



Housing LIN

Connecting people, ideas and resources

Case Study 159

Building for a Healthy Life: Rochester Riverside – a Housing Design Award-winning development

OCTOBER 2020

Written for the Housing Learning and Improvement Network by **Caroline Dommett**,
Andy Heath and **Louise Morris** of BPTW



Introduction

The quality of our homes and urban environments play a vital role in our health and wellbeing; something that has become all the more evident in 2020, especially as a result of the pandemic. This case study for the Housing Learning and Improvement Network captures the key design characteristics that establish a route to healthy, sustainable and enjoyable homes.

"I've always been a big outdoors person so being able to walk along the river every day is amazing. The water makes everything seem so peaceful, and there are many different types of wildlife, like seals and swans. Living in the midst of history and yet having access to all the conveniences of modern life makes this a perfect location to live."

Nadia Mitchell, resident at Rochester Riverside

Pathways to success

For a number of years now Housing LIN and the *HAPPI design principles* have set high standards for later living housing by emphasising the need for health considerate design. Through this they have promoted a focus on sunlight, open spaces, accessibility and air quality alongside social and physical factors such as community, neighbourliness, interaction and activity. These healthy living principles are now being recognised as vital aspects in the design of every home, and the results of this ethos are being seen in many new developments today. Designed by BPTW, Rochester Riverside Phase 1B is an outstanding example of this ethos having been awarded both the *Winner of Winners Award* and the first ever *Building for a Healthy Life Award* at the 2020 Housing Design Awards.



The waterfront walk at Rochester Riverside provides a continuous pedestrian and cycle route through the development.

Image & cover image source: BPTW

¹ Quote courtesy of Countryside Homes, available at <https://www.countrysideproperties.com/case-study/24-year-old-first-time-buyer-steps-property-ladder-rochester-riverside> [accessed 24 September 2020].

Located in the historic town of Rochester and adjacent to the river Medway, in Kent, the Rochester Riverside masterplan is transforming a 32-hectare brownfield site over seven phases to provide 1400 new homes alongside eight public squares and parks, a primary school, two hotels and essential shops. Effected by the closures of the local dockyards in the 80s, the site has remained vacant until recent site assembly, land remediation, flood defences and improved railway connections were completed. During this time, opinions on housing and urban environments changed for the better and the masterplan and its detailed phases focus extensively on designing a pleasant, sustainable and varied neighbourhood with strong connections to the town. BPTW were appointed by Countryside and The Hyde Group to deliver the detailed design for phases 1 to 3, including the completed Phase 1B, alongside the masterplan by HTA Design.

Phase 1B provides the first 131 homes, including 50% family-sized and 25% affordable homes, in an arrangement that closely follows the river's path, intertwining homes and landscaping so they seamlessly unite both Rochester's historic townscape and the natural riverside setting.



*Aerial illustration of Phase 1B set within the wider Rochester Riverside development.
Image source: BPTW*

Understanding community and place

Rochester and the river Medway, with their rich historical narrative, provide a wealth of inspiration to draw upon. To create an architectural language in harmony with its context, the design philosophy for Phase 1B was fundamentally guided by the local community and the placemaking characteristics of Rochester. Facilitated by BPTW's planning consultancy team, a collaborative approach with many of the area's stakeholders including Council Officers, Councillors and the local community was established through a process of intensive and proactive consultation which allowed our architects to draw on the consultees' knowledge and the appreciation they have for

their town. This included leading guided walks around the town where Councillors identified and photographed spatial, landscaping and built form elements they felt to be important to the town's character, and they determined key words such as *variety* and *intimacy* to describe Rochester's architectural aesthetics. These records formed the guiding principles for the design of the public spaces and the arrangement of the new homes. As a tribute to the success of the consultation process, the scheme was commended at the 2018 Planning Awards for stakeholder engagement.



Inspired by Rochester's historic architecture, the design concept of an unbroken wall known as 'Durobrivae' is a key principle of the development's characteristics.

