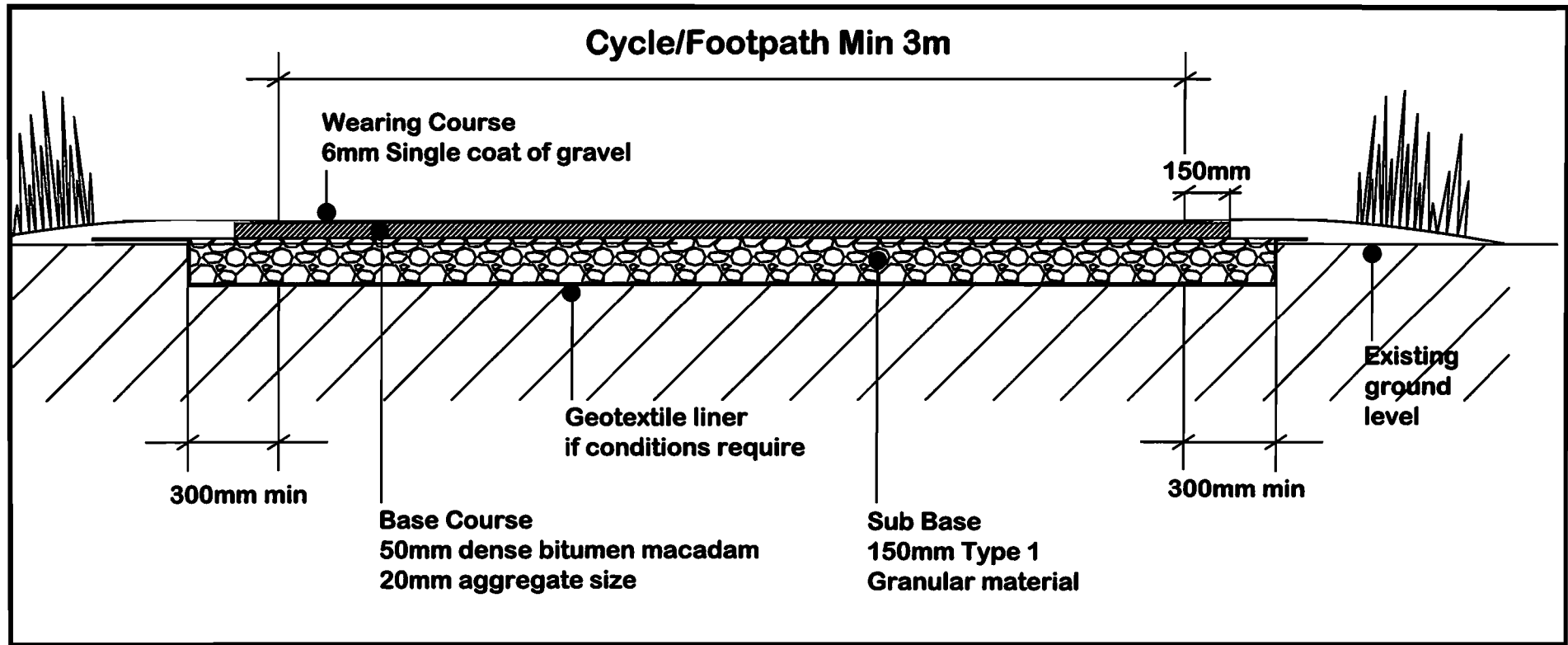
1. Main beams and splice plates S355J2G3
All other steel to be Grade S275
2. All welds are fillet welds.
3. All steel to be galvanized to BS EN 1461
Minimum thickness of galvanized 140-150microns

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Project No:	33.0m x 3.0m STEEL AND TIMBER BRIDGE
Date:	21/03/09
Client:	FORKSTALL VALLEY PARK
Location:	CONGRIFF, WILTSHIRE
Scale:	1:250
Drawn:	JAT

