



Carlow Town 2040

A Vision for Regeneration & Development

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Rialtas
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Carlow Town 2040

A Vision for Regeneration and Development

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Executive Summary

Project Carlow 2040 is an ambitious Regeneration Strategy for Carlow Town. This Regeneration Strategy contains transformational and aspiring ideas for the economic, social and environmental benefit of Carlow. In this document, plans for the future of Carlow Town are outlined alongside objectives setting out how it is intended to achieve these, with some ambitious improvements proposed for the Town Centre. This Regeneration Strategy includes a number of Interventions envisaged for Carlow Town which will have a central role in delivering the objectives outlined in the Strategy over the next 20 years.

In line with the National Planning framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Southern Region, where Carlow is identified as a Key Town, this Strategy is innovative and offers a sustainable approach to urban regeneration which has been tailored for Carlow Town. Through the implementation of this Strategy and its individual elements, it will improve health and wellbeing, create better town centre spaces, enhance competitiveness and commercial activity, encourage town centre living and encourage building enhancements in order to improve the long term viability of Carlow.

The long-term vision of this Regeneration Strategy is to transform Carlow Town into a regional powerhouse of sustainable economic growth that will offer business opportunities and a better quality of life for all. Carlow Town will become a centre for education, cutting edge business, high quality retailing and a Town that prioritises the wellbeing of its visitors and residents. Carlow Town has the potential to become an innovative, ambitious and successful place.

Carlow Town is strategically located in the South-East Region and has a pivotal role with strong links to the Midlands and the Greater Dublin Area, supported by good access to transport infrastructure. Carlow is a regional centre for education, healthcare, public services, shopping and arts, culture, leisure and recreation for a wide area extending into Laois, Kildare and Wicklow. The aforementioned strategic vision has been central to the development of this Regeneration Strategy and the objectives and Interventions outlined within it. Each Intervention incorporates key ideas locally within each area, while being aware of the part each Intervention will play in the broader Regeneration Strategy for the Town. There are six Interventions identified in this Strategy.

The Intervention Areas were informed by extensive public consultation and consist of:

- **Town Centre - Potato Market and Barrack Street**
- **Cultural Quarter (including links to the Railway Station)**
- **The Barrow Track / Civic Spine**
- **The Pembroke District**
- **The Burrin Riverfront**
- **Link Streets (Dublin Street and Tullow Street)**

In order to achieve the vision of this Regeneration Strategy for Carlow to be a more innovative, ambitious and successful place, collaborations between the private sector and the public sector need to be encouraged. The active involvement by key stakeholders and strategic partners in the regeneration of the Town Centre will be critical for its success.

This Strategy is set out over six sections incorporating the public consultation process undertaken to date, a regeneration action plan over four core themes and the urban design and implementation strategy envisaged.

Carlow's Legacy...

The geographical position of Carlow Town, as the gateway to the south, is one of many reasons why companies seek to locate here. It has a diverse range of notationally recognised brands and local independent retailers offering customers an attractive experience and choice.

Historically, Carlow has been known to be home to large companies such as the likes of the Carlow Sugar Factory, which, alongside its sister company Erin Foods, employed 1,800 people in Carlow at its peak. The Sugar Factory was committed to the upskilling and education of its workers which has left a lasting skill base and a wealth of entrepreneurs in the Town. The factory closed in 2005 after 79 years in operation, but left in its wake a plethora of small industries which have developed and are located in the Town such as Burnside Autocyl and MSD.

Today, Carlow is home to leaders in Technology and Innovation, Engineering, Pharmaceutical, Internationally traded services and Retail Enterprises. Carlow Town has a developed balanced infrastructure, designed to create an environment where residents and visitors have access to a variety of services, which include world class artistic and cultural spaces, traditional social infrastructure, quality parks and walks.

Carlow Town enables **ambition, innovation** and **success** to meet, resulting in Carlow becoming a location that many businesses have chosen to call home.



Potato Market



6 things to know about Carlow's Regeneration Strategy...

1. Focus on Health & Wellbeing

The creation and maintenance of a healthy public realm for Carlow is essential to the achievement of a thriving, vibrant, sustainable and attractive Town Centre that everyone can enjoy and take pride in. The places where we live and work have a significant impact on people's health and wellbeing and this Strategy seeks to identify ways of putting health and wellbeing in the heart of Carlow Town. Since Carlow County Council began the preparation of the Regeneration Strategy for Carlow Town in 2019, Health & Wellbeing has been a main priority area for all future development projects in the Town Centre.

2. Education

One of the key issues affecting population growth in Carlow is the Town's capacity to retain its younger population. Approximately 61% of people in third level education from the South East Region study outside the region and between 2011 and 2016 there was a decrease in the population of Carlow Town in the 20-34 age group of nearly 900 people. Going forward, it will be critical for Carlow to retain a greater proportion of people in this age group. An expanded third level offer combined with improved career prospects and opportunities for living in the Town will help Carlow to compete with other locations.

Carlow already has the advantage of being home to two third level institutes: Carlow College and the Institute of Technology Carlow (IT Carlow). These recently received funding for their collaborative consolidation project, which aims to enhance the provision of a first class educational experience for students in Carlow. This Strategy will act to support and enhance the strategic partnership between Carlow College and IT Carlow. Through improvements in the public realm, significantly enhancing connections between public transport, the Town Centre and educational facilities, as well as generally enhancing the attractiveness of the Town Centre, this Strategy seeks to not only attract new students to the Town but also to entice existing students to stay.

3. Takes space back into the public realm

In the first instance, Carlow County Council plan to deliver more public space, with the aim to encourage more people to spend more time outdoors. Carlow County Council also plans to make public space more responsive to the needs of those who use it. This Strategy seeks to provide plentiful, accessible and exciting public spaces in Carlow Town that are filled with people all day and all year round, providing a fundamental element of urban life. Extended and new riverside pedestrian routes, open spaces, and activities all connected by greatly improved pedestrian/cyclist networks will support this concept alongside a focus on green infrastructure, where Carlow will seek to find economic opportunities in the greening process. Overall, improving the quality and enhancing the accessibility to public open spaces will result in multiple benefits including health and wellbeing as well as sustainable transport, biodiversity and recreation.

4. Focus on the Town Centre

As part of this Strategy, it is sought to reinforce the critical role of the Town Centre as the heart of Carlow. The Town Centre will become a destination not just for shopping but for many activities, with a focus for visitors and tourists, taking in the unique architectural, cultural and heritage attributes of Carlow's townscape. Additionally, this Strategy will support the concept of increased residential density in the Town Centre which will support not only retailers, but a host of other amenities including retail services, restaurants, leisure and arts, providing more activity throughout the day and ensuring passive surveillance.

Carlow has an important relationship with the Arts which forms a key part of the Town's identity and can be further developed as an asset and attractor. Through the promotion of public art, there are opportunities to improve the public realm and create a more distinctive place. This strategy proposes bringing a new emphasis to the town centre by the regeneration of its core. We will achieve this by a renewed focus on better integrating existing elements of Carlow's urban fabric to provide new opportunities for growth and public interaction.

5. Links educational, public transport and amenity features

Improving the connections between key retail, recreational, educational and civic spaces in Carlow Town will entice people to spend more time in a vibrant and modern Town Centre. Providing more sustainable forms of movement around the Town will result in people choosing to leave their cars at home and instead choose active modes of travel. As such, this Strategy seeks to act as a catalyst for a number of benefits for the Town Centre which will emerge on foot of the Interventions proposed.

This Strategy includes Interventions which will afford people the chance to walk between key Town Centre locations such as Potato Market through to the Fairgreen Shopping Centre and from the Train Station to the River Barrow. Pedestrian access to the Train Station and Bus Routes (national and regional) from the Town Core will be enhanced and new/enhanced pedestrian/cyclist linkages will benefit from way-finding and good lighting, resulting in an environment which is appealing for pedestrians. Furthermore, new connected public open spaces in the Town Centre will incorporate green and blue infrastructure throughout, providing an opportunity to reduce carbon emissions, improve air quality, support more active modes of transport and provide a better quality environment for social use.

Carlow will, by becoming more pedestrian and cyclist-friendly and stitching the River Barrow and River Burrin back into the Town Centre, connect people to a range of services, jobs, education and other essential daily needs through sustainable transport methods. Taken alongside improvements in public transport connections, it is envisaged that most residents of Carlow Town could meet their daily travel needs without a car.

6. Enhances the economic activity

The Strategy seeks to implement innovative initiatives that will contribute to Carlow's growing economy in a sustainable way. It is anticipated that the Strategy will result in improvements to the local economy and quality of life, supporting increased population growth. The Strategy provides for enhanced economic activity, for employment and greater community activity, as well as innovative forms of new residential developments. The

Strategy will also support the regeneration of a number of existing underutilised/vacant sites strategically located within the Town Centre, with their development providing the opportunity to not only deliver new uses such as employment, community, and residential, but to enhance permeability within the Town, link uses and spaces and create a definable Town Core.

Carlow County Council owns a significant land bank within the Town Centre, including the row of terrace houses on Barrack Street, the former Bank of Ireland site on the Athy Road and the former Cash & Carry site on Kennedy Street. These sites, along with other key Town Centre sites, present major opportunities to decrease vacancy levels and bring back into active use currently underutilised areas of the Town Centre. Carlow County Council have already utilised funding streams such as the Rebuilding Ireland Capital Works Management Framework under which they have applied for funding to refurbish the 7 no. derelict houses on Barrack Street for Social Housing as well as the URDF to undertake significant work within the Town Core Intervention in this Strategy. Other strategic sites can be used to leverage private investment as well as facilitating community uses and upgrades to the public realm.

Furthermore, Carlow Town is well positioned to attract an increasing number of businesses operating in the field of building innovation and development and the manufacture of construction materials. There is an opportunity for partnerships to be created between the third level institutes of the town, IT Carlow and Carlow College, and the existing future manufacturing related companies, to develop Carlow as a centre of excellence in the field of emerging construction technologies.



An aerial photograph of Carlow town, Ireland, showing a river flowing through the center, a bridge crossing it, and residential buildings on either side. The sky is blue with some clouds. A dark blue circle is overlaid on the top left, and a larger, semi-transparent dark blue circle is overlaid on the bottom right.

1. Introduction

The Project Carlow 2040 Regeneration Strategy sets the long-term strategy and approach to the spatial pattern of development in Carlow Town over the next 20 years. As a long term plan it informs and will drive the economic, social and physical development of Carlow Town as an investment location and place to live, setting the direction for the development of strategic sites.

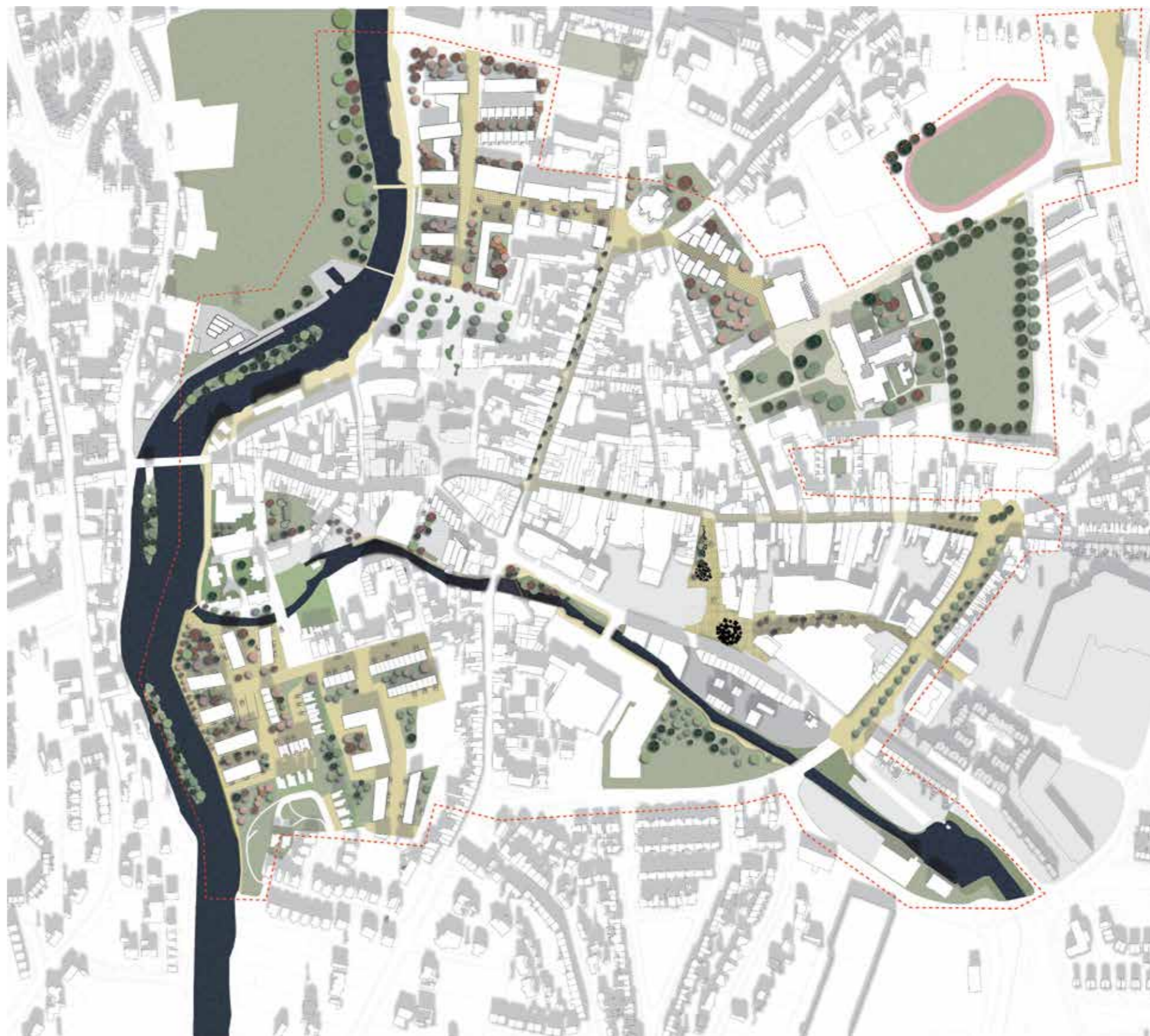
The Regeneration Study Area

Carlow Town is the principal centre of economic activity in County Carlow and an important County Town in the Southern Region. The core of the Town is located to the east of the River Barrow and while this area is the focus for Town Centre uses and economic activity it currently lacks a sense that it is the 'Heart of the Town'.

As shown opposite, this Strategy addresses the existing Town Centre area, from the Potato Market through to Barrack Street, Carlow College and the Railway Station as well as link streets such as Tullow Street, Dublin Street and Shamrock Square.

The Strategy area also encapsulates a section of the River Barrow to the west, including the Barrow Track, Carlow Castle and the Burrin River and the Pembroke area to the southwest of the Town Centre.

This Study Area for the Project Carlow 2040 Regeneration Strategy is shown in the context of the wider Carlow area in the Context Map overleaf.

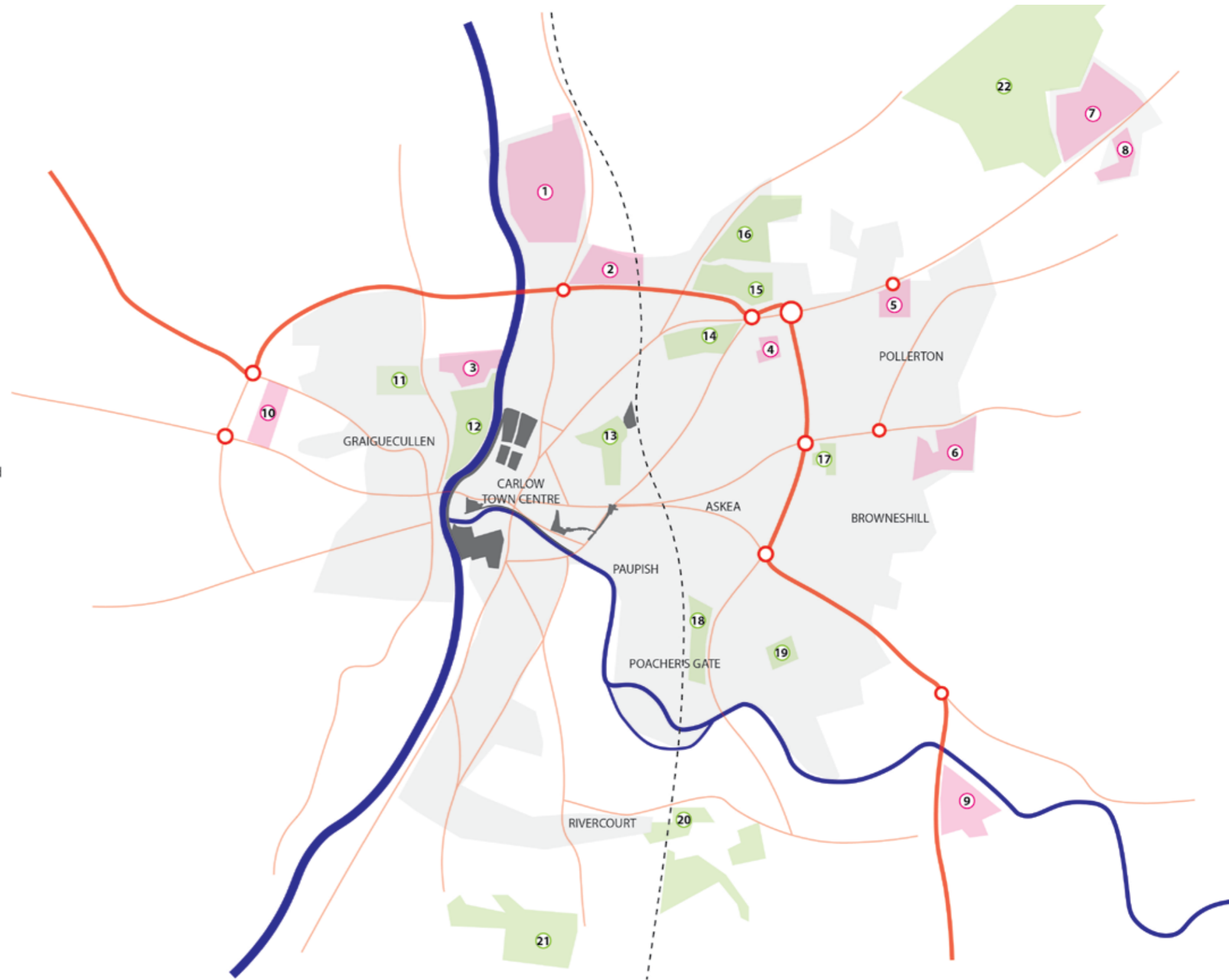




Context Map

- ① Former Irish Sugar Factory Site
- ② Carlow Gateway Business Centre
- ③ Barrowside Business Park
- ④ Braun Site
- ⑤ Four Lakes Retail Park
- ⑥ Kernanstown Industrial Estate
- ⑦ MSD Site
- ⑧ Deerpark Business Park
- ⑨ Wexford Road Business Park
- ⑩ Shamrock Commercial Park
- ⑪ Graiguecullen GAA
- ⑫ Carlow Town Park
- ⑬ Carlow College
- ⑭ St. Mary's Graveyard
- ⑮ O'Hanrahan's GFC
- ⑯ Carlow Town Hurling Club
- ⑰ Presentation College Sportsground
- ⑱ Eire Og CLG
- ⑲ Eire Og Ashgrove
- ⑳ Park area
- ㉑ Quingah House Par 3
- ㉒ Carlow Golf Club

- Industry / Business area
- Green areas
- Urban areas
- Project areas
- River Barrow
- River Burren
- N80
- Secondary Roads



Context

The Development of Carlow Town

The Carlow Town area has a rich and varied history dating back many millennia, the Browneshill Dolmen to the east of the Town being a prominent megalithic tomb dating to c.3,500 B.C.

Following the Anglo-Norman invasion of Ireland, Carlow Castle was built in the early 13th Century by William Marshal, Earl of Pembroke and Lord of Leinster. The Castle was constructed to defend a crossing point of the River Barrow and is likely the basis for the development of Carlow Town in its current location.

Carlow once served as the administrative capital of the Lordship of Ireland under King Edward III from 1361 – 1374. Carlow Castle itself had survived largely intact from the 13th Century until 1814 when unsympathetic efforts were made to redevelop it. Parts of the bridge over the River Barrow are also of historical significance, dating back to the 16th Century. The current layout of the Town dates back to this time when it functioned as a market town serving a substantial rural hinterland. It continued to fulfill this role for over two centuries.

The 18th Century saw the commencement of Carlow's connection with third-level education, with Carlow College, St Patrick's founded in 1782. The College, a liberal

arts college, was established following relaxation of the penal laws and is Ireland's second oldest university-level institution. The 18th Century was, however, also a dark time in Carlow Town's history with 600 United Irishmen killed in the Town in an attempt to free their fellow countrymen as part of the 1798 Rebellion. Those killed are buried in the Croppie Graves in Graiguecullen and the battle in the Potato Market area is commemorated with the Liberty Tree Monument by renowned artist John Behan.

The 19th Century in Carlow brought advancements in architecture and infrastructure with the development of Carlow Courthouse, Duckett's Grove and Carlow Cathedral, one of the first Catholic Cathedrals in Ireland. These stand today as testament to the architectural heritage and development of the Town. This Century also witnessed the arrival of the rail line which connected the Town to Dublin and the south-east, offering not only enhanced accessibility but improved connectivity for social and economic activity.

The 20th Century heralded in a new era of economic development for Carlow Town, with Ireland's first sugar beet factory built in the Town in 1926. The factory served the wider area and the Country for almost 80 years until its closure in 2005.

Since the 1960s Carlow had also become a location for international investment with companies like Braun and Lappel locating in the area. However, by the early 21st Century these manufacturing lead industries had closed, with the growing pharma industry now one of the largest employers in the Town following the opening of the MSD factory in 2008.

Carlow continues to function as a centre of education and the arts. The Town has two third level institutes, IT Carlow and Carlow College, as well as contemporary gallery and performance spaces at the VISUAL and George Bernard Shaw Theatre which opened in 2009 and the newly refurbished space close by for the Carlow County Museum.

Carlow Town as it stands today, has many assets as a place to live, as a regional centre and as a tourist destination including:

- **Critical Mass:** Carlow Town has a population of 24,272 which accounts for approximately half of the total population of the County.
- **Arts and Culture:** Carlow is a centre for the arts and cultural heritage, it accommodates significant modern arts and performance spaces as well as hosting renowned events such as the Carlow Arts Festival.
- **Quality of Life:** Carlow offers excellent quality of life, affordable living costs and distinct architectural and cultural heritage.
- **Education Facilities:** Carlow has a long history in the provision of third-level education, with two Institutes of Higher Education, IT Carlow and Carlow College, located within the Town.

However, like many other Regional and County Towns throughout Ireland, Carlow faces challenges with regard to Town Centre vitality, retail competitiveness, employment opportunities within the Town, infrastructure (road, rail and communications), public transport provision and Town Centre living.

The purpose of this Regeneration Strategy is to guide the long-term development of Carlow Town by re-purposing the Town Centre and re-establishing a definable Core. The Vision for the Town seeks to build on its unique attributes

and attractions in combination with addressing its existing challenges to make the Town a place for its people, where residents, workers and visitors alike will be encouraged, to access everything the Town Centre has to offer.

This will be achieved through a number of interventions including:

- Improved Town Centre linkages and increase pedestrian mobility;
- Permeability through Carlow College as a public space;
- Connecting the River Barrow and the River Burrin back to the Town, helping to provide the Town Centre with a unique character and identity while utilizing the opportunity for amenity and recreation along the riverfront while providing sustainable public realm spaces and routes;
- The delivery of a 'Civic Spine' development across Local Authority owned lands and into Carlow College;
- The creation of a residential quarter within Carlow Town in the Pembroke area; and
- The provision of a linear area, encompassing Carlow Castle, with a mix of cultural, historical, recreational, leisure and retail uses.





A Fresh Vision

Carlow Town is a service provider for the County and wider region, with the Town Centre acting as a driver for growth for the whole County. It is, therefore, important that the principal streets and spaces that form the heart of Carlow Town are functional, attractive and inviting. Furthermore, Carlow Town has a number of key opportunity sites in need of regeneration which afford the opportunity to deliver enhanced sustainable connectivity within the Town Centre, improve the health and wellbeing of residents and visitors, and promote sustainable activities and compact urban growth.

The Vision is for Carlow Town to be a high-functioning, inclusive, compact and accessible town underpinned by a robust and diverse local economy. The overriding objective is to deliver healthier streets which in turn will bring a number of social outcomes including *inter alia* safer, pedestrian friendly streets; a less car dependant Town Centre; better air quality; active travel; easier access; increased Town Centre living; improved inclusive public realm with a unique urban identity; and improved general wellbeing. The aim is to create a vibrant Town Centre providing for a network of linked open spaces, recreational uses and other social infrastructure elements that provides a good quality of life for all.

This Strategy, through proposed interventions at key opportunity sites, will act as a catalyst for the regeneration of the Town. Improving the connections

between principal retail, educational and civic spaces in Carlow Town will entice people to spend more time in a vibrant and modern Town Centre, while providing more sustainable forms of movement around the Town will result in people choosing to leave their cars at home. Additionally, this Strategy seeks to re-establish a residential population within the Town Centre through the promotion of and provision for Town Centre living, as well as improved public realm spaces and better access and promotion of civic uses.

This Strategy for Carlow Town focuses development on the Town Centre and identifies opportunities in the built environment and the public realm which can be developed to the benefit of the community and the local economy. It will directly bring forward the regeneration of key opportunity sites in Carlow Town as identified in the Joint Spatial Plan for the Greater Carlow Graiguecullen Urban Area 2012-2018, as extended.

Under the Joint Spatial Plan, areas can be renewed by improving the appearance of the public realm, creating new linkages through existing open spaces and by reducing block sizes with innovative infill development and advancing specific sites for development. As per policies CTP 30, CTP 31, CTP 32, and CTP 33 it is encouraged to facilitate the redevelopment of Barrow Track Site (Opportunity Site 2); Court Place Site (Opportunity Site 3); Potato Market (Opportunity Site 4); Pembroke Road Sites (Opportunity Sites 6); Barrack Street (Opportunity Site 8); and In and around Train Station (Opportunity Site 9). The Interventions contained in this Strategy are the next step in realising the delivery of these sites.



Barrack Street

This Strategy also builds on the work Carlow County Council has undertaken to date in relation to the revitalisation of the Town. The Council's commitment to the regeneration of the Town Centre is highlighted by:

- Investment in the Carlow Regeneration Vision and Implementation Strategy 2040 (Project Carlow 2040);
- The acquisition of the former Bank of Ireland Building which is in close proximity to the Council's buildings;
- The purchase of the Former Cash & Carry Site known as Perry's;
- The compulsory acquisition of residential properties on Barrack Street;
- The development and appointment of a Special Projects Development & Delivery Team to ensure that projects to allow for project delivery;
- The appointment of a Town Centre Co-ordinator as part of the Economic Team to engage with over 200 retailers in Carlow Town Centre;
- The development of a Town Development Forum Chaired by the Chief Executive with representatives from Industry and key stakeholders;
- The development of a core project plan supported by URDF to move a series of strategic projects from concept to development stage;
- Engagement with private sector landlords to work in partnership and develop sites in Carlow Town Centre;
- To support the development and operation of the South East Regional Economic Development Office which recognizes the development of Carlow Town in particular the opportunity for Technological University of the South East represents for Carlow;
- Strategic Business Case Development for Enterprise Hubs & Spaces in partnership with Enterprise Ireland & IDA; and
- Engagement with Failte Ireland in respect of visitor experience development in Carlow Town.



