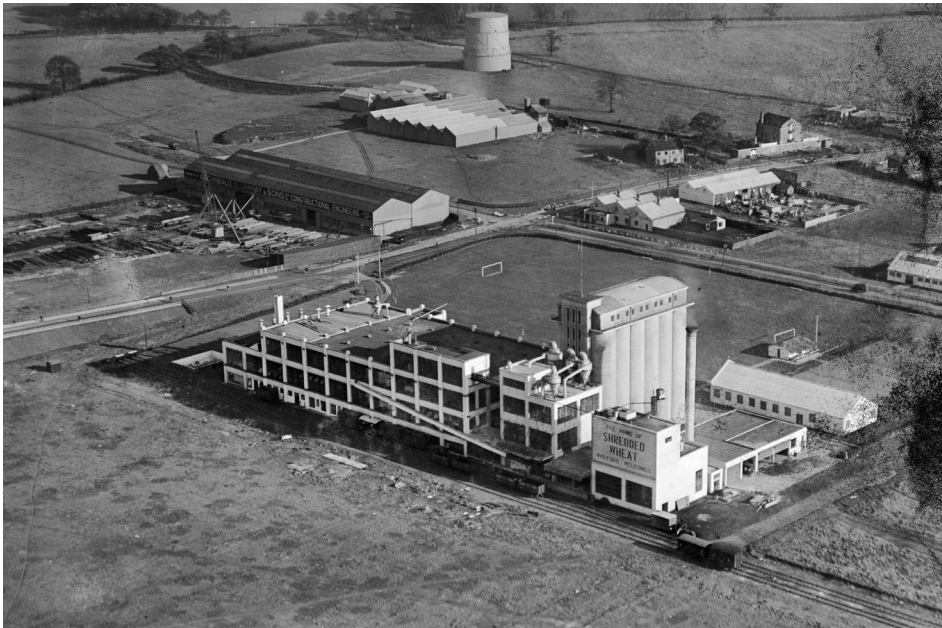


Evaluation



Aerial view of the original Production Hall, Boiler House, 18 silos, grain elevator, and garages



Aerial view of Welwyn Garden City circa 1941. The Shredded Wheat factory is on the lower left.

Evaluation

Listed Building Conservation

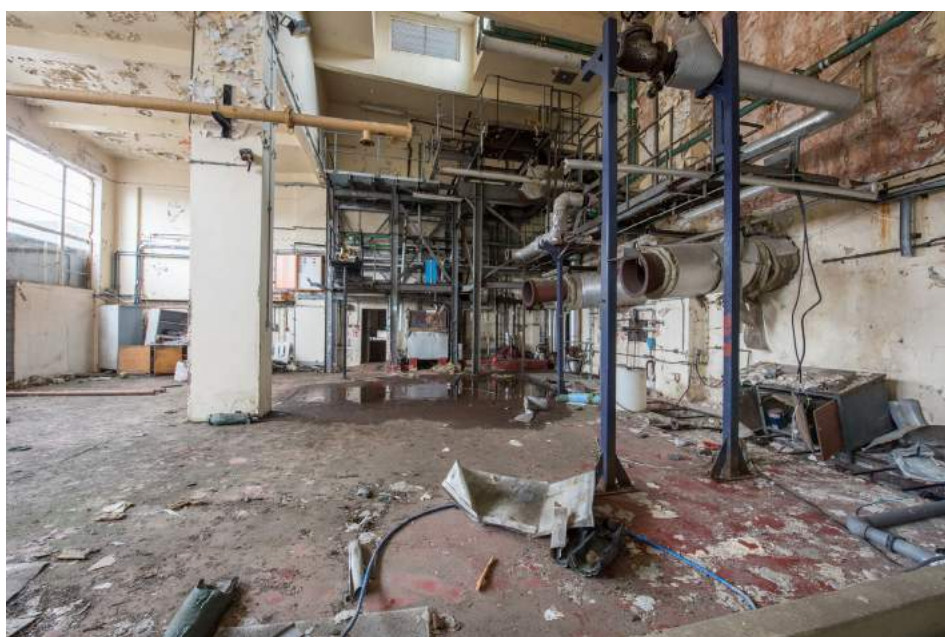
Production at the former Shredded Wheat Factory ceased in 2008 and was consolidated at their plant in Staverton, Wiltshire. The complex has been unoccupied since Shredded Wheat's move; this was also when most of the internal machinery was removed.