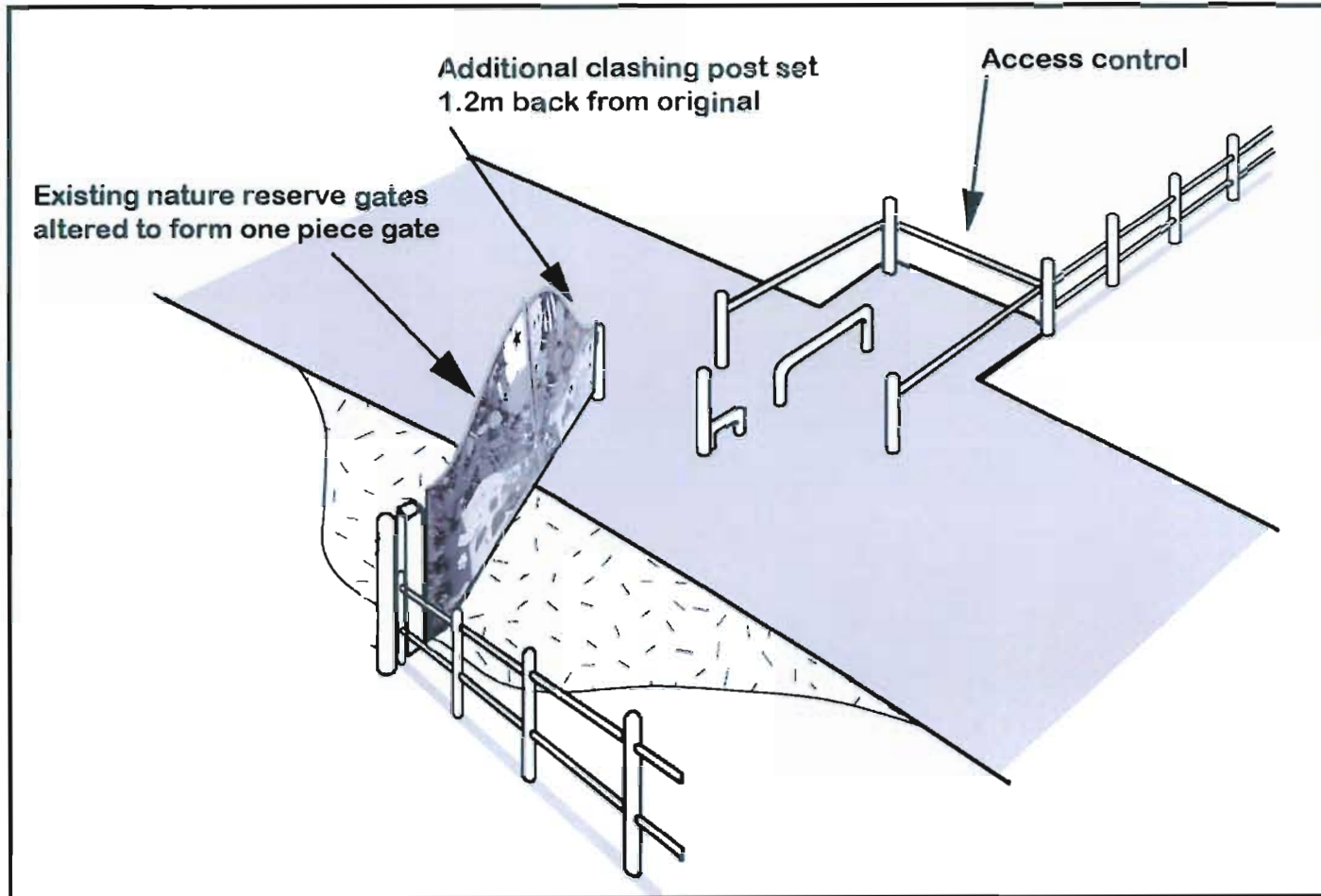
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APPENDIX C: FOOTPATH CONSTRUCTION



Note: Path to be generally 75mm above existing ground level and laid with 40mm crossfall or 25 mm central camber to eliminate ponding, or on low causeway through wet or flooded areas