Furthermore, Carlow College and the IT Carlow recently received funding for their collaborative consolidation project, which aims to enhance the provision of a first class educational experience for students in Carlow, strengthening the inter-institutional relationship between them. Significant investment has been made in higher education in Carlow and this Strategy will further support and enhance the strategic partnership between Carlow College and IT Carlow. In this regard the Strategy seeks to not only attract new students to the Town while enticing existing students to stay, but it will also significantly enhance connections between public transport, the Town Centre and educational facilities.

This Strategy will also support Carlow County Council in its position as a Champion under the UN's Sustainable Development Goals Champions Programme. Carlow is the only Local Authority to be selected as a Champion alongside other organisations such as An Post, Musgraves and the GAA. The inclusion of sustainable growth principles and policies within this Strategy for the regeneration of Carlow Town Centre will provide an exemplar for future development in the Region and across the Country.

In line with national and regional policy, this Strategy is also innovative and offers a transformational sustainable approach to urban regeneration which has been tailored for Carlow Town. The implementation of the Interventions

in this Strategy will not only regenerate large areas of the Town Centre but will improve health and wellbeing, create better town centre spaces, enhance competitiveness and commercial activity, promote town centre living and encourage building enhancements in order to improve the long term viability of Carlow Town.

The Strategy provides a framework for the delivery of regeneration projects within the Town that can be brought forward through public and private partnerships and which will deliver tangible results in the form of employment opportunities, retail services, and residential units, as well as community and health benefits. The vision for the Strategy places the Health & Wellbeing of Carlow Town at its core,

which has been the Principle Objective of Carlow County Council since the preparation and development of this Strategy began in 2019.

With the recent emergence of COVID-19, which has resulted in a global pandemic, Health & Wellbeing in urban environments is now, more than ever, of vital importance to future sustainable urban development in towns and cities across the world. The objectives and outcomes outlined in this Strategy place Carlow County Council in a strong position to be proactive and ahead of the curve in supporting Town Centre initiatives which aim to make public spaces safe and inviting for the public in a post-COVID society.



Barrack Street and Potato Market Link



Pembroke District



Looking Ahead

Carlow’s strategic location in relation to both Dublin and Cork, it’s role as a major employer within the South-East region, its significant third level education offer and its range of amenities within the Town and on its doorstep, make Carlow Town a great place to live and work. The next 20 years present a real opportunity for Carlow to build on these assets and through the strategic regeneration of the Town, focused on its opportunity sites, realise its full potential to deliver a thriving community in a vibrant Town Centre, supported by a diversified employment base and integrated amenity spaces, services and education facilities. All with the health and wellbeing of its residents, workforce and visitors at its core.

The purpose of this Regeneration Strategy is to guide the long-term development of Carlow Town by re-purposing the Town Centre and re-establishing a definable Core so that this future can be delivered. In order to achieve this the Strategy must look ahead and prioritise the areas that present the most opportunities, and will deliver the greatest regenerative benefits, for Carlow Town. The following areas have been identified in this regard.



Economic Investment

The South-East Region offers huge potential and benefits to people and businesses that choose to locate in it. Carlow County Council, through this Strategy, is seeking to undertake place making activities to improve the Town and attract people to live and work here.

Successful, sustainable, resilient and prosperous towns need to have a range of economic activities, from leisure and retail to serve the local community, to a variety of businesses that take up office and commercial spaces. In this regard, this Strategy will support the delivery of a high quality urban centre to live and socialise in, as well as a range of amenities such as recreational areas, public realm, and a good retail mix, all of which are a critical driver of inward investment.

A number of multinational corporations including MSD, Netwatch and Unum Ireland, already have a strong presence on the outskirts of Carlow Town. While these enterprises present opportunities for further clustering and for new spin off sectors, ensuring the Town Centre becomes an attractive destination and a driver of commerce and innovation is fundamental to sustainable economic growth. This Strategy provides an opportunity to address this issue through the delivery of the Intervention Areas.

Carlow Town is also well positioned to attract an increasing number of businesses operating in the field of building innovation, development and the manufacturing of construction materials. The opportunity exists to create synergies between the Town’s third level institutes, IT Carlow and Carlow College, and the existing and future manufacturing related companies to develop niche technologies and create a centre of excellence in the field of emerging construction technologies. This approach, based on widening the economic role of the Town Centre and utilising its unique attributes, will also help change perceptions and create a more liveable Town Centre.

Health & Wellbeing

It is increasingly recognised that place and space have an impact on human health and wellbeing and that individual actions to improve lifestyle or health status are likely to be influenced by the environmental and socioeconomic context in which they take place. This Strategy has presented a unique opportunity for Carlow Town to place Health & Wellbeing to the forefront of it’s regeneration and the future envisaged growth of the County. The Strategy seeks to ensure that Health & Wellbeing is a feature outlined in each Intervention Area and their associated proposed outcomes.

The recent global COVID-19 pandemic which emerged at the start of 2020 has highlighted now more than ever, the concept of Health & Wellbeing within the built environment. The impact of COVID-19 on the built environment has resulted in a number of restrictions affecting social and economic activity in urban areas, which have been implemented in order to protect the health and wellbeing of society. Alongside the health concerns related to the COVID-19 virus itself, the pandemic has resulted in broader health concerns in relation to physical activity, mental health and the impact on social activity and community participation.

This Strategy seeks to provide Carlow Town with plentiful, accessible and exciting public spaces that are attractive to people all day and all year round, providing a fundamental element of urban life. The goal is to help more people spend more time outdoors, together. Improving the quality and enhancing the accessibility to public open spaces will provide multiple benefits including health and wellbeing as well as sustainable transport, biodiversity and recreation. Carlow will be ahead of the curve and proactive in supporting public realm initiatives in a post-COVID society, while promoting elements of it’s unique urban fabric that would allow it to illustrate best practices in achieving our sustainable development goals. Strategy promotes and facilitates the provision of future residential development in Carlow Town Centre and in doing so seeks to harness the potential of these sites and incentivise their redevelopment.

Green and Smart

We are living in a time where environmental sustainability is not only at the forefront of policy making but its prominence is being driven by the next generation. It is thus vital that any long term strategy recognise the shift to climate adaptation protocol and the opportunities for Carlow in the area in terms of new and emerging technologies.

Establishing Carlow as a clean, green energy town will make it a more attractive place to live and work. The Town should promote ‘green’ not only in relation to energy but in reference to its character as a place that is resource efficient, well connected by sustainable transport and has attractive green and blue infrastructure.

This Strategy has incorporated features within the public realm that aim to reduce overall car numbers and allow for more urban green space for walking, cycling and exercise. The vision for Carlow in 2040 is to be more environmentally conscious and move towards a more sustainable way of living. This will require a noticeable reduction in car usage, the promotion of walking and cycling, a greater use of outdoor space, increased use of public transport, changing how we shop and adaptation towards alternative forms of construction and manufacturing.



Town Centre Living

Like many towns around the Country, Carlow Town currently faces a number of challenges in relation to vacancy and the underutilisation of buildings, as well as a preference for living outside of the Town Centre. Significant investment is required to re-establish the Town Centre as a destination of choice for people to shop, work, visit, spend time and live.

People living in the Town Centre is central to creating a thriving, resilient and sustainable Centre. Carlow must capitalise upon its existing amenities such as attractive green spaces, services, a strong sense of community, leisure facilities and cultural assets to attract more people to live in the Town Centre.

Carlow has a number of underutilised sites throughout the Town Centre. Developing appropriate sites for residential use would increase the housing offer within the Town, significantly contributing to the vibrancy, sustainability and resiliency of the Town Centre. This Strategy promotes and facilitates the provision of future residential development in Carlow Town Centre and in doing so seeks to harness the potential of these sites and incentivise their redevelopment.

Town Centre Living Initiative

A report on town centre living was prepared for the Department of Rural and Community Development entitled 'The Town Centre Living Initiative (TCLI)'. This is a pilot scheme where a grant has been made available to participating towns so that they can develop proposals which encourage the reuse of vacant and underused buildings in town centres for living.

Six towns were selected to take part;

- Ballinrobe, Co. Mayo
- Banagher, Co. Offaly
- Boyle, Co. Roscommon
- Callan, Co. Kilkenny
- Cappoquin, Co. Waterford
- Castleblayney, Co. Monaghan

This initiative and similar approaches will be required across the Country over the next number of years and Carlow can be at the forefront of this drive for Town Centre living. The findings of this pilot scheme can be used to start to guide Carlow's bespoke solutions with initial pieces of work such as in Callan (opposite) worthy of consideration.

CASE STUDY: CALLAN, CO. KILKENNY



Callan in County Kilkenny has been chosen out of the TCLI Report as a Case Study due to its location off the M9 Motorway, similar to Carlow Town.

The population of Callan is 2,475 persons and it had a vacancy rate of 16%. While the town is significantly smaller than Carlow, it shares some similar characteristics such as it being a medieval town on the King's River with a strong cultural presence.

"In order to identify opportunities to develop vacant properties for residential use on Upper Bridge St, the project team (led by Kilkenny County Council and including Callan Town Team) prioritised the investigation of the current vacancy situation in the town. This involved identifying and contacting as many of the building owners as possible, using information gathered during the Callan Health Check (2018) and more informal local knowledge." (TCLI Report, May 2020).

A number of issues arose and reasons were identified for the vacancy levels in the town;

- Age and condition of buildings: most date from the 1830's and providing a modern standard of accommodation requires significant refurbishment and investment.
- Ownership dynamics: the original owner may be deceased with no clear instructions in relation to inheritance; the title may be unclear; legal disputes

leaving the property "in limbo"; multiple family members may be involved and some may have no interest in the maintenance or investment required.

- Lack of access to the buildings: no dedicated parking space on hostile, traffic congested, narrow streets; inadequate access to the rear of the buildings.
- Statutory compliance requirements: modern space standards cannot be met by the smaller buildings; security, access and fire safety, for example in mixed use buildings; and conservation requirements render refurbishment impractical. Supporting infrastructure is required to facilitate the regeneration of the street and the historic core.

The potential solutions to these issues which were identified include;

- 1. Taking a Collaborative Approach:** Identifying the crucial stakeholders and representative bodies, such as landowners and the local authority and bringing them together to discuss how to overcome barriers to development.
- 2. Making Redevelopment Economically Viable:** The main barrier to developing town centre buildings is the cost of refurbishment, however it is usually socially and culturally desirable to do so. The town needs to look at financial and regulatory incentives to successfully deliver projects.



2. Public Consultation

Stakeholder Engagement is an important element in the overall process of producing the Strategy. This approach provides a basis for a well-informed Final Strategy which contains examples of collaboration with the public. It is vital to identify and gather the opinions of stakeholders who live and work in the area as local knowledge is invaluable to the depth of detail included in the Strategy.

What We Heard

The approach to stakeholder engagement taken as part of this Strategy was based on the key consultation principles outlined in the Carlow Public Participation Network's Community Consultation Toolkit.

As part of the plan making process the project team convened a number of Public Consultation Workshops attended by the public, advisory agencies, Carlow County Council and Elected Members, Carlow Town Forum, young peoples representative's, businesses and key community stakeholders.

Stakeholder Engagement

Internal Communication

Carlow County Council have established in-house structures to ensure that the engagement in the development of Carlow Town is co-ordinated from vision to delivery. This structure allows for the collaboration of ideas and insurance that the Carlow Town Masterplan is designed using a whole of organisation approach. A strategic team is chaired by the Chief Executive with all members of the Management Team with the project development team. Consultation is conducted internally with all Departments in respect of the Masterplan Process.

Carlow Municipal District

Carlow Municipal District was established under the Local Government Act and is central to the future development of Carlow Town. In particular, they have a key role in relation to economic and community development and associated projects and initiatives. In addition, the members contribute significantly to inter alia transport, amenity and public realm projects with their inputs important to ensure deliverability, realise the needs of the local community and enhance the Town Centre.

Carlow Town Development Forum

The Carlow Town Development Forum was established to oversee and direct the implementation of a Town

In order to provide a focus for consultation, a number of key areas relevant to Carlow Town were identified as follows:

- Economic Development
- Perceptions of the Town
- Infrastructure
- Transport
- Community
- Urban Design/Heritage

These headings assisted in gaining an understanding of how people currently use Carlow Town, gave an insight into people's experience of the Town and provided a focus for how the Town may be improved into the future.

Centre Action Plan. This plan sets out a strategy that when implemented will positively impact the growth and prosperity of the Town Centre through increased visitation, business, revenues and jobs. The Vision of the Carlow Town Development Forum is to improve the prosperity of the Town Centre and enhance the well-being of the community, creating a viable and sustainable Town Centre economy. The Forum will help revitalise the Town Centre by supporting the development of a broad mix of retail, community and leisure uses that create a distinct Town Centre, appealing to residents and visitors alike.

The Carlow Town Development Forum provides an opportunity for all stakeholders to work collaboratively towards a shared vision that will enhance the quality of the town environment and strengthen the Town Centre. The Forum aims to provide a healthier and more pleasant environment for all people who live in, work in, and visit Carlow Town. Emphasis is placed on improving the economic, social, environmental, and community aspects of Carlow Town and enhancing the living, working and recreational environments of the Town.



Pembroke District



Public Consultation Event

Consultation Milestones

July
2019

Public Consultation 1

- The first Public Consultation Workshop took place at the Seven Oaks Hotel in Carlow Town on 25th July 2019 where the project was introduced to members of the public by Carlow County Council and the Consultant Team.
- An interactive roundtable session followed whereby participants were encouraged to relay their views and opinions on particular areas of the physical and social environment of Carlow Town.
- Core subject areas were identified to focus discussions, considering not only the challenges facing the Town, but also its assets in terms of what makes it an attractive and unique place.
- A wide range of responses were vocalised by participants and gathered on foot of this forum.
- This was a vital element in the engagement process which fed into the initial information gathering stage of the project. It identified the core issues facing Carlow Town according to those that live there and presented ideas for growth and expansion of the Town.

August
2019

Online Survey

- An online survey was made available on the Carlow County Council website to members of the public. The survey took the same format as the public consultation workshop.
- The provision of the survey facilitated the submitting of views, opinions and ideas and helped capture input from those who were unable to attend the public information session.

August
2019

- The survey proved to be a very effective engagement tool with a total of 122 replies received during the two week window. This demonstrated the strong commitment of the community to their Town and their interest in its future development.

October
2019

Youth Workshop

- A Youth Workshop was held on 15th October in the Seven Oaks Hotel as part of the consultative process. The purpose of which was to gain an understanding of the key issues that affect the lives of young people living in Carlow Town.
- Approximately 60 students from St. Leo's College Secondary School in the Town were in attendance at the Workshop. Following an introductory presentation, a group discussions on the key questions regarding the function of the Town, including "Where is the Town Centre?" was held.
- This Workshop provided valuable information with regard to how young people experience Carlow Town and how it functions for them as place to live, shop and meet friends.
- The session provided a new perspective on the Town and assisted in the identification of elements of the public realm that could be looked at further.

Public Consultation 2

- The second public consultation event took place on the evening of 15th October 2019 with members of the public again invited to an engagement session with the Project Team and Carlow County Council.

October
2019

- Initial findings were presented in an interactive manner utilising 11 no. boards, with which participants were encouraged to engage with the aim of identifying 'Strategic Areas' within the Town.
- The result of this process has directly informed the Strategy with regard to the locating of future growth and the different public and private initiatives that should be facilitated and encouraged.

November
2019

Engagement with Carlow Town Development Forum

- A meeting was held with the Carlow Town Development Forum at the Woodford Dolmen Hotel on the 27th November.

December
2019

Engagement with landowners and Carlow College

- On 3rd December, a meeting was held with representatives of the landowners of the Barrow Track lands to discuss the Regeneration Strategy.

January
2020

- On 17th January, a series of consultation meetings were held between Carlow County Council and their representatives with Carlow College, the Pembroke landowners and other landowners within the Town Centre to discuss aspects of the Regeneration Strategy.

January
2020

Engagement with landowners and Carlow College

- A Presentation on the development of the Carlow Town Regeneration Strategy was made to the Carlow Town Elected Members at the Carlow Town Hall on 27th January 2020.

January
2020

- The status of the Draft Strategy was made evident and the Elected Members had the opportunity to bring forward any comments on the Strategy prior to the next stage of the process.

February
2020

Engagement with Carlow Town Development Forum and landowners

- Engagement was undertaken with Carlow Shopping Centre owner Gwynne Thomas at the offices of Avison Young on behalf of Carlow County Council on the 6th February.
- This meeting broadly discussed the Barrack Street link through the service yard as occupied by Penneys and owned by Musgraves. A number of separate meetings were held between Musgraves, Carlow County Council and their engineers before agreement was reached about the access/ egress arrangement and a letter of support was ultimately issued by Musgraves for the URDF Call 2.
- A meeting was held with the Carlow Town Development Forum at the Woodford Dolmen Hotel on the 11th February.

July
2020

Engagement with IT Carlow and Carlow College

- Focused consultation took place with both Carlow College and IT Carlow on 1st July 2020.
- The consultation was carried out via Zoom and undertaken separately to ensure that each had the opportunity to discuss the issues relevant to their institution.

September 2020

Draft Regeneration Strategy goes on public display

- The Draft Regeneration Strategy was published online on 28th September 2020 and advertised on Carlow County Councils Website, via press and social media.
- Submissions were invited through the online portal and were also alternatively accepted via email and post.
- Presentations were provided by the Council Executive with key stakeholders and an active social media and e-marketing campaign was conducted which reached 26,000 individual users.
- A meeting of Carlow Town Development Forum was facilitated to gain feedback from the Forum.

October 2020

- The consultation period ended on 26th October 2020 and a total of 26 no. submissions were received during this time.
- The submissions were evaluated considered and presented to the Carlow Municipal District Members for their consideration and approval. Many of the submissions highlighted their support for the Strategy and commended the work of the Local Authority and its team in the preparation of this Vision.

November 2020

- Amendments were made to the strategy and many comments received during the consultation period have been taken on board in the finalisation of the Strategy. The strategy was finalised.
- The Strategy was launched at the Carlow County Council Meeting during November 2020.

€21m 'vision' unveiled for the centre of Carlow town

By Sierrana Pender

A SHARED vision for the future of Carlow town is a key component to a new €21 million plan launched this week – The Project Carlow 2040 Regeneration Strategy. The ambitious and imaginative project was launched at last Thursday's meeting of Carlow Municipal District by the executive of Carlow County Council, who described it as "a vision document", a framework for the future development of the town over the next 20 years. A 102-page booklet sets



Regeneration Strategy Press Release. Source: The Nationalist (Carlow Edition)



Draft Regeneration Strategy Banner



Launch of Draft Regeneration Strategy

Key Findings

Economic Development

Carlow Town has many positive economic attributes such as its third level education provision and other educational institutions, proximity to Dublin, the River Barrow, tourism, restaurants, retail, sports, cultural facilities and many others. Developing these existing assets is seen as central to the future economic development of the Town.

Perceptions of the Town

Many of the perceptions of Carlow Town, including those working and living in the Town and visitors, refer to the absence of a defined Town Centre. Others commented on the lack of vibrancy in the Town Centre and the need for a balance in the range of services available.

Infrastructure

The quality of infrastructure in Carlow Town was raised in relation to broadband connectivity, water and wastewater, and roads. An idea which received much positivity was the potential for a Free Wi-Fi service in the Town Centre which would attract a higher level of footfall.

Town Planning

In terms of Town Planning, the ideas of attracting businesses to the Town Centre and making it more accessible were raised during consultation. Discussions also focused on the need to develop existing industries within Carlow Town including IT, the construction sector and manufacturing.

Transport

Mobility issues raised related to accessibility and permeability within the Town, both vehicular and pedestrian, and the impact of traffic on the operation of the Town. Potential solutions to the existing issues centred on the need for a new approach to vehicle management that provides a balance between cars, pedestrians, cyclists and public transport links.

Community

The many arts and cultural festivals that take place in Carlow every year contribute to a strong community

spirit. This helps to develop a united economy built on the Town's assets and people. Instances of anti-social behaviour in relation to the night time economy were noted, with passive surveillance welcomed as a means of mitigating this problem.

Urban Design/Heritage

The cultural assets of the Town were identified, i.e. Visual, Carlow Castle and the Carlow County Museum, with respect to their value in creating a unique urban landscape. The current underutilisation of the River Barrow was also discussed, as was the need to re-establish it as a main feature which can help define the urban environment.

Education

Carlow Town is a dynamic base for education, learning and development with two Institutions of Higher Education, the Institute of Technology Carlow and Carlow College, together with circa 60,000 individuals who are Carlow Alumni. This is complimented by Carlow Kilkenny ETB who provide vocational education. The education providers approach is to support industry, by creating conditions for companies to grow and develop, to building networks and connections through Carlow County Council and other structures by providing a dynamic educational environment through which provides a suite of training, educational and business support options, placing innovation and people development at the core of development of the county.

IT Carlow and Carlow College have a Memorandum of Agreement in place that recognises and strengthens, the ongoing partnership between the two institutions and their shared interests and supports collaboration in areas such as academia, research, facilities, resources and community engagement.

CASE STUDY: FREIBURG, GERMANY



The City of Freiburg in Germany, with a population of just over 200,000 people, is considered to be a place that sets the standard for sustainability. It is the critical consideration in relation to development, transport, lifestyle and the environment and an international exemplar. Over 30 years of continuity in planning, driven by social and environmental sustainability, has transitioned the City which has long terms ambitions to 2050 of a zero carbon place.

Front loading of investment in key areas such as public transport were crucial to the success of Freiburg. There were many lessons learned which are worthy of consideration as the Regeneration Strategy for Carlow Town is implemented.

Lessons Learned:

- Implement policies that will bring about large scale change in stages, choosing projects that are strongly supported in the first instance.
- Keep plans flexible and adaptable over time to allow for changing conditions.
- Policies should include both sticks and carrots to encourage people to change behaviour but making public transport, cycling and walking much easier.

- Organise land use and transportation on an integrated basis to ensure that travel distances can be kept short.
- Involving the general public should be an integral part of policy development and implementation.
- Support from regional and national government is vital in helping local policies to work.
- Long-term goals need to be pursued on a consistent basis.
- Officials have to be committed to long-term engagement, but always with the support and interaction of the people.
- Be creative and tactical in working with a wide range of different investors and other parties.
- Be proud of the achievements and celebrate them with the community.
- Continuity is vital.

An aerial photograph of a city, likely Carlow, Ireland. In the foreground, a modern, multi-story brick building complex with a dark grey roof and large windows is under construction or recently completed. The building has several balconies and is surrounded by lush green trees and a paved plaza with yellow umbrellas. In the background, a dense residential area with a prominent church spire is visible under a blue sky with scattered clouds.

3. Strategic Policy Context

This Section contains the strategic context that has informed the making of this Strategy and within which it sits. The overall aim of this Section is to position the Strategy and its Interventions in relation to national, regional and local level policies and detail their role in, and contribution to, plan-led development in Carlow.



Policy Context

The long-term vision for the future at a national level is set out in the National Planning Framework (NPF), which contains a series of goals in the form of National Strategic Outcomes (NSOs). The NSOs establish the foundation for Regional Spatial and Economic Strategies (RSES) for each region as well as forming the basis for the funding allocation under the NPF's sister document, the National Development Plan (NDP). At the regional level, the RSES for the Southern Region guides the future growth of Carlow. The RSES seeks to leverage national and international connectivity, improve higher educational opportunities and enhance quality of life in order to secure strategic investment, underpinned by sustainable employment and housing development. At a local level, the Carlow County Development Plan 2015-2021 sets out the policies and objectives for the proper planning and sustainable development of the County for this period.

This Strategy includes a number of Interventions which contribute to urban regeneration in Carlow Town Centre. The Interventions address areas of vacancy and propose the redevelopment of strategic land holdings in a sustainable manner which promote positive improvements such as Town Centre living, community facilities, health & wellbeing and social and physical infrastructure. With the concept of 'Compact Growth' at the heart of the proposals, the combined outcomes of the Interventions provide a long-term approach to improve land management in the Town and regenerate urban areas for use in tackling social disadvantage and improving the public realm for residents, workers and visitors.

Project Ireland 2040

Project Ireland 2040 comprises the NPF and NDP documents and represents an important shift from previous approaches to long term planning and investment by Government. The NPF provides the planning framework to guide development and investment over the coming years, whereas the NDP serves as a companion document to the NPF and sets out a ten year strategy for public capital investment of almost €116 billion.

National Planning Framework Ireland (NPF) 2040

The NPF succeeds the National Spatial Strategy 2002-2020 and provides a long-term strategy for the spatial development of Ireland and forms the top tier of Ireland's planning policy hierarchy. The NPF has influenced the preparation of the RSES and will also serve to influence the preparation of County Development Plans through the inclusion of clear objectives surrounding the future development of Ireland.

The NPF sets out a number of key NSOs which have relevance to the future growth of Carlow Town. These are summarised as follows:

Compact Growth: This outcome seeks to manage the sustainable growth of compact cities, towns and villages, creating more attractive places in which people can live and work. Urban settlements contain many potential development areas that are suitable and capable of re-use to provide housing, jobs, amenities and services.

Sustainable Mobility: A key outcome is the move away from polluting and carbon intensive propulsion systems to new technologies such as electric vehicles. The introduction of electric and hybrid traction systems for public transport fleets will mean that by 2040 our cities and towns will enjoy a cleaner, quieter environment.

Enhanced Regional Accessibility: This outcome seeks to enhance accessibility between key urban centres of population and their regions. The aim is to ensure that all regions and urban areas in the Country have a high degree of accessibility to Dublin, as well as to each other.

A Strong Economy: This outcome will depend on creating places that can foster enterprise and innovation and attract investment and talent. Delivering this outcome will require the co-ordination of growth and place-making with investment in world class infrastructure to support economic competitiveness and enterprise growth.

Enhanced Amenity and Heritage: This outcome will ensure that our cities, towns and villages are attractive and can offer a good quality of life. It will require investment in

well-designed public realm, which includes public spaces, parks and streets, as well as recreational infrastructure.

Transition to a Low Carbon and Climate Resilient Society: The National Climate Policy Position establishes the national objective of achieving transition to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050.

Sustainable Management of Water, Waste and other Environmental Resources: Conserving and enhancing the quality of our natural and environmental resources will become more important in a crowded and competitive world. Also of importance will be our capacity to create beneficial uses from products previously considered as waste, creating circular economic benefits.

The NPF sets out 10 Strategic Investment Priorities that are directly linked to the NSOs outlined. The number one investment priority for the NPF is 'Housing and Sustainable Urban Development'. The NPF projects a need for a minimum of 550,000 new homes by 2040, half of which are targeted for provision within the built up area of Ireland's five cities. The NPF signals a shift in Government policy towards securing more compact and sustainable urban development, to enable people to live nearer to where jobs and services are located and prioritising sustainable modes of transport.

The National Policy Objectives (NPOs) in the NPF that are of particular relevance to the future growth of Carlow Town are outlined as follows and include, *inter alia*:

3a - Securing Compact and Sustainable Growth: Deliver at least 40% of all new homes nationally, within the built-up footprint of existing settlements.

3c - Securing Compact and Sustainable Growth: Deliver at least 30% of all new homes that are targeted in settlements other than the five Cities and their suburbs, within their existing built-up footprints.

4 - Urban Places: Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being.