Today, most of the site is filled with buildings, accumulated through the three main phases of development. Much of the original factory is hidden behind the later additions. Relatively recent refurbishment to the 1920's Factory buildings led to interior and exterior alterations which have had adverse effects on the appearance.

In accordance with the Broadwater Road West SPD, this proposal aims to retain and refurbish the CPUK silos and block structures. The Consented Scheme included a demolition strategy focused on the retention of the earliest buildings and removal of several later additions. This proposal adopts the Consented Scheme's demolition strategy with few alterations. Consultations with English Heritage helped clarify the proposal to retain the original 1920's buildings: Production Hall, silos, Grain House, and Boiler House with chimney. The administration buildings, Manufacturing Hall, and appended silos all detract from the quality of the original buildings – as well as the viability of the site for development – and are subject to consented demolition.



Production Hall



Boiler House



1. Production Hall: west elevation



2. Grain House and Boiler House: west elevation



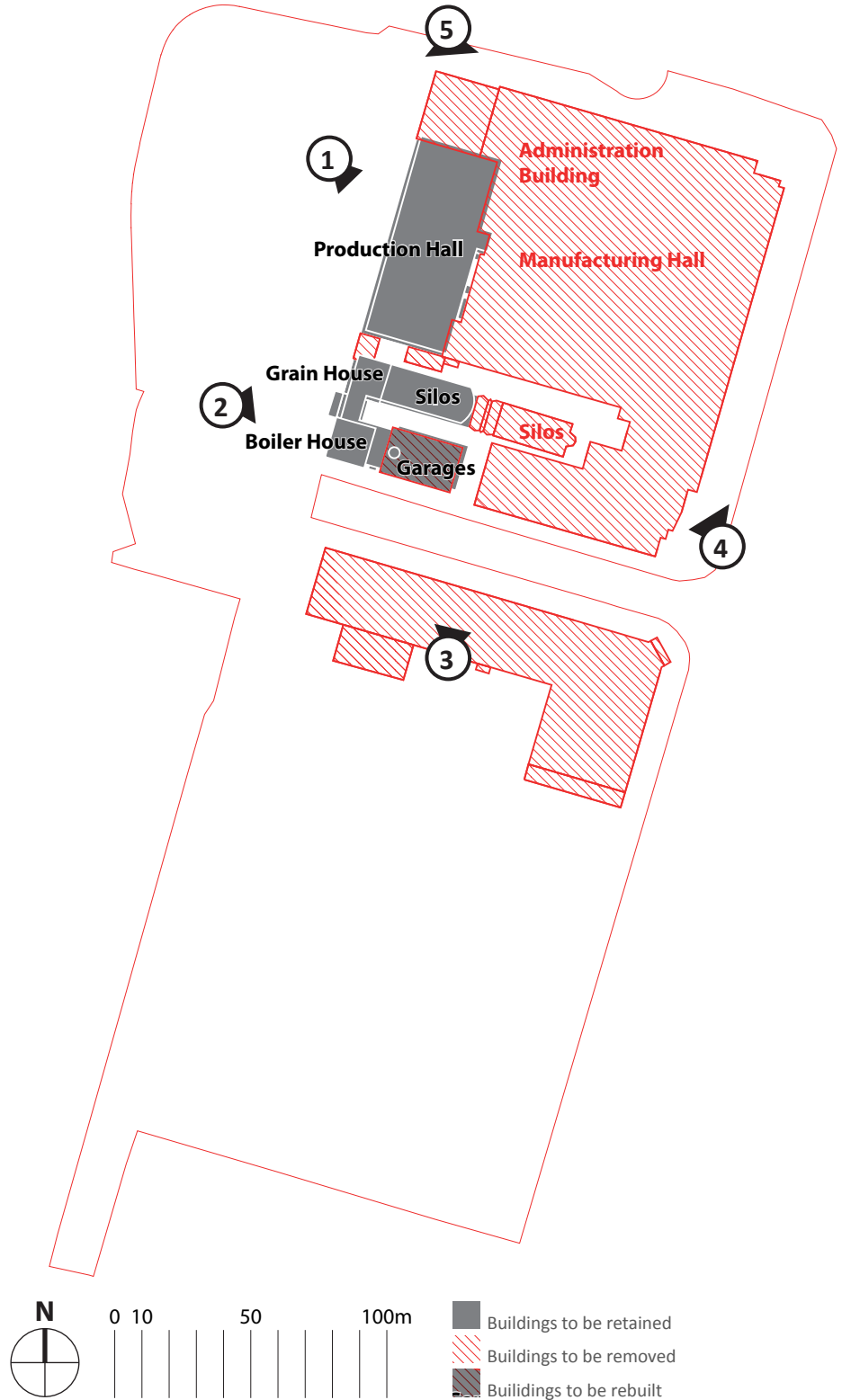
3. Chimney and silos, with garages in the foreground: south elevation



