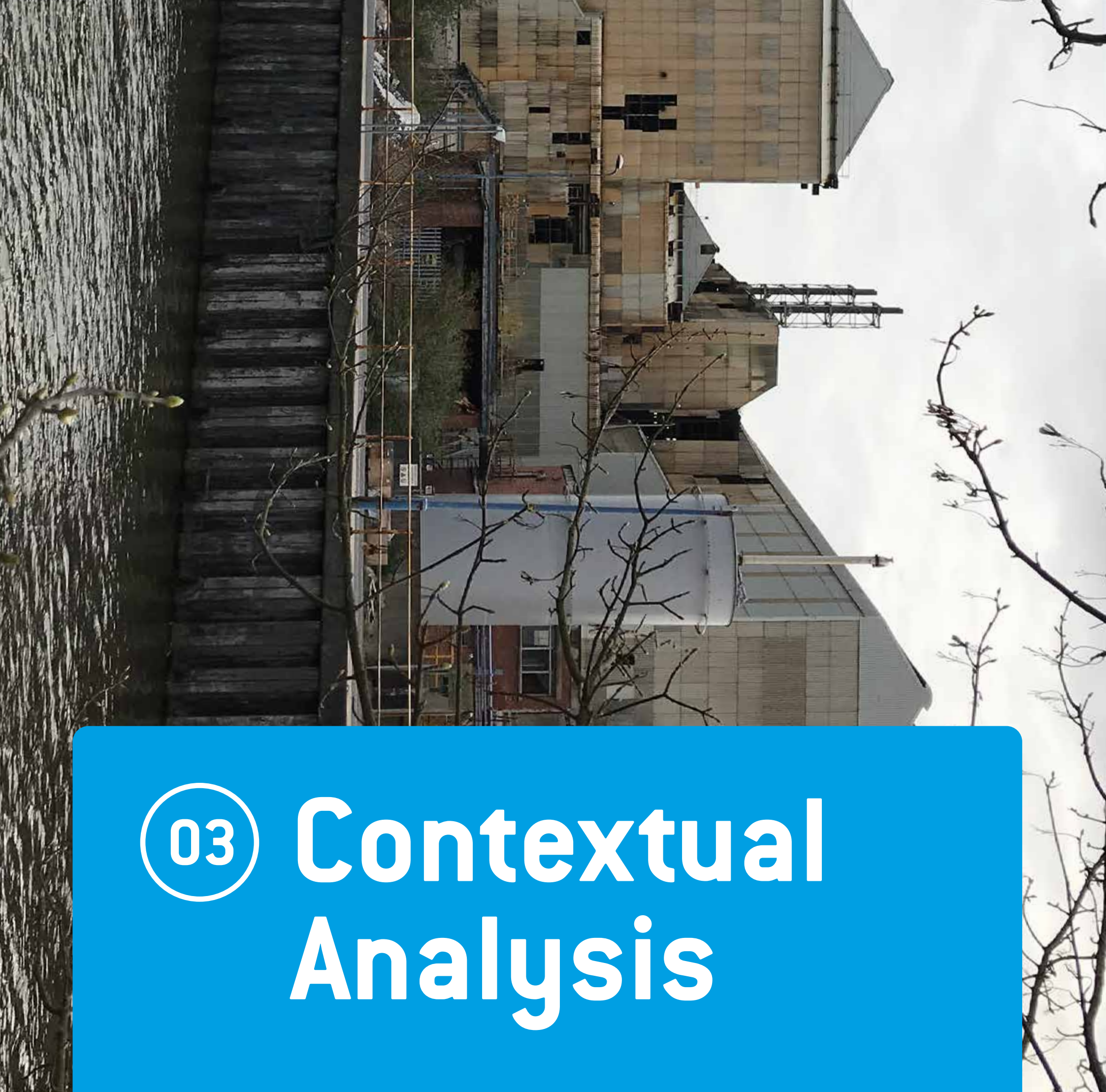


03 Contextual Analysis

03 Contextual Analysis

Introduction

3.1
A key part of the development and design process is a thorough understanding the immediate and wider context of the site. This section of the Development Brief sets out a comprehensive contextual analysis.

Surrounding Area

3.2
The closest part of the site is only 400m north west of Northwich Town Centre. It is only 1km from Barnton to the north. Runcorn is 10km to the north west and Manchester is 25km to the north east.

3.3
Northwich is a Cheshire town that lies within the unitary authority jurisdiction of Cheshire West & Chester Council in the north west of England. It is located in the heart of the Cheshire Plain, at the confluence of the rivers Weaver and Dane. Historically, Northwich has played a key role in the UK's salt industry, and in the 1800s was the country's principal centre for salt manufacturing, with a number of plants located in and around the town. The natural underlying brine fields have been valuable assets for the last 200 years, and the process of brine extraction has heavily influenced the topography in this part of Cheshire through the effects of subsidence.

3.4
The confluence of the two rivers would have been a logical choice for early settlers to develop a community and, historically, the principal mode of transport in the area was by water. By 1732 the River Weaver was improved from Frodsham Bridge to Winsford Bridge.

3.5
The road system around Northwich can be dated back to the Roman era. The A556 and A559 follow the route of the Roman road that runs from Chester to York. The A556 diverts away from the route of the Roman road, following a route to the south of the town, acting as the town's bypass. Northwich is connected to the motorway network to the north of the town via the A559 onto the M56 motorway, to the east of the town via the A556 at Junction 19 of the M6 motorway and, accordingly, is well located in relation to the region's strategic highway network.

3.6
Northwich railway station is located on the mid-Cheshire line, which runs between Chester and Manchester Piccadilly.

3.7
The residential settlements of Barnton and Comberbach to the north, together with the constraints of the bridge crossing at the bottom of Winnington Hill to the south, again, do nothing to attract regional businesses logistically reliant on the highway network.

3.8
The significant and on-going development at Winnington Urban Village, on land formerly constituting part of TCE's production facilities to the west of the site, provides demonstrable evidence to support a case for developing viable, high value, alternative uses on redundant industrial land.

3.9
The site is characterised by large-scale industrial process buildings, now decommissioned, linked by conveyors, with large storage vessels and overhead pipe gantries. The buildings are significant in scale, with some exceeding 45m in height. The remainder of the site in recent years has been characterised by post-industrial brownfield open space, interrupted by individual residual process buildings, and overhead pipelines.

Land Use

3.10
The site is bounded to:

- The immediate north by the River Weaver and River Weaver Navigation, on the opposite side of the river lies the Cosgrove Business Park (Daisy Bank Lane) and the Anderton Boat Lift and Anderton Country Park (included within the Conservation Area);
- The west by retained employment areas which are part of the wider Winnington Works site, these include areas not within the site including the listed Winnington Hall, TCE and Eon. Further west beyond Winnington Lane is the recently developed housing area known as Winnington Urban Village.
- The south-west by The Winnington Park Recreation Club and the Victorian era housing in the streets around Park Road and Solvay Road.
- The south by the 20th century housing at Northway, Barn Meadow, Hill View Rise and Winnington Lane.
- The east by Furey Park Wood and the River Weaver as it reaches Northwich town centre.

Building Heights

3.11
Adjoining residential and industrial development within Winnington and Anderton is predominantly 2-storeys high, or equivalent. On site, the industrial buildings (which are currently being demolished) extend to the equivalent height of 13 storeys.

Figure 4. Site Location - Aerial Photograph

Public Transport Access

By Bus

3.12
The locations of local bus stops are shown on the attached plan. It shows that the closest bus stops to the site are located on Winnington Lane adjacent to the site's south western boundary. The frequency of buses utilising these stops is shown in Table 1.

3.13
Table 1 shows that the No. 4 service which operates between Northwich and Barnton has a frequency of one service every 20 minutes in the AM peak, inter-peak and PM peak. On a Saturday, a service runs once every 30 minutes and on Sundays, there is a service every 2 hours.

3.14
The 9A bus operates along Winnington Lane once every two hours on average on Monday to Saturday. It provides connections to Northwich, Stockton Heath and Warrington.

By Rail

3.15
Northwich Rail Station is located approximately 1.8km from the edge of the site and 2.6km from the centre of the site and shown on the attached plan (Figure 5). It can be reached by catching the No. 4 or 9A bus service on Winnington Lane into Northwich Town Centre, and then either walking or using the No. 2 bus service. Rail services from the station operate between Chester and Manchester Piccadilly. Services to Chester run with an average frequency of one service every 30 minutes, services to Manchester Piccadilly have a frequency of one service per hour.