5 - Competitive Places: Develop cities and towns of sufficient scale and quality to compete internationally and to be drivers of national and regional growth, investment and prosperity.

6 - Regeneration: Regenerate and rejuvenate cities, towns and villages of all types and scales as environmental assets, that can accommodate changing roles and functions, increased residential population and employment activity and enhanced levels of amenity and design quality, in order to sustainably influence and support their surrounding area.

11 - Achieving Urban Infill: In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth.

26 - Healthy Communities: Support the objectives of public health policy including Healthy Ireland and the National Physical Activity Plan, through integrating such policies, where appropriate and at the applicable scale, with planning policy.

27 - Healthy Communities: Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages.

33 - Housing: Prioritise the provision of new homes at locations that can support sustainable development and at an appropriate scale of provision relative to location.

35 - Housing: Increase residential density in settlements, through a range of measures including reductions in vacancy, re-use of existing buildings, infill development schemes, area or site-based regeneration and increased building heights.

54 - Climate Action: Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation



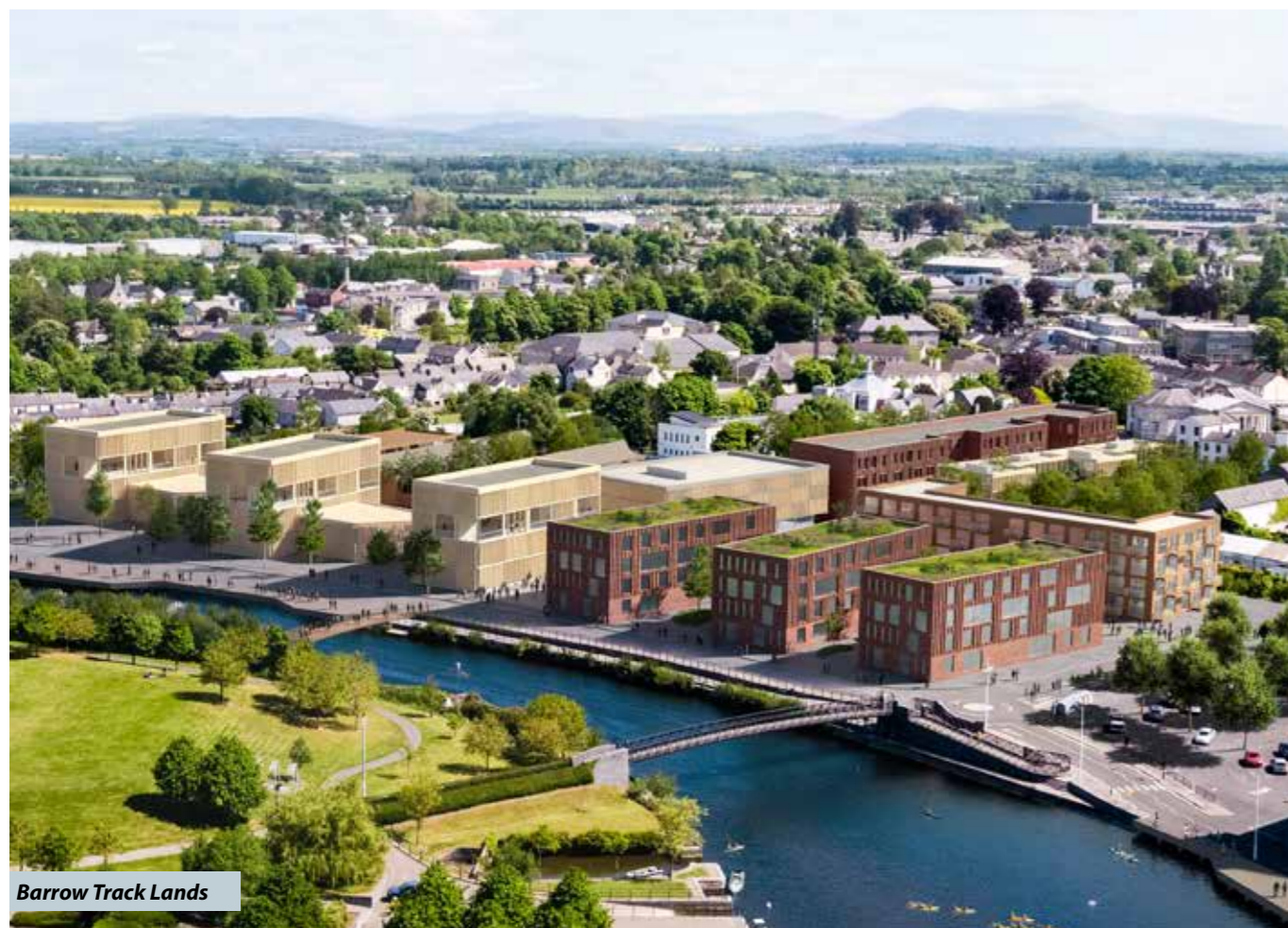
and adaptation objectives, as well as targets for greenhouse gas emissions reductions.

57 – Water Management: Enhance water quality and resource management by:

- Ensuring flood risk management informs place-making by avoiding inappropriate development in areas at risk of flooding in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities;
- Ensuring that River Basin Management Plan objectives are fully considered throughout the physical planning process;
- Integrating sustainable water management solutions, such as Sustainable Urban Drainage (SUDS),

nonporous surfacing and green roofs, to create safe places.

The individual Interventions contained in this Strategy consist of a number of elements which contribute to the urban regeneration of Carlow Town Centre. These Interventions address areas of vacancy and propose the redevelopment of strategic land holdings in a sustainable manner which promote positive improvements such as increased Town Centre living, community facilities and social and physical infrastructure. With the concept of ‘Compact Growth’ at their heart, the combined outcomes of these Interventions provide a long-term approach to improve land management in the Town and re-appropriate urban areas for use in tackling social disadvantage, health and wellbeing and improving the public realm for residents, workers and visitors.



Barrow Track Lands

Regional Spatial and Economic Strategy for the Southern Region (RSES)

The RSES provides the basis for the integration of land use and transport planning in the Southern Region, informing the preparation and implementation of plans, programmes and projects at all levels. The Vision for the Southern Region set out in the RSES is led by the need for transformative change. By 2040, the population of the Region will most likely grow by 380,000 people to reach almost two million and this growth will require new homes and new jobs.

The RSES seeks to build on the Southern Region’s strengths and potential to become a more prosperous, sustainable, climate resilient and attractive region for the benefit of its entire population.

The RSES has 11 no. Strategy Statements which seek to build a strong, resilient and sustainable region. The Strategy Statements relevant to Carlow and this Strategy include:

- No.1.** *Strengthening and growing the cities and metropolitan areas; harnessing the combined strength of the 3 cities as a counterbalance to the Greater Dublin Area, through quality development, regeneration and compact growth; building on the strong network of towns and supporting villages and rural areas.*
- No. 2.** *Enhancing regional accessibility through upgraded transport infrastructure and digital connectivity allied to a transformed settlement hierarchy.*
- No. 4.** *Transforming the transport systems towards well-functioning, sustainable, integrated public transport, walking and cycling and electric vehicles.*
- No. 5.** *Building a competitive, innovative and productive economy.*
- No. 7.** *Strengthening and protecting the Region’s diversity, language and culture, recreational assets, and natural and built heritage.*
- No. 8.** *Safeguarding and enhancing the environment through sustainable development, prioritising action on climate change across the Region and driving the transition to a low carbon and climate resilient society.*

No. 9. *Providing infrastructure and services in a sustainable, planned and infrastructure-led manner to ensure the sustainable management of water waste and other environmental resources.*

No. 10. *Achieving improved education, health and public services and facilities for all citizens and communities.*

Carlow Town is identified as a Key Town in the RSES. The RSES identifies the Town’s strategic location within the South-East, its pivotal inter-regional role and its strong links to Midlands and the Greater Dublin Area as its strengths. The RSES recognises Carlow as a regional centre for education, healthcare, public services, shopping and arts, culture, leisure and recreation for a wide area extending into Laois, Kildare and Wicklow.

In this regard, this Strategy will act to support the RSES Regional Policy Objective No. 14(a) and specifically:

- (a) *To strengthen and support the role of Carlow Town as a self-sustaining regional and inter-regional economic driver supporting investment in the strategic employment development potential of the town, while promoting and facilitating economic integration between urban centres in the county including Tullow and Muine Bheag (Bagnelstown), other urban centres within the Southern Region and the Eastern and Midlands Region including the Dublin Metropolitan Area. Subject to the outcome of the planning process and environmental assessments the following are supported:*
 - i. *To strengthen the regional and interregional role of the Education, Research and Innovation Capacity through development of the Multi-Campus TUSE in the provision of internationally recognised higher education and research opportunities which can facilitate transformational change and act as a key driver and enabler for sustainable future employment growth within Carlow and the Southern Region.*
 - ii. *To support the town centre led economic regeneration of Carlow, leveraging its strategic location and accessibility on inter-regional road and rail networks building upon its inherent strengths of education, connectivity, skills, innovation, enterprise, tourism, culture/arts and retail services.*



- iii. *To improve the public realm and attractiveness of the Town Centre through development and connectivity of key urban regeneration locations in the town centre with improved accessibility from the historic town centre to the Railway Station and Fair Green.*
- vi. *To seek investment in sustainable transport solutions, improved walking and cycling connectivity routes throughout the town including provision of a town bus service through a Local Transport Plan.*
- vii. *To support the delivery of the infrastructural requirements identified for Carlow subject to the outcome of the planning process and environmental assessments.*
- ix. *To seek investment and support in the delivery of culture, arts, and tourism infrastructure together with other physical and community infrastructural requirements identified for Carlow town and the wider county area.*
- x. *To support development of underused lands along the River Barrow as a strategic natural asset for the town. Any future development of underused lands along the River Barrow or proposals for an additional bridge should be subject to further studies to inform the exact nature and intensity that could be accommodated without giving rise to adverse effects on sensitive Natura 2000 habitats and consider any in combination effects arising from proposals for a bridge.*

Carlow County Development Plan 2015-2021

The Carlow County Development Plan 2015-2021 sets out the relevant policy goals for Carlow Town at a local level. The Development Plan promotes sustainable economic, social and cultural development, taking advantage of its strategic regional location in the South-East Region. The overarching vision of the Development Plan is to achieve a vibrant County of opportunity with a high quality of life and an attractive quality environment. The Development Plan recognises the importance of Carlow Town to the wider

surrounding area. The overall ethos of this Strategy aligns with that of the Development Plan in relation to the future social, economic and physical/environmental development of Carlow Town.

Joint Spatial Plan for the Greater Carlow Graiguecullen Urban Area 2012-2018 (as extended)

The Joint Spatial Plan for the Greater Carlow Graiguecullen Urban Area 2012-2018 (as extended) is concerned with charting the future built, environmental, social and economic development of the Greater Carlow Graiguecullen Urban Area. It provides a detailed framework for the management and regulation of spatial development and use of land. Its goal is to retain the unique and special character of the Greater Urban Area, while also fostering positive change and good development. It is concerned with steering development so that it contributes positively to social, economic and environmental well-being, prioritising changes that are needed and identifying opportunities to enhance the Greater Carlow Graiguecullen Urban Area and the available quality of life. This Strategy supports the relevant strategic objectives, policies, goals and related provisions of the Joint Spatial Plan for the social, economic and physical/environmental development of Carlow Town, including (inter alia):

- The core strategy principle to consolidate the urban area ensuring the vitality and viability of the Town Centre;
- The core strategy principle to deliver development that supports sustainable modes of transport;
- The core strategy principle to advance key opportunity sites such as the Barrow Track Site (Opportunity Site 2); Court Place Site (Opportunity Site 3); Potato Market (Opportunity Site 4); Pembroke Road Sites (Opportunity Sites 6); Barrack Street (Opportunity Site 8); and In and around Train Station (Opportunity Site 9);
- The Core Aim of the Plan to focus development on Carlow Town to drive growth within the Greater Carlow Graiguecullen Urban Area and the wider

hinterland and ensure Carlow Town Centre remains at the heart of high-order retail, commercial, transport and tourism services provision.

- Objective CTO1 Consolidate the built form of Carlow Town.
- Objective CTO2 Reinforce the quantum and diversity of uses within Carlow Town Centre.
- Objective CTO5 Encourage specific urban renewal projects and advance opportunity sites.

- Objective CO4 to create a strong, efficient local economy, delivering growing numbers of jobs and a diverse range of industrial, commercial and retailing enterprises, which can be easily accessed by residents and visitors;
- Objective CO6 to promote sustainable modes of transport in particular public transport, cycling and walking, improve transport infrastructure generally and in particular for those with mobility impairments, and deliver development patterns that are conducive to sustainable modes of transport.

Funding Progression and Opportunities

The aim of the Urban Regeneration and Development Fund (URDF) is to support more compact and sustainable development, as set out in Project Ireland 2040, through the regeneration and rejuvenation of Ireland's five cities and other large towns, in line with the objectives of the NPF and the NDP. Under the URDF, Carlow County Council received funding towards the preparation of this Strategy and has also recently applied for funding for a Public Realm and Pedestrian Linkage Project in Carlow Town, that includes interventions within this Strategy, at a cost of c. €20 million.

Furthermore, a Stage 1 Rebuilding Ireland funding application has been submitted by Carlow County Council to refurbish 7 no. vacant dwellings along Barrack Street which have been derelict and vacant since c. 2014. Carlow County Council seek to develop 7 no. social units which, once complete, will work alongside the interventions in this Strategy to regenerate Barrack Street. In this regard, this Strategy provides a platform for additional Local Authority development opportunities that support town centre living, the removal of dereliction and the provision of community living facilities.

Additionally, Carlow Town was allocated funding through the Fáilte Ireland Destination Towns Scheme. Carlow received €500,000 towards enhancing the Tourism Experience Offering in the Town. The scheme

is part of the National Tourism Development Authority's work to drive a better regional spread of overseas and domestic visitors and spend. The funding will support the enhancement of public spaces and the creation of a way-finding project to enhance the visitor experience in the Town. This Strategy will complement the works funded under this scheme and will support it in making Carlow Town an attractive place to live, work and visit.

It is expected that significant additional development opportunities in Carlow Town will come about as a direct result of the URDF and other funding mechanisms that support the interventions outlined in this Strategy. There are many different funding schemes available to local authorities, and it was considered that the best way to harness potential funding opportunities was to put a long-term Strategy in place from which schemes could be targeted that would most directly support the regeneration of Carlow Town.

This Strategy has the potential to provide a platform for a range of new developments within the Town Centre. The proposed interventions, and their role in securing funding for Carlow Town, will enable this Strategy to be a catalyst for future development in the Town. Carlow County Council expects to take advantage of future URDF Calls and other funding options to support the implementation and delivery of the interventions outlined in this Strategy.



- Objective C011 to ensure that new buildings and the spaces around them are designed and serviced so they are clean and all people can move safely and comfortably in and around them; provide a range of good quality public open spaces across the Greater Urban Area as well as walking and cycling networks to encourage better public health.
- Objective CO14 to recognise and protect the special identity and distinctive heritage assets within the Greater Carlow Graiguecullen Urban Area and ensure future changes are complementary to the existing sense of place with new structures and spaces achieving a high quality of design.
- Economic Development Objective ECN O01 to build on the role of the Greater Carlow Graiguecullen Urban Area as the principal driver for economic development in County Carlow and reflecting its designation as a County Town.
- Economic Development Objective ECN O07 to foster a compact and permeable town centre in order to support and generate synergistic commercial and retail relationships, to ensure the town centre is a bustling and attractive social and recreational hub that continuously builds on its potential to draw in locals and visitors.
- Urban Design Objective DBF 02 to deliver a high-quality built environment, by consolidating the urban structure, and reinforcing and enhancing the existing character with infill development or urban renewal and focusing on place-making with greenfield development.
- Transport Objective P10 Enhance the public realm in the vicinity of Carlow Train Station and Carlow Bus Park as these are strategic entry points for locals and visitors.
- Transport Objective P24 Prioritise the movements of pedestrians and cyclists within the public realm by measures including the redistribution of car space to non-car modes of transport, retrofitting road junctions to make them more cycle and pedestrian friendly and promoting walking routes

- Transport Objective P25 Provide a coherent cycle network with emphasis on safety and keeping distances between origin points and key destination points as short and as direct as possible.
- Transport Objective P27 Seek the provision of additional pedestrian and cycling linkages within the town centre and the Greater Urban Area generally to make the area more permeable and make these modes of transport faster than the private car, additional proposed linkages include:
 1. Railway Street to Green Lane
 2. Railway Street to College Street
 3. College Street to Tullow Street

Local Economic and Community Plan 2016-2021

This Strategy also reflects the aims of the Carlow Local Economic and Community Plan through the following high-level goals of the Plan:

- Build thriving, resilient, sustainable and inclusive communities;
- Strengthen and promote a thriving and sustainable enterprise culture in County Carlow;
- Ensure access to education and skills for all members of communities;
- Optimise the tourism product and message;
- Provide the required infrastructure for the County;
- Maximise external investment into Carlow.

South East Regional Enterprise Plan

The purpose of the South-East Regional Enterprise Plan to 2020 is to refresh, refocus and further build on the positive regional collaboration fostered by the Regional Action Plan for jobs over the period to 2020. It takes account of the changed and improved economic circumstances

nationally, the emergence of new challenges to enterprise development and competitiveness and the persistence of uneven economic progress across the regions in Ireland. The Enterprise Plan is an integral part of the broader policy system aimed at driving economic growth and sustaining better standards of living throughout Ireland. It has a strong role to play in the context of Project Ireland 2040, and more specifically in the implementation of the NPF and the RSES.

The Enterprise Plan states that through collaboration, the South-East can provide the scale and critical mass in terms of population base, skills, property solutions and quality of life, to compete nationally and internationally. The Plan includes Five Strategic Objectives as follows:

1. Enhance the existing environment for enterprise activity and company growth; and build greater resilience into the regional economy.
2. Establish the South-East as a place of choice for talent and investment and market the region as such.

Future Development Plans for Carlow

This Strategy seeks to realise the potential of Carlow Town as a high-functioning, inclusive, compact and accessible town underpinned by a robust and diverse local economy. The overriding objective is to create a strong sense of place, a vibrant Town Centre that offers opportunities for education and cultural experiences, a network of linked open spaces, recreational uses and other social infrastructure elements that in combination provide a good quality of life for all.

This Strategy provides a long term, integrated regeneration plan, outlining strategic Interventions that will have a central role in delivering the objectives outlined over the next 20 years. These Interventions will become catalysts of change, delivering innovative projects in the Town Centre and setting the standard for future regeneration and development.

The long term strategic remit of this Strategy means that it will cover several development plan periods. It will inform the drafting of future planning policy

3. Develop a regional engagement strategy that aligns with the Regional Assembly's RSES and highlights the critical infrastructural developments required to enhance the economic potential in the South East.
4. Make the South-East a 'learning region' with education, knowledge generation and exchange, and innovation as central activities that allow all to play a role in the economic, social and cultural development of the Region.
5. Develop the South-East as a region that is attractive to both domestic and international visitors with a sense of place and connected tourist amenities.

This Strategy aligns with the above Objectives and directly supports Strategic Objective 2 and Action 3 - Pilot a Town Renewal Project.

The Enterprise Plan also recognises the need for place-making activities across the region, particularly in our towns and urban centres. The availability of high quality urban centres to live and socialise in, with a range of amenities

and the approach to control of development, with principles outlined herein used to inform future decisions by the Council and other stakeholders undertaking development in the Town Centre.

Preliminary design work has been undertaken on the Intervention Areas in order to engage with stakeholders, test the overall viability of the Intervention proposals and provide a direction of travel for their implementation. It is expected that more detailed masterplanning and feasibility studies will follow as individual projects are progressed.

Overall it is envisaged that the Carlow Regeneration Vision and Implementation Strategy 2040 will provide the strategic framework, across several development plans, that ensures that Carlow not only meets the national and regional policy objectives up to 2040 but that its regeneration delivers a revitalised Town Centre that is a place for its people.



such as recreational areas, public realm and a good retail mix are critical drivers of inward investment.


The South-East offers significant potential and benefits to people or businesses that choose to locate in the Region. In this respect, Carlow County Council, through this Strategy, is seeking to undertake place making activities that enhance and build on a the Town's existing assets in attracting people back to the town and to motivate people to move here.

People, Place and Policy – Growing Tourism to 2025

This Strategy supports the strategic aim of the Department of Transport, Tourism and Sports Policy Statement 'People, Place and Policy – Growing Tourism to 2025', to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the Country, is economically, socially and environmentally sustainable, helps promote a positive image of Ireland overseas, and is a sector that people wish to work in. The Policy Statement seeks to prioritise investment in order to maximise the return from tourism in the long-term, supporting enterprises and jobs and providing an attractive, competitive overall offering for tourists.

This Strategy seeks to heighten the attraction of Carlow to visitors by enhancing the quality and sense of place that they experience during their visit. Tourism is a key contributor to the economy and this Strategy seeks to develop Carlow's tourism industry to reflect the highest standards of environmental and economic sustainability. It supports Carlow's existing tourism assets such as the River Barrow and Carlow Castle, seeking to improve these through the enhancement of the public realm. This will deliver improved public spaces, enhanced linkages, more signage and an overall improvement to the quality of the Town Centre and its attraction as a tourism destination.





4. Vision & Guiding Principles

The Vision has been informed following analysis and arrived at through a consensus around what stakeholders want it to represent. The Vision is clear and unambiguous in order to generate momentum, agreement and enthusiasm, but it is also practical, realistic and achievable. It aims to unify all of the component activities which make up the Strategy.

Vision for Carlow 2040:

Carlow Town Centre will be a place for its people, where residents, workers and visitors alike will be encouraged, through enhanced connections and improvements in the public realm, to access everything the Town Centre has to offer including business and retailing, education, amenity spaces and cultural heritage. The enhancement of the unique attributes and attractions of Carlow Town will significantly improve the health and wellbeing of its people, support local business, facilitate tourism and encourage people to live within the Town Centre.



Potato Market/Barrack Street Link

Guiding Principles

The setting out of a Vision for Carlow Town to 2040 and beyond is central to the delivery of this Strategy. As a Vision is, by its nature, both broad in its remit and aspirational in its aims, a number of Guiding Principles have been formulated that provide the framework and coordination approach to deliver the Vision.

The Guiding Principles seek to address the existing challenges facing Carlow Town by building on the many assets and attractors of the Town. The application of the Guiding Principles to each of the Intervention Areas and other future projects will ensure that strategic sites are brought forward in line with, and will contribute to, the realisation of the Vision.



Principle 1: Reduced Vacancy

The vibrancy of the Town Centre is a reflection of the wellbeing of the local economy and community life in Carlow. Increasing building occupancy is important to activate the Town Centre as a whole.



Principle 2: Tourism & Short Stay Visits

Carlow Town is within an hour of Dublin by car. With over a million people living in Dublin, this presents a substantial opportunity for the Town to attract more visitors, particularly on short stay breaks.



Principle 3: Realise the full potential of infrastructure (road, air, rail, bus and water)

Better utilisation of existing infrastructure and smart investment is the key to delivering new jobs and driving population growth in the right places.



Principle 4: Promote a high quality of life, health and wellbeing

To remain an attractive place to live and retain its high quality of life, Carlow needs to plan for diverse, inclusive and healthy communities through affordable, accessible housing; education, community and health facilities; and access to amenity and recreation spaces.



Principle 5: A Town perceived as an exciting and safe place to live, work and visit

Carlow Town can provide a variety of safe public domains which support, celebrate and grow year-round social, arts, cultural and community activities. Carlow needs to be bold in leading and working with others to develop buildings and spaces that exemplify both innovation and energy-efficiency outcomes.



Principle 6: A Distinctive Town

Carlow must not only retain its distinctiveness but must showcase and utilise it to build positive perceptions of the Town, specifically among potential visitors and investors.



Principle 7: Increased Town Centre Footfall

By bringing more people onto the Town's streets, the feeling of vibrancy instantly increases. More people means more spend and fewer vacant units. More people also increases passive surveillance and supports the goal of achieving a people friendly place.



Principle 8: Build a resilient and adaptable economy

The future success of Carlow relies on the diversification of its economic base to build resilience to external shocks and allow it to adapt in an ever changing global economy.



Principle 9: Deliver high quality and person-centred buildings and public realm

Carlow already has an enviable public realm rich in heritage and unique features. Future development should not only strengthen and protect this but should enhance it through quality design and materials and a person-centred focus.



Principle 10: Diversity of uses in the Town Centre

The Town Centre has a range of great features. How these features are used will define the future of the Town. Town Centre vibrancy will be enhanced through diversity of use including retail, commercial, start-up, education, hospitality, social and recreation spaces.



5. Regeneration Action Plan

As part of the plan making process a number of themes emerged which were explored and refined through consultation and collaboration with the Council, key stakeholders and the public. The outcome is the identification of the four core themes of:

- *Economic and Investment;*
- *Transport and Movement;*
- *Health and Wellbeing; and*
- *Environment and Sustainability.*

These themes provide a focus for the study, analysis and research required to be undertaken, that will inform the development of a long-term strategy and approach to the spatial development of Carlow Town.

Economics and Investment

Population Growth and Density

The population of Carlow Town increased from 23,030 in 2011 to 24,272 in 2016, meaning that almost 43% of the population of the entire County reside within the Town. Should this level of population growth continue in the period to 2030, the population of the Town would reach approximately 28,000 people.

While there was an overall increase in population during the intercensal period to 2016 this was not universal across all age cohorts with the population of those aged between 20-34 declining by almost 900 people. Given that this group is of working age, it will be critical for Carlow to retain a greater proportion of this age group.

On the other hand there was an increase of almost 1,300 people in the 35-64 age cohort. This may indicate that people who had moved away in their 20's may be returning later in life. It is also notable that Carlow has a higher proportion of younger people than other urban areas such as Kilkenny.