4. Administration buildings: east elevation



5. Administration buildings, with Production Hall in the background: north elevation



4.5. Site-Wide Access and Circulation

Existing Connections

The site is currently accessible from the west through a footbridge that connects the Howard Centre to the train station and extends over the railway into the site ①, with steps down to ground level at Hyde Way, which crosses the site and intersects Broadwater Road on the east boundary of the site ②. Hyde Way is accessible to vehicles as well as to pedestrians, but is currently a dead-end road (with site access only). The footbridge-Hyde Way east-west link, which splits the site (into North Site and South Site) is the main existing line of access and circulation.

On the north, an existing slip road facilitates vehicular access to the PDW Gates Distribution warehouse. A new pedestrian route is to be created linking the front of the Production Hall with Bridge Road and beyond ③.

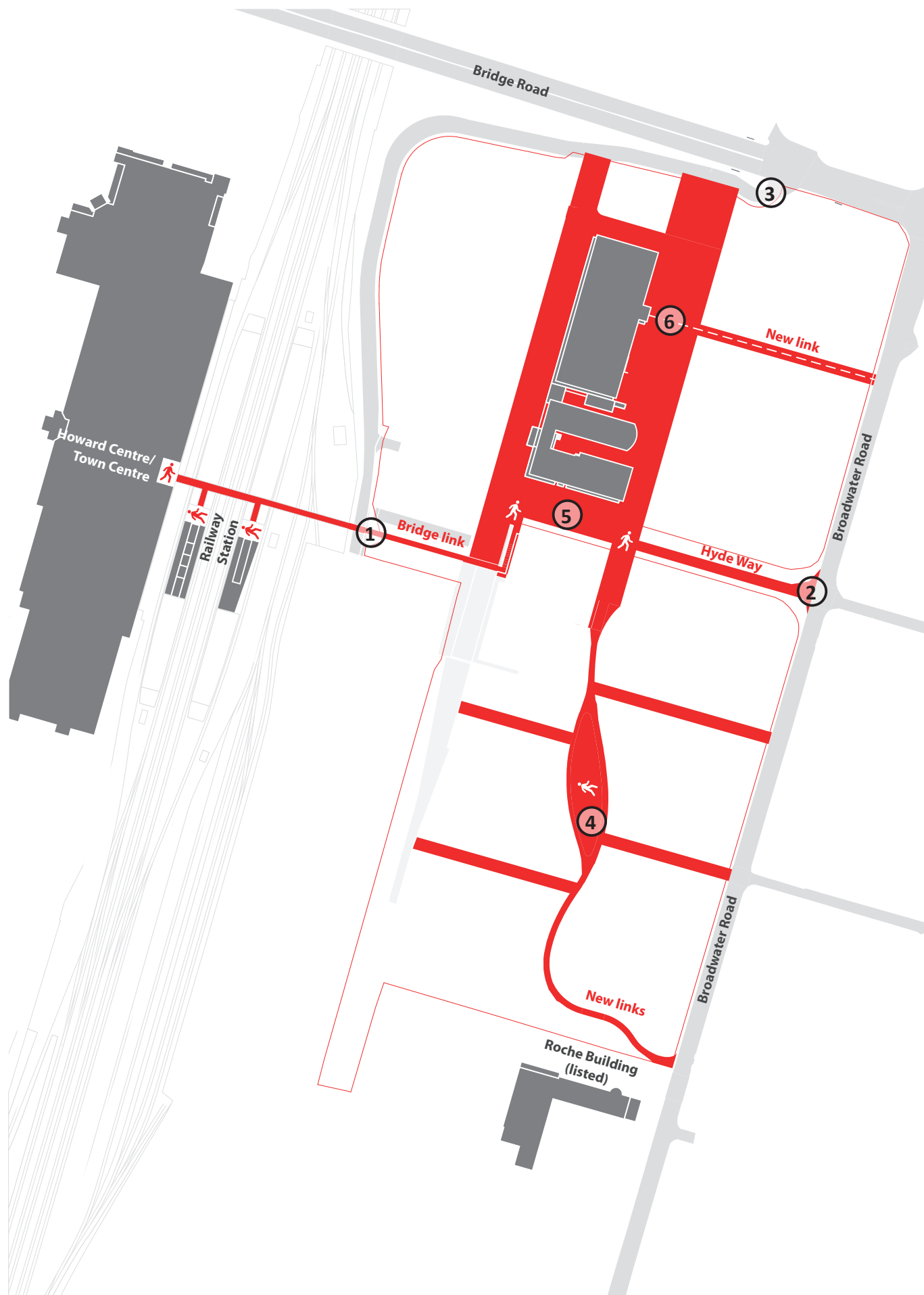
The South Site is currently fenced-off. There are no remaining roads or pathways.