APPENDIX D: PROPOSED CYCLE BARRIER DETAIL



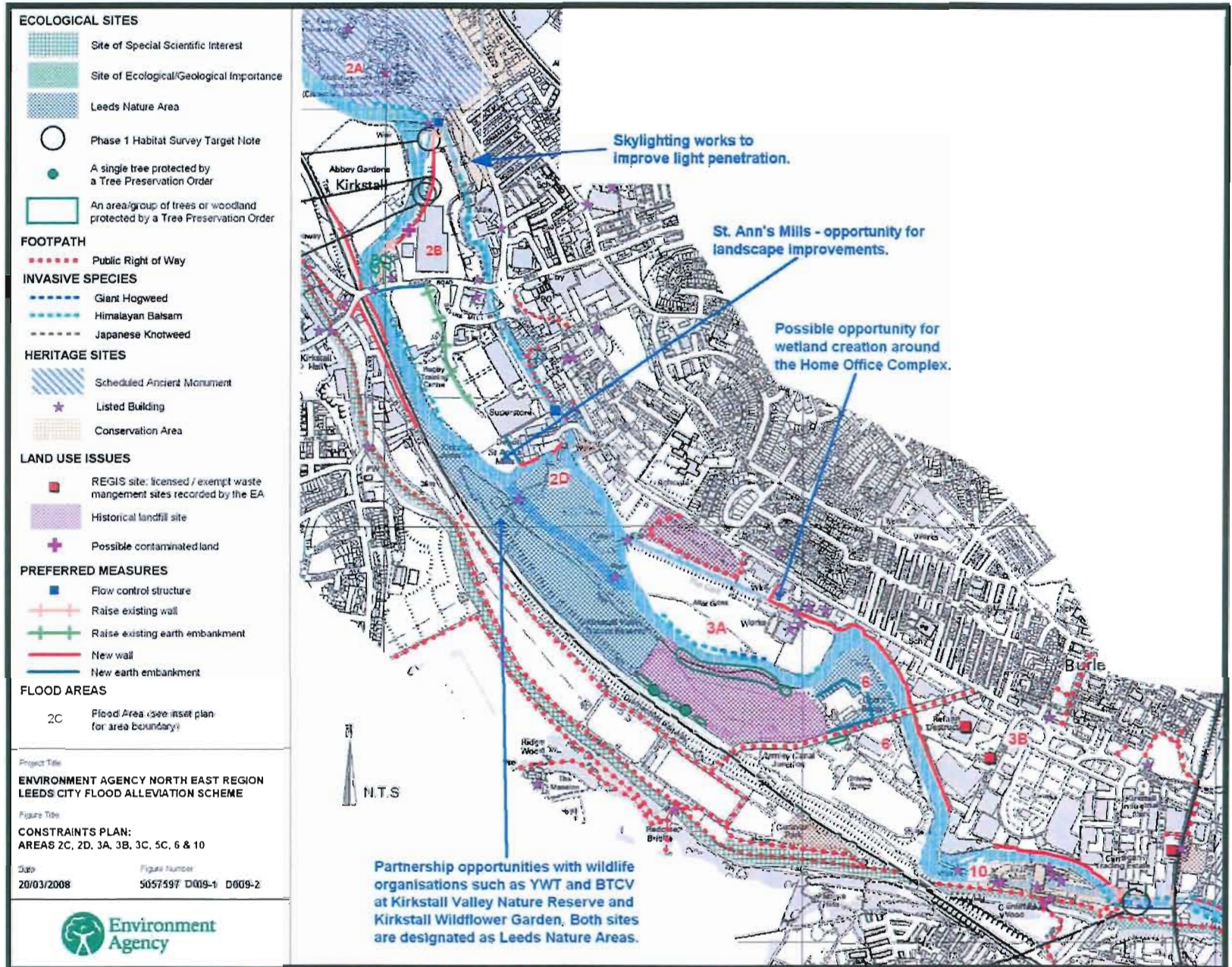
Existing gates and barrier system restrict access to both cyclists and disabled users