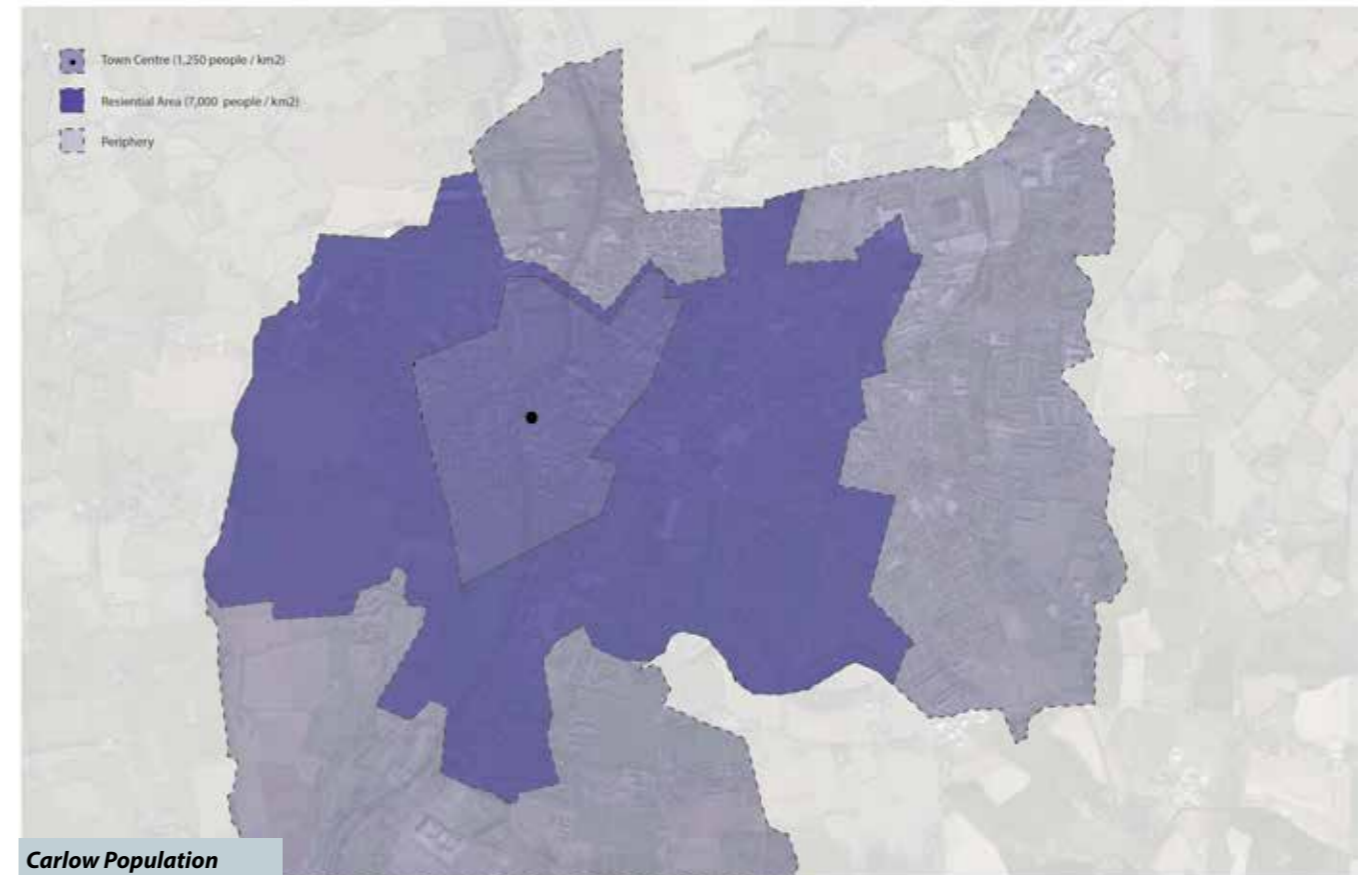
In terms of the proportion of people in Carlow who are at work, the settlement of Carlow has a rate of 48% while the County has a rate of 50% (this figure counts all people in the geographic area, not just those of working age/ability). By comparison, the settlement of Kilkenny has a rate of 54%, with Kilkenny County having 53% at work, both in line with the National figure of 53%. As expected for a capital city, Dublin has a slightly higher rate of 56%. Based on both the national figure and those for Kilkenny, Carlow Town would benefit from an improved employment offer.

Greater employment opportunities will also be required if the Town is to retain more of its young people.

Of those who are at work, 47% work in the categories of commerce & trade (24%) and professional services (23%) in 2016. This represents a decrease of 3% in those working in commerce and trade since 2011, while professional services have remained largely unchanged. The manufacturing industries category also employs a significant proportion of the working population in 2016 at 11%. This is also down slightly from 12% from the 2011 census.

The map opposite indicates the population densities around Carlow as recorded in the 2016 Census. As shown on the mapping, population densities vary around the Town, from approximately 1,250 people per square kilometre in the Town Centre, the focus of commercial activity, up to approximately 7,000 people or more per square kilometre in residential areas outside of the Town Centre, where the boundaries of the 'Small Area Population Statistics' are tightly drawn. The average figure for Carlow is approximately 2,100 persons per square kilometre.

Notable from the population density mapping is the presence of the 'doughnut' effect, whereby population densities are generally higher in the areas surrounding the core Town Centre than in the Centre itself. However, an increase in population within the Town Centre by promoting and supporting Town Centre living, would have a range of benefits, including:



Carlow Population

- Increased footfall for businesses within the Town Centre.
- Ability to access work, social, retail and recreational facilities on foot or by bicycle.
- A broader pool of local workers within the Town from which employers can recruit
- Potential for greater exchange of ideas and information for new businesses locating in the Town Centre
- Delivery of day and night time activity in the Town Centre and higher levels of passive surveillance

The RSES for the Southern Region sets out population projections for each County in the Region up to 2031. By 2026, the RSES anticipates that the population of the County will grow to 62,000 - 63,000, or an uplift of 5,000 -

6,000 people. By 2031, the projection is that the population will increase to 64,000 - 65,500 people.

Given that over 40% of the population of the County currently reside in Carlow Town (based on 2016 Census figures), this would indicate an increase of between 2,130 and 2,560 people by 2026 and between 2,985 and 3,625 by 2031.

The higher end of these projections, + 3,625 people by 2031, would result in Carlow Town having a population of 27,897 by 2031. This is marginally lower than would be indicated by the growth that occurred during the last intercensal period, a continuation of which would result in a population of 28,000 in the Town in 2013. The lower end of the range presented in the RSES would result in a population growth that is significantly lower than historical trends would support.



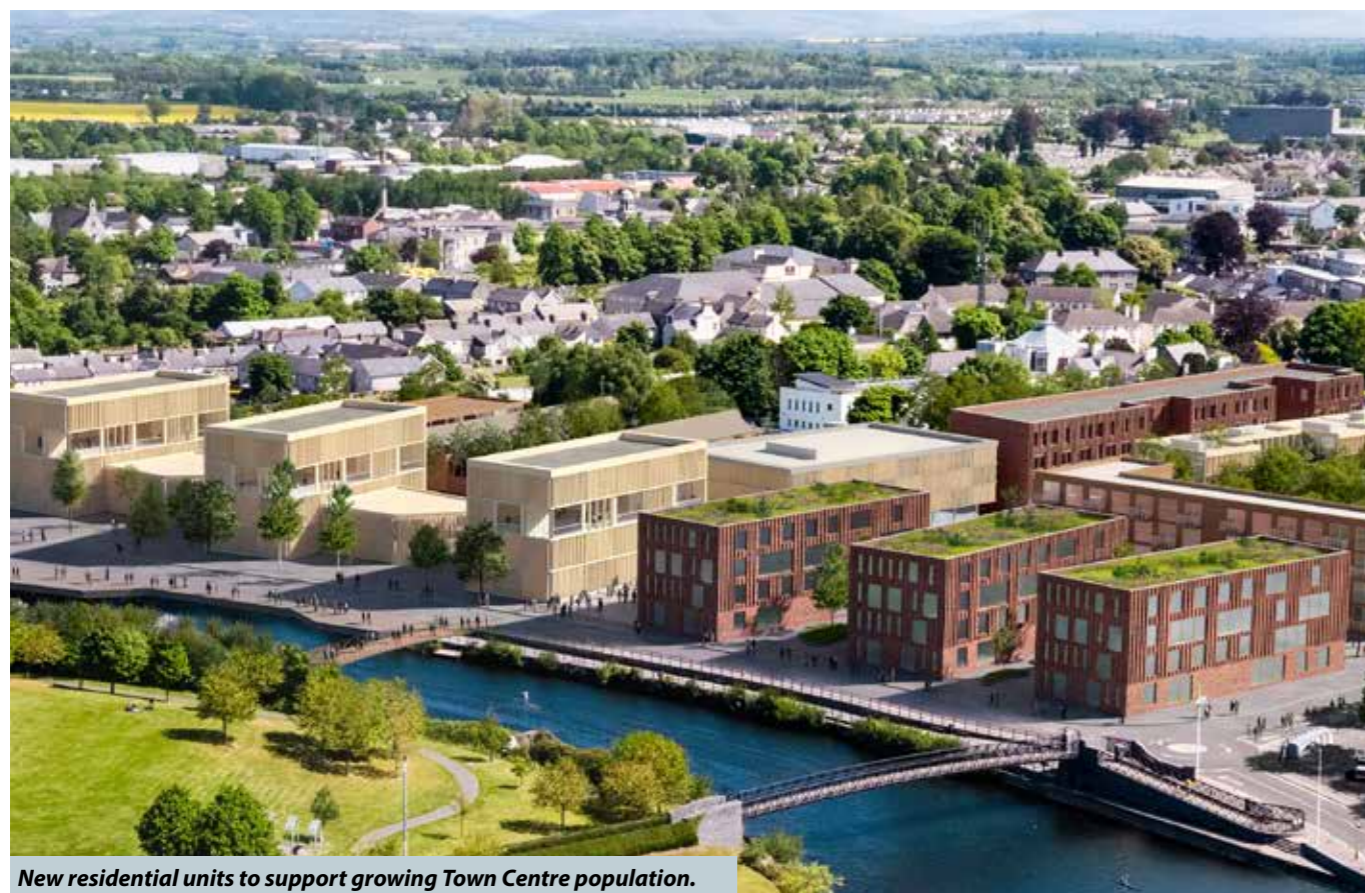
While an analysis of recent growth patterns, in combination with the RSES projections, provide a sound basis for understanding population growth, other external factors will also impact the level of future growth. Such factors include the delivery of initiatives in relation to employment and quality of life. One of the key issues affecting population growth in Carlow is the Town's capacity to retain its younger population. An expanded third level offer combined with improved career prospects within the Town will help Carlow to compete with other locations. The comparatively low cost of housing should also act as an attractor in this regard.

Should the recommendations of this Strategy be fully implemented, it is anticipated that the resultant improvements in the local economy and quality of life will support increased population growth, and retention in the 20-34 age cohort, above those experienced previously or projected by the RSES.

In addition, there are agglomeration benefits for Carlow Town should it grow as a settlement. In this regard larger settlements will often have a competitive advantage in attracting knowledge intensive businesses due to the availability of qualified workforce, knowledge sharing opportunities and closeness of supply chain which in turn enables them to attract private investment. A larger population, in itself, also creates demands for education, health services, transport and other general community infrastructure as well as local amenities. The availability and quality of these assets also affect the location decisions of businesses, particularly in the service industry.

Population Structure

An analysis of the change in age structure between the 2011 and 2016 Census shows an ageing of the population, with a reduction in the number of people aged 20 to 34 and an increase in the number of people aged 35 and above.



New residential units to support growing Town Centre population.

Overall, the total population in Carlow has increased from 23,030 in 2011 to 24,272 in 2016, an increase of 1,242 persons or 1.06% on average per annum. This would result in a future population of around 28,118 by 2030 which is considered reasonable.

This increase between 2011 and 2016 is distributed as follows:

- The number of people aged 0-14 (children) has increased by 358 people, representing c. 30% of the population increase.
- The number of people in the 15-19 age cohort has also increased, by 150, making a c. 12% contribution to the change in population number.
- The 20-34 age group, or young professionals, decreased by nearly 900 individuals, a -77% contribution towards the population change.
- The 35-64 increased by 1,293 individuals accounting for 104% of the change.
- People in age of retirement, 65 and above, increased by 318 individuals, 26% of the total change.

An examination of neighbouring Kilkenny, shows that there are major differences between the two settlements in terms of population distribution. The population of Carlow is relatively younger than Kilkenny, with a higher proportion of children (14 and under) and young professionals (20-24). The high proportion of young persons in Carlow may be attributable to the presence of two third-level educational institutions (Institute of Technology Carlow, Carlow College) or lower housing prices, both sale prices or rental prices, making the area more affordable for students, young professionals and young families.

Education and Training

According to the 2016 Census, 50.4% of the population aged 15 and over had a low level of education, upper secondary or below. This is relatively high compared to other settlements such as Kilkenny, 46.3% or Dublin, 43.8%

and is above the State average, 48.6%.

The proportion of university graduates, bachelor, postgraduate, doctorate, at 25.1% was also low compared to other settlements such as Kilkenny with 32.1% and Dublin with 40.3%. It is however, notable higher than the State average of 19.8%.

The proportion of the population in Carlow with an intermediate level of education, technical/advanced/higher certificate, at 24.5% is greater than in other settlements such as Kilkenny with 21.6% and Dublin with 15.8%. It is also higher than the State figure of 21%.

Carlow Institute of Further Education (CIFE) is located in the Town and is a specialist college in South Leinster, and the largest provider in the region. With over thirty years' experience, CIFE supports people to develop their talents, with many progressing to Further or Higher Education. The two major third level providers in Carlow are Carlow College and the Institute of Technology, Carlow. Carlow College offers a range of undergraduate, postgraduate and evening courses, focused on arts, humanities, and social, political and community studies. The Institute of Technology accommodates a faculty of engineering, a faculty of science, and a faculty of business and humanities with science, technology, engineering and maths courses making up 75% of the prospectus. Given the existing educational profile identified above, enhancement of tertiary education sector in the Town must be actively supported.

The level of education in an area is a determinant factor for some business when assessing new locations for their operations. Whilst some business activities will require access to a manual workforce, and therefore have a preference for areas with high proportion of the population with technical qualifications, knowledge based industries require access to a highly educated workforce. It is noted that an average of 67% of the graduates of IT Carlow gain their first employment outside of the with less than 20% of the graduates, on average, finding their first job within the County.

The short term solution to this issue is to focus on industries that match the current skill set of the population. However, in order to grow Carlow's employment base and build in resilience to external



shocks there must be a drive to upskill. Given the changing economy and technological disruption and advancement, upskilling is necessary for a number of reasons, as discussed further below.

Encouragingly, the 2016 Census indicates that the number of people with a low level of education has tended to decrease, whilst the number of people with a high level of education has increased.

Technological University

The proposal for a Technological University (TU) for the South-East region would involve the amalgamation of Waterford IT and IT Carlow to create a multi-campus facility. The development of the programme would see IT Carlow become a campus of the TU, with other campuses located in Waterford, Wexford, and Kilkenny.

The RSES recognises the need for a Technological University in the South-East, stating that:

“The lack of a competitive and internationally recognised university in the South-East puts that SPA at a disadvantage and hinders the potential for new business formation. Therefore, the project of the Technological University of the South-East (TUSE) is critical to the future economic performance of the South East SPA within the Southern Region.”

The process for designation as a Technological University consists of four stages and requires the merger of two or more institutes of technology. Given the rigour of the application requirements, it is perhaps unsurprising that the process has suffered some setbacks and will require a delicate programme of engagement and negotiation. However, the benefits of the creation of TUSE are likely to be substantial to Carlow and a key driver of regional development.

It is envisaged that the creation of TU will have the following benefits to IT Carlow:

- Broader and more diverse programmes of study;
- Enhancement of the expertise in the faculty and administrative support;

- Increased ability to compete for students, i.e. more students from Carlow may choose to study at TUSE than at IT Carlow given increased perceptions about the value of qualifications;
- Enhanced image/brand and name recognition nationally and internationally;
- New opportunities for expansion and development and for partnerships with other national and international institutions;
- Improved and expanded research capacity; and
- Enhanced student experience.

Taken together, the above benefits are likely to result in an increase in student numbers, as the profile of the institution increases and its range of courses expands. It will also offer the opportunity to service the ever evolving needs of the working market for convenient lifelong learning opportunities that can be developed with industry to meet their needs.

Report on the TU Research Network (TURN): Connectedness & Collaboration through Connectivity - October 2019

The TURN high level working group recently, November 2019, presented their report on Technological Universities, outlining the importance of the sector going forward and put forward a strategy to create additional TU's and enhance and progress existing TU's. The Report identifies three main themes:

- Reforming the policy and funding framework for TUs;
- Investing in digital infrastructure; and
- Building and strengthening research capacity.

The vision is one of interconnected campuses where high quality education can be delivered regardless of geographic location.



New Civic Spine: VISUAL and Carlow College Campus.

The Report further highlights the pivotal role that TU's can play in regional development, enabling deep collaboration between employers and the tertiary education sector, with a particular focus on innovation, technology and SMEs. It also acknowledges that the form that TUs take will be shaped by the unique character, environment and skills requirement of the region, with the TU serving as an anchor institution in its development and advancement.

The Government views TU's as having a vital role to play in delivering Project Ireland 2040 as key regional drivers of change and growth. Budget 2020 set aside €90 million over a three year period for this purpose.

Construction and Manufacturing

The construction and manufacturing industries in Carlow Town employs approximately 1,400 people out of the working population of the Town. As identified in the table below, many of the key employers in the Town are in these sectors.

Given its existing base, Carlow Town is well positioned to diversify its offer in the area and attract an increasing number of businesses operating in the expanding field of building innovation. There is also growing demand in the area of construction material development and manufacture, particularly in the context of sustainable development and nearly zero energy buildings.

Carlow Town already possesses a range of assets that support further expansion in the area of building innovative such as:

- A high concentration of environmental service businesses;
- IT Carlow which provides courses in engineering, computing, business and the built environment; and
- A high concentration of building solution developers and manufacturers, such as filtering systems, ventilation systems, telecom and IT networks.



Working with these assets and supporting and facilitating the creation of synergies between the third level institutes and the existing manufacturing related companies, Carlow Town can develop niche technologies and create a centre of excellence in the field of emerging construction

technologies. This, in combination with investment in the development of high value manufacturing, such as home technology solutions, presents Carlow Town with the opportunity to be at the forefront of the building innovation sector.

Company	Type
Burnside	Manufacturing of hydraulic cylinders and rams
MSD (Merck & Co.)	Manufacturing of pharmaceutical products
Cental	Manufacturing of prefabricated modules
Thermo Air	Design and manufacturing of bespoke Air Handling Units and innovative air movement solutions
Optical Sciences	Provision of environmental monitoring services and filtering systems
AGK Limited	Design and manufacturing of parking and display solutions
Delmec	Telecoms Infrastructure Design, Supply, Construction and Management Specialists
REL Group	Engineering in mechanical solutions and in the installation and maintenance of air conditioning, refrigeration, ventilation, heating, plumbing and all forms of dispense systems
Deycom	Provision of IT Products and Services to businesses, government bodies, health and educational organisations

Opportunity Areas: Vacancy/Dereliction/Underutilisation

In recent years vacancy levels and the number of underutilised/vacant sites within Carlow Town have increased. These include the terrace of currently vacant houses on Barrack Street, the former Bank of Ireland site close to the Civic buildings on the Athy Road and the adjacent lands along the Barrow Track, the former cash & carry site on Kennedy Street, the cultural quarter around Carlow College, the Pembroke area, as well as the core Town Centre blocks.

While this increase has negatively impacted the Town in terms of vitality and vibrancy, permeability and the lack of a sense of a core, it also presents opportunities. Many of the existing underutilised/vacant sites are strategically located within the Town Centre, with their development providing the opportunity to not only deliver new uses, such as employment, community, and innovative forms of residential, but to enhance permeability within the Town, link uses and space and create a definable Town Core. There are also a number of opportunity sites outside of the Town Centre including the former Braun electric site on the N80. These sites have the scale and potential to facilitate significant employment generators for the South-East Region.

Approaches to reducing vacancy levels, dereliction and underutilisation include the identification of suitable empty or unused space above existing ground level shops in the Town Centre and their conversion into residential accommodation. Opportunities may be created for a mix of social housing, rental tenancy or private ownership that will serve to increase the vibrancy of the Town Centre. This overall approach can add to the drive towards providing increased levels of housing within the Town Centre in accordance with national policy objectives.

Vacant and underutilised buildings can be brought forward for alternative uses such as business start-ups, temporary workspaces or pop-up shops that will draw people back to the Town Centre in the short-term, while future development proposals for these buildings can then be explored and formulated in the medium to longer terms.

Publicly accessible and up-to-date information regarding available funding and grants through Government and local initiatives/incentives for the refurbishment of buildings should be promoted and made available to property owners.



Pembroke District Opportunity Site



Pembroke District Indicative Future Development

Outcomes and Actions


A set of Outcomes have been derived and formulated in relation to the Economic and Investment Core Theme. An associated Action accompanies each that provides a clear direction for the delivery of the Outcome.

1	<p>Enhancing the vitality and viability of the Town Centre is at the core of this Strategy. Through the delivery of the public realm enhancements, improved accessibility, new uses and public spaces detailed in the Intervention Areas, people will be attracted back into the Town Centre, to work, live and visit.</p>
	<ul style="list-style-type: none"> * Supports an increased population in 2030 * Enhanced retail activity at Town Centre locations * Resultant increase in footfall will support retail activity, related enterprises and attract new business * Support family owner and operated businesses, that currently account for a large proportion of the Town's retail offer

2	<p>Deliver the public realm enhancements, improved accessibility, new uses and public spaces detailed in the Carlow College Intervention.</p>
	<ul style="list-style-type: none"> * Enhanced connectivity between existing educational institutes and the Town Core * Greater access to amenity spaces. * Generates retail prosperity * Attract new industries

3	<p>Carlow Town has been identified as a key town within the Metropolitan Area Strategic Plan for Waterford, as part of the Regional Spatial and Economic Strategy for the Southern Region. Initiatives that enhance this role and function, such as the Technological University for the South-East (TUSE), and that further strengthen Carlow's position within the South-East, should be actively pursued and supported.</p>
	<ul style="list-style-type: none"> * Greater connectivity with the Waterford Metropolitan Area * Enhanced role within the South-East Region * Supports balanced Regional development

4	<p>The regeneration of the Town Centre as part of this Strategy is focused on 6 Interventions sites. The delivery of these sites needs to be actively pursued by the Local Authority through funding opportunities, public and private partnerships and incentives.</p>
	<ul style="list-style-type: none"> * Supports both Town Centre and wider Town regeneration benefits extending to the County and Region * Development of Intervention sites will deliver new uses and operators to the Town * Enhanced permeability within the Town * Links uses and space and create a definable Town Core

5	<p>Develop the Town Centre sites in the ownership of the Local Authority in line with the Interventions outlined in this Strategy. The process of leveraging this Strategy to secure funding under the URDF to realise the implementation of some of these Interventions has already commenced. Remaining Interventions should be advanced in line with this Strategy to position the Local Authority to make applications under the next round of URDF funding.</p>
	<ul style="list-style-type: none"> * Utilisation of Local Authority assets (e.g. land) * Provides the justification for access to funding sources (e.g. URDF) * Supports the implementation of this Strategy.

7	<p>Provide business support through the Local Authority's Enterprise Office and available funding streams, for the expansion and diversification of existing manufacturing and construction businesses.</p>
	<ul style="list-style-type: none"> * Diversification of the construction and manufacturing industries * Increase the number of businesses operating in the construction sector * Expansion in the area of building innovation

6	<p>Support and encourage both IT Carlow and Carlow College to work directly with local construction and manufacturing industries to identify emerging technologies and areas of innovation and provide courses and research focused specifically in this field as well as the growth areas of biotechnologies, mechanics, data analytics and smart materials.</p>
	<ul style="list-style-type: none"> * A further expansion of the third-level education offer in Carlow Town * Greater collaboration between third level institutes with a more diverse range of courses * Builds synergies with local industries to develop niche technologies * An opportunity for a centre of excellence in the field of emerging construction technologies.

Transport and Movement

The proposed Transport & Movement Strategy will help to strengthen Carlow's position as a first-class regional town, through investment in sustainable transport measures which provide existing and future residents with a range of healthy, safe and low carbon travel choices.

A well performing transport network underpins the economic, spatial, social and environmental success of Carlow and facilitates the transition to a low carbon and climate resilient local economy. Failure to deliver an efficient transport network that supports sustainable travel acts as a barrier to economic growth, reduces quality of life and has a negative impact on the environment.

Building on Carlow's strategic location and existing assets, the prioritisation of integrated transport and land use, supported by investment in public transport, active travel networks and shared, low carbon mobility options will improve people's travel choices and support safe, sustainable and healthy lifestyles.

Transport and Movement – supporting the vision for Carlow Town

The Transport and Movement Strategy has been developed to support the overall vision for Carlow Town Centre where *'residents, workers and visitors alike will be encouraged, through enhanced connections and improvements in the public realm, to access everything the Town Centre has to offer... will significantly improve the health and wellbeing of its people, support local business, facilitate tourism and encourage people to live within the Town Centre'*.

Our approach is based on developing transport infrastructure, services and behavioural change support that prioritises healthy, active and low carbon travel options for Carlow residents, workers and visitors alike – while reducing car dependency and encouraging opportunities for community interaction through liveable, vibrant and welcoming streets and places.

It is grounded in the key principles of the Vision, in particular:

- Principle 3 – Realise the full potential of infrastructure (road, air, rail and water)
- Principle 4 – Promote a high quality of life and wellbeing
- Principle 5 – A Town perceived as an exciting and safe place to live, work and visit
- Principle 7 – Increased Town Centre Footfall
- Principle 9 – Deliver high quality and person-centred buildings and public realm

Existing Transport Characteristics of Carlow

An evaluation of Census 2016 data on the morning commuting (work and education) travel patterns to and from Carlow Town (including Carlow Urban, Carlow Rural, Graiguecullen Urban and Graiguecullen Rural) are summarised as follows:

- Over half (62%) of all work and education trips associated with Carlow Town stay within the town's

Urban and Rural Electoral Divisions (EDs), including Graiguecullen. This is due to the combination of commercial activity within Carlow's both urban and rural areas and the high concentration of schools within Carlow Town Centre.

- 8% of trips are to other areas of Carlow County.
- 20% of trips are external to County Carlow: 5% to County Kildare; 4% of trips are to County Laois, 3% to Dublin City; 3% to Dublin County; 3% to Kilkenny; and 2% to Wicklow County.

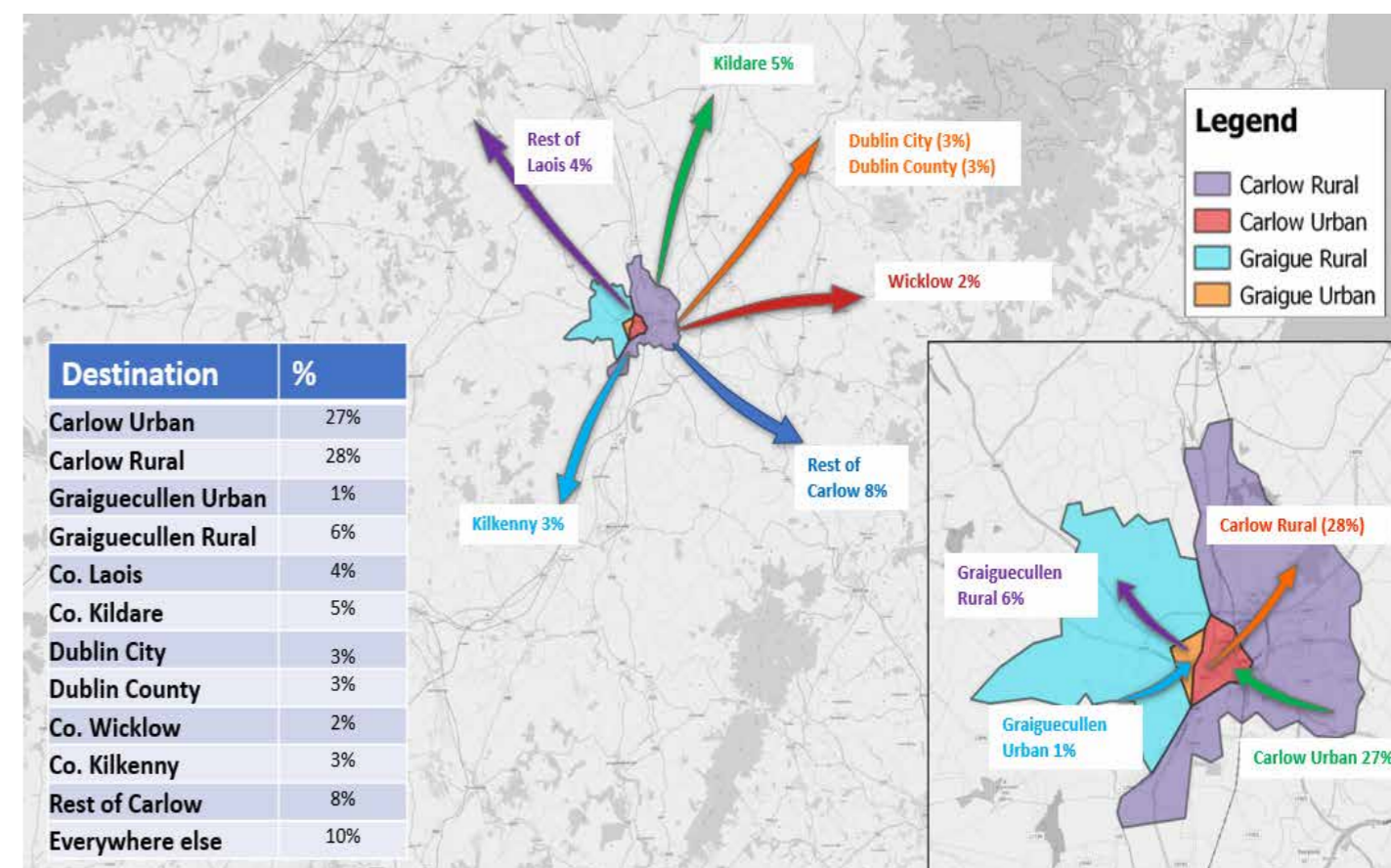


Figure 1: Trip Destinations from Carlow Town – Graiguecullen Area



The mode share for commuting and education trips for Carlow Town compared to Carlow County and the rest of Ireland, is shown in the following table.