New and Enhanced Connections

Because only one east-west connection currently exists along a distance of circa 430 metres, it is essential to create new east-west links through the site – and to reinforce the existing one, which is a primary link between the town centre and the Peartree area.

New east-west connections will divide the site into smaller areas and establish the approximate outlines of buildings/blocks. In addition, new points of access and desire lines will be created. With an average width of 150 metres, the South Site can accommodate two rows of building blocks, with a pathway in between. A new pathway/desire line ④, running north-south, serves as a central spine, as an extension of new public spaces around the factory buildings, and as a link between listed buildings – the former Shredded Wheat factory and the Roche building south of the application site.

On the north, improved connections to Bridge Road extend along the factory buildings and provide new public spaces appropriate to the buildings' monumental scale, and designed to expose the Production Hall's main elevations (east and west), as well as opening a central plaza ⑤ flanked by the grain silos. Also on the North Site, a new access road will be aligned with the main east entrance ⑥ of the restored Production Hall, making the main entrance visible and accessible from Broadwater Road.



0 10 50 100m

4.6. Site Layout

Permeable Layout

The Masterplan Framework in the Broadwater Road West SPD is based on the principles of grid form and permeable layout. It consists mostly of perimeter blocks arranged in a grid, with a diagonal route between the south-east corner of the site and the former factory buildings. The subsequent Consented Scheme adopted and developed the layout on the South Site, but presented a different layout on the North: two perimeter blocks were placed to the east of the factory buildings (instead of a single perimeter block that included the factory buildings).

One of the key objectives set out in Chapter 1 of the BRW SPD is to “create urban grain capable of supporting appropriate uses while reflecting the town centre morphology”. The document further indicates that:

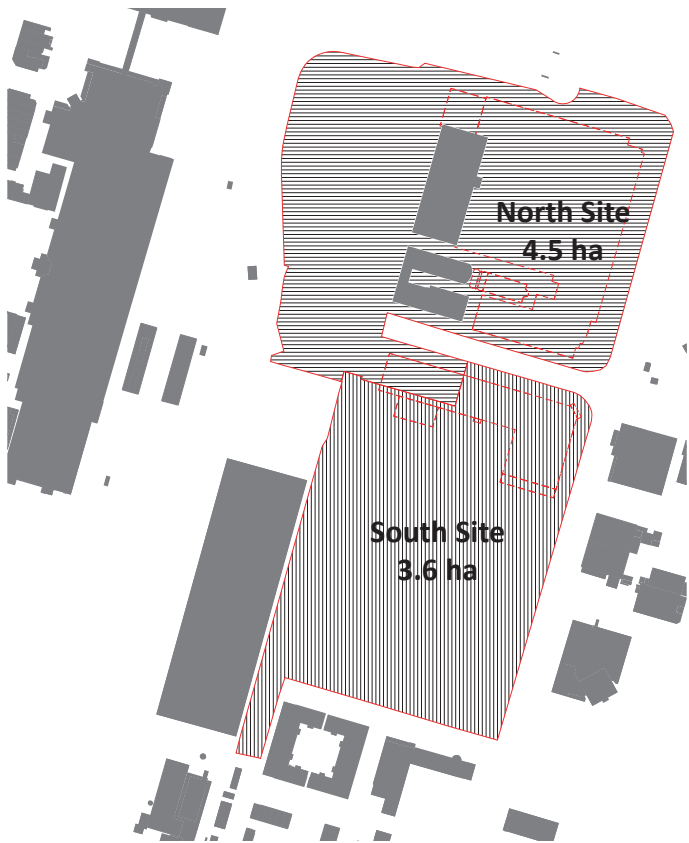
6.12 The proposed urban grain of the site should be characterised by large blocks, continuous building lines and active frontages. Wide streets provide an opportunity for surveillance and tree planting which will play a crucial role in security, micro-climate and street enclosure.

6.13 Perimeter block forms should predominate and should be based on the layout shown [...]. The definition between private and public place should be clear, with frequent activity along front facades supporting a good level of animation on to the street.

6.14 The existing scale of the built form on the site provides a context for the block sizes and scale to be achieved through redevelopment.

New development should not, however, simply replicate existing building mass but relate to those buildings being retained and the wider surrounding area.

The proposed scheme builds upon the principles established in the Masterplan Framework and developed for the consented scheme. It also fulfills a new development brief and seeks to improve some aspects of the consented design.



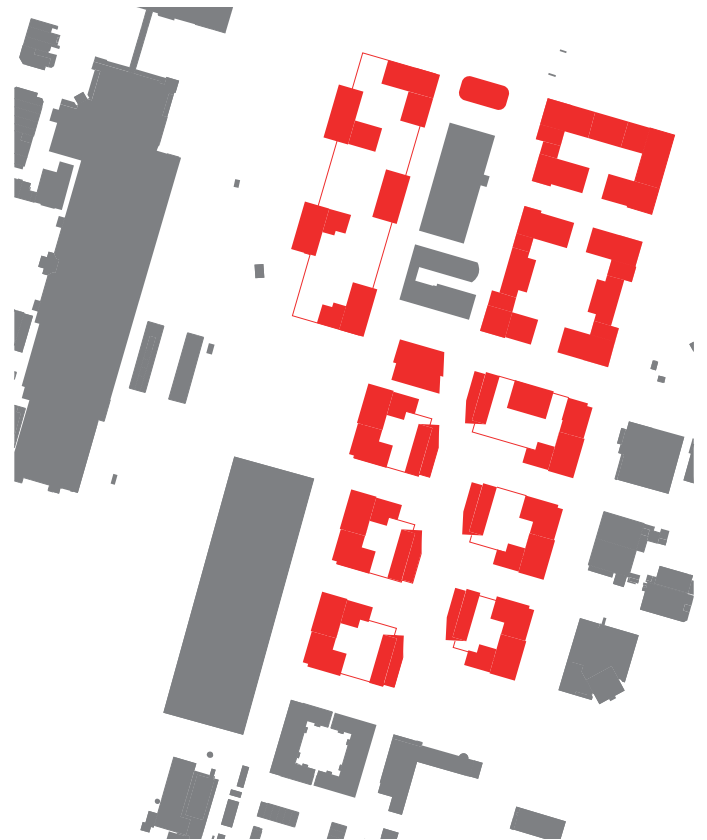
Application site



Masterplan Framework, from the Broadwater Road West
Supplementary Planning Document (adopted 2008)



Consented scheme (2015)



Proposed scheme



4.7. Character and Typologies

The North and South sites are defined not only by the footbridge-Hyde Way route that cuts across the site. There is also a natural difference in character: the north site is dominated by the factory buildings and exposed to the railway and Bridge Road, whereas the south site is clear of any buildings, separated from the railway, and closer to the Peartree residential area.