3.16
Rail services can also be caught from Greenbank Rail Station, approximately 1.8km from the edge of the site and 2.6km from the centre of the site. It is accessible by cycle, making use of advisory on road cycle routes. It is on the same line as Northwich Rail Station and provides access to the same rail services. It provides connections to Northwich, Stockton Heath and Warrington.

Service	Route	Average one-way frequency per hour					
		Monday to Friday				Saturday	Sunday
		AM Peak	Inter-peak	PM Peak	Evening		
4	Northwich - Winnington- Barnton	2	2	1	1	2	One service every 2 hours
9A	Northwich - Winnington- Stockton - Heath	0	One service every 2 hours	1	0	One service every 2 hours	0

Table 1: Summary of Local Bus Services

Walk and Cycle Access

3.17
Department for Transport document 'Manual for Streets (2007)' details that walking offers the greatest potential to replace short car trips, particularly those under 2km.

3.18
Bus stops are accessible on foot, adjacent to the site's south western boundary on Winnington Lane and will be accessible to future residents.

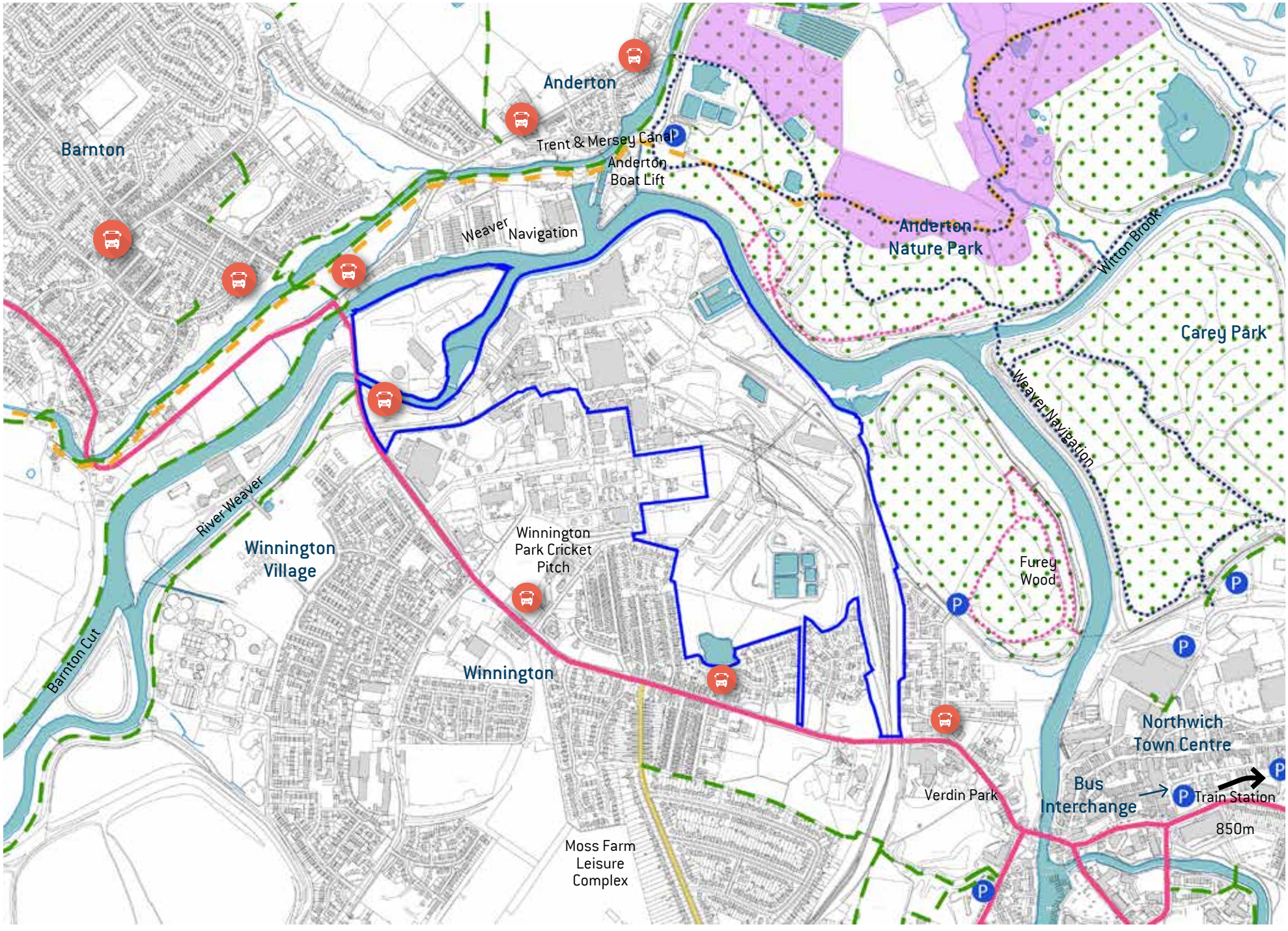
3.19
A wide range of retail and leisure amenities and facilities in Northwich Town centre can be reached within a 2km walk of the site.

3.20
It is generally accepted that cycling has the potential to substitute for short car trips, particularly those less than 5km and to form part of a longer journey by public transport.

3.21
The entirety of Northwich and Winnington can be reached within a 5km cycle of the site, as well as the areas of Barnton, Anderton, Comberbach, Little Leigh, Weaverham, Greenbank, Leftwich, Rudheath and Marston.

3.22
A network of local advisory cycle routes (including roads appropriate for cycling) is in place throughout Winnington and Northwich as defined by itravelsmart, CWaC's organisation for promoting sustainable travel throughout the county. Routes close to the site include Moss Road and Castle Street. These provide access to Greenbank Rail Station and National Cycle Route 5 which are both 2.6km south of the centre of the site.

Figure 5. Site Context



- Site Area
- Public Rights of Way
- Open Access Land (Countryside & Rights of Way Act)
- Recreational Trail: North Cheshire Way
- Footpath/Cycle path within Country Parks
- Footpath within Country Parks
- 'A' Roads
- 'B' Roads
- Public Car Parks
- Country Park
- Bus Stops

Local Highway Network

3.23
In the vicinity of the site, Winnington Lane forms part of the A533 and extends between its junction with Runcorn Road and Soot Hill to the north and Chester Way to the south. It is a single carriageway road with a single lane in each direction. The road is subject to a 30mph speed limit and has street lighting. It features footways adjacent to both sides of the carriageway. To the north, its junction with Runcorn Road and Soot Hill comprises a shuttle working signalised swing bridge. To the south it provides access to Northwich Town Centre.

3.24
Winnington Avenue extends south from the site to a junction with Burrows Hill and Wallerscote Road. It is a single carriageway road with a single lane in each direction. Between its junction with Winnington Lane and a point approximately 175m south, the road is subject to a 30mph speed limit. Beyond this point, the speed limit is 40mph. It has street lighting and features foot ways adjacent to both sides of the carriageway. It provides access to Hartford, Weaverham and the A556 for trips to the west towards Chester.

3.25
Northwich Gyratory / Chester Road, which is located 370m from the eastern edge of the site, forms a multi lane one-way system through the town centre of Northwich. It features four signalised junctions and a number of priority junctions. It provides access to a number of retail and leisure amenities as well as employment land uses.

3.26
Moss Road (B5374) extends north to south between Winnington Avenue (A533) and Chester Road (A559). It is a single carriageway road with a single lane in each direction. The road is subject to a 30mph speed limit and has foot ways and street lighting on both sides of the road.


Moss Road to the south west of the site


Northwich Town Centre Swing Bridge

Existing bus services

Land Use and Landscape

3.27
The site and the surrounding area are not covered by any landscape designations.

3.28
The character of the site is dominated by its recent and current industrial usage, with industrial scale buildings and remnants of recently demolished structures. This industrial character is reinforced by the presence of industrial units to the north of the site at Daisy Bank Lane as well as the historic Anderton Boat Lift and Trent and Mersey Canal. To the west of the site, Winnington Urban Village is also being developed over the site of previous industrial works.

3.29
Topographically, the site has been influenced by a combination of its industrial history and riverside location. At its lowest point, adjacent to the River Weaver, the land is 13m Above Ordnance Datum (AOD) however this rises to over 24m in the centre of the site and 30m in much of its southern area. Adjacent to the reservoirs in the southern part of the site the landform rises more steeply, with the highest point adjacent to the reservoirs at 45m AOD. To the east of the reservoirs, the land drops down steeply to a relatively narrow valley(at 28m AOD) before rising up again to the adjacent Beswicks Road area of housing.