Mode	Carlow Town	Carlow County	State
On Foot	22%	15%	15%
Bicycle	2%	1%	3%
Bus	2%	6%	11%
Train	1%	1%	3%
Car	72%	76%	68%

Table: Carlow Modal Split, CSO 2016

- A considerable percentage of people (22%) walk as a means of transport in Carlow Town, which is higher than the rest of the county and the state. This reflects the substantial level of local trip made within the town and its environs.
- 2% of trips are made by bicycle, which is comparable to County Carlow and the State average but below national targets of 10% commuting by bike by 2020. High volumes of traffic and limited cycle provision in the Town Centre means cycling within the town is not currently an attractive option. Cycle facilities are provided on many of the wider roads surrounding the Town Centre core, however the cycle lane provision is discontinuous in sections with priority given to vehicular traffic.
- There are low levels of bus and train usage within Carlow. This is typical of a regional town where the private car affords flexibility for making trips and public transport route and frequency options are often limited. The absence of a Town-bus service in Carlow connecting residential areas to the Town Centre, places of employment, education, retail and other services results in the private car being the only viable mode of transport for many people.
- A high number of people in Carlow rely on car usage for commuting and education trips (72%). It is similar to the rest of County Carlow (76%) and the State average (68%) – however this is a higher car mode share compared to the national target of 45% for car commuting trips.

To reduce car mode share from 72% to 45% will require investment in public transport, active travel and shared mobility as viable alternative travel options.

An Integrated Approach to Land Use & Transport Planning – the 10 Minute Town concept

Land use policies which support development within realistic walking/cycling distances from employment, education residential and shopping/entertainment/leisure areas are a key mechanism to support the development of sustainable, healthy and low carbon towns.

The 10-minute neighbourhood is a term popular in North America though applied informally in Europe too. It is about creating connected communities – understanding how neighbourhoods work and designing/retrofitting more compact and permeable urban areas to ensure a vibrant, mixed use place, where most trips to school, shops, work, recreation and to public transport are within walking or cycling distance for the majority of residents. This has numerous benefits including reducing the need to travel (which therefore reduces car dependency, emissions, air pollution and congestion) but also promoting physical activity and opportunities for community interaction – creating socially connected neighbourhoods and improving the overall quality of life for residents and visitors.

Arup has been commissioned by the Southern Regional Assembly (SRA) to undertake a “10 Minute Town” concept

which will form part of the Regional Action Plan for Interreg Europe MATCH-UP project. The main constraints and opportunities that have been established during the 10 Minute Town analysis can be summarised as below:

- There is generally a lack of direct access from residential estates to main roads.
- The need to improve existing footpaths, not only for safety reasons, but also to encourage the residents and visitors to walk within their 10-minute catchment rather than rely on cars.
- There is potential to promoting cycling as a means of transport by providing adequate cycling facilities, including parking.
- There is potential for new local bus routes and/or increases in frequency for existing routes.
- Carlow Town RVIS is taking into consideration these recommendations, which are included in our Transport Strategy.

Safer Streets for all – 30kph speed limit

Roads in Carlow Town where a 30km/hr special speed limit presently apply include: Lower Tullow Street, Dublin Street, Brown Street, Charlotte Street, College Street, Castle Street, Potato Market and Upper Tullow Street.

In order to support the delivery of a comprehensive walking and cycling network, where cycling on road alongside vehicular traffic is safe for cyclists, it is proposed to extend the 30kph limit to the following roads: Kennedy Street, Kennedy Avenue, Burrin Street up to Pembroke, Barrack Street, St. Josephs Road, Green Lane and Railway Road. This extended 30kph area includes access to main Town Centre destinations such as the railway station, the Bus Coach Park, Carlow College, schools, the Civic Area, etc.

The implementation of a wider 30km/hr zone will result in a safer, calmer and more pleasant urban environment for pedestrians, cyclists and motorists, fostering opportunities for active travel and protecting vulnerable road users.

Walking and Cycling

The creation of a comprehensive walking and cycling network will help create a resilient, low carbon transport network in the town that prioritises safe, friendly and healthy streetscapes, while reducing car dependency and improving air quality – enhancing travel choices for all and

improving connectivity to employment, education, retail and leisure opportunities.

The walking strategy contains a number of new pedestrian routes within Carlow, linking residential areas to key attractions, with a focus on removing severances and improving connectivity. This strategy also includes recommendations to improve the width and condition of existing footpaths, the implementation of safe crossings that reflect pedestrian desire lines and proposals to upgrade junction arrangements to reduce delays to pedestrians. The provision of street furniture such as benches, and the delivery of the 30km/hr zone will enhance the experience, safety and comfort of pedestrians living in, studying, working and visiting Carlow Town.

Similarly, the cycling strategy has been prepared to address existing gaps and facilities in the network. This has focussed on creating a series of safe and continuous segregated cycle routes along the radial road corridors, linking residential communities to places of employment, education, recreation and the Town Centre. In addition, the plan seeks to create an ambient environment in the Town Centre favourable to cycling on street (through reduced traffic speeds and volumes).

The cycling strategy also looks to build upon Carlow’s wealth of natural assets and rich biodiversity, particularly along the River Barrow and River Burrin, through the delivery of a series of green routes within the town.

Existing Walking and Cycling Facilities

Footpaths within the core of the town are generally of adequate condition and width. In certain locations, on-street parking, bollards and street furniture reduces the area available to pedestrians – leading to a sense that these streets are dominated by vehicular traffic. There is also a lack of pedestrian priority and crossing points on several key pedestrian desire lines (for example between the train station and the Town Centre).

Investment in cycling has taken place in Carlow in recent years, with the provision of cycling lanes along the N80-bypass and some of the regional roads. In the Town Centre cycle lanes have been provided along Barrack Street, Bridge Street and Hanover Road.



Cycling routes throughout Carlow are often discontinuous and there is scope for improvements to cycle lane widths, cycle parking and cycle priority at junctions. The prevalence of large roundabouts at major intersections within the town also create safety issues for cyclists.

Existing key assets in the town are the walking and cycling Barrow Way, which is a major tourist and leisure attraction, running along the towpath of the river. The River Burrin Linear Park also has a recreational route along the east of the river, which extends from Burrin Road / Hanover Road junction to The Laurels.

Walking and Cycling Strategy

A key objective of the Strategy is the development of more sustainable communities within Carlow, with an emphasis on encouraging active travel to reduce car dependency. This will be achieved through investment in active travel infrastructure and adopting consistent approaches to local area planning which prioritises development opportunities that support sustainable travel. In this regard, the Strategy recommends the following initiatives for implementation. This section can be read in conjunction with the Walking and Cycling Links maps enclosed in Appendix I.

Walking Provision

- **Improve permeability in the Town Centre and Carlow College to the Train Station** as described within the Intervention Areas Transport Proposals below.
- **Provide accessibility connections** to improve the permeability from Residential Areas, as identified within the 10 Minute Town report and maps enclosed in Appendix I.
- **Enhance the walking network** through additional crossings along pedestrian desire lines, e.g. Kilkenny Road, St. Joseph's Road/Green Lane junction, Hanover Street/Burrin Street junction and Railway Road / Old Dublin Road junction.
- **Increase the width of footpaths** where appropriate (based on pedestrian activity levels) and feasible, in accordance with the guidance within the Design Manual for Urban Roads and Streets.
- **Provide a pedestrian and cyclist footbridge to**

connect IT Carlow with the River Barrow Way, extending the link to the newly-developed estates along Leighlin Road (Graiguecullen) to improve recreational amenity opportunities and sustainable transport choices of residents.

Cycling Provision

- **Primary network:** Provide high quality cycle routes along the N80 bypass and the radial road corridors linking residential communities to places of employment, education, recreation and the Town Centre. The routes will cater for the highest levels of cycling demand and should therefore, be designed to facilitate a high Level of Service (A or B) as established in the National Transport Authority's (NTA) 'National Cycle Manual'.
- **Secondary / Feeder Routes:** Implement a secondary network of cycle routes that connects the primary network to residential areas and places of employment. Depending on the volume and speeds of traffic, secondary or feeder routes may be segregated or can share the carriageway with motorists on traffic calmed routes.
- **Roundabout Improvements:** Where feasible, upgrade existing roundabouts along the primary and secondary routes to cycle friendly roundabouts as per the NTA's National Cycle Manual.
- **Green Routes:** Promote the existing Barrow Way and River Burrin Linear Park and take into account the outcome of the proposed Barrow Way cycle route feasibility study currently being carried out by Waterways Ireland.
- **Gaps in the cycle network:** to complement the existing cycle network, provide continuous cycle facilities along the main roads.
- **Cycle Wayfinding:** The development of a user-friendly active travel way finding signage plan, guiding cyclists to key destinations and/or attractive recreational routes, will complement the investment in the town's cycle network, raising awareness of the network and support confidence levels for new users in their journey planning.
- **Secure cycle parking:** The strategy also includes provision for enhanced, secure cycle parking, which is located at strategic sites around the Town reflecting

demand from key attractors. Key destinations include the rail and bus stations, schools, shopping areas and places of work.

Public Transport

Central to Carlow's future success will be the creation of a high-quality public transport network connecting people to key destinations within the Town in a reasonable travel time. By providing residents with a choice of travel options, this will help reduce the dependency on private car travel and support healthier lifestyles. This in turn will help create a vibrant Town and strong local economy, attractive to young professionals and families.

The Public Transport Strategy includes a set of recommendations to improve accessibility for public transport in Carlow, in particular improved accessibility to Carlow Coach Park, Carlow Railway Station and Taxis.

The Public Transport Strategy also includes recommendations for the integration of Public Transport with other modes (through the development of Mobility Hub facilities at the Railway Station and Coach Park). The Strategy also supports the provision of a Carlow Town Bus Service as proposed by the National Transport Authority (NTA).

Existing and Planned Public Transport

Carlow is situated on the Dublin to Waterford rail line, with the train station located on Railway Road, approximately 1km from the Town Centre. Services from Carlow are infrequent, with an hourly frequency at peak times and gaps of up to three hours between services during the day. Improvements to frequency and timetabling would improve Carlow's rail connectivity with the wider Eastern Region.

The train station is within a 5-10-minute walking catchment of the Town Centre; however, the majority of the town is outside of this catchment area. Adding additional pedestrian links and connections will improve the accessibility of the railway station for residents and visitors.

JJ Kavanagh operate on the Dublin-Waterford route, with

13 daily services from IT Carlow and Carlow Coach Park to the Dublin Airport. Bus Eireann – Expressway routes 4 and 4X link Carlow with Dublin Airport as well. Other services to regional destinations such as Wexford, Portlaoise, Tullamore, Athlone, and Naas, are less frequent. Local Link runs a number of demand-responsive services that connect Carlow with towns and villages in its hinterland.

The Carlow County Development Plan 2015 – 2021 sets out relevant policy goals for Carlow Town at a local level. It is the policy of the County to 'Play a positive role in promoting sustainable transport to reduce levels of car dependency, and maintain an efficient and safe road and public transport network'. There are a number of actions within the Development Plan which can be utilised to support the delivery of an improved public transport network for Carlow Town, including:

- Encourage better integration of transport services in the County where possible with the aim of reducing car trips and to encourage improved consultation and co-operation between both public and private providers of transport services operating in the County and in the South East Region, including all providers of bus and rail services.
- In this regard, the Council shall be open to supporting, where practicable, initiatives to facilitate discourse and co-operation between transport service providers with a view to facilitating better integration of public transport services.
- Work with the relevant organisations to develop and maintain bus stops, waiting areas, and up to date travel information for the local population and tourists alike. The availability of such services should be promoted.
- Encourage the provision of shared bus stop facilities in appropriate locations in urban centres such as Train Stations to facilitate public and private operators, as designated in the County Settlement hierarchy.
- Work with transport providers to develop an urban public bus service for the Greater Carlow and Graiguecullen Urban Area.

The NTA in conjunction with Carlow County Council have developed two potential town routes in Carlow to



connect the majority of residential areas within the town to the main employment, retail, health and education destinations. The map below shows the proposed routes and the indicative location of the bus stops. It is anticipated that the frequency will be every 30 minutes.

The proposed routes are as follows:

- CW1- Tyndall College to MSD: Connecting Tyndall College and IT College to the Town Centre via Green Road and Hanover Road before heading northwards along Barrack Street and Green Lane following the R448 up to MSD Carlow.
- CW2 – Sleaty Road to Wall’s Forge: connecting The Dome (in Graiguecullen), Carlow Town Park and Maryborough Street with the Town Centre, along Bridge Street, Castle Hill, Kennedy Avenue and Barrack Street. Then heading east along Accommodation Road, St. Patrick’s Avenue, Pollerton Road, N80 southwards and Tullow Road.

A catchment analysis for walking and cycling has been undertaken and are shown in Appendix I. The 5-10min catchment analysis for cycling shows that all proposed bus stops in Carlow are within a 10-minute cycle catchment area.

There are residential areas in Carlow that are not located within a 10-minute walking catchment to the proposed bus stops, particularly the eastern, western and southern suburbs of the town. Adding new direct pedestrian/ cyclist paths to the bus stops from the residential areas will shorten the distance, therefore it will improve the accessibility for residents living in these areas to the town bus network, thereby supporting the development of the ‘10-minute town’ concept.

The indicative location of the bus stops is shown on the figure below. Improvement works in the Town Centre, such as the Barrack Street project, should accommodate these bus stops in accordance with required standards, providing a safe and comfortable waiting area for passengers. The provision of Real Time Passenger Information for the new services will help to raise awareness among residents and visitors and build confidence in service reliability.

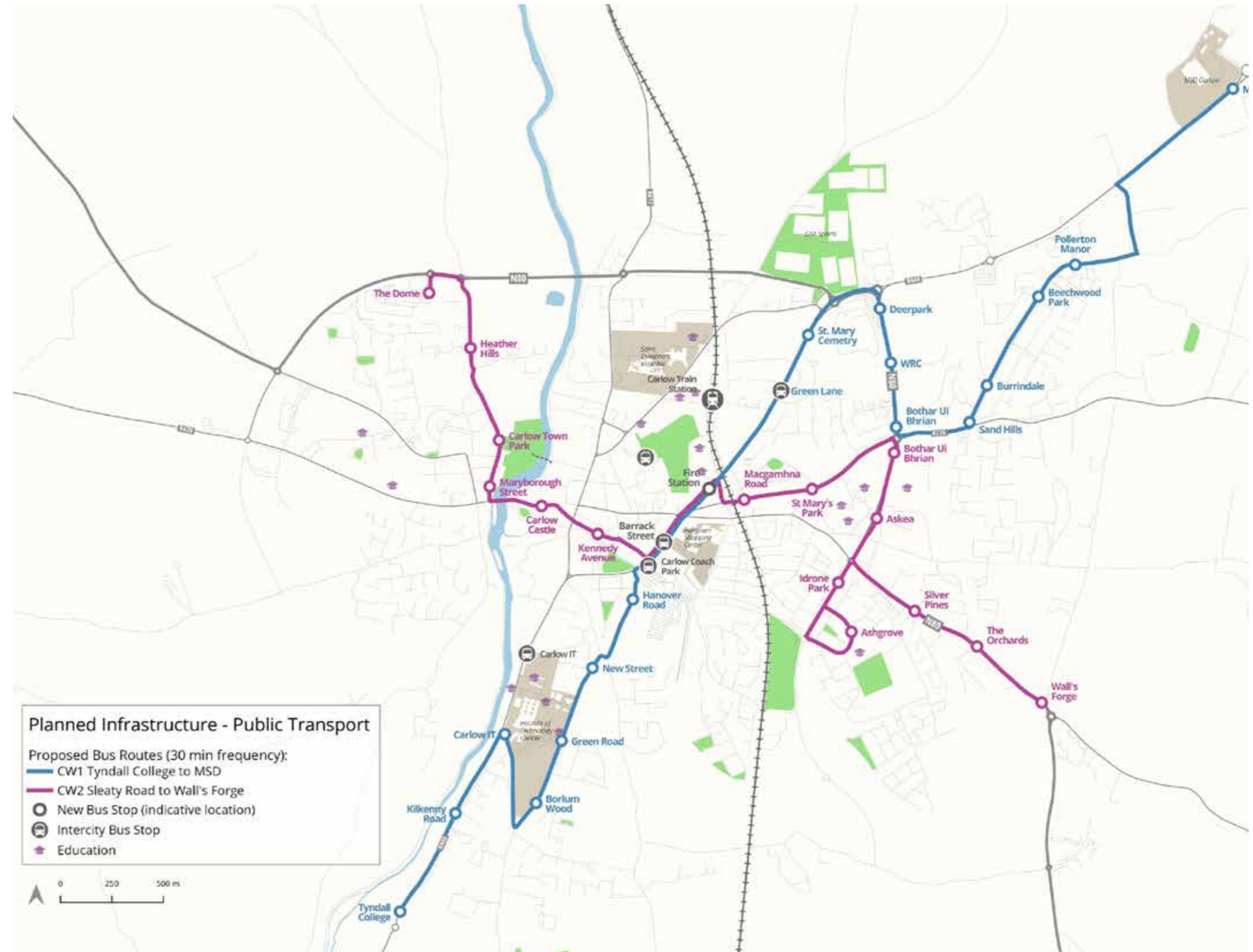


Figure 2: Planned Public Transport



Recommended Measures to improve accessibility to Public Transport

Recommended measures to improve accessibility to existing and proposed public transport in Carlow are as follows:

Location	Opportunity to Improve Accessibility
Railway Station	<ul style="list-style-type: none"> Provision of new link to the Railway Station from the Town Centre, Civic Spine and Carlow College. This new link is proposed under the 'Cultural Quarter' Intervention in this Strategy. Walking and cycling connection between Green Lane and Railway Station via Glendale Avenue Walk and cycle bridge over the railway line between Glendale Avenue and St. Joseph's Road Pedestrian crossing at St. Joseph's Road to connect the railway station with the eastern footpath Develop the Railway Station's Mobility Hub capabilities in order to facilitate multi-modal interchange and transport integration, including: <ol style="list-style-type: none"> Provide active travel wayfinding and signage to key destinations within the Town and to the bus network Provide sheltered and secure cycle parking Depending on the outcome of the Cycle Hire Feasibility, provide a bike hire docking station at the Railway Station as a key bike hire location Provide designated Car Club and Electric Vehicle parking in order to promote shared and low carbon mobility options to and from the Station
Carlow Coach Park	<ul style="list-style-type: none"> Upgrade Barrack Street/Kennedy Avenue roundabout to provide pedestrian/cyclist facilities which will link the Town Centre to the Carlow Coach Park Improve the waiting area in the Coach Park with shelters and benches Develop the Coach Park's Mobility Hub capabilities in order to facilitate multi-modal interchange and transport integration, including: <ol style="list-style-type: none"> Provide active travel wayfinding and signage to key destinations within the Town and to the bus and rail network Provide sheltered and secure cycle parking Depending on the outcome of the Cycle Hire Feasibility, provide a bike hire docking station at the Coach Park as a key bike hire location Provide designated Car Club and Electric Vehicle parking in order to promote shared and low carbon mobility options to and from the Coach Park
Taxis	<ul style="list-style-type: none"> The Town Centre intervention will facilitate the provision of Taxis ranks (including Taxi Electric Vehicle recharging facilities) along Potato Market and Kennedy Avenue, with enhancements to pedestrian facilities to access to this public service.
NTA Proposed Town Bus Service	<ul style="list-style-type: none"> Facilitate bus stops provision and adequate waiting areas Provide (where feasible) direct pedestrian links from residential areas to Bus Stops to shorten the walking distance for users and widen the potential catchment of the bus service Provide sheltered and secure cycle parking at key bus stop locations along the route(s), in order to facilitate multi-modal interchange and widen the potential catchment of the bus service Provide Real Time Passenger Information along the route(s) in order to promote awareness and build confidence among users in relation to service reliability

Connecting to Public Transport Links

Carlow Town will have a new bus network which will include an increased number of bus stops and improved services. This updated Cross-Town Bus Network, led alongside the National Transport Authority, will significantly improve local and regional services in the Town. The new bus service will link with the Bus Park located at the bottom of Barrack Street. The Interventions proposed to be undertaken as part of this Regeneration Strategy for Barrack Street will significantly assist in connecting the Town Centre with the public transport services along Barrack Street. The new pedestrian link from Potato Market to Barrack Street (currently being applied for under the URDF) will enable quicker and more convenient access for pedestrians to bus services, as well as connections through to the Rail Station, encouraging public transport use.

Existing and Planned Road Network

Carlow is strategically well placed on the national road network, located directly adjacent to the M9 Motorway, thereby providing excellent connectivity to Dublin (through the M7/N7) to the north, as well as Kilkenny and Waterford to the south. The M7 and M8 Motorways are approximately 40km away which provide connectivity with Limerick and Cork. The N80 National Road connects Carlow to the regional centres of Portlaoise, Enniscorthy and Wexford.

In addition, the N80 forms an orbital route around the north of Carlow, providing an additional bridge crossing over the River Barrow. The internal road network within Carlow is radial in nature, with four regional roads converging on the Town Centre. This radial network results in traffic movements through the Town Centre.

Carlow County Development Plan 2015-2021 and the Regional Spatial & Economic Strategy for the Southern Region consider the delivery of the Carlow Southern Relief Road N80-R448 a transport infrastructure priority. The completion of the Southern Relief Road and new bridging point over the River Barrow is considered important to the connectivity between the Midlands Region and South-East Region and to the local economy of the Greater Carlow Graiguecullen Urban Area. The indicative alignment of the road is illustrated in Map 1 on Appendix I.

Parking Strategy

Parking spaces are a valuable resource that needs careful management to protect the economic viability of the commercial core of the Town. A well-functioning Town Centre car parking system contributes to the local economy, helps enhance the public realm and improves accessibility for all transport modes. Parking capacity and

pricing is also an effective tool that can be used to manage travel demand which helps encourage modal shift and reduces the impact of congestion on the network.

Given its large rural hinterland and the absence of high frequency public transport alternatives, there is presently a high demand for parking within Carlow Town. Whilst some areas can become oversubscribed during peak periods, there is generally a sufficient level of parking in Carlow to meet the needs of the town.

As previously noted, it is an objective of the Transport Strategy to deliver an efficient transport network that provides residents and visitors with a range of travel choices, through investment in walking, cycling and public transport infrastructure. The increase in population and employment forecast for Carlow will result in an increase in travel demand in the town, however it is the aim of the strategy that much of the future demand for travel will be met by these sustainable modes and therefore additional public parking will not be required.

Car Parking Provision & Pricing

In addition, future parking tariff rates for both short and long stay users will need to be reviewed in tandem with the fare prices for the urban bus service, to ensure the parking pricing structure does not undermine the significant investment in public transport.

Should a demand arise for additional parking, for example through the redevelopment of existing Town Centre parking sites, then this should be provided for on the periphery of the Town Centre. This will provide motorists with efficient access to parking areas without the need to traverse the Town Centre's narrow streets.



With regard to areas benefitting from public realm enhancement plans, a reduction in on-street car parking provision is recommended in order to accommodate pedestrian/cyclist facilities and public spaces.

Adequate quantum of on-street disabled parking and parent and child parking will need to be provided (supported by enforcement to discourage inconsiderate parking), as well as set down, taxi and loading bay parking. Given government Climate Action Plan targets and current incentives to increase the take-up of electric vehicles (EV), it will also be important for the Town to provide sufficient electric vehicle charging infrastructure facilities to meet future demand. In support of this transition to low carbon transport provision, this element of the Parking Strategy will include Development Plan Parking Standards in relation to EV and the provision of on-street and off-street EV recharging facilities with an appropriate mix of rapid charging facilities. The role of EV charging facilities for the taxi fleet is also important from an Air Quality perspective within the Town.

Cycle Parking

A substantial increase in secure on-street cycle parking will also be required within the Town Centre to support cycling trips. In addition, the role of Cycle Parking Standards (including parking, showers and changing room facilities) within the County Development Plan will play an important role in facilitating a culture of cycling through the provision of additional cycle parking provision at new developments within the town, both residential and commercial.

Car Clubs – shared mobility

Car Clubs are becoming increasingly more popular across Europe and Ireland. On average, the majority of cars in Europe are inactively parked (before or after trips are made) for approximately 16 hours a day, actively parked (during trip) for nearly 7 hours and driven less than 1 hour each day. Cars also typically cost in the region of €6,500 to own and run annually. This, combined with the fact that the average car requires 150m² of urban land to park results in a considerable waste of land resources. In the past number of years, more drivers are opting to use shared car club vehicles rather than purchase their own car and there are now shared car companies in many European towns and cities.

GoCar is the largest car club company in Ireland with over 50,000 members and 700 cars and vans available nationwide, although the majority are currently within or close to Dublin. Research from other European schemes has found that each car can replace the need for up to 16 privately owned vehicles. This research also found that while 40% of users didn't own a car prior to joining a car club, a further 22-32% gave up their car as a result of the availability of the car club.

In order to support reduced car dependency and sustainable travel, while still enabling car use for individuals when required, the provision of a Car Club facility for the Town Centre is also recommended. These shared mobility services can be provided in residential areas, within the Town Centre and at key destinations such as the Railway Station and the Colleges. Increasingly, car clubs provide hybrid or electric vehicles, which will also support the Town's low carbon transition.

Supporting Measures – Smarter Travel

In order to lock in the benefits of the investment in active travel and public transport, a Smarter Travel behavioural change programme is recommended as part of Carlow Town's Transport and Movement. This offers the benefits of ensuring potential users are aware of the new infrastructure, and supported and incentivised to use it – therefore maximising return on investment and encouraging more people to use sustainable, low carbon and healthy travel options.

Behavioural Change Campaigns

For example, the delivery of new cycling infrastructure can be supported by a focused promotional campaign including Town Cycle Network maps, a community based led cycle ride, cycle training, Dr Bike maintenance sessions and the promotion of local bike shops. Similarly, taster tickets could be provided for the proposed new Town Centre bus services, while new walking infrastructure could be promoted via led walks and themed heritage trail maps.