The number and location of new connections (pathways and roads) define the urban grain. On the north site, those connections are determined by the disposition of the factory buildings ①, ②, ③. On the south, the arrangement of new connections is determined by functionality (e.g. distance between access roads, potential dimensions of building blocks), and harmonized with the north site in order to ensure a consistent urban grain across the entire application site.

The south site is intended to be a lot more informal in character and pitched as a contrast to the more urban townscape model of the North site. The character of this half of the site is defined by a central naturalistic park which creates a visual and physical connection between the two listed factory buildings to the north and south of the proposed park. That potential has been developed into a character zone defined by residential buildings set within a naturalistic landscape and home zone mews streets ④. The residential buildings consist of “loosened” perimeter blocks, with gaps along the perimeter and angled edges aligned to the central pathway ⑤. The internal areas of each block are raised above ground-level car parks accessible from the mews streets.

The central pathway and park creates the spine off which all the mews connect and feed off the naturalistic landscape with abundant planted surfaces with a generous offering of play areas.

On the north site, the size, visibility, and large footprints of the retained factory buildings, together with the exposure to pedestrian traffic (between the train station and Hydeway) and car traffic (Broadwater Road and Bridge Road) indicates the potential for mixed use and vibrant civic spaces. A new beating heart for both sites is proposed around the Listed buildings which benefit from the existing and refurbished pedestrian bridge that connects Goodman Square and Hydeway into the Town centre on the west side of the tracks.

The existing industrial aesthetic inspires hard surfaces/pavements, an urban grain commensurate with the factory buildings, and a strict arrangement of building forms. These will be defining character elements on the north site.

Within the north site, there is a contextual differentiation between the areas to the east and west of the factory buildings. The area to the east faces Broadwater Road (which is a primary road) and is divided into two blocks ⑥, ⑦ by the new link road ⑧. These are enclosed perimeter blocks with continuous frontages all around, except along link roads, where breaks in the buildings provide gateways into internal courtyards. Car parking is provided below ground.

The area to the west of the factory buildings faces the railway and is edged by the service road ⑨ off Bridge Road. Here, the building forms imply two rectangular blocks ⑩, ⑪, in each of which two opposing corners have been removed. The cutaway corners allow distant glimpsed views of the factory buildings, as well as a permeable landscape that unifies the whole group of buildings. The landscape, which consists of several gardens, is raised and covers a car park at ground level. Because the residential buildings, related amenity areas and public gardens are elevated, they are less exposed to the railway than if they were placed at ground level.

Throughout the entire application site, the plan forms are based on the perimeter block type in order to achieve the urban grain sought by the 2008 Masterplan Framework for the site and solidified with the detailed and outline consent that the site benefits from today. Where the form of the perimeter block has been loosened or fragmented, a podium unifies the fragments and makes the edges legible, while allowing views and movement across.

The different character zones are further defined by differences in building uses, heights, dwelling types, residential tenure, and architectural design. See chapter 6. on page 103 for further details.



0 10 50 100m

Evaluation

4.8. Use

The proposed land use strategy is derived from the Broadwater Road SPD.

Mixed Use

Mixed-use buildings are located primarily along the main routes:

- east-west (through Hydeway, Goodman Square, and the footbridge);
- north-south (the former factory buildings and the new Civic Building, which activate the pedestrian areas around them).

Residential Community

The regenerated Shredded Wheat factory site will be sustained by a new residential community. This new community must have sufficient size and density to inhabit the site and provide the occupation and movement necessary for mixed-use facilities of this scale. This proposal includes a range of tenures and housing types for the site, aiming to cater to a diverse range of residents.