3.30
In terms of water features, the site is bounded to the north and north east by the centre of the River Weaver/Weaver Navigation, which also separates the site's north western corner into an island (Winnington Island). This strong relationship with the River and its associated man-made channels and weirs provides an attractive setting to the northern part of the site. On the eastern side of the site there is also a large basin of water close to the River.

3.31

Given the industrial uses of the site, there are no significant areas of long-established woodland or specimen trees, and no vegetation covered by Tree Preservation Order. The most significant areas of vegetation are trees along the banks of the River Weaver to the south of Winnington Island and along the western boundary of the site adjacent to Winnington Lane. A further embankment to the north of Solvay Road is also well vegetated. These areas of mature trees provide screening to the site from the west, as well as important green corridors in an area that is otherwise dominated by hard infrastructure. Elsewhere on the site, birch scrub regeneration is also prevalent in areas that have been disused for some time, including Winnington Island and the southern area adjacent to the disused railway lines. Whilst these latter areas contribute to the character of the site, they are relatively young specimens and are of less value in landscape terms.

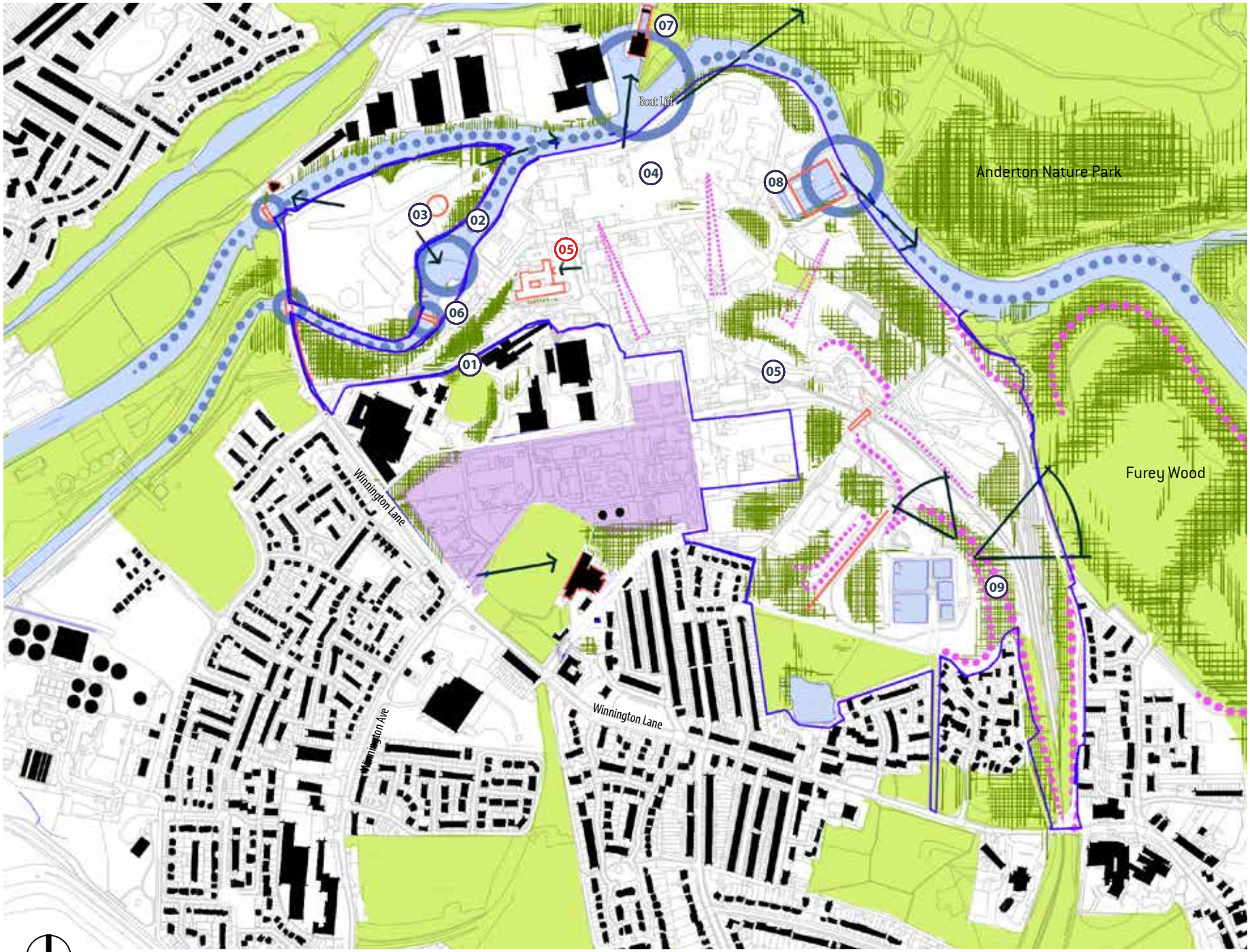
View of site looking south (2019)

Existing Bi-carbonate facilities

View looking north to Daisy Bank Lane employment

View of conveyor to the former kiln plant (demolished 2020)

Figure 6. Site - Key Features



01 The war memorial was moved from its original position to a less prominent place - it could be celebrated better in a new position on the site

02 Existing tall buildings along the riverside will set an upper height parameter for the new development

03 There is beauty and interest in the way nature has colonised the remnants of industry, this theme can be used to define new public space

04 The demolition of tall structures will have a positive impact on the visual context of the site

05 Steam Pipes (low level positioning)

06 Sawmill Bridge between the main site and the island

07 The Anderton Boat Lift is of national significance and should be celebrated by optimising the inter-visibility between it and the site

08 It will be possible to re-use the basin as a focal point within the new scheme. Integrating features such as this are what will make the scheme distinctive

09 There is a fantastic opportunity to establish a new Green Infrastructure framework across the site and beyond

Visual Setting

3.32
Despite the extensive nature of the site and size of the current buildings, it is relatively well contained in visual terms. To the south, the rising landform and presence of the industrial scale Combined Heat Power plant (CHP) mean that there are few views from the residential areas beyond. Key receptors from the south could therefore be users of the Winnington Park Recreation Club, and users of the southern part of Winnington Lane and Park Road, none of whom would be sensitive in nature.

3.33
From the west, views will be predominantly curtailed by existing buildings on Winnington Lane, Natrium House and the CHP, as well as existing trees on the eastern edge of Winnington Island. Whilst there may be views of new buildings in the middle distance from users and residents of Winnington Lane, any new buildings will not necessarily form a dominant element in these views.

3.34
From the north and east, the valley side woodlands of the River Weaver and Northwich Woodlands will generally screen views from the wider area. There will however be clear views from the Anderton Boat Lift, the southern edge of the Anderton Nature Park and a stretch of the River Weaver/Weaver Navigation adjacent to the site's northern/eastern boundaries, as well as glimpsed views from a short stretch of the Mersey and Trent Canal/North Cheshire Way long distance footpath. There will also be private views from the Cosgrove Business Park and homes on the northern side of the Trent and Mersey Canal. These are sensitive views, given their historic, domestic and recreational context, as well as their proximity to the site, and this will be the most important area to consider in terms of visual mitigation.

3.35
In summary, the industrial character of the site has previously influenced the predominantly rural character of the landscapes to the north-west, north and east, given the presence of its tall buildings in distant views. Whilst existing buildings are already in the process of being demolished, the change from industrial/demolition site to a new mixed use residential community within a strong green setting should have a positive influence on both the site and the surrounding rural and urban areas.

Heritage Assets

3.36
There are a number of heritage assets in and around the site and any new development will need to avoid any significant adverse effects on their settings. There is a requirement for a Heritage Impact Assessment to be undertaken in line with Local Plan (Part Two) policy N2.B.