Mobility Management

Mobility Management, or travel planning, is a concept to promote sustainable transport and manage the demand for car use by changing travellers' attitudes and behaviour. The aim of mobility management is to reduce demand for and use of private cars by increasing and promoting the

attractiveness and practicality of other modes of transport. Mobility Management Plans (MMPs) in workplaces, education establishments and residential developments can have a significant impact on the travel choices of employees, students and residents. Mobility Management Plans are management tools which bring together mobility measures and actions in a co-ordinated framework allowing organisations and developments to implement measures against an agreed plan to reduce private car use.

The NTA's Smarter Travel Workplace & Campus Programme has delivered an average reduction in car commuting of 18% where workplaces effectively engage with the Programme. The Institute of Technology Carlow is a partner in the NTA scheme, and other large trip generators within the Town can be encouraged to join this programme and implement MMPs at their own sites. In the longer term, there is potential for a Town Centre MMP Forum to be established, where sites can meet, share best practice and work in partnership to promote new sustainable transport infrastructure.

The use of Residential MMPs are increasingly used now as part of Planning approvals, and could be utilised by Carlow County Council as part of Development Control to support reduced car dependency at new residential developments and support an uptake of sustainable travel options.

In Ireland, the percentage of primary schools' students being driven to school has increased from 24% in 1986 to 59% in 2016. An Taisce's Green Schools Programme aims to reverse this trend. As part of the Green Schools Travel Theme, schools create an Action Plan with travel targets. The aim of the plan is to increase the number of students using sustainable modes and to reduce use of the private car. The Action Plans emphasise, the health and fitness benefits of sustainable travel for children as well as the external benefits of decreased car use in improved air quality and reduced GHG emissions. As with workplace MMPs, more local schools in Carlow Town can be encouraged to join the Green Schools Programme and support healthy, low carbon travel options for pupils, parents and staff.



Upgraded Barrack Street



Intervention Areas – Transport Proposals

The Carlow Town RVIS focuses on six Intervention Areas (as shown on the series of maps in Section 6 Urban Design and Implementation), containing Public Realm projects and development opportunities in and around Carlow Town Centre. The Intervention Areas consist of: Town Centre, Cultural Quarter, The Barrack Track/Civic Spine, The Pembroke District, The Burrin Riverfront and Link Streets (e.g. Dublin Street and Tullow Street).

This section identifies the proposed transport interventions required to support the development of the Intervention Areas, including junction improvements, road realignment, traffic management, walking and cycling links, and public realm enhancement works as outlined below.

Town Centre – Potato Market and Barrack Street

- Upgrade the existing roundabout junction at Potato Market / Kennedy Avenue to a traffic signalised junction, including the access to the southern car park. This will facilitate the safe passage of pedestrians and cyclist at this location, whilst maintaining vehicular movements.
- The creation of a pedestrian only link from Barrack Street to Potato Market as part of a high-quality public realm scheme.
- Improved access to public transport services including new proposed bus services on Barrack Street and Carlow Train Station.
- Realignment of access to the Carlow Shopping Centre Car Park from Kennedy Avenue East. This access will serve the existing car park spaces at the rear of AIB Bank and also used for delivery services. It is proposed that delivery vehicles using this route will be managed and limited to early morning hours to avoid conflicts with pedestrian and cyclists along the proposed link.
- The existing service yard within the Shopping Centre will be accessible from Tullow Street and Barrack Street, as indicated in the figure below.
- Access to Exchequer House car park will be provided from Potato Market, with the inclusion of bollards recommended alongside this access point in order to delineate the vehicular route and safeguard

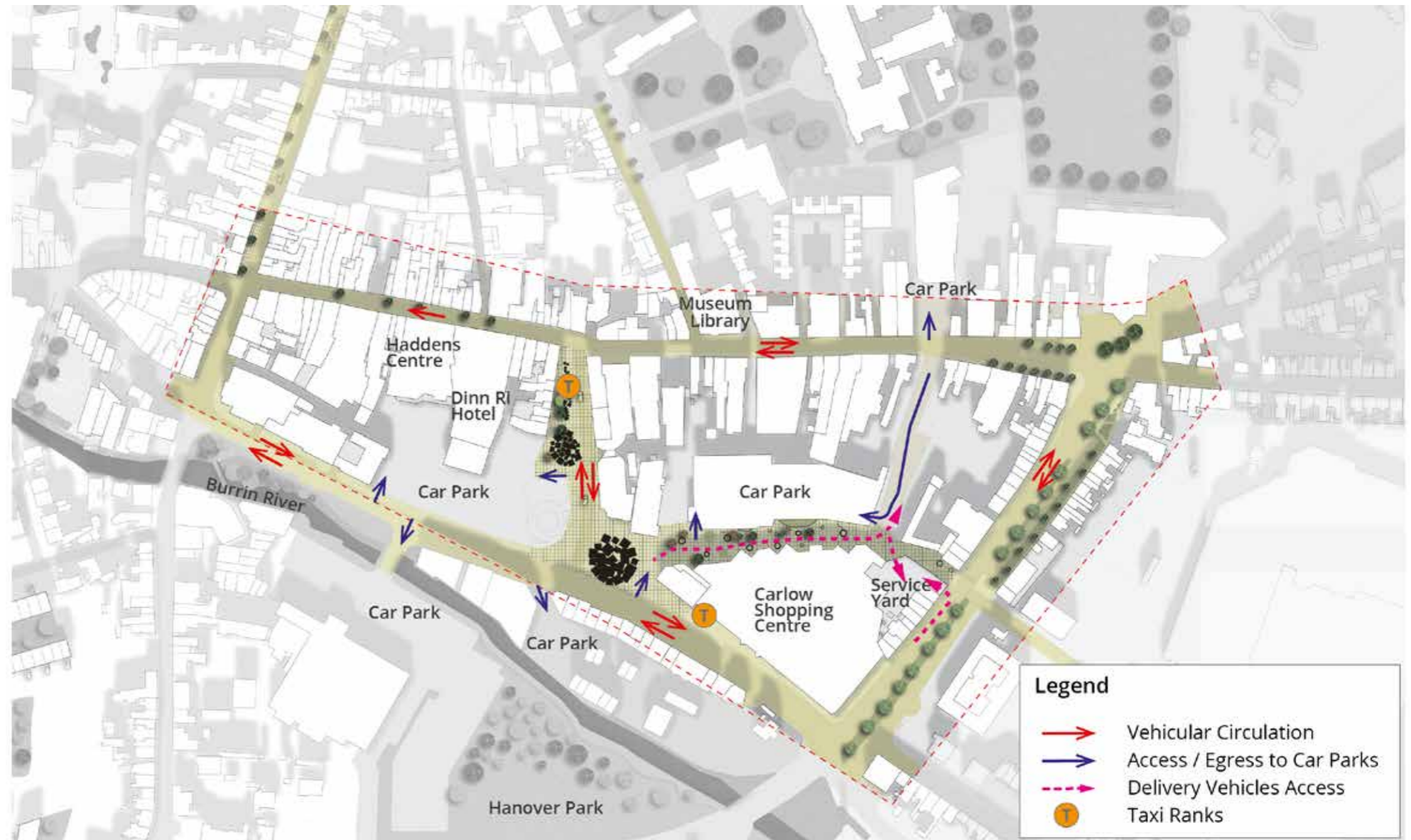


Figure 3: Carlow Town Centre Circulation

- vulnerable road users.
- Repositioning of the taxi rank on Kennedy Avenue to gain additional public space and enable the provision of cycle lanes on Kennedy Avenue.
- Barrack Street improvements including the upgrade of the Shamrock Square junction to a cycle friendly junction (including the provision of continuous cycle lanes, advance stacking space for cyclist and pedestrian crossings on all arms of the junction). The

approach to the junction from Tullow Street will be narrowed to increase the footpath width and provide a new crossing, improving the pedestrian experience.

- Upgrade of the roundabout junction at Barrack Street / Kennedy Avenue to a traffic signalised junction in order to provide improved cycle facilities (in accordance with the NTA's National Cycle Manual) and improve the pedestrian facilities by increasing the footpaths width and facilitating controlled pedestrian

crossings on all arms. This junction will be a 4-arm junction including vehicular access to the Carlow Coach Park.



Cultural Quarter

- Provision of a new key link from Carlow College to the Railway Station, "Railway Link", to facilitate user connectivity between Railway Station and Carlow College. This link will be complemented by a formal pedestrian crossing in St. Josephs Road.
- Upgrade College Street Upper to improve the existing footpaths and provide formal pedestrian crossings along desire lines.
- Provide new pedestrian and cyclist links from Green Lane via the Plaza Public Car Park, and a pedestrian and cyclist link from Tullow Street via the existing Car Park.
- There is an opportunity for the development of a Public Art Trail which showcases and tells the story of the cultural and heritage assets of Carlow Town Centre.

The Barrack Track / Civic Spine

- Provision of promenade access to the proposed Hotel and Mixed-Use Development on this site from Andy Murphy Road.
- The proposed Civic Spine serving the site will be a shared pedestrian and vehicular route.
- Additional pedestrian and cyclist accessibility provided from Cox Lane and Barrow Track.
- Provision of a new footbridge over the River Barrow to connect the area with Carlow Town Park.

The Pembroke District

- It is proposed to provide a vehicular access from Castle Hill along the continuation of Governey Square with the provision of a road bridge over the River Burren. This bridge should include footpaths to facilitate pedestrian connections and accessibility.
- Provision of a pedestrian/cyclist bridge to link the Riverfront connection.
- Implementation of remedial works (in the form of kerb realignment) at the existing Pembroke / Burren Street Junction, in order to improve the visibility at the junction and enhance pedestrian facilities.

The Burren Riverfront

- Provision of a walkway along the River Burren from Burren Street up to the Castle. This link will connect to the pedestrian link along the River Barrow.
- On the eastern side of Burren Street, it is proposed that this link continues along the riverbank walk up to Hanover Park, thereby creating an attractive east-west link for pedestrians and cyclists.

Link Streets (e.g. Dublin Street and Tullow Street)

- Dublin Street is a key spine connecting north and south of the town. Improved pedestrian facilities on this street are recommended, while maintaining 2-way traffic. This can be achieved by narrowing the carriageway and widening the footpaths where feasible, along with the creation of additional pedestrian crossing opportunities and enhancements to street furniture and seating.
- Dublin Street is an important link for cyclists. While the carriageway width doesn't allow to provide cycle lanes, the 30kph zone and the proposed public realm works will create a low traffic environment for cyclists sharing the road with vehicular traffic.
- Upgraded pavement solutions provided along Tullow Street (with seating) and extended up to Shamrock Square to enhance the pedestrian experience.
- It is acknowledged that a strategy for backland development is required for Tullow Street/Dublin Street and the surrounding linkage streets in order to realise further opportunities for the Town.



Upgraded Potato Market



Pedestrian and Cyclist Links at Barrow Track



Outcomes and Actions

A set of Outcomes have been derived and formulated in relation to the Transport and Movement Core Theme. An associated Action accompanies each that provides a clear direction for the delivery of the Outcome.

1	Support the development of more sustainable communities within Carlow, with an emphasis on encouraging active travel and low carbon shared mobility.
	<ul style="list-style-type: none"> * The creation of a comprehensive walking and cycling network. * Enhancements to public transport * Meeting the rapidly changing travel needs of society in a sustainable manner. * Contribute to Carlow's transition to a low carbon economy. * Mobility Management to support smarter travel choices. * Parking strategy to support a low carbon safe and vibrant Town Centre.

2	Provide a number of new pedestrian routes within Carlow Town through each of the 6 Intervention Areas, linking residential areas to key attractions, with a focus on removing barriers to movement and improving connectivity.
	<ul style="list-style-type: none"> * Increase in pedestrian-friendly activity. * Improved pedestrian safety. * Promotion of and support for active modes of travel. * Support enhanced retail activity in the Town Centre.

3	Deliver a high-quality public transport network that is highly accessible on foot or by bicycle and that connects people to key destinations within the Town in a reasonable travel time.
	<ul style="list-style-type: none"> * Provide residents with a choice of travel options. * Help reduce the dependency on private car travel and support healthier lifestyles. * Improve multi-modal transport options and interchange opportunities. * Create a vibrant Town and strong local economy, attractive to young professionals and families. * Quality public transport offering enhances attractiveness of 3rd level institutions, supporting student recruitment and retention. * Facilitate improved pedestrian and cycle links to Carlow Bus Park and Carlow Train Station. * Quality public transport offering improves access and transport choices for tourists.

4	Implement the cycling strategy that has been prepared to address existing gaps in the network and focuses on creating a series of safe and continuous segregated cycle routes along the radial road corridors, linking residential communities to places of employment, education, recreation and the Town Centre.
	<ul style="list-style-type: none"> * Provide residents with a choice of travel options. * Help reduce the dependency on private car travel and support healthier lifestyles. * Improve multi-modal transport options and interchange opportunities. * Create a vibrant Town and strong local economy, attractive to young professionals and families. * Quality public transport offering enhances attractiveness of 3rd level institutions, supporting student recruitment and retention. * Quality public transport offering improves access and transport choices for tourists.

5	Build upon Carlow's wealth of natural assets and rich biodiversity, particularly along the River Barrow and River Burrin, through the delivery of a series of green routes within the Town.
	<ul style="list-style-type: none"> * Creation of usable public spaces. * Provision of new pedestrian/cyclist routes to key locations in the Town Centre. * Supports biodiversity initiatives in the Town Centre. * Creation of a quality public realm that improves the attractiveness of Carlow for tourists.

Health & Wellbeing

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

The built environment includes the human-made physical parts of where we live, work and play, such as homes, buildings, streets, open spaces, and infrastructure.

The places where we live and work have a significant impact on our health and wellbeing. Urban development, and its design, has an effect on what we do, how we do it, and how we feel.

Introduction

It is increasingly recognised that place and space have an impact on human health and wellbeing and that individual actions to improve lifestyle or health status are likely to be influenced by the environmental and socioeconomic context in which they take place. Urban policy-makers have increasingly been exploring the links between urban planning and public health, specifically in relation to the potential for urban environments to have positive impacts on health outcomes and healthy lifestyles, such as through well-designed and walkable cities, access to 'nature'/biodiversity and the distribution of urban green space.

A number of health risks can be influenced by spatial planning including *inter alia* heart disease, respiratory disease, mental health and obesity. It is recognised that decisions regarding land use and the built environment can affect these health risks in different ways and that good urban design policies can be linked with positive health outcomes.

The spatial planning system has an opportunity to become an enabler of urban health as research shows that policies regulating land use, connectivity, density, transport and green infrastructure can offer a pathway to improved health outcomes. The role of spatial planning and the land development process in supporting

health is becoming more prominent as policy-makers now seek to develop more sophisticated models of urban governance and integrated urban policies to deliver sustainable development.

While sophisticated healthcare such as immunisations and antibiotics have become common place, society is constantly faced with new, complex, and growing health challenges and accompanying health-related costs. In this regard, the topic of Health & Wellbeing and the Built Environment has never been more relevant than in recent times, with the worldwide pandemic of COVID-19 emerging in 2020. The impacts of COVID-19 and the requirements for social distancing, or physical distancing, has brought up new conversations around the importance and role that the built environment plays in the health and wellbeing of society.

This section of the Strategy aims to examine the current context of Carlow Town and its health profile, whilst also assessing the relationship of the Built Environment with Health & Wellbeing. Additionally, this section will examine the innovative objectives for Carlow Town that have been incorporated into this Strategy.



Setting for Health: The place or social context in which people engage in daily activities in which environmental, organizational, and personal factors interact to affect health and wellbeing (WHO, 1998).

Healthy Place-making: The concept of 'healthy place-making' asserts that an explicit goal of those involved in place-making (professionals and local people) should be to improve the health and wellbeing of the local population.



Carlow Facts

- The population of County Carlow was 56,932 in Census 2016, showing a 4.25% (54,612) increase over 2011 population figures. The population density of 63.5 people per square kilometre was below the national level of 70.0, thus indicating a relatively high level of population dispersal in the County, giving rise to the issues of social inclusion and rural isolation locally.
- Carlow returned 44% of the population as being aged between 15-44 years, 65% of the population as being aged between 15-64 years (working population), while the proportion of people aged 65 years and older was 12.9%, slightly lower than across either the South-East Region or the State as a whole.
- In 2016, 5,971 persons (2,115 households) were living in local authority rented housing in Carlow. This exceeds the comparative figure for either the State or the South East Region.
- Within Carlow Town, primarily in the Tullow Road area and in Graiguecullen, there are areas that are designated as RAPID areas due to the levels of disadvantage that are evident.
- A total of 3,869 persons were living in 2 divisions that were classified as Disadvantaged (Hacketstown, Muine Bheag Urban), with the remaining divisions being classified either as Marginally Below Average (18) or Marginally Above Average (15).

Health & Carlow: In Context



Healthy Ireland is a Framework for action to improve the health and wellbeing of the population of Ireland over the coming generation. It sets out four central goals for improved health and wellbeing, and outlines clear routes and strategies to achieve these goals, in which all people and all parts of society can participate. The Four Healthy Ireland Goals are:

1. Increase the proportion of people who are healthy at all stages of life.
2. Reduce health inequalities.
3. Protect the public from threats to health and wellbeing.
4. Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland.

A key action of the Healthy Ireland Strategy was the creation of County Health Profiles. The aim of these county profiles is to help identify health priorities in these areas and highlight health inequalities which may exist. The County Health Profile for Carlow was published by the HSE in 2015. It should be noted that the information used was taken from the previous Census (2011) and as a result, the current health profile in Carlow may be somewhat altered. The key results from this profile can be summarised as follows:

- Carlow has above average birth rates per 1,000 for all ages of 17.3 and above average rate for those aged under 20 years of 21 compared to national rates of 15.8 and 12.3 respectively;
- For males all invasive cancers, malignant melanoma, prostate and lung cancers are higher than the national average;
- Females have higher than the national average of

lung cancer but below national average for malignant melanomas and colorectal cancers;

- Deaths for all ages for cancer and respiratory disease and all deaths are higher than the national average;
- Suicide rate of 13.8 per 100,000 is higher than the national rate of 11.3

The County Health Profile for Carlow provides a snapshot of the local demographics, health issues and wider determinants of health of that area, compared with the national picture. The 2015 Profile demonstrated that Carlow had a number of health issues that were above the national average including suicide rates, invasive cancers in males, lung cancer in females, deaths for all ages for cancer, respiratory disease and all deaths.

The Healthy Carlow County Plan 2018-2021 sets out to support the people of County Carlow in attaining greater, more sustained and equitable levels of health and wellbeing. The vision of the Healthy Carlow Plan is: "A county where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility".

In line with the Healthy Ireland Framework, the Healthy Carlow Plan seeks to obtain the Four Overarching Healthy Ireland Goals. Additionally, the Healthy Carlow Plan aligns under 6 no. priorities: Physical Activity; Healthy Weight; Tobacco Free; Sexual Health; Alcohol and drug related harm; Mental Health, as well as local scale health priorities. A number of objectives for implementation are also outlined under the Healthy Carlow Plan.

The Healthy Carlow Plan identified that the number of people with a disability in Carlow accounted for 14.5% of the County's population (c. 8,237 persons) as of April 2016. The Plan also identified that the National Office for Suicide

Prevention (NOSP)'s 2015 Annual Report outlined Carlow as having one of the highest rates for suicide in the Country with 26 recorded suicides in the period 2014 and 2016.

There are a number of factors that contribute to the health and wellbeing of a town. While a lack of accessible health and mental health services within a town will contribute to poor health outcomes, other factors such as the provision of adequate recreational spaces, green spaces and incentives are just as important when it comes to the general wellbeing of a population. In this regard, while it is important to improve local healthcare services, it is also imperative that broader health and wellbeing initiatives are undertaken to improve the general health profile for a Town.

The NPF recognises that specific health risks can be influenced by spatial planning and that a whole-system

approach to addressing the impacts on health and wellbeing is needed to enable individuals and communities to make healthier choices and to improve health outcomes. The NPF has a number of NPOs in this regard:

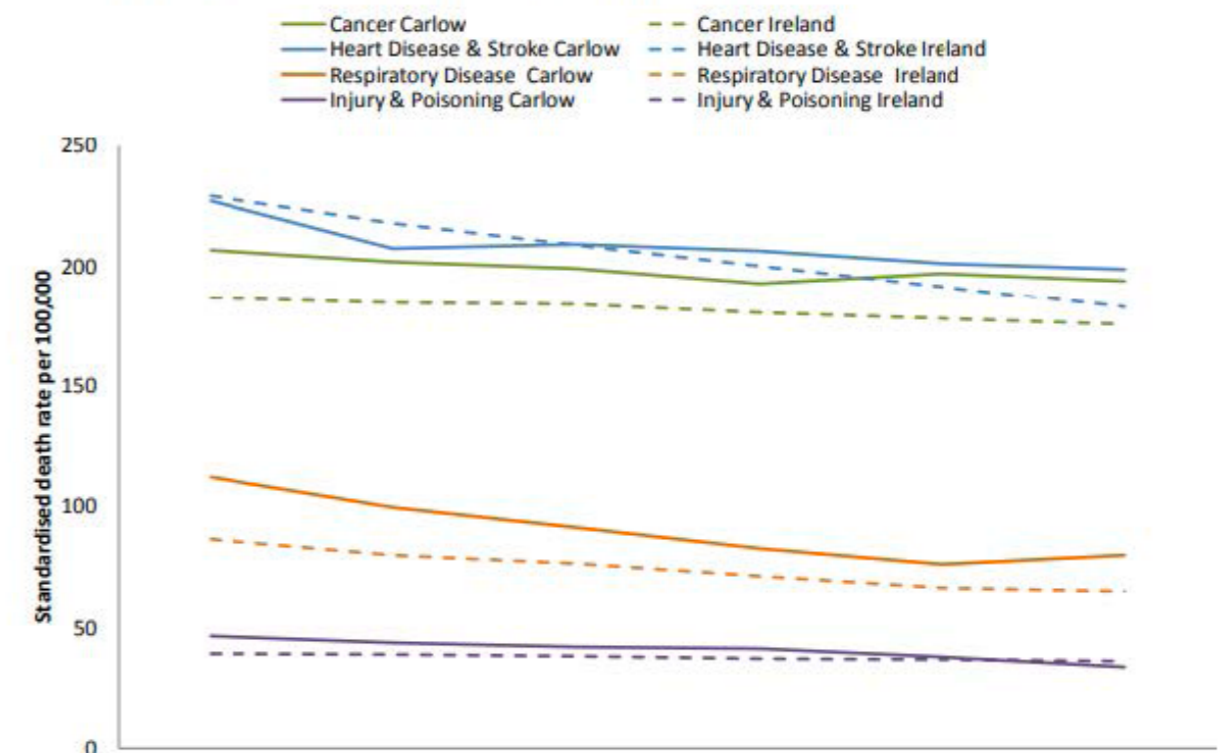
NPO 26: Support the objectives of public health policy including Healthy Ireland and the National Physical Activity Plan, though integrating such policies, where appropriate and a applicable scale, with planning policy.

NPO 27: Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages.

Health Statistics

Trends in death rates per 100,000 for the four principal causes of death over the period 2007-2012 for all ages compared to Ireland.

(For a more detailed explanation of what these disease categories contain see page 8)



Source: Health Service Executive (HSE) Public Health Profile Working Group – Health Profile 2015 Carlow (2015).



The Built Environment and Health & Wellbeing

A healthy built environment can:

- **Promote being active, eating healthy and other healthy habits;**
- **Encourage social connectedness;**
- **Prevent injuries and promote safety;**
- **Improve air, water and soil quality;**
- **Provide access to natural and green spaces;**
- **Ensure all members of the community have good opportunities to be healthy regardless of their age, income level, gender, ethnic background, or any other social or economic reasons.**

Placemaking is the way in which we plan, design and manage our towns and cities.

The connection between the built environment and public health was apparent from the time when infectious disease was the primary public health threat during the industrial revolution, with unsanitary conditions and overcrowded urban areas facilitating the spread of infection. In modern times, it has come to be considered that the primary public health problems are chronic diseases rather than infectious disease, however, with the emergence of the COVID-19 pandemic across the world, it is clear that the connection between population health

and the built environment remains important.

As research shows, health and wellbeing is strongly influenced by the built environment. It is recognised that individual actions to improve lifestyle and health status can be influenced by the environmental and socioeconomic context in which they take place, and as a result place and space will have an impact on human health and wellbeing.

Aspects of the built environment, including man-made and natural features, impact human health directly and indirectly through air quality, traffic injuries, and toxic substances. These aspects can also modify and influence physical activity levels, social connectedness and interactions, access to healthy foods, mobility, and housing quality. Many of these environmental and social determinants contribute to the rising prevalence of chronic diseases and related health conditions.

This section will examine four broad relationships between the built environment and health & wellbeing; physical activity, mental health, air quality and community. These relationships between the built environment and health & wellbeing often overlap and interconnect. In this regard, principles of integrated planning and design can result in policies and design measures which are cross-cutting in nature, resulting in some policies having multiple positive health outcomes. For example, the promotion of walking and cycling may be aimed at tackling air pollution and climate change with the added benefit of increasing physical activity.



New Active River Frontage with pedestrian link to Carlow Town Park.



River Barrow Water Hub.



New Pedestrian Links within Town Centre.

01 Placemaking and physical activity

The built environment has a critical role to play in making physical activity easier, cheaper, and more appealing.

The changing nature of society has resulted in greater car dependence and reduced levels of physical activity. Physical activity can occur during everyday activities within the built environment and not just for leisure. The built environment can, therefore, play a significant role in facilitating more active lifestyles by reducing barriers to, and creating opportunities for, physical activity. In this regard, the quality of a built environment is important for the encouragement of increased physical activity to levels that are beneficial to people's health and wellbeing.

It is widely acknowledged that the provision of more sustainable and active modes of travel such as walking and cycling result in increased physical activity. The public health benefits of increased levels of physical activity are extensive, leading to improvements in mental health and wellbeing as well as physical fitness. Physical activity has an important role in the lives of everyone including children and the elderly.

Features of the built environment which have an impact on physical activity include:

- location, density and mix of land use, street layout and connectivity;
- physical access to public services, employment, local fresh food and other services;
- safety and security;
- open and green space;
- affordable and energy-efficient housing;
- air quality and noise;
- resilience to extreme weather events and climate change;
- community interaction;
- transport.

02 Placemaking and mental health

There can be no health without mental health. Good mental health is essential not just for our personal wellbeing, but also to achieve resilient, sustainable urban places.

There is a clear role for improved design and planning in supporting good mental health and wellbeing; creating places that minimise excessive stress responses, promote feelings of safety and security, encourage community interaction and increase productivity and happiness at work. In this regard, there is evidence that supports ways in which urban design can help promote good mental health, prevent mental illness and support people with mental health problems.

Research has shown that accessible green spaces have an important relationship with mental health and wellbeing, with access to natural settings in urban areas and in the course of people's daily routines likely to improve and maintain mental health and wellbeing. Additionally, positive, regular activity has been proven to improve mood, wellbeing and many mental health outcomes.

The Centre for Urban Design and Mental Health states that one of the most important opportunities for promoting good mental health is natural and positive social interactions, from relationships to feeling part of a community. Additionally, a sense of safety and security is integral to people's mental health and wellbeing and some threats to this within the built environment include traffic, getting lost, environmental pollutants, and risks posed by other people.

03 Placemaking and air quality

The quality of the air that we breathe affects us mentally and physically. Air pollution is the single largest environmental health risk.