Image source: BPTW

Intensive site studies with numerous visits and photographic surveys of the historic town and the Medway waterfront inspired five design strategies that define the development. The surviving areas of the original medieval wall offered a strong precedent for the spatial arrangement of the streets and the new buildings' architectural language. The design concept of an unbroken defensive ring known as 'Durobrivae' is reflected in the grey brick boundary walls throughout the development. References to Rochester's rich conservation area and



Guided walks were hosted with Councillors to inspire an understanding of the unique character of Rochester.

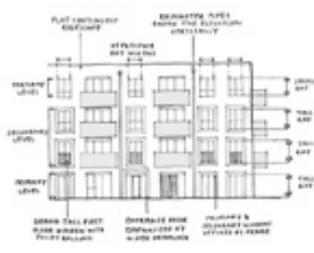
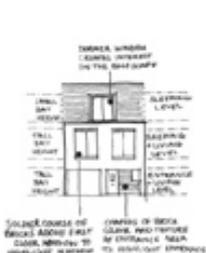
Image source: BPTW

Chatham's Historic Naval Dockyard can be found in the scheme's extensive roofscape strategy which includes the articulation of strong pitched roofs and gable ends as defining features. The local Georgian townhouses with their rigorous geometry, repeating bays and elegant window proportions guide the facades' articulation. At the smallest scale, areas of architectural detailing and material selection are inspired by local historic facades, including lattice brickwork patterns, black weatherboarding and variations in brick colour, texture and tone. Finally, landmark buildings are carefully placed throughout the development to form visual markers that frame the spatial arrangement of the streets; a common element in the town's historical arrangement. At all times the concepts of *variety* and *intimacy* were considered to maintain a focus on the human scale of the scheme. The architect's commitment to understanding Rochester's community and unique sense of place has created a bespoke, context-led design that is reflective of its both rich urban and natural environment.

Rochester Town - Articulation and Proportions



Medway Riverside - Articulation and Proportions



The proportions of the new homes were inspired by the architectural vernacular of Rochester and the Medway riverside.

Image source: BPTW

Life cycle: an active and community-focused neighbourhood

The neighbourhood's layout reflects its proximity to the high street and the river by complementing the town's existing spatial arrangement and enhancing its attractiveness. Public spaces and avenues connect directly from the historic town to the new landscaped riverside walk. This network of landscaped public spaces was arranged to provide both exemplar visual and spatial amenity to the immediate residents and to also offer a destination for visitors from the town

and further afield – providing an accessible arrangement so everyone can benefit from the site’s natural surroundings. A dedicated pedestrian and cycle route with connections to local destinations has been established through the development and along the riverfront to encourage an active lifestyle and sustainable transport. Children’s play spaces and an outdoor gym are also positioned at intervals along the river walk. Rochester’s train station is located at the entrance to the development, offering convenient public transport connections to London and the neighbouring Medway towns.



The new Station Square creates the gateway to Rochester Riverside and the train station.

Image source: BPTW

Within Phase 1B, the new station square creates both the gateway to Rochester Riverside and the town itself. Framed by buildings such as a hotel, the station and apartments with ground floor commercial uses, the station square incorporates many of the key design principles continued through the rest of the scheme. Here, the buildings’ roof forms provide a visual relationship to many of the residential buildings near the water’s edge, coupled with variations in brick colour and a linear window arrangement borrowed from the Georgian town houses. The public spaces have been shaped and framed carefully by the new houses and apartment buildings to direct vistas towards the waterfront and offer good views of the street, creating safe open spaces where areas of rest and play provide a sense of activity. The concept of the *Durobrivae* wall can be felt most strongly within the residential areas, and the continuing brick perimeter forms a plinth for the new homes with their varied façade treatments whilst spatially defining the public realm.



The principle of Durobrivae is evident in the new homes.

Image source: Patrick Spears

The twelve [Building for a Healthy Life](#) criteria were important factors in creating a development focused on the wellbeing, health and resilience of the community. The wide variety of residential typologies cater for the different lifestyles and varied family types in modern society, with the ultimate goal of creating a mixed neighbourhood with appropriate housing for everyone. Sustainable transport and car parking were critical in the public realm design, and the scheme focuses on providing adequate parking arrangements that avoid the visual dominance of cars while using strategic design moves to encourage sustainable transport options such as the prevalence of safe cycle routes.