3.37
Designated heritage assets in and near the site are shown on Figure 7 and comprise:

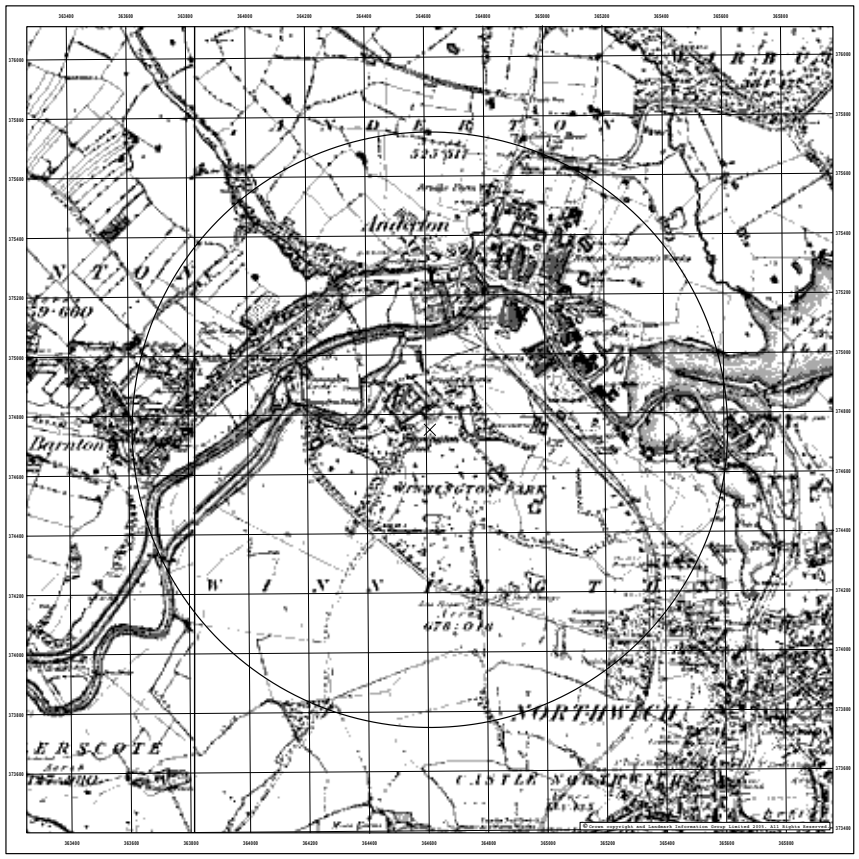
- the Trent and Mersey Canal Conservation Area to the north of the site (which also includes the Anderton Boat Lift; a Scheduled Ancient Monument)
- adjacent to the south-east boundary of the site, the Northwich Conservation Area
- Grade II listed statues of Sir John Brunner and Sir Ludwig Mond and the 'Brunner Mond and the ICI Alkali Division' War Memorial (off Solvay Road), all within the site boundary.
- Beyond the site boundary, also off Solvay Road to the west, is Winnington Hall, a Grade I listed building, now converted to business use.
- To the north of Winnington Island, the 'Winnington Turn Bridge' (swing bridge) and within the southern part of Winnington Lane, Rose Cottage are both Grade II listed.
- To the south-west of the site, the Winnington Park Recreation Club building is locally listed.
- To the south of the site, two properties on Dyar Terraces are also locally listed but have no intervisibility with the site.

View to Anderton Boat Lift

View towards site form Anderton Boat Lift and Canal

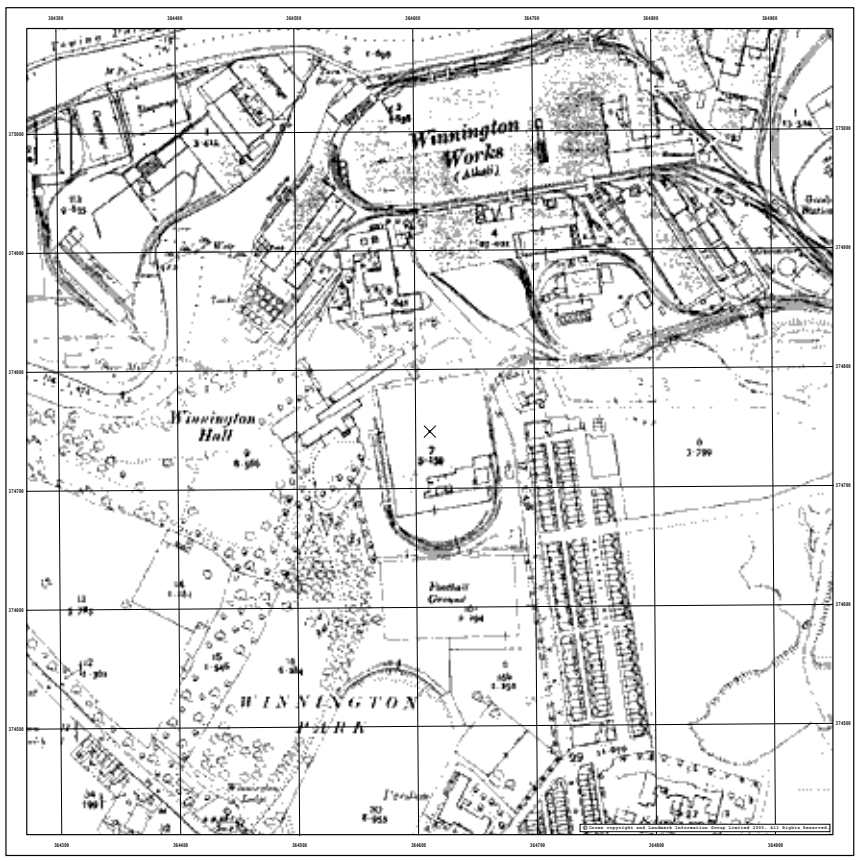
Views into site from the Anderton Boat Lift

Figure 7. Historic Maps

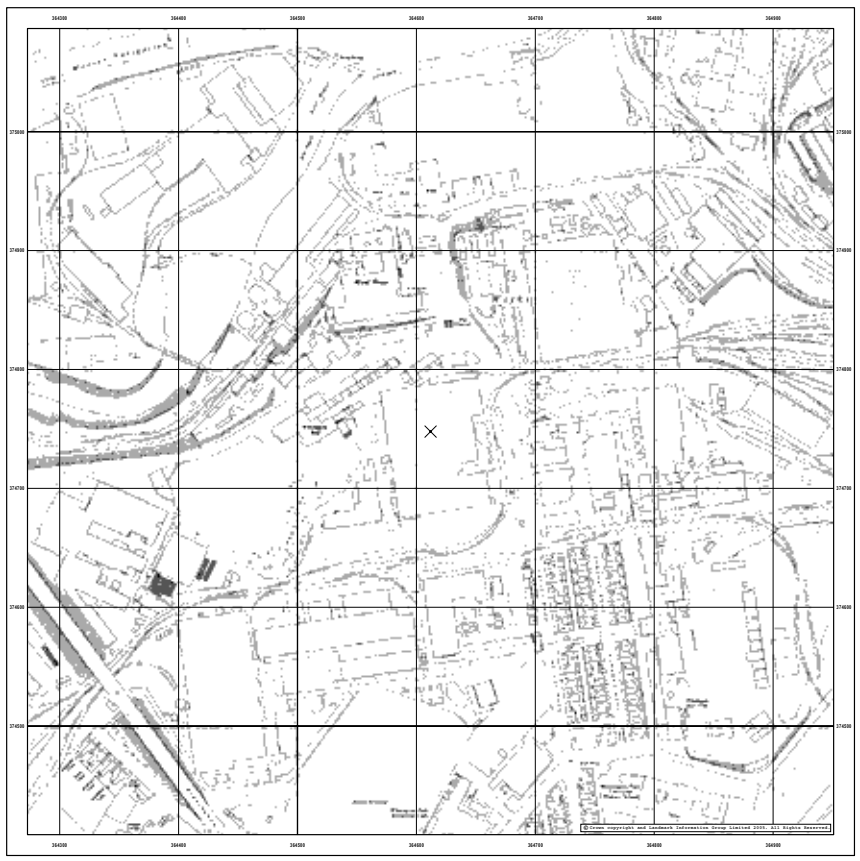


1882

1899



1910



1954

3.38
There are no Non-Designated Heritage Assets identified by the Council at the site.

3.39
Prior to the industrial works, the site formed part of Winnington Hall and park which lies outside of the site boundary. A hall was probably situated here since mediaeval times but what survives today is predominantly 17th- and 18th-century. The extensive industrial development of the site means that other than a small area of garden adjacent to Winnington Hall, none of the earlier parkland survives and the potential for significant archaeological remains pre-dating the 19th century is low. However, the potential for undisturbed deposits on site is somewhat dependent on the depth of made ground and the extent of the industrial development. The potential is higher in the lesser developed parts of the site, mainly the eastern side.

3.40
Prior to TCE, the site was operated by the Imperial Chemical Industry, better known as ICI and prior to that it was the Brunner Mond and Company founded by John Brunner and Ludwig Mond in the 19th century, producers of soda ash, sodium bicarbonate, calcium chloride and alkaline chemicals. The listed statues of John Brunner and Ludwig Mond are therefore directly linked to the site's history. Both statues have planning permission for relocation.

3.41
The former chemical works comprises many small to large scale industrial buildings, many of which were established in the 19th century and have been replaced or extended over time. A number of these buildings have prior notification for demolition and are currently being demolished. The Council Conservation Officer requested recording of a small group of these buildings prior to demolition.