APPENDIX E: FLOOD PROTECTION PLANS FOR THE KIRKSTALL VALLEY

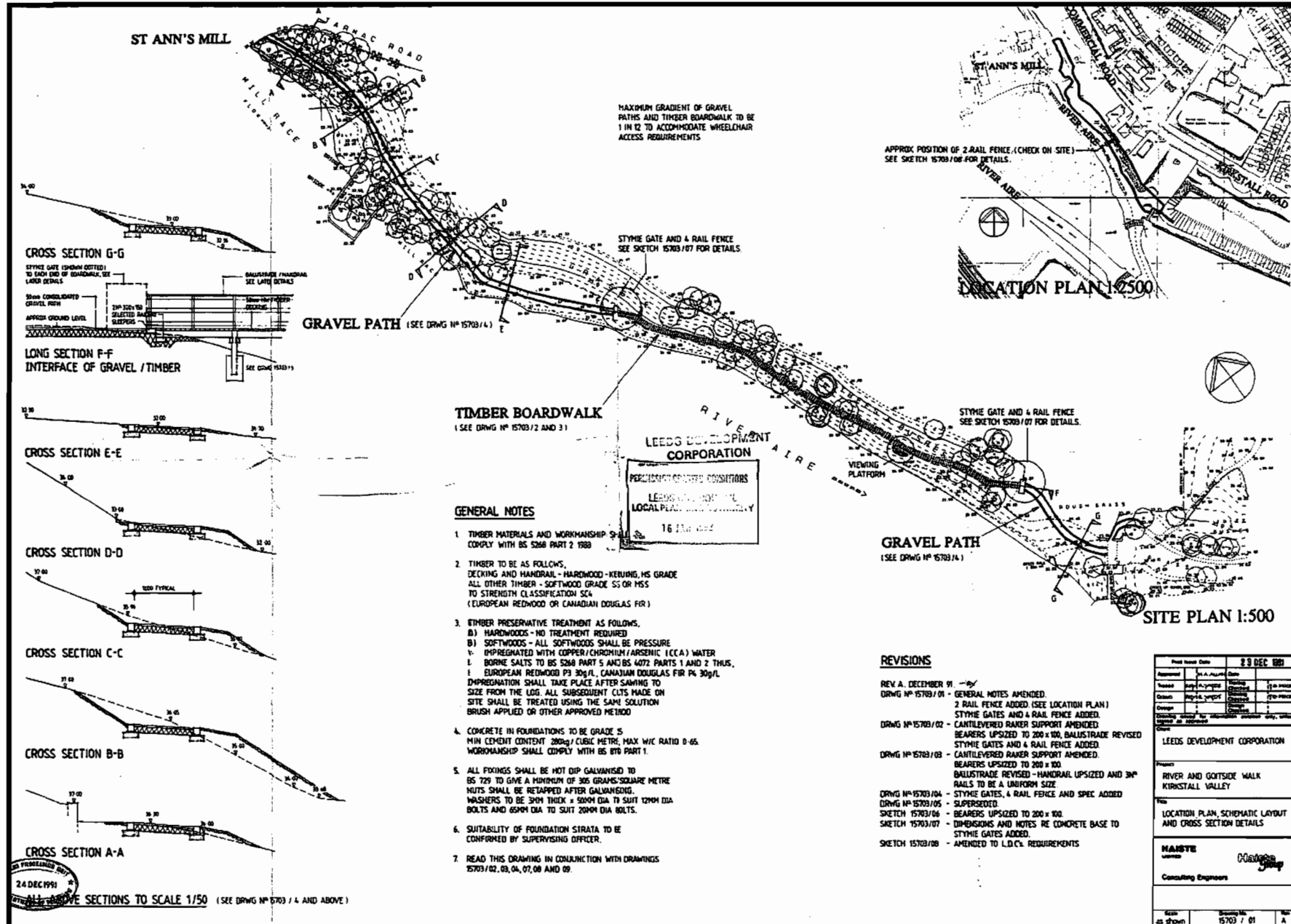
A new flood defence scheme for a 19 kilometre stretch of the River Aire between Newlay Bridge at Horsforth and Woodlesford to the east of Leeds has been proposed by the Environment Agency and will be the subject of public consultation from May 2009.

The scheme involves a number of defence measures, including new walls as well as bunds and bypass channels aimed at protecting properties in Leeds from a 1 in 200 year flood event.

The impact of the £100m scheme (which has yet to secure funding) on the Riverside Way appears to be restricted to the possibility of new flood defence walls in the St Ann's Mills area. Discussions are underway between Leeds City Council and the Environment Agency to explore the potential for other options like upstream storage facilities.



APPENDIX F : PROPOSED BOARDWALK AND GRAVEL PATH: ST ANN'S MILLS TO BURLEY MILLS WEIR



TIMBER BOARDWALK (SEE DRWG NO 15703/2 AND 3)