Employment

Most of the employment opportunities will be located around Goodman Square, in the main arrival area from the train station.

Provision for the local community

- 31% social housing.
- Leisure opportunities: a gym and Art & Museum hub will be located in and around the former factory buildings.
- Community facilities: located in a new Civic Building in the heart of the site.
- Youth facilities: crèche and gym located in the former Production Hall; outdoor play areas in the south site.



Land use key

- Residential block
- Re-use of listed structures
- Leisure
- Resource management (including Combined Heat and Power facility)
- Employment
- Mixed use block

Above: Land use strategy plan (Figure 5.2)
from the Broadwater Road West SPD

Opposite page: Proposed land use strategy plan



Production Hall
Community
+ Leisure
+ Employment

Art & Museum Hub

Commercial
+ Residential

Civic Building



0 10 50 100m

4.9. Amount of Development

The consented scheme achieved a successful regeneration project, but it failed to deliver a policy compliant level of affordable housing and left room for improvement in a number of areas.

Therefore, after acquiring the site, the Applicant set a development brief aimed at delivering a viable, appropriate and successful scheme that can deliver a better planning outcome for all parties.

Given the prominent location, excellent public transport accessibility, unique site characteristics and the nature of the wider Development Strategy for the District, the scheme seeks to densify the residential development in certain areas of the site through a focus on smaller units and a shift away from family housing as well as additional development where this can be satisfactorily accommodated into the scheme.

The changes have resulted in a scheme that delivers an increase in the residential population of 29% over and above the consented scheme.

Use classes	Proposed floor area			
	Gross External Area		Gross Internal Area	
	m²	sq ft	m²	sq ft
Retail (A1 - A5)	2,366	25,468	2,213	23,821
Workspace (B)	5,016	53,992	4,723	50,838
Residential (C)	128,160	1,379,514	118,548	1,276,050
Public Services (D1)	3,318	35,715	3,081	33,164
Entertainment and Leisure (D2)	3,328	35,823	2,976	32,034
Total	142,347	1,532,225	130,548	1,405,225

4.10. Heights and Massing



Building heights and their distribution in the proposed scheme (above left) are similar to those of the consented scheme (above right). However, the proposed buildings along the western and eastern edges of the site are, in general, one storey taller than the corresponding buildings in the consented scheme. Elsewhere – such as north of the listed buildings – proposed building heights are lower. More articulation has been given to the proposed blocks on the south site, which have more variation in height than the the corresponding blocks in the consented scheme.

Storey heights key

- 8
- 7
- 6
- 5
- 4
- 3
- 2
- 1

4.11. Architectural Design Principles

Building Types and Forms

The proposed buildings affirm a contemporary design informed by a rich context – Welwyn’s character as a planned Garden City, the former Shredded Wheat factory’s unique design legacy and historical significance, as well as the strategies put forward by the Broadwater Road West Supplementary Planning Document and principles established by the current Planning Consent.

A summary of the main design principles that inspired the design of the buildings includes:

- building scale and mass appropriate to location;
- emphasis on the urban composition around the monumental industrial buildings;
- emphasis on key views into and across the site;
- adequate sunlight and daylight in all spaces and places;
- strong integration of buildings and landscape
- active street frontages with front doors to communal entrances;
- well connected car parks, refuse and cycle stores, with direct access from building cores;
- clusters of buildings with varied heights, allowing roof terraces and enlivening the townscape;
- a simple but imaginative palette of materials and building details inspired by the local context, with brick as the main facade material.



Evaluation

Materials and Detailing

This proposal aims to provide enough variety and contrast of materials and architectural details across the large site, within the limits of feasibility and aesthetic consistency. Hence, a consistent palette with a limited range of materials will be used, with enough variation in tone and texture to express the desired degrees of variety and contrast. Materials will be chosen for their high quality, robustness, durability, and environmental sustainability.

Brick, in a complementary range of tones and textures, will be the predominant facade material. Window and door frames, as well as balcony railings, will be made of metal, coated in colours complementary to the brick cladding.