3.42
Redevelopment at the site has the potential to change the setting of the designated heritage assets, such as the adjacent Listed Buildings of Winnington Hall, the war memorial, Turn Bridge and Rose Cottage, however these changes can be positive rather than negative. Due to the scale of the site and its topography, development also has potential to change the setting of the Scheduled Monument at the Anderton Boat Lift and the Trent and Mersey Conservation Area, both on the north side of the River Weaver.

3.43
Regeneration of the site can provide opportunity to sustain or enhance the significance of the heritage assets at and around the site. The provision of on site interpretation of heritage assets such as the Scheduled Boat Lift and the Listed Winnington Hall could also aid the public's understanding of the significance of these, and the industrial heritage of the site.

Townscape character

3.44
The site's existing townscape character is of large-scale industrial works. Whilst it still includes tall industrial buildings (including the sodium bicarbonate manufacturing plant on the northern edge of the site), the majority of the buildings are in the process of being demolished, leaving a baseline character dominated by areas of hard-standing and residual buildings, together with conveyors, large storage vessels and overhead pipelines and gantries.

3.45
To the south and west, the Combined Heat and Power (CHP) plant and Natrium House buildings retain a strong industrial influence. Beyond this, however, there is an area of suburban playing fields (Warrington Park Recreation Club), as well as a remnant area of the Victorian residential terraces associated with the original Brunner Mond Works (including Solvay Road, Bond Street and Hemming Street).

3.46
To the south-west, Winnington Lane has a character dominated by views of the Energy Centre/CHP buildings/gantry pipelines and the ongoing demolition of the taller buildings on the Site itself. This urban character is reinforced by the wide nature of the highway and commercial premises, such as the Weaver Vale Garden Centre, and construction associated with Winnington Village on its western side. Beyond Winnington Lane, Winnington Village is an emerging mixed-use development along Winnington Avenue with a predominance of detached two storey homes.

3.47
To the north of Winnington Island, the townscape is dominated by a small area of low quality industrial sheds at Cosgrove Business Park (Daisy Bank Lane), with a backdrop of a wooded valley side. Beyond this, there is little inter-visibility with the elevated village of Barnton, a relatively extensive village with a predominance of low density 20th century residential development. East of this, the linear hamlet of Anderton has a mix of canal-side Victorian and 20th century residential properties, focussing on the Mersey and Trent Canal and New Road.

Flood Risk and Drainage

3.48
The River Weaver and Weaver Navigation are located to the north of the site, and the Winnington Island is located between the two rivers. It is recognised that there have been recent flooding issues associated with the Northwich area, so it is important that the flood and drainage strategy for the site is carefully considered and all technical details agreed with the relevant consultees/ stakeholders. The rivers have also caused some localised flooding to low lying areas of the site, most notably the salt dock.

3.49
The Environment Agency's Flood Maps for Planning identifies that the site is located outside of Flood Zone 3 - land at a high probability of river flooding. A small proportion of the site (2%) immediately next to the rivers falls within Flood Zone 2 - land at a medium probability of river flooding. Whereas, the majority of the site (98%) is elevated above the floodplain and is located within Flood Zone 1 – land at a low risk of fluvial flooding.

3.50
The Flood Zones at the site have been generated by the Environment Agency's hydraulic model of the River Weaver, and these reflect the present day risk to the site. To understand the future flood risk, the latest climate change allowance predictions from the Environment Agency were applied to the River Weaver hydraulic model to generate a future floodplain. The main site area to

Northwich Marina

Northwich Town Centre

The Bull Ring, Northwich

Distinctive villas on Park Road

Detail of traditional terraced forms

Detail of wall and gate feature on Hemming Street

Contemporary apartments in Northwich

Contemporary housing at Barnton

Contemporary mixed use development in Northwich

the south of the river remains largely unaffected by the climate change floodplain, but an isolated area of shallow floodplain is predicted on the Winnington Island. At this preliminary stage, it is expected that the development will be arranged to fall outside of the climate change floodplain, and that these isolated areas will be used for landscaping or other water compatible uses. However, the floodplain areas could be rearranged in a manner that preserved the available floodplain area and volume, but allowed it to be relocated to a more optimal location in the site.

3.51
The site is also generally at a low risk of flooding from surface water, canals, and groundwater sources, as well as from the potential failure of upstream reservoirs.

3.52
To ensure that the development is afforded sufficient resilience to flooding, buildings and access/egress routes are to be located outside of the floodplain. A freeboard will also be provided between peak flood levels and finished floor levels for additional resilience.

3.53
The existing site is brownfield in nature and is largely impermeable. Drainage records show that it is currently positively drained to the River Weaver. The site falls towards the river, so any exceeding storm water will also drain to the river via unrestricted overland flow. As part of the development proposals new sustainable drainage infrastructure will be incorporated. The development will continue to outfall to the river, but discharge rates will be reduced by at least 30% to offer a downstream betterment. Additionally, the development will likely result in a reduction in the total impermeable surfacing which will offer further betterment to the volume of storm water generated by the site.

3.54
Attenuated storage in the form of Sustainable Urban Drainage Systems (SuDS) will be provided up to and including the 1 in 100-year storm with a 40% allowance for climate change, thereby mitigating the developments potential impact of water quantity. The use of SuDS will also provide treatment to runoff from the development prior to it leaving the site, thereby mitigating any potential impact to downstream water quality.

Ecology

3.55
Following abandonment of parts of the site a variety of habitats have developed through the process of natural succession to form a habitat mosaic including areas of bare ground. A lack of management of areas in the south of the site surrounding the lagoons and disused railway tracks has resulted in colonisation by self-set woody saplings and herbaceous “weeds”. Areas of semi-improved grassland were also recorded which over time have become encroached by bramble and self-set saplings succeeding to scrub and young woodland habitats.

3.56
The site sits within a network of ecological designations, with Local Wildlife Sites to the north, east and west, Witton Beds SSSI 600m to the east and the River Weaver / Weaver Navigation running around the site boundary and within it. These create a coherent ecological network and there is an opportunity here to enhance this network, with this development.

3.57
The site is located within a Core Area of the Ecological Network and redevelopment of the site will provide opportunities to create new habitats that will increase the value of retained habitats by improving the overall connectivity of habitats across the site. There are opportunities to provide links to the river corridor and significantly improve riparian habitat quality and quantity. Positive management of retained and created habitats will ensure that habitats reach their full potential value and are managed for biodiversity in the long-term.

3.58
Due to the distance from the site no direct impacts to statutory and non-statutory designations within range of the site are anticipated and to mitigate for potential indirect effects a Construction and Environmental Management Plan (CEMP) will be produced and adhered to, alongside relevant Guidance for Pollution Prevention to ensure construction works are undertaken in an environmentally responsible manner. With the provision of alternative recreational opportunities within the development, impacts to the sensitive habitats of Witton Lime Beds SSSI and other nearby designations through increased recreational pressure will be minimised.

3.59
The site itself largely comprises brownfield land which is dominated by the remnant building footings and areas of hard-standing. The River Weaver Island supports two areas of Open Mosaic Habitat on Previously Developed Land. There are no areas of long-established woodland with the most ecologically valuable areas located on the banks of the River Weaver to the south of the River Weaver Island and are to be retained within the proposals. Local Plan (Part Two) policy DM44 requires development proposals to deliver, wherever possible, a net gain in biodiversity.

3.60
The results of a Biodiversity Impact Assessment will be used to demonstrate that this is achieved and will be informed by the results of the completed ecological surveys which to dates comprise:

- Extended Phase 1 Habitat Survey
- Bats (Ground Tree Assessments, Nocturnal Emergence and Activity Surveys)
- Great Crested Newt Surveys
- Reptile Surveys
- Breeding Bird Surveys
- Winter Breeding Bird Surveys
- Badger Surveys
- Water Vole and Otter Surveys

3.61
To facilitate the proposed development a SuDS scheme will be provided throughout the development and will provide opportunities to provide additional habitat creation through native marginal planting and wet grassland planting that will offer an increased micro-habitat diversity for local fauna. The attenuation facilities and over SuDS with vegetated swales will also filter pollutants from surface water prior to discharge to the River Weaver which will reduce any potential impacts such as from road run off. Where appropriate habitat enhancement will double as landscape screening such as native tree planting along the banks of the River Weaver corridor and the western boundary of the River Weaver Island.

Opportunities and Constraints

3.62
The preceding sections of the development brief provide an appraisal of the site's existing character and context. This section looks at the opportunities and constraints.