Landscaping forms a key focus of Phase 1B, not only to create an exemplar external environment for recreation but to also enhance biodiversity and provide sustainable solutions to some of the site's primary constraints. Landscape architects LUC have designed a landscape which complements the unique riparian site character of the River Medway and its salt marshes, while carefully integrating this with hints of Rochester's wider built heritage. The landscape promotes healthy lifestyles, with the design informed by Sports England Active Design Principles. Phase 1B establishes the start of a new 2.5km riverside walk, linking to open spaces and play areas offering people a fantastic opportunity to engage with the River, and stay fit and healthy at the same time. Active components sit alongside wider aspirations to expand green infrastructure, promoting urban greening and ultimately climate change resilience. The approach preserves the sites unique habitats, allowing them to flourish naturally while supporting the local ecology in a way that strives for a net gain in biodiversity. Bee bricks, bat roosting tiles and spaces for nesting birds can be found throughout the open space network, alongside native plants, wildflower meadows and habitat walls. The arrangements of the neighbouring streets and public squares celebrate this unique landscape and local heritage with bespoke works of public art by artists Katayoun Dowlatshahi and Chris Tipping, facilitated by the art consultancy FrancisKnight, that also serve as way finding elements to strengthen the identity of key areas.



The unique riparian site character of the River Medway and its salt marshes have been carefully integrated with the development.
 Image source: Countryside



The thirty years the site has been vacant has seen a significant increase in flood risk. To provide new homes without the risk of flooding, the residential areas were strategically raised above the lifetime flood level with richly landscaped buffers between the new homes and the riverside which also accommodate the required level change. The new riverside walk remains at the lower level alongside the existing flood defences, forming a part of the sustainable urban drainage system with permeable paving.

Left: Starting in Phase 1B, the river walk seamlessly follows the course of the River Medway and provides vantage points for visitors to look out over the natural landscape.

Image source: LUC

Below: Public artworks by Chris Tipping (left) and Katayoun Dowlatshahi (right).

Image sources: BPTW and LUC



Designing homes for all ages

The development features ten different house typologies and seven apartment building types to serve the varied lifestyles of today in a way that also connects visually with the variety of buildings in Rochester. These homes span from two-bedroom terraced houses to four and five-bedroom detached houses, and four-storey apartment buildings. Their arrangement within Phase 1B contributes to a diversity in street typology that carefully facilitates the design of the external public spaces. For instance, streets that safely accommodate children's play, house types with integrated parking or apartment buildings that frame the development's primary roads. The layout of every home has been carefully designed to take advantage of the exceptional location, including stunning views over the river from the water-side homes, whilst also ensuring they are easy and functional to live in. Each home features a private garden or generous balcony for private amenity.



Many different home typologies were developed to cater for the variety of lifestyles today.

Image source: BPTW

Every typology was designed to respond to and celebrate its location within the scheme. River and creek-fronting family houses have an open plan living, kitchen and dining room at first floor with Juliet windows to maximise views. Houses on the secondary streets utilise a traditional format to provide views of the shared surface streets that maintain natural surveillance and enable children to play safely.



*Internally, the new homes provide strong visual connections to the riverside and natural environment.
Image source: Countryside*

In the design of the internal layouts and arrangement of the façades, following the HAPPI design principles, BPTW also accommodated the future adaptability of the homes. An important consideration was the potential for each home to continue to serve the needs of the people that live there as their circumstances change. The houses have large landings and breakout spaces that can be used as an office, allowing a greater potential for home working. The house typologies also go above and beyond the minimum housing design standards for room sizes to create open, spacious homes that improve quality of life. All apartment buildings have been designed to building regulations M4(2) and a proportion to M4(3) accessible, ensuring that a range of mobility needs can be catered for – from wheelchairs and those with limited mobility to families with prams. Lifts and level-access entrances allow users in wheelchairs to occupy and the use the buildings with ease. The apartments are ideal for first time buyers or downsizers with many doorstep amenities to reduce the need for car travel.