Residential Design

All dwellings will be flats. However, different types of tenure will be provided. The proposed residential designs are based on the standards set by The Department for Communities and Local Government's *Technical housing standards – nationally described space standard*, in addition to the Design Team's experience and advice obtained through consultations. Some important design principles that inform this proposal are:

- well defined, generous communal entrances;
- active street frontages, with as many front doors into entrance lobbies as possible;
- clearly defined defensible spaces at ground level;
- large number of dwellings with multiple aspects;
- limited number of apartments (up to 8) accessible from the same core on each floor, in order to promote neighbourliness;
- shortest possible corridors;
- direct routes from cores to apartments;
- a balanced mix of dwelling sizes and tenures;
- generous private amenity space for all, with usable balconies sufficient for outside dining;
- easily accessible, centralised bin stores;
- secure car and cycle parking with direct access from building cores;
- home office space to promote flexible work;

Secured by Design

The proposed design aims to provide safe and secure spaces, and is informed by Official Police Security Initiative's *Secured By Design* (SBD) principles such as:

- ground floor properties have defensible edges defined by low walls and hedges maintaining good visibility of entrances;
- all streets and spaces are overlooked with windows, to promote natural surveillance;
- no blank gable walls;
- all communal entrance doors will incorporate an access control system via an external door entry panel with video/intercom control from individual dwellings;
- access to communal courtyards will be secure with access control for residents;
- car parks and bike stores are all accessed via secure gates, shutters and doors, incorporating CCTV coverage;
- all glazing systems, locks and doors will be specified to SBD and BS standards;
- internal post boxes in communal lobbies will be surveilled by CCTV;
- lifts and staircases with access control and CCTV cameras;
- bin stores with access control are located close to cores.

Active Frontages

Active frontages are maximised throughout the scheme with the inclusion of both communal and private residential entrances at street level to all elevations.

Communal entrances will be clearly visible and transparent. Primary entry will be from public paths, but direct to secure car parks will also be provided. Direct routes will link the vertical circulation in each building to secure amenity areas. All ground floor dwellings facing public pathways will have usable defensible spaces.

The design of entrances and doorways across the site varies from building to building, adding variety and character along the public spaces.

Plant room and service access frontage will be kept to a minimum, but cycle stores will be adjacent to entrance lobbies and benefit from street frontage where possible, to facilitate security and easy access.

Private Amenity

All dwellings will include private outdoor amenity space in a variety of types: front gardens, recessed and projecting balconies, and roof terraces.

Recessed balconies will generally be located along the public thoroughfares on the outer edges of the site, whereas projecting balconies will generally overlook amenity areas within the site. Balcony dimensions will allow meaningful use – e.g. outdoor dining.

Most dwellings facing communal gardens or courtyards will benefit from private gardens with access to the communal gardens. Where private amenity space faces directly onto a street, it will be well defined defensible space, recessed by less than 600mm, in line with Secured by Design principles, with the aim of providing security and privacy.

Some buildings will be split into elements with different heights, thereby providing variety in the townscape as well as roof terraces which will add to the amenity provision.

Sunlight and Daylight

The application site is bound by mainline railway line on the west and industrial buildings on the north and east orientations. There is a midrise residential building on the south-south west orientation which is a sensitive receptor for daylight and sunlight. The nearest block is proposed at about 20 metres distance and does not have any significant impact on the daylight and sunlight of the existing residential building. The taller building elements are proposed along the outer edges of the site, so as to minimise overshadowing of the amenities.

The masterplan has been developed to create a comfortable microclimate and usable outdoor spaces / public realm. The proposed buildings will have minimal or no impact on buildings in adjacent sites.

Building blocks have been arranged so as to avoid overshadowing and provide accessible amenity spaces. Opposing facades have been kept at a minimum separation distance of 20 metres. Most dwellings have dual aspect living rooms to ensure adequate daylighting.

Throughout the design process, building volumes and landscape have been adjusted – within the parameters of the project brief – to optimise the usability of outdoor spaces such as play areas.

Thus, the architectural design complements the landscape and public realm design, with the aim of providing enjoyable outdoor amenity that can be used as extensions of the living spaces, safely and comfortably at different times of the day and throughout the year.