Opportunities

3.63
In terms of opportunities, there are a number of aspects of the site's surroundings that should be exploited, if the full development potential is to be realised.

1 The site is identified as an area of regeneration in the Local Plan for a mixed-use residential development.

2 Opportunity for a new high quality exemplar riverside community. The River Weaver waterfront already exists as a valuable asset to the local community. However, there is definitely scope to enhance this as part of the Winnington Works regeneration strategy. Enhancing access along the river corridor, through the introduction of linear amenity open space and the creation of linkages to the site and land beyond would both improve connectivity for leisure users, whilst creating an attractive environment for residential development.

3 The provision of a wide range of community facilities (including open space, shops and a public house) which will benefit both future and existing residents.

4 Consideration should be given to the provision of on-site interpretation for such heritage assets as the Scheduled Boat List and Winnignton Hall, to aid the public's understanding of the industrial heritage of the site.

5 The site can provide substantial areas of additional recreation and open space in the area, including play areas, trim trails and riverside walks. Linked to the green infrastructure network, these spaces are to be designed to enhance amenity and the health and wellbeing of residents, and their connection to nature.

6 The site provides the opportunity for the creation of a more sustainable approach to transport and mobility that seeks to minimise journeys by private car. Anticipating changes to the personal transport sector over the coming decades, the development should seek to maximise the opportunity for alternative forms of transport, with a network of 'mobility hub' type facilities that facilitate this. Electric vehicle charging, zero emission shuttles and anticipating the emergence of autonomous vehicles are all important opportunities at Winnington.

7 The site is ideally positioned to create enhanced cycle/pedestrian routes into adjacent areas, including Northwich town centre, as well as other services, facilities, and the wider countryside.

8 Existing vehicular and pedestrian access points which can be improved to facilitate access to the development.

9 Development should incorporate a network of green corridors and green infrastructure, utilising existing vegetation where appropriate, as an integral part of the comprehensive development. These links should also be seen in the context of other nearby amenity and leisure destinations, such as the Anderton Boat Lift, Marbury County Park and Anderton Nature Park, all of which lie to the north of the river, in close proximity to the Site.

10 The green infrastructure will also provide opportunities for a series of wildlife corridors which should seamlessly link the open countryside with urban area of Winnington and Northwich. This interconnected web of green corridors and open spaces will form an integral part of the masterplan layout, not only achieving an overall net biodiversity gain, but performing multiple functions for improved health and wellbeing, improved air quality, an enhanced aesthetic and amenity.

11 The site should deliver suitable highways improvements both on site and on the surrounding road network

12 At this scale of development, a number of opportunities arise in respect of addressing carbon emission reduction and the ability to adapt to a changed climate - including assisting the local authority meets its medium to long term climate change impact aspirations.

13 The existing energy infrastructure on the adjacent TCE site, and its natural assets (particularly the river), provide key opportunities to investigate the provision of more sustainable forms of heating and low carbon energy for the site.

Constraints

3.64
The key constraints on the development of the site are:

1 The site is located adjacent to existing retained industrial uses. Residential uses proposed for the site should not be adversely affected by the continued operations.

2 TCE CHP Gas pipes present a constraint through the centre of the site. These require a 3m easement from each side of the centre of the pipe.

3 Overhead power lines which run in the east of the site to the retained TCE land requires a 15m offset buffer either side. These buffer zones should form key green infrastructure elements within the scheme.

4 Steam pipes, overhead cables, industrial storage tanks and water works are negative visual features on site.

5 The site's close proximity to the River Weaver and Weaver Navigation means that some areas within the red line lie in Flood Zones 2.

6 The site falls within the safeguarded area for sand and gravel and therefore consideration will need to be given to this in accordance with local planning policies ENV9 and M2 of the Local Plan Parts One and Two respectively.

7 Another potential constraint is the variable topography in the south east quarter of the site around the lagoons and above the former Oakleigh railway sidings. When looked at in the context of the utility constraints, it is likely that this part of the site would be best suited to the provision of informal open space and ecological mitigation areas

8 Ground investigations have been completed in 2019 and 2021 to assess the potential for ground contamination and to support an outline planning application. Additional ground investigations are likely to be required to assist in future detailed applications. The objectives are to provide a development with no adverse effects on human health, the built environment, controlled waters and other sensitive receptors, either during construction or post completion. It will be necessary for the developer to discharge any contamination-related planning related conditions imposed by the local planning authority.

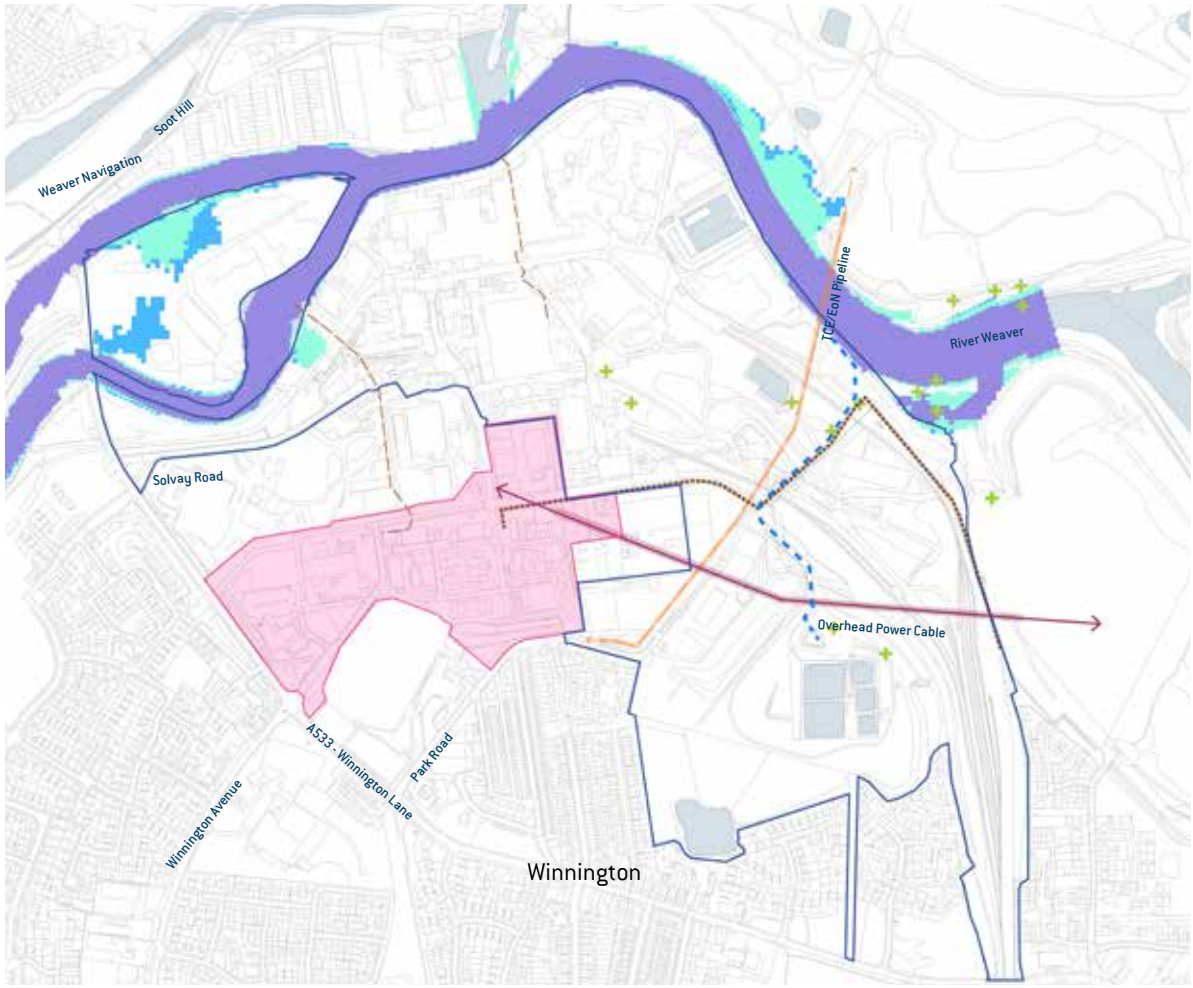


Figure 8. Physical Constraints

- Site Area
- TCE Retained Land/Future Operations
- Flood Zones:
- Flood Zone 3 (> 1% chance of flooding)
- Flood Zone 2 (0.1-1% chance of flooding)
- Extent of River Weaver in 100yrs+
- Brine Shafts and Wells
- TCE/EoN Pipeline and Buffer
- Steam Pipes
- Overhead Cable and Buffer
- Cranage Water Lines
- Foul Water Pipes