*Accessibility has been a strong design influence to ensure there are homes for all mobility requirements.
Image source: BPTW*



All apartment buildings have been designed to cater for a wide range of mobility needs.

Image source: BPTW

The scheme features renewable energy sources to deliver a significant saving on CO₂, such as PV panels. Where installed, these will help to provide a source of on-site renewable energy generation with the aim of meeting a 20% improvement in CO₂ emissions. A high standard of fabric and energy efficiency helps to reduce the project's carbon footprint and energy costs for residents. This strategy encompasses highly insulated walls, floors and roofs, efficient double glazing, high levels of air tightness, and efficient lighting and appliances choices. Rochester Riverside also meets the BRE Green Guide standards for material selection.

The future: design that supports a healthy life

The events of 2020 have made the shortcomings of many homes evident and forcefully reasserted the need for high-quality residential design and public spaces. For many of us, the quarantine has shown what is lacking in our homes and neighbourhoods, especially things that have previously been ignored at the expense of other development priorities – a balcony for fresh air, views over trees or landscape, places to walk close to our front door, the support of our neighbours, or even the additional space for a desk. For residents at Rochester Riverside, their experience over the last six months has been greatly improved by the generous layout of each home and the immediate connection to the natural landscape just on their doorstep.

"It's a beautiful development, part of my lifeline and I don't know what I would have done without it. I have a great balcony that is located in the sunniest spot ever, and it's nice to go for walks in the green spaces too. You see families and dog walkers, and there is a really nice feeling."²

² Quote courtesy of Countryside Homes, available at <https://vimeo.com/442434371> [accessed 25 September 2020].

Rochester Riverside was selected as the and the *Building for a Healthy Life Award* because it reflects the needs of society today and aims, through small and large design choices, to raise the standards of living to what we all deserve. To watch the Housing Design Awards 2020 film created for Rochester Riverside Phase 1B visit <https://www.bptw.co.uk/projects/rochester-riverside/>



Rochester Riverside Phase 1B creates a transformational extension to Rochester's historic town centre that benefits from the beautiful waterside location.

Image source: Countryside

Note

The views expressed in this paper are those of the authors and not necessarily those of the Housing Learning and Improvement Network.

About BPTW

BPTW is an award-winning, design-led practice specialising in architecture, planning consultancy and visualisation. Our philosophy is centred around creating places for people to live, work and play, and we collaborate with leading developers, housing associations, local authorities and private clients to create high-quality solutions for the built environment.

Email: architecture@bptw.co.uk

Web: www.bptw.co.uk

Twitter: [@_BPTW_](https://twitter.com/_BPTW_)

Linkedin: www.linkedin.com/company/bptw

About the Housing LIN

The Housing LIN is a sophisticated network bringing together over 25,000 housing, health and social care professionals in England, Wales and Scotland to exemplify innovative housing solutions for an ageing population. Recognised by government and industry as a leading 'ideas lab' on specialist/supported housing, our online and regional networked activities, and consultancy services:

- connect people, ideas and resources to inform and improve the range of housing that enables older and disabled people to live independently in a home of their choice
- provide insight and intelligence on latest funding, research, policy and practice to support sector learning and improvement
- showcase what's best in specialist/supported housing and feature innovative projects and services that demonstrate how lives of people have been transformed, and
- support commissioners and providers to review their existing provision and develop, test out and deliver solutions so that they are best placed to respond to their customers' changing needs and aspirations.

To access a selection of related resources on the HAPPI design principles, visit our online 'Design Hub' at: <https://www.housinglin.org.uk/Topics/browse/Design-building/>

Published by

Housing Learning and Improvement Network
c/o PRP, The Ideas Store
10 Lindsey Street, Clerkenwell
London EC1A 9HP

Email: info@housinglin.org.uk

Web: www.housinglin.org.uk

Twitter: [@HousingLIN](https://twitter.com/HousingLIN), [@HousingLINNews](https://twitter.com/HousingLINNews) & [@HLINConsult](https://twitter.com/HLINConsult)