GENERAL NOTES

- TIMBER MATERIALS AND WORKMANSHIP SHALL COMPLY WITH BS 5268 PART 2 1988
- TIMBER TO BE AS FOLLOWS:
 A) HARDWOODS - HARDWOOD - KEROVING, HS GRADE
 ALL OTHER TIMBER - SOFTWOOD GRADE S5 OR M55 TO STRENGTH CLASSIFICATION S54 (EUROPEAN REDWOOD OR CANADIAN DOUGLAS FIR)
- TIMBER PRESERVATIVE TREATMENT AS FOLLOWS:
 A) HARDWOODS - NO TREATMENT REQUIRED
 B) SOFTWOODS - ALL SOFTWOODS SHALL BE PRESSURE IMPREGNATED WITH COPPER/CHROMIUM/ARSENIC (CCA) WATER
 1. BORING SALTS TO BS 5268 PART 5 AND BS 4072 PARTS 1 AND 2 THUS,
 EUROPEAN REDWOOD P3 30g/L, CANADIAN DOUGLAS FIR P4 30g/L
 IMPREGNATION SHALL TAKE PLACE AFTER SAWING TO SIZE FROM THE LOG. ALL SUBSEQUENT CUTS MADE ON SITE SHALL BE TREATED USING THE SAME SOLUTION BRUSH APPLIED OR OTHER APPROVED METHOD
- CONCRETE IN FOUNDATIONS TO BE GRADE S MIN CEMENT CONTENT 280kg / CUBIC METRE, MAX W/C RATIO 0.45. WORKMANSHIP SHALL COMPLY WITH BS 810 PART 1.
- ALL FIXINGS SHALL BE HOT DIP GALVANIZED TO BS 729 TO GIVE A MINIMUM OF 300 GRAMS/SQUARE METRE BOLTS SHALL BE RETAPPED AFTER GALVANIZING WASHERS TO BE 3MM THICK x 50MM DIA TO SUIT 12MM DIA BOLTS AND 65MM DIA TO SUIT 20MM DIA BOLTS.
- SUITABILITY OF FOUNDATION STRATA TO BE CONFIRMED BY SUPERVISING OFFICER.
- READ THIS DRAWING IN CONJUNCTION WITH DRAWINGS 15703/02, 03, 04, 07, 08 AND 09.

REVISIONS

- REV A, DECEMBER 91 -
 DRWG NO 15703/01 - GENERAL NOTES AMENDED.
 2 RAIL FENCE ADDED (SEE LOCATION PLAN)
 STYME GATES AND 4 RAIL FENCE ADDED.
- DRWG NO 15703/02 - CANTILEVERED RAKER SUPPORT AMENDED.
 BEARERS UPSIZED TO 200 x 100, BALUSTRADE REVISED.
 STYME GATES AND 4 RAIL FENCE ADDED.
- DRWG NO 15703/03 - CANTILEVERED RAKER SUPPORT AMENDED.
 BEARERS UPSIZED TO 200 x 100.
 BALUSTRADE REVISED - HANDRAIL UPSIZED AND 3RD RAILS TO BE A UNIFORM SIZE.
- DRWG NO 15703/04 - STYME GATES, 4 RAIL FENCE AND SPEC ADDED.
- DRWG NO 15703/05 - SUPERSEDED.
- SKETCH 15703/06 - BEARERS UPSIZED TO 200 x 100.
- SKETCH 15703/07 - DIMENSIONS AND NOTES RE CONCRETE BASE TO STYME GATES ADDED.
- SKETCH 15703/08 - AMENDED TO L.D.C.'S REQUIREMENTS

Revised Date				29 DEC 1991	
Approved	By	Date	Checked	By	Date
Drawing used for construction of the works shown, unless otherwise stated. Date:					
LEEDS DEVELOPMENT CORPORATION					
Project: RIVER AND GOITSIDE WALK KIRKSTALL VALLEY					
Title: LOCATION PLAN, SCHEMATIC LAYOUT AND CROSS SECTION DETAILS					
HAISTE Consulting Engineers					
Scale	Drawing No.		No.		
as shown	15703 / 01		A		

Not to scale

APPENDIX G: POLICY CONTEXT

The policy context for the development of KVP and the Network underlines the significance of the proposals and covers the following key aspects;

Recognition by Leeds City Council in the 1950s of the potential of Kirkstall Valley as public open space commenced land acquisitions.

The inclusion of most of the area as playing fields and public open space in the 1972 Development Plan Review Proposals for Kirkstall Valley Park in the 1980 Local Plan.

Some inappropriate developments but also environmental improvements by Leeds Development Corporation in the 1990s.

2006 Government white paper – Strong and Prosperous Communities – stressing importance of community involvement.

2007 The Core Strategy; Leeds Local Development Framework – includes aim of creating a well connected city with sustainable modes of transport.

2005-2008 West Leeds District Partnership 'Strategy for Success' – identifies as one of its key priorities the development of the Aire Valley and Leeds Liverpool Canal as a green 'linear link'.

West Leeds Country Park and Green Gateways launched in 2005 is an initiative by Leeds City Council with the intention of protecting, improving and publicising the recreational benefits of green space in West Leeds.

The draft Management Plan aims to secure;

- Suitable and sustainable greenspace
- Quality recreational areas
- Diverse wildlife habitats
- Strong community involvement

Relevant objectives include;

- The way marking of routes and sites of interest
- Improving key public rights of way and establishing a Green Gateways trail for walkers, horse riders and mountain bike riders
- Creating mini circular trails within the area
- Improving connections and access to new areas of greenspace
- Establishing new public rights of way or permissive ways
- Identifying conservation projects

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