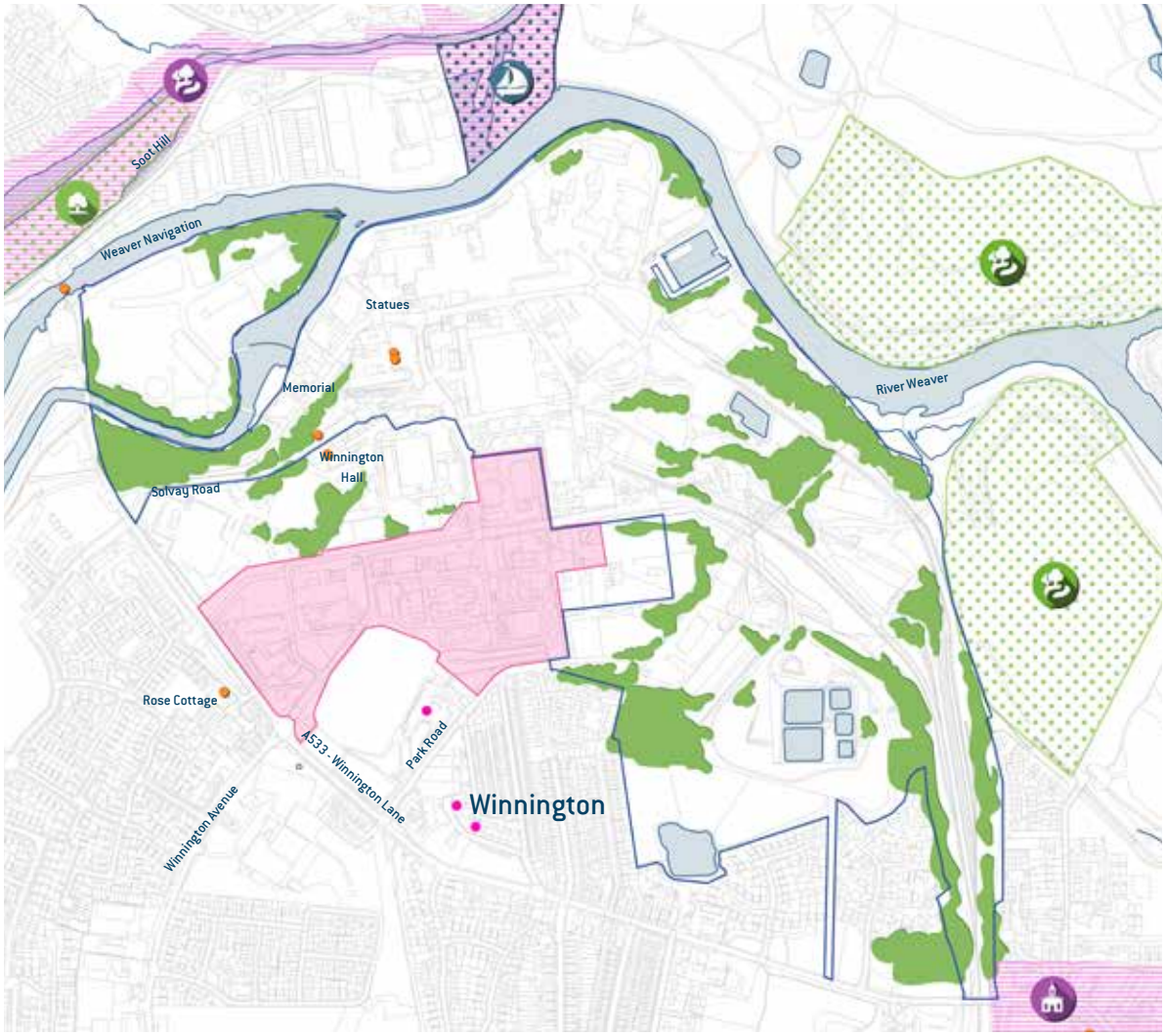


Figure 9. Heritage & Conservation

- Site Area
- TCE Retained Land/Future Operations
- Water Body
- Local Wildlife Sites - Anderton Nature Park and Furey Wood
- Woodland
- Northwich Conservation Area
- Trent and Mersey Canal Conservation Area
- Anderton Boat Lift
- Listed Building/Structure
- Locally Listed Building
- Existing Vegetation

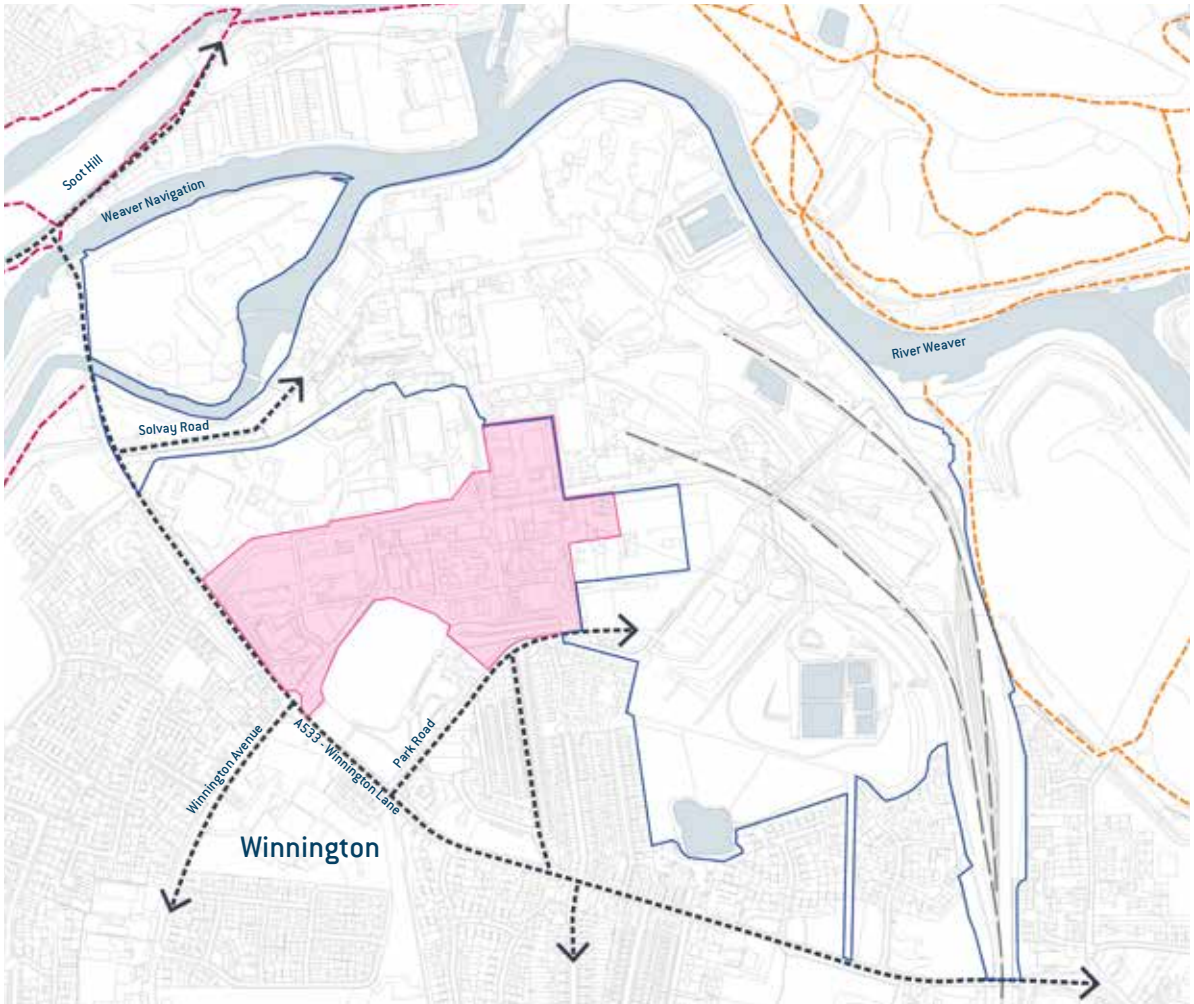


Figure 10. Movement

- Site Area
- TCE Retained Land/Future Operations
- Water Body
- Footpath Network within Anderton Nature Park and Furey Wood
- Public Right of Way
- Road network
- Redundant Rail Lines