Air pollution is an important determinant of health. Research has shown that 'lifestyle illnesses' such as heart disease, obesity, diabetes, osteoporosis, mental illness and some cancers are increasingly attributed to the poor quality of the environment in urban areas. WHO estimated that in 2012, 1 in 8 deaths were attributed to exposure to air pollution, making it the largest environmental risk factor for ill health.

It is considered that smart placemaking and urban design has the potential to both reduce polluting behaviour and lower exposure to existing pollution. The quality of the air that we breathe should not be compromised by new or existing development. Innovative placemaking can assist in tackling air pollution, through the creation of sustainable places that are vibrant and healthy to live and work in. Placemaking policies such as prioritising public transport, walking and cycling networks as well as improving the energy efficiency of buildings and making urban areas more green and compact, and thus energy efficient can act to reduce air pollution.

Public realm improvements, alongside transportation measures, have increasingly promoted the creation of health supporting urban environments through the enhanced provision of urban green space. Integrating greenspaces and greenery into the built environment can act as both a barrier and a counterbalance to air pollution, as well as to noise pollution whilst also providing active open spaces for walking, cycling and nature. Green spaces in urban areas are associated with a range of benefits including reduced cognitive fatigue, stress and headaches, and better healing, cardiovascular health, blood pressure and mental wellbeing.

Research has generally endorsed the view that urban green spaces, as part of the wider environmental context, promote health and well-being in urban areas and provide health services as part of a wider array of ecosystems services. These health services are understood to range from direct positive effects on mental and physical health from increased biodiversity, to improved well-being resulting from increased exposure to nature, physical activity and social engagement in green spaces.

04 Placemaking and community

Community involvement leads to higher levels of wellbeing.

In the creation of health-promoting places, the requirements involving the social environment should also be considered. The quality of social relationships and community networks has a major impact on health and wellbeing. It is considered that community involvement leads to higher levels of wellbeing. Opportunities for social interaction in a local neighbourhood is important to develop good health and a simple facility like a small café or landscaped garden with seating can be an important meeting place and the focus of community life in urban areas.

Reclaiming street space and maximizing access to parks and plazas is the start of bringing more people together in the public realm. The creation of an "everyday" public realm can be a fundamental shaper of the community, filling it with civic engagement, exploration, and connections to people and place. In providing more open space, activating that space more of the time and enabling it to be more responsive to the community, it can help people spend more time outdoors, together.

The built environment features which affect social isolation and engagement include: residential density; mixed land use; street layout and design; transition between public/private space; environmental cues for crime and safety; greenspace; public transport; and local facilities for leisure and recreation (including cafés, pubs, religious facilities, etc.).



Carlow: Opportunity for Transformational Change

The preparation of this Regeneration Vision and Implementation Strategy for Carlow has presented a unique opportunity for Carlow Town to place Health & Wellbeing to the forefront of its regeneration strategy and the future envisaged growth of the County.

Urban regeneration is the process of renewal or redevelopment of the social and built environment through policies, programmes and projects aimed at urban areas which have experienced disadvantage. It is considered that urban regeneration can be an important public health intervention and that through a change in the urban physical, social and economic environment this can facilitate health improvements for disadvantaged communities. As such, this Strategy seeks to ensure that Health & Wellbeing is a feature outlined in each Intervention Area and their associated proposed outcomes.

The previous section highlighted how it is universally acknowledged that people’s health is affected by community networks, the local economy (access to work and opportunity), the physical environment and many other factors that are within the powers of placemaking to influence. While there are some obvious changes which can be made such as reducing traffic to improve air quality and providing better open spaces for people to exercise, this Strategy has sought to understand how Carlow Town can innovatively contribute to the concept of Health & Wellbeing.

COVID-19

The recent global COVID-19 pandemic which emerged at the start of 2020 has highlighted now more than ever, the concept of Health & Wellbeing within the built environment. The impact of COVID-19 on the built environment has resulted in a number of restrictions affecting social and economic activity in urban areas, which have been implemented in order to protect the health and wellbeing of society. These temporary restrictions include *inter alia*:

- Limitations placed on social and physical interactions – 2 metres apart.
- The closure of all non-essential businesses and services.
- Recommendations to work from home where possible.
- The closure of all recreational and leisure activities including playgrounds, clubs and gyms.
- Limitations on distance for non-essential travel (initially 2km from home).

COVID-19 has resulted in similar restrictions being implemented worldwide and has led to the ‘closure’ of the majority of urban areas globally. This has resulted in new conversations about how urban areas have had to adapt and the implications on

same for the future. In the first instance, alongside the health concerns related to the COVID-19 virus itself, the pandemic has resulted in broader health concerns in relation to physical activity, mental health and the impact on social activity and community participation.

One such example is the recognition that people still need to remain active during the pandemic and recommendations for same were forthcoming by the Government. However, the limitations placed on social and physical interactions have resulted in the requirement for people to remain 2 metres apart. This has brought up the conversation that many streets have been designed prioritising space for vehicles in lieu of space for daily use by pedestrians.

Urban areas need usable spaces that can accommodate the physical distancing requirements of staying 2 metres apart. In this regard, many cities and urban areas have begun to open up their streets for people, creating a safe space for the public to undertake physical activity in line with the restrictions placed on social interactions, without the risks associated with trafficked roads or crowded paths. Examples of such measures have been undertaken in Bogota, Melbourne, Paris and Dublin.

Carlow

This Strategy includes a number of outcomes in relation to the proposed Intervention Areas with the aim to not only achieve the overarching strategic goals set out in policy, such as Healthy Ireland and the Healthy Carlow Plan, but also to provide Carlow Town with innovative measures that prioritise health & wellbeing.

Carlow Town seeks to provide plentiful, accessible and exciting public spaces that are filled with people all day and all year round, providing a fundamental element of urban life. The goal is to help more people spend more time outdoors, together. By improving the quality of, and enhancing the accessibility to, public open spaces it is sought to produce multifunctional benefits including health and wellbeing as well as sustainable transport, biodiversity and recreation.

In the first instance, more public space will be created in Carlow through new urban squares, blueways, greenways and the upgrading of existing open space areas prioritising pedestrians. Alongside transport outcomes such as increased walking, cycling and public transport usage, the aim is to reclaim street space for the public realm. The expansion of public open space in Carlow Town will enable increased public activity and also more space for the greening of the Town Centre, resulting in positive health & wellbeing outcomes. It is also an aim to enable public open space to be activated throughout the day. This includes having adaptable and active ground floor uses in key Town Core locations including traditional retail, social or community initiatives.

A great public realm should serve as the foundation of a great community, where people spend more of their time outdoors, together — improving health and happiness and strengthening social ties.



CASE STUDY: HEALTHY CITY - COPENHAGEN, DENMARK

Introduction

A healthy city is defined by the World Health Organisation as one that is continually creating and improving physical and social environments and expanding community resources which enable people to mutually support each other in performing all functions of life and developing to their maximum potential. A healthy city aims to create a health supportive environment, to achieve a good quality of life, to provide basic sanitation and hygiene needs and to supply access to health care.

Being a healthy city depends not on current health infrastructure, rather upon a commitment to improve a city's environs and a willingness to forge the necessary connections in political, economic, and social arenas. Today, thousands of cities worldwide are part of the

Healthy Cities network and exist in all World Health Organisation regions in more than 1,000 cities worldwide including within a number of cities in Ireland. The most successful healthy cities programmes maintain momentum from the commitment of local community members, a clear vision and the ownership of policies.

A European example of a city that embodies these characteristics is Copenhagen, Denmark. Carlow could learn from the initiatives they have taken, the policies they have implemented and the incentives they have offered to their people when looking to become a 'healthy city'. In order to improve the general health of Carlow Town, we must look at the steps that have been taken by others and seek inspiration for our own development.



Copenhagen

Copenhagen is Europe's healthiest capital city. The city of Copenhagen promotes healthy living by making it attractive to cycle, by serving nutritious lunches in their institutions and by enabling educational institutions to offer quit-smoking programmes. 62% of people living in the City cycle to work every day and the vast majority keep it up through cold and wet weather, the City is designed for bikes.

They have successfully managed to reduce air pollution through their 'green roofs' initiative as part of their determination to become carbon neutral by 2025. Under this scheme, Copenhagen requires all new flat roofs to be planted with vegetation.

In addition to this, Copenhagen is offering free stress clinics for anyone who needs them with GP referral to combat mental health issues and smoking cessation courses to anyone who comes to a health clinic. The City has notices in recreational areas such as children's

playgrounds that politely ask you not to smoke, this is not enforced by law but the Danes have no problem abiding regardless. The initiatives that the city of Copenhagen has taken cater to both the physical and mental health of their people. The City is committed to promoting health in everyday life.



Carlow

There are a number of ways in which Carlow Town could implement similar initiatives to those that have been so successful in Copenhagen. Cycle-ways or Greenways promote exercise and encourage tourism. Other counties in Ireland such as Waterford have benefited greatly from the development of these cycle and walking routes. Cycle paths on the main roads throughout the Town would further encourage people to cycle to work and leave the car at home.

In addition to this, the implementation of green spaces or communal gardens in new and existing builds and underutilised areas which encourage planting and vegetation would greatly increase the air quality of the Town. These spaces could also act as a stress free

environment where one could go for a walk or a lunch break. In addition to this, Carlow Town could look to implement some of the initiatives that Copenhagen has around smoking. It is not banned in public spaces but polite advisory notices in playgrounds and parks help to improve air quality and create a healthier environment.

The natural assets of Carlow Town, the green spaces, historic streets and civic spaces are fundamental to creating a liveable and attractive environment. Improving the quality and enhancing the accessibility of these assets will produce multi-functional benefits including health and wellbeing, sustainable transport, biodiversity and recreation.

Outcomes and Actions

A set of Outcomes have been derived and formulated in relation to the Health and Wellbeing Core Theme. An associated Action accompanies each that provides a clear direction for the delivery of the Outcome.

1	The impact of COVID-19 on the built environment has resulted in a number of restrictions affecting social and economic activity in urban areas. This Strategy includes a number of outcomes which through their implementation will support urban life and public health in a post-COVID society.
	<ul style="list-style-type: none"> * Open up streets for people. * Creates a safe space for the public to undertake physical activity in line with the restrictions placed on social interactions, without the risks associated with trafficked roads or crowded paths. * Responds proactively with initiatives which make sustainable travel options safer and more appealing.

2	Promote physical activity. The importance of physical activity in children as well as adults has been a priority across all Intervention Areas in this Strategy.
	<ul style="list-style-type: none"> * Provision of more sustainable and active modes of travel. * Improvements in mental health and wellbeing as well as physical fitness. * Provision of informal play areas in public realm. * Improved pedestrian links within the Town Centre. * Promotion of active travel to reduce car dependence within Town Centre.

Reclaim street space for people



3	Promote the role of improved design and planning in supporting good mental health and wellbeing as part of the regeneration of the Town Centre outlined in this Strategy.
	<ul style="list-style-type: none"> * Provides accessible green and blue spaces to improve and maintain mental health and wellbeing. * Promotes physical activity in the public realm which will improve mood, wellbeing and deliver positive mental health outcomes. * Enhanced public realm that will contribute to a positive outlook and an improvement in overall mental health.

4	Actively seek to improve air, water and soil quality. Air pollution is the single largest environmental health risk.
	<ul style="list-style-type: none"> * Reduction in car numbers leading to an improvement in air quality. * Urban greening within Town Core and along the River Barrow. * Use of Eco-Design measures such as LED lighting, rainwater harvesting and solar panels. * Enhancement of greenways.

5	Undertake actions in line with this Strategy to ensure all members of the community have good opportunities to be healthy regardless of their age, income level, gender, ethnic background, or any other social or economic reasons.
	<ul style="list-style-type: none"> * People will spend more time outdoors. * Improved access to green spaces. * Creation of more public open space at Potato Market, Barrack Street link and new urban node connections. * The public realm will be active and exciting, with well-designed and well-lit open spaces. * Social interactions and community activity will be facilitated and encouraged.

6	Promote the delivery of sporting facilities for people of all levels and ages.
	<ul style="list-style-type: none"> * Seek funding for local sports partnerships. * Create awareness of the availability of sports teams in the town. * Target lower participation groups within the community and provide support for starting off in sport.

Encouraging Community Activity



Environment and Sustainability

Policy Overview

“Formulate, implement, publish and regularly update national and, where appropriate, regional programmes containing measures to ... facilitate adequate adaptation to climate change.” United Nations Framework Convention on Climate Change

As set out within the National Adaptation Framework, a substantial body of international and EU climate change policy now exists to guide the development of national policy. These policies frame the objective of transitioning to climate resilience and realising inherent opportunities. A summary of key policy documents, while not exhaustive, is set out as follows.

COP21/Paris Agreement: The Conference of Parties (COP21) agreement signed by 179 member states places a commitment on governments to reduce greenhouse gas emissions by 40% before 2030. The Irish Government have committed to reducing emissions by 2020 and 2030 relative to 2005 levels. Ireland has received some flexibility regarding their reductions through emissions trading and land use.

Local Authorities EU agreements: As signatories of the European Union's Covenant of Mayors for Climate and Energy Initiative, local authorities are required to monitor at County level, energy consumption, CO2 emissions and to report on the progress of relevant action plans. The implementation of such action plans and mitigatory strategies is critical in urban areas, which contribute the largest proportion of overall emissions (70% globally) and similarly comprise of the majority of services, employment and persons.

National Climate Policy: This policy establishes the fundamental national objective of achieving transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050. It sets out the context for the objective, clarifies the level of greenhouse gas mitigation ambition envisaged, and establishes the process to pursue and achieve the overall objective. The evolution of climate policy in Ireland will be an iterative process based on the adoption by government of a series of national plans over the period to 2050.

Climate Action and Low Carbon Development Act 2015: The Act is Ireland's first overarching piece of climate change legislation. It has two main aims: to design a national mitigation plan to reduce or prevent greenhouse emissions; and the development of a National Adaptation Framework to reduce the negative effects of climate change.

Climate Action Plan 2019: This Plan sets out an ambitious course of action over the coming years to address climate disruption. The Plan outlines the current state of play across key sectors including Electricity, Transport, Built Environment, Industry and Agriculture and charts a course towards ambitious decarbonisation

targets. The Plan sets out governance arrangements including carbon-proofing policies, establishment of carbon budgets, a strengthened Climate Change Advisory Council and greater accountability to the Oireachtas.

National Mitigation Plan: The NMP was published in 2017 and sets out the government's shared approach to reducing greenhouse gas emissions. It is a whole-of-government Plan, reflecting in particular the central roles of the key Ministers responsible for the sectors covered by the Plan namely – electricity generation; the built environment; transport, and agriculture, as well as drawing on the perspectives and responsibilities of a range of other government departments. The Plan sets out measures that lay the foundations for transitioning Ireland to a low carbon, climate resilient and environmentally sustainable economy by 2050.

National Adaptation Framework (Planning for a Climate Resilient Ireland): Ireland's first statutory National Adaptation Framework (NAF) was published in January 2018 by the Department of Communications, Climate Action and Environment. The NAF sets out the national strategy to reduce the vulnerability of the Country to the negative effects of climate change and to avail of positive impacts. The NAF was developed under the Climate Action and Low Carbon Development Act 2015. The NAF builds on the work already carried out under the National Climate Change Adaptation Framework 2012.

National Planning Framework: The NPF represents a key opportunity in ensuring that the climate implications of our spatial choices are fully considered and addressed from the top of the planning hierarchy. The planning process provides an established means through which climate change adaptation objectives can be integrated

and implemented at local level. Within the NPF, NPO 54 sets out the requirement to *‘Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions.’*

Carlow County Development Plan 2015-2021: The Carlow County Development Plan identifies various policies and objectives in relation to a number of factors within the County such as Waste Management, Soil, Air and Noise Quality, Flooding, Climate Change and Water Services. The Development Plan outlines, with respect to Air Quality, that *‘The role of the Local Authority is to protect, enhance and control air pollution and to ensure the provision of the highest standards and is empowered to improve air quality and prevent pollution by having regard to the Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011)’*. It is recognised that air pollution can have negative effects on human health and ecological systems and Carlow County Council notes that the main cause of this is vehicular traffic.

Carlow County Climate Change Adaptation Strategy 2019-2024: This Strategy has been prepared in response to the global shift to climate change adaptation and has been informed by national, regional and local research to manage growth and development. The Strategy outlines a number of Climate Hazard Events which have occurred throughout the County and the Town of Carlow such as ‘Extreme Heat Event (2018)’, ‘Extreme Flood Event (2009)’, ‘Extreme Cold Spell (2009/10)’. These events have had an impact on the community, health and wellbeing, natural resources, infrastructure and the built environment.

National Context

Ireland has a number of key climate challenges, such as sea level rise, pluvial and fluvial flooding, extreme weather events and extreme temperatures. Under various EU directives that have been transposed as statutory instruments, Ireland has been set national targets and these directives require that certain targets for energy efficiency, renewable energy and greenhouse gas reductions are achieved by 2020, namely:

- 20% reduction in non-emissions trading scheme (ETS) greenhouse gas emissions relative to 2005 levels;
- Raising the share of EU energy consumption produced by renewable resources to 20% (adjusted to 16% for Ireland);
- 20% improvement in the EU's energy efficiency; and
- In line with the National Energy Efficiency Action Plan (NEEAP), the DLAs are committed to achieving a 33% improvement in energy efficiency for their own operations.

According to the Environmental Protection Agency, in 2018 Ireland's provisional greenhouse gas emissions were estimated to be 60.51 million tonnes (carbon dioxide equivalent) which is 0.2% lower than emissions in 2017, following a 1.0% decrease in emissions reported for 2017. Emissions reductions have been recorded in 7 of the last 10 years. However, in the agriculture, transport, residential, manufacturing/ industrial, commercial and public sectors, emission trends have increased making the achievement of Ireland's long-term decarbonisation goals ever more difficult. Arresting this growth is a challenge in the context of a growing economy but one which must be addressed by households, business, farmers and communities if Ireland is to reap the benefits of a low- carbon economy.

Sustainable Development Goals

The United Nations' 2030 Agenda for Sustainable Development includes 17 Sustainable Development Goals (SDGs) which each have a number of targets associated with it – 169 targets in total. Inclusion is at the core of the UN SDGs, and as a result, governments, the corporate sector, and citizens are called upon to make the SDG agenda a reality.

Carlow County Council has been selected as a Champion for the implementation of the UN Sustainable Development Goals in Ireland 2019/2020. Carlow is the only Local Authority to be selected as a champion along with 11 other organisations including An Post, Musgraves and the GAA. The purpose of the SDG Champions Programme is primarily to raise public awareness of the SDGs, and secondarily to illustrate practical ways in which organisations and individuals can contribute to achieving the SDGs, using Champion organisations' practices as examples.

The focus of Carlow as part of the SDG Champions Programme includes SDG No. 11 – *Make Cities Inclusive, Safe, Resilient and Sustainable*. Carlow County Council seeks the achievement of SDG No. 11 by promoting social inclusion for all citizens and recently settled residents through their social inclusion and community activation programme and encouraging sustainable development of rural communities through rural recreation and village development programme. Carlow County Council is committed to working for the common good of citizens, in partnership with communities and relevant agencies, to deliver quality services and to promote sustainable economic, social, and cultural development for current and future generations.

The introduction of the principles of sustainable growth within the regeneration of Carlow Town Centre as part of this Strategy will provide an exemplar for future development in the region and country.

Regional Context

The RSES for the Southern Region provides direction for Local Authorities in guiding future development in an environmentally sustainable manner by following a number of principles and objectives. In order to combat

climate change, the RSES outlines a number of areas that can be addressed as part of climate action. The particular areas of action which can be addressed through the regeneration of Carlow Town are as follows;

Transition to a low carbon economy and society

"The transition to a low carbon energy future will require a wide range of responses across the public and private sectors and in communities to change how we use energy at home, in our work and how we travel."

Climate Resilience

"Climate adaptation aims to reduce the vulnerability of our environment, society and economy to the current and future risks posed by climate change."

It focuses on short-term and long-term responses to climate change by taking a cross-cutting themed approach for all key sectors of Government, society and the economy."

Resource Efficiency

"A determined focus on resource efficiency means using the Earth's limited resources in a sustainable manner while minimising impacts on the environment."

Energy Efficiency

Economy: *Measures which reduce reliance on the use of imported fossil fuels and enhance economic competitiveness and support the reduction of emissions.*

Households: *Measures to improve the energy efficiency of households and address energy poverty through domestic supports under the Better Energy Programme, including the Deep Retrofit Pilot Scheme."*



Rainwater Harvesting Canopy in Potato Market

Climate Context

Evidence and research to date demonstrates a clear appreciation that greenhouse gas emissions, including carbon dioxide and methane, are responsible for climate change. The Intergovernmental Panel on Climate Change (IPCC) advise that greenhouse gas emissions have increased by 70% between 1970 and 2004 due to human activity, meaning that human activity is the driving factor for climate change.

The changing climate will have significant implications for Ireland's governmental institutions' economy, society and environment. Adapting to these challenges is critical and will require a concerted effort at all levels of government and society to move to a holistic and robust strategy to reduce greenhouse gas emissions and adapt the built environment to a more inclement climate.

As set out within the National Adaptation Framework, adaptation not only depends on action by all levels of government but also on the active and sustained engagement of all stakeholders, including sectoral interests, the private sector, communities and individuals. Most adaptation measures to date in Ireland have been reactive in nature and given the increased knowledge of climate change impacts, it is now necessary to adopt a planned approach to adaptation so that we are better placed to deal with the short and long term impacts of climate change.



Reference Image for Carlow College Link to Train Station

Climate Adaptation

Climate adaptation is the principle of dealing with the negative effects as a result of climate change. The Government of Ireland's National Adaptation Framework is a national commitment to exposing the positive aspects of adapting to climate change within our urban and rural environments. Carlow Town has a duty to review climate change policies in respect of future development and identify certain procedures that will provide a positive change to the environment while also maintaining growth and acceptance amongst the public arena.

According to 'Climate ADAPT', a leading organisation in climate adaptation protocol, there are a number of key principles that can be adopted in the Carlow Town Context which will contribute to the national goals for climate change adaptation as follows;

- Adaptation needs to be sustainable;
- Work needs to be done in partnership;
- Adaptation needs to be evidence-based;
- Risks should be managed through a balanced approach;
- Response to climate impacts should be prioritised;
- Adaptation should be flexible; and
- Adaptation needs to be transparent.

Carlow Town Context

Carlow Town is a compact urban development with a population of 24,272 as of the 2016 Census which includes the area of Graiguecullen in County Laois across the River Barrow to the west. Carlow Town contains many natural assets which contribute enormously to its attraction as a tourist destination and help with promoting the various events and festivals that take place in the Town and County.

Carlow Town has the opportunity to adapt to climate change measures through its physical urban regeneration and the principles which have been presented as part of this Strategy.

This can be achieved through the following;

- Development Change
 - **Spatial:** Focusing development on the core of Carlow Town.
 - **Movement and Air Quality:** Becoming aware of our impact on the climate and making a positive change for the future.
 - **Health and Wellbeing:** Placing an emphasis on healthy living through urban design practices.
- Environmental Assets
 - **Green and Blue Infrastructure:** Increase use of the River Barrow and River Burren as green and blue areas for leisure and amenity and also as sustainable industries.

This Regeneration Strategy seeks to undertake a number of green and blue infrastructural interventions in Carlow Town. Through the incorporation of nature based solutions such as rainwater harvesting, green walls and the use of solar energy in the Town Centre, as well as the greening of parking spaces on Barrack Street, Carlow Town will be an exemplar in environmental and sustainable measures. Carlow Town will provide the opportunity for amenity and recreation spaces along the riverfront while providing sustainable public realm spaces & routes within the Town Centre. These measures will support Carlow's position as an UN Sustainable Development Goal Champion.

Improving Air Quality

In order to improve air quality within our own environment, we need to understand the current levels and how it affects our daily lives. Awareness of our daily impact on air pollution can provide the necessary conditions for changing behaviour and providing an overall societal shift towards sound environmental management with overall community health benefits.

The Case Study following demonstrates a European wide initiative to overcome a societal change and transformation in our behaviour towards air quality and daily contribution towards air pollution. The use of physical monitors in the urban environment can be linked with a mobile application allowing members of the community to be aware of the level of pollution in a particular area due to a wide variety of factors, most commonly vehicular traffic. Individuals can choose to avoid such areas and/or choose to take alternative forms of transport, e.g. walking and cycling, in order to reduce their overall impact.

Other ways in which air quality can be improved in society is through good quality urban design which provides the conditions that promote walking and cycling, particularly in urban settings.

The Interventions identified in this Strategy have incorporated features within the public realm that aim to reduce overall car numbers required and allow for more urban green space to walk, cycle and exercise.



CASE STUDY: iSCAPE (IMPROVING THE SMART CONTROL OF AIR POLLUTION IN EUROPE)

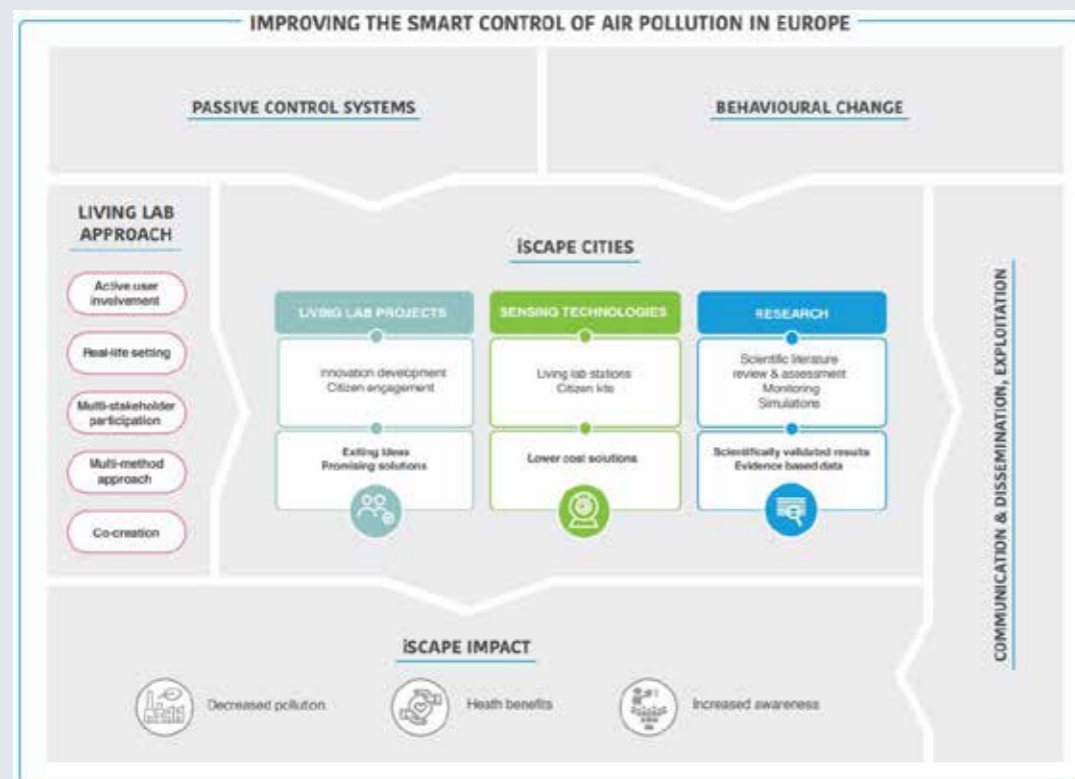


iSCAPE was a European research and innovation project active from September 2016 to December 2019. The project worked on integrating and advancing the control of air quality and carbon emissions in European cities in the context of climate change through the development of sustainable and passive air pollution remediation strategies, policy interventions and behavioural change initiatives.