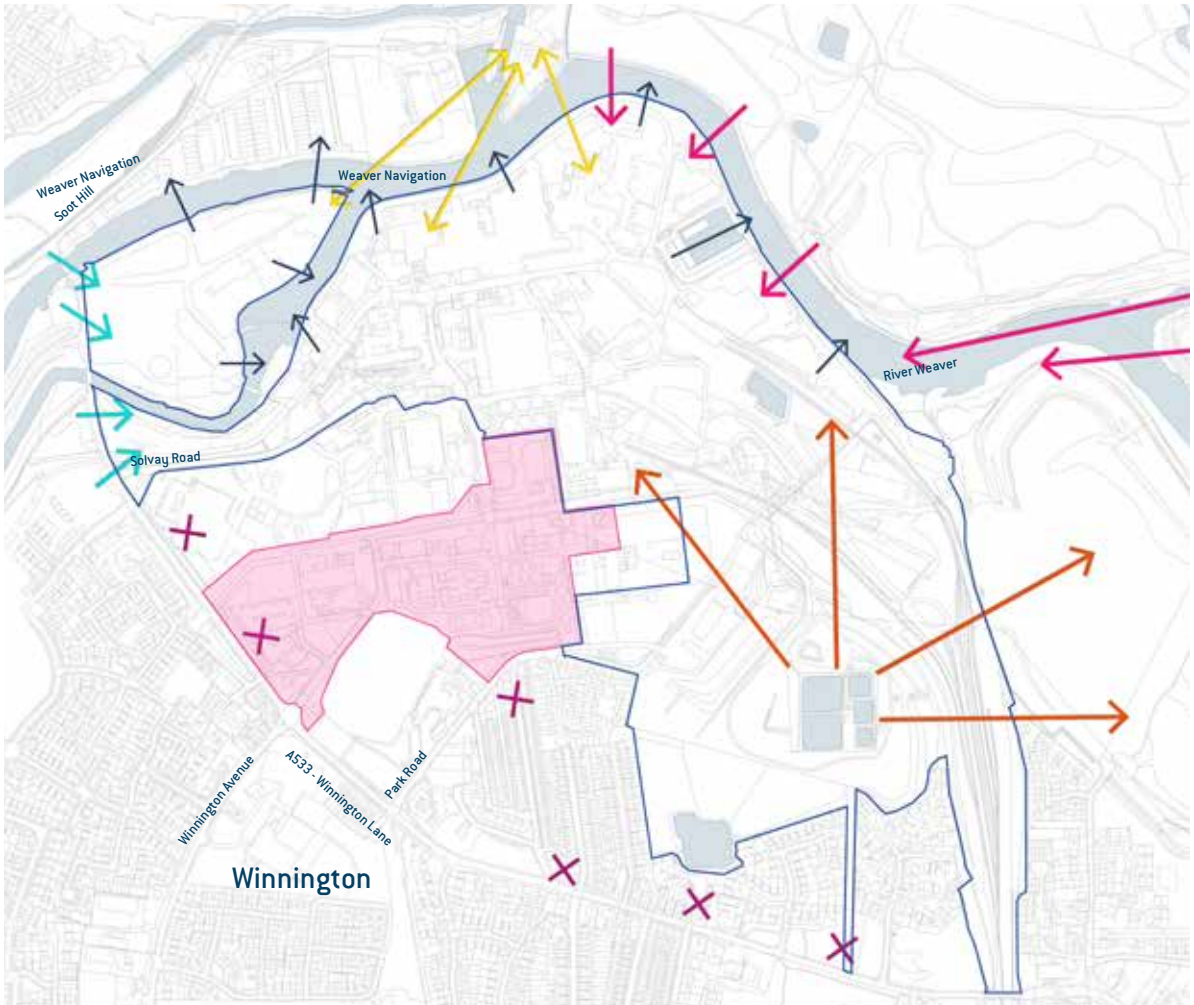
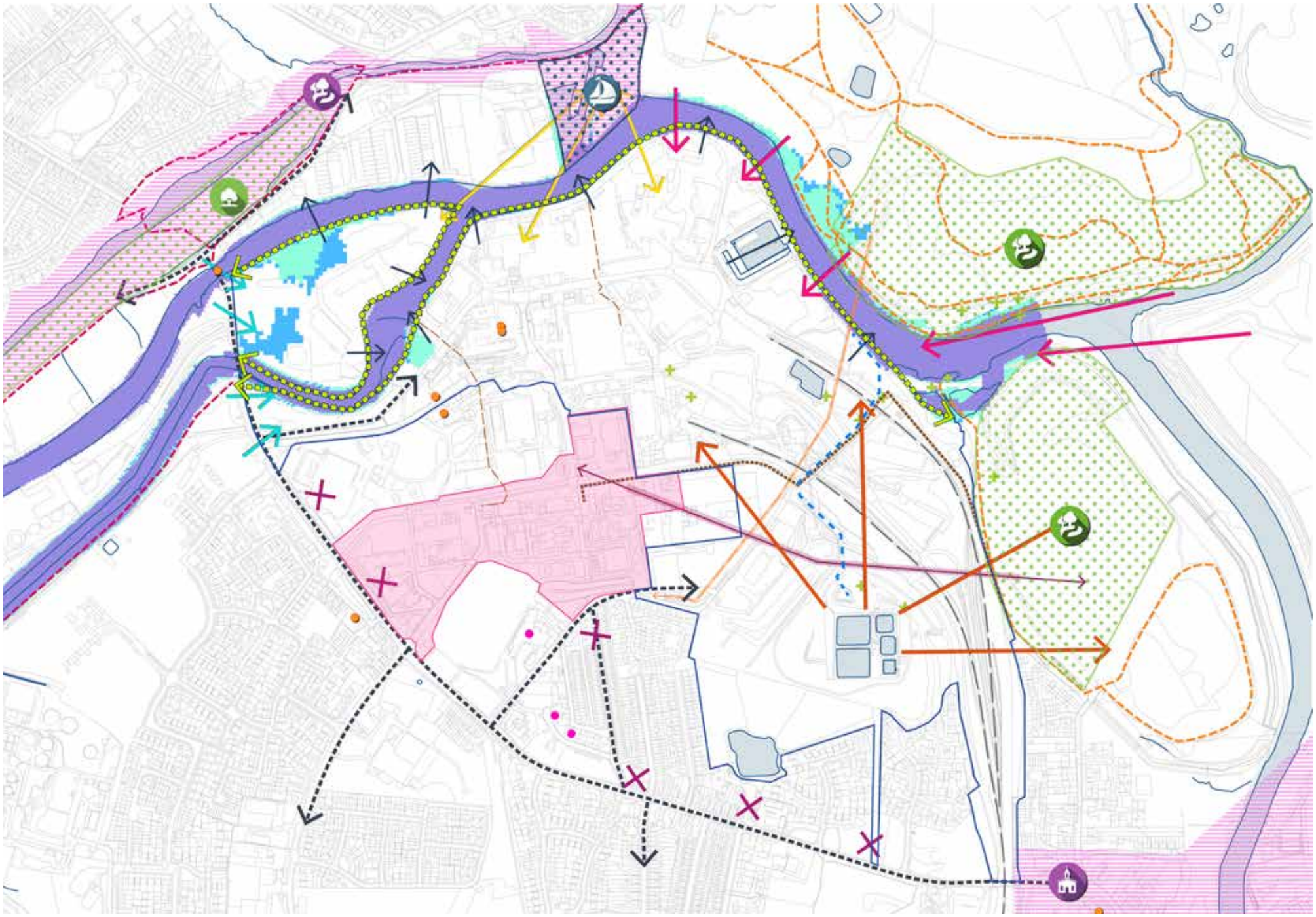


Figure 11. Views

- Site Area
- TCE Retained Land/Future Operations
- Water Body
- Views from Anderton Boat Lift/Nature Park
- Views obstructed by built form
- Long distance views from high point
- Outward views of river and industry
- Views towards site from adjacent riverside walks
- Views towards site from Winnington Lane

Figure 12. Combined Opportunities and Constraints



*See previous keys

- Site Boundary
- TCE Retained Land/Future Operations

Flood Zones:

- Flood Zone 3 (> 1% chance of flooding)
- Flood Zone 2 (0.1-1% chance of flooding)
- Extent of River Weaver in 100yrs+
- Brine Shafts and Wells
- TCE/EoN Pipeline and Buffer
- Steam Pipes
- Overhead Cable and Buffer
- Cranage Water Lines
- Foul Water Pipes
- Listed Buildings
- Locally Listed Buildings
- Local Wildlife Sites - Anderton Nature Park and Furey Wood
- Trent and Mersey Canal Conservation Area
- Northwich Conservation Area
- Trent and Mersey Canal Conservation Area
- Anderton Boat Lift
- Riverside public realm