It tackled the problem of reducing air pollution impacts, focusing on the use of “Passive Control Systems” in urban spaces, on policy intervention and behavioural changes of citizens lifestyle. Projections and real-world physical interventions were applied on the urban tissue in the selected cities assessed for future climate change scenarios and representative of different cultural & lifestyles in Europe.

Through the approach of Living Labs the team deployed a network of air quality and meteorological sensors (both stationary and mobile) and evaluated the benefits expected from the interventions on a neighbourhood and city-wide scale, ranging from quantification of pollutant concentration to exposure.

iSCAPE encapsulated the concept of “smart cities” by promoting the use of low-cost sensors and engaging citizens in the use of alternative solution processes to environmental problems. The project supported sustainable urban development by sharing the results with policy-makers and planners using local test-cases, and providing scientific evidence ready-to-use solutions potentially leading to real-time operational interventions.



Expected Results from the iSCAPE project:

The proposed interventions can produce a reduction of the negative effects on health and climate together with the costs associated with air pollution in the EU.

Lower concentrations of air pollutants in cities can be achieved using technologies adapted to local needs, such as: low boundary walls, green walls and roofs, photocatalytic coatings, changes in activity patterns to reduce congestions, etc.

iSCAPE can assess ex-ante a range of behavioural change interventions such as (1) actions to promote changes in transport mode choice for EU Cities inhabitants; (2) action to promote changes in activity patterns.

iSCAPE can test and deploy solutions that can be produced at a relative low cost and that can be exploiting using different complementary business models.

iSCAPE can assess the effectiveness and thus design guidelines of smart interventions in practice to integrate them into urban design and planning policy following a “win-win” approach for climate change and air pollution abatement.

iSCAPE can foster a societal transformation to a green and low carbon economy by engaging citizens in citizens-science activities as part of the Living Labs.



River Barrow

Achieving Sustainable Development

Achieving Sustainable Development Collaboration

Key to the success of the Carlow Town Regeneration Vision and Implementation Strategy is the creation of a level of 'buy-in' by the community and end users who are living, working and studying in Carlow Town.

The idea of 'local capital' is established through the development of a robust framework which involves members of the public working collectively with community organisations, private landowners, businesses and the local authority.

The positive results which can be achieved by this level of engagement are evident in other international examples (See Freiburg, Germany).

Sustainable Growth

The NPF outlines various policies towards sustainable and compact urban growth within Ireland and these practices have been integrated into the designs for the interventions.

Urban infill development is central to the delivery of a 'liveable' city or town which focuses needs on the community in order to improve the perceived 'quality of life' of its residents and ultimately attract investment and achieve growth.

Investment

Ireland relies on inward investment from multi-national companies and investment to date in Carlow Town continues to be dominated by foreign companies which contribute to the current growth in economic and social trends in the County.

Creating the environment for growth within the existing urban space of the Town is a challenge which can be addressed through the interventions outlined in this Strategy. For example, the former Cash & Carry Site located

on Kennedy Street can be developed to accommodate an office type development which would encourage the growth of new and existing businesses in the Town and provide the necessary resources to support them. Working in conjunction with the existing educational institutes in the Town can serve to develop emerging technologies in the growth of niche industries and provide a unique opportunity for Carlow Town to become a specialist region for new technologies.

Community Networking

Carlow Town has a strong community network consisting of local residents, traders, business owners and local councillors. The Carlow Town Development Forum can assist Carlow County Council in the implementation of the Carlow Town Regeneration Strategy through collaboration with the Local Authority, private landowners and any other organisations with an involvement in the development of the Town as a whole.

It is important that strong links are created in order to facilitate the growth of the Town through the interventions identified in this Strategy and to implement the shared vision which has evolved through public consultation processes.

Principles of Sustainable Development

The principle of sustainable development is entrenched in Goal 11 of the United Nations Sustainable Development Goals which aims to 'Make cities and human settlements inclusive, safe, resilient and sustainable'. The targets outlined as part of this Goal are aimed at developing policies and procedures to reduce reliance on fossil fuels, pay attention to air quality and waste management, provide universal access to green and public spaces, and to support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.

Carlow Town in 2040

The vision for Carlow Town in 2040 combines a variety of factors to work together in unison, such as the built environment, the community, local governance and, importantly, a focus on environmental sustainability.

It is through awareness of our daily impact on the climate that we as a society can become much more environmentally conscious and move towards a more

sustainable way of living. This would require a noticeable reduction in car usage, the promotion of walking and cycling, increased use of public transport, changing how we shop and adaptation towards alternative forms of construction and manufacturing.

Carlow Town has the opportunity to become a national leader in sustainable methods of living and the progression of the UN Sustainable Development Goals.

Sustainability Principles

Safeguarding and enhancing our environment is not only an environmental sustainability issue but is also an economic, social and public health and wellbeing consideration. National level guidance seeks to deliver such protection through sustainable development and the transitioning to a competitive, low carbon and climate resilient economy by 2050.

As mentioned previously, in 2019 Carlow County Council was selected as a Champion for the implementation of the UN Sustainable Development Goals (SDG's) in Ireland. The future economic and social development of Carlow should be considered in the context of the protection and enhancement of its natural environment. This Regeneration Strategy presents Carlow with the opportunity to truly champion the SDG's, especially Goal 11: '*Make cities and human settlements inclusive, safe, resilient and sustainable*'; supporting Carlow in becoming an exemplar in sustainable regeneration projects.


Sustainability is defined as meeting the needs of the present, without compromising the ability of future generations to meet their needs. There are three main pillars: economic, environmental and social, and each proposed intervention Area in this Regeneration Strategy has been considered in context to all three.

Therefore, alongside the Health & Wellbeing Principles which are outlined for each Intervention Area, there are a number of **Sustainability Principles** which each Intervention Area will align with and they include the following *inter alia* :

- Prioritising walking, cycling and public transport use;
- Facilitating appropriate and well designed access to natural spaces, features and landscapes;
- Maintaining, enhancing and protecting healthy air and water and enhancing biodiversity resources;
- Provision of new and improved urban green infrastructure;
- Improving connectivity between the Town Centre and natural assets such as the River Barrow and River Burren;
- Improving public transport connectivity for Carlow both locally and regionally;
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes;
- Promoting the delivery of energy efficient buildings, sustainable energy measures for the public realm and encouraging innovative solutions from the private sector; and
- Supporting compact urban growth by building on existing assets and capacity to create critical mass and scale for regional growth.


Outcomes and Actions

A set of Outcomes have been derived and formulated in relation to the Environment Core Theme. An associated Action accompanies each that provides a clear direction for the delivery of the Outcome.

1	Support Carlow in its path to reduce resource consumption and transition to a low carbon society with appropriate climate change mitigation and adaptation measures.
	<ul style="list-style-type: none"> * Transition to a low carbon society. * Improved health and wellbeing. * Promotion of carbon reduction measures e.g. increased levels of walking and cycling. * Encouraging biodiversity within the public realm. * Reduction in air and noise pollution.

2	Introduce sustainable growth principles in the regeneration of Carlow Town Centre in line with this Strategy to support Carlow County Council in its position as an UN Sustainable Development Goal Champion.
	<ul style="list-style-type: none"> * Carlow Town will be an exemplar for future development in the Region and Country. * Focus on creating quality public space and public realm. * Integrating unique amenity and biodiversity spaces into the urban fabric. * Build resilience, flexibility and adaptability, specifically climate adaptation, into Carlow. * Community focused forms of development.

3	Protect and enhance Carlow Town's unique biodiversity and landscape and support these natural assets through the delivery of the Intervention Areas.
	<ul style="list-style-type: none"> * A better quality of life for residents. * Increased use of the River Barrow and River Burrin as green and blue areas for leisure and amenity and also as sustainable industries. * Promotion of walking and cycling as primary modes of transport within the Town. * Improved air quality through reduction in car usage. * Attract tourists/visitors to Carlow Town.

4	Support innovative building solutions in development within the 6 Intervention Areas.
	<ul style="list-style-type: none"> * Opportunity to create a new image and identity for the Town Centre. * Incorporation of nature based solutions such as rainwater harvesting and the use of solar energy. * Creation of opportunities for sources of funding.



6. Urban Design and Implementation



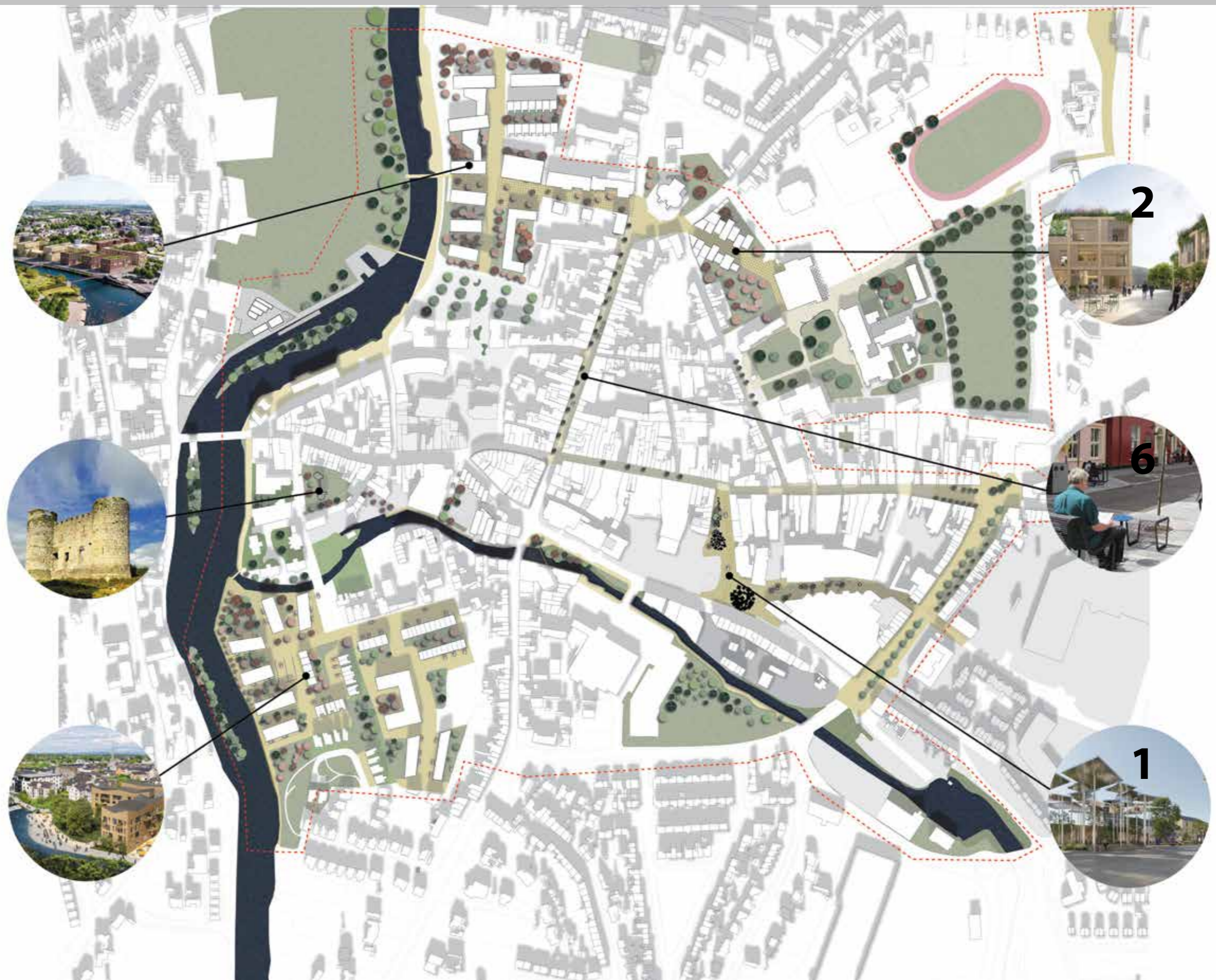
Intervention Areas

The Regeneration Vision for Carlow Town focuses on six Intervention Areas containing public realm projects and development opportunities in and around Carlow Town Centre.

The Intervention Areas were informed by extensive public consultation and consist of:

1. Town Centre - Potato Market and Barrack Street
2. Cultural Quarter (including links to the Railway Station)
3. The Barrow Track / Civic Spine
4. The Pembroke District
5. The Burrin Riverfront
6. Link Streets (Dublin Street and Tullow Street)

The map across identifies the full range of Intervention Areas, highlighting how they integrate to form one cohesive regeneration strategy for the Town Centre.





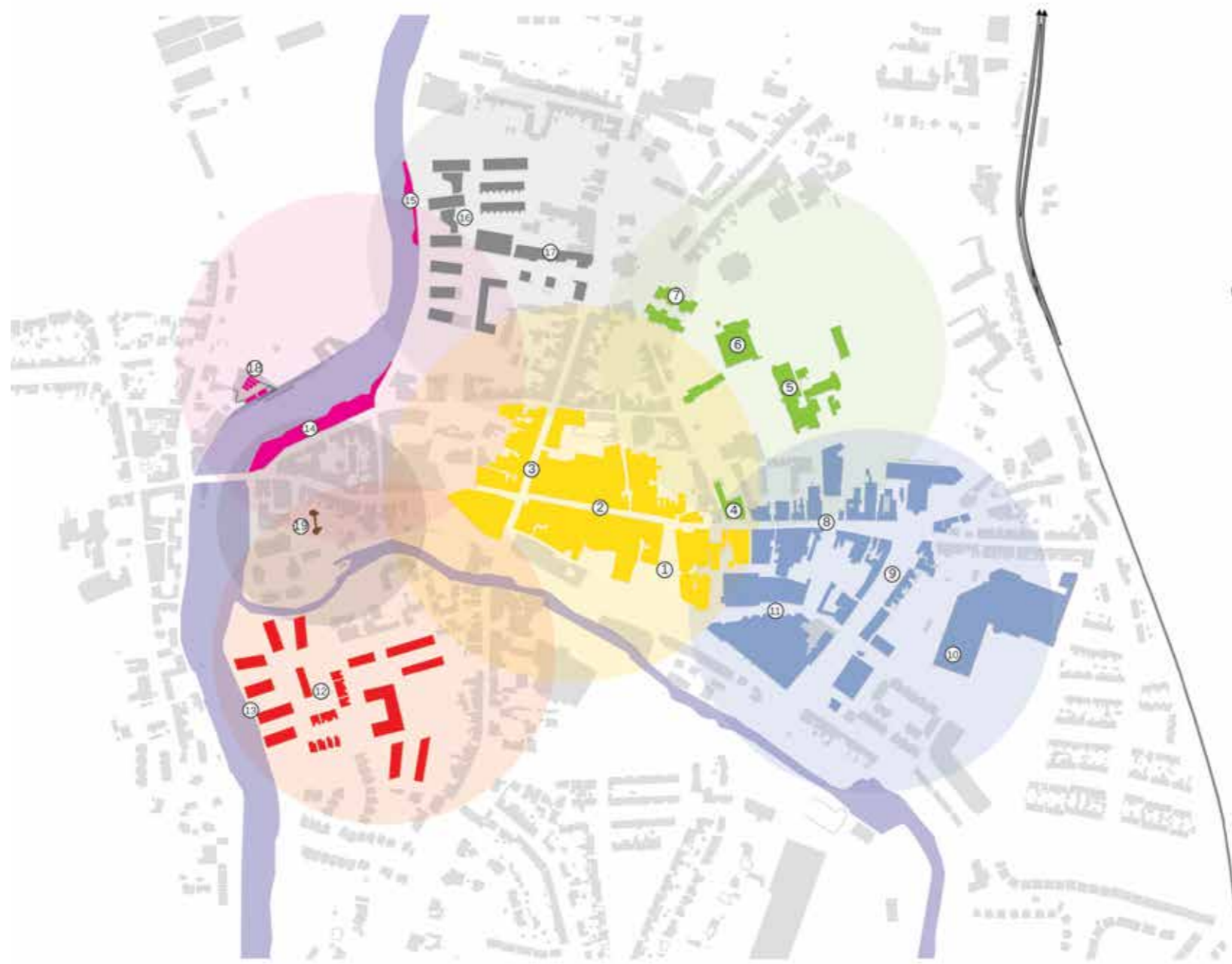
Character Areas

In addition to the six Intervention Areas which contain individual projects and regeneration objectives, the Regeneration Strategy also incorporates a number of Character Areas which together, help identify the key characteristics across the Town Centre area.

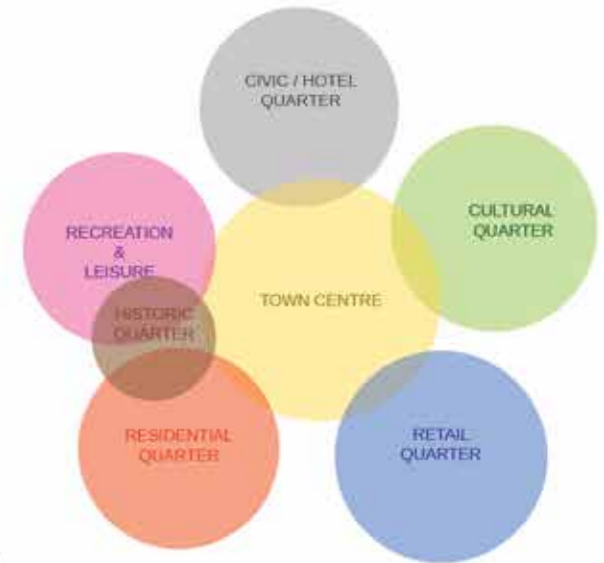
The Carlow Town Character Areas are:

- Town Centre;
- Retail Quarter;
- Cultural Quarter;
- Historical Quarter;
- Residential Quarter;
- Recreation & Leisure; and
- Civic/Hotel Quarter.

Each Character Area can incorporate elements from different Intervention areas. The purpose of defining the Character Areas of the Town Centre is to identify the key characteristics and features which should be protected and/or enhanced by, and inform, new development in Carlow. This will ensure that the regeneration of Carlow Town, and all new development, will benefit the surrounding land uses and community, responding to existing social and physical characteristics in the Town.



- | | |
|------------------|-----------------------------|
| ① Potato Market | ⑩ Fairgreen Shopping Centre |
| ② Tullow Street | ⑪ Car Park Link |
| ③ Dublin Street | ⑫ Pembroke Residential |
| ④ Library | ⑬ Riverfront |
| ⑤ Carlow College | ⑭ Carlow Rowing Club |
| ⑥ Visual | ⑮ Hotel Riverfront |
| ⑦ Civic Spine | ⑯ Hotel Development |
| ⑧ Tullow Street | ⑰ Civic Space |
| ⑨ Barrack Street | ⑱ Water Hub |
| | ⑲ Castle |



1. Town Centre

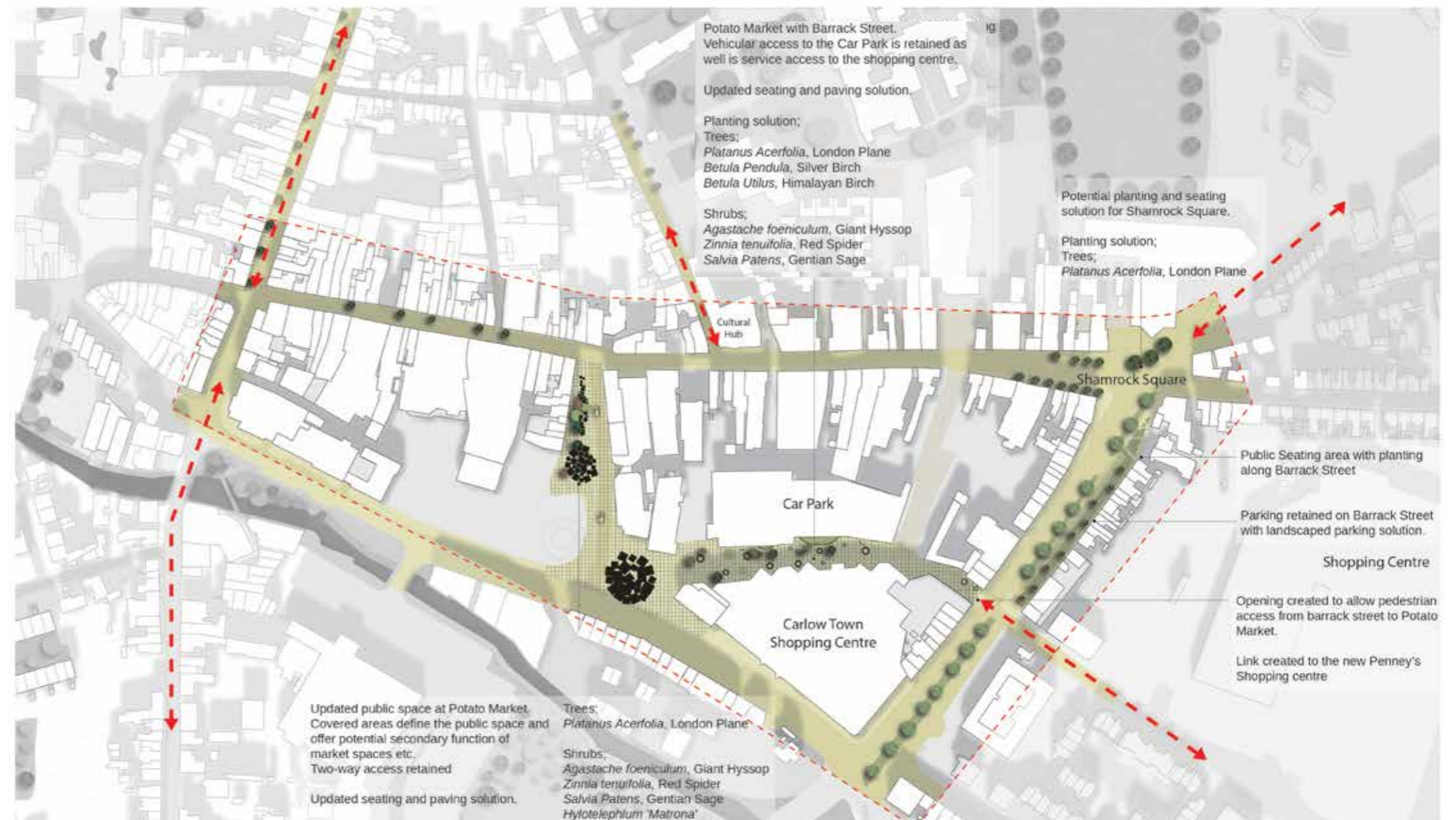
Vision

The purpose of this Intervention is to improve Town Centre linkages and increase pedestrian mobility from Potato Market through to Barrack Street with wider connectivity to Carlow College and the Railway Station. Better management of cars and pedestrians will serve to improve the overall quality of the space and serve to reinstate the area as the 'Heart of the Town'.

Connections between Potato Market and Barrack Street are improved which provides additional routes around the Town Centre and improves overall circulation leading to a better experience of the area. The integration of link streets such as Tullow Street, Dublin Street and Shamrock Square are important facets of this intervention and they serve to enhance the vibrancy and viability of this space.

The intervention at Carlow College will provide additional connectivity from the Town Centre to the college campus itself as well as to the Railway Station. Permeability through Carlow College as a public space is a key component of this Strategy and is promoted through the design features of this intervention.

Layout Plan



Health & Wellbeing Principles

- Improvements in the built environment;
- Access to urban green space for walking, cycling and exercise;
- Increased opportunity for physical activity;
- Improved air quality (reduction in car numbers);
- Contributes to a positive outlook and good mental health;
- Promotes community initiatives;
- Promotion of walking and cycling as primary modes of transport within the Town; and
- Creation of an inviting space through interventions in the physical environment.





‘You can’t rely on bringing people downtown, you have to put them there’ Jane Jacobs

Increasingly, through the 20th Century in particular, Town Centres have become places dominated by the private car, however, in this time of a renewed focus on infill and brownfield development across Ireland, how we treat our streets and create public spaces will not only be an enabler for planning policy but brings immediate benefits to a location. With a ‘people first’ approach to urban design and planning, the public domain will be given back to the people visiting and residing in the Town while still ensuring high levels of accessibility.

Renewing and improving streets and urban spaces is a constant feature of urban development and it is essential that each time changes happen that they bring benefits that realise a more accessible and pedestrian friendly environment. This Intervention will reallocate space back into the public domain, actively manage the street environment and reallocate road space to deliver a safer environment for walkers and cyclists. These measures in combination will create an attractive core Town Centre area and make the area identifiable as such.

The Potato Market is the centrepiece of an overall strategy of regeneration in Carlow Town and promotes healthy, innovative, culturally rich and socially connected community activity. A reimagined and redesigned Potato Market will be a ‘game changer’ for Carlow Town, a catalyst for wider urban regeneration and prosperity. This transformational project will refocus and overhaul this crucial urban location within the Town Core, breathing new life into the space and surrounding businesses. The change will be measurable in terms of both its visual appearance and uplift to the main business area. Made possible by the crucial decision to relocate the existing road and reduce its dominance, the redesign of Potato Market utilises one of the most plentiful features of any town, which is its streets.

All streets differ in their character and the proposals along Barack Street and around Shamrock Square recognise the function of these routes and are designed to make the area more user-friendly to pedestrians and cyclists, with design changes to encourage people of all ages and abilities to walk or cycle for leisure, travel or exercise. The Proposal seeks to achieve a balance in this area of transition to the Town Centre, which will support the

vitality of the retail/commercial business while bringing the visual uplift that will unify with the Barrack Street Link to Potato Market and Tullow Street in particular. Linking into the other interventions proposed, these changes will have the cumulative benefit of creating routes around the Town Centre which can be used for physical activity and add to the overall attractiveness of the Town as a place to live.

To create a successful place it has to be truly accessible to all and link key areas or districts. A link from Barrack Street to Potato Market has been envisaged for some time, connecting the old and the new, this direct route between local destinations and services will deliver a safer environment for walkers and cyclists while facilitating the needs of the Town Centre’s commercial activities. One of the key aims of this proposal is to promote ‘retail prosperity’ at a time when the sector faces challenges. However, this proposal encourages consolidation and linking the modern shopping centre to the east with the retail core which will leverage competitive advantages for the Town. While the physical link in itself is crucial, the quality of place that is envisaged will also attract not only those wishing to use it for its transient benefits but also people who want to dwell and interact. As with all proposals as part of this Town Centre project it has not been conceived in isolation and is an integral part of a wider connectivity and activity objectives.

In this time of crisis as the Country and the World battle COVID-19, these proposals bring urban improvements which will transform the Town Centre and facilitate physical distancing where required and not necessarily social distancing. The design solutions put forward are the product of a place based approach to the future development of the Town which seeks to realise a vision in collaboration with the local community. Great thought has been put into the detail of this Intervention with the use of high quality materials, innovations in rainwater harvesting, the use of solar energy, the promotion of a ‘dark sky’ approach to lighting and the greening of certain areas particularly noteworthy. Integrating these elements not only aligns with best practice but in the unified fashion proposed, will bring economic and social benefits that make Carlow Town a place known for its people having a high level of health and wellbeing.



Potato Market & Kennedy Avenue



Birds-eye view of new market space

Sustainability Principles

- Prioritising walking, cycling and public transport use;
- Facilitating appropriate and well designed access to natural spaces, features and landscapes;
- Maintaining, enhancing and protecting healthy air and water and enhancing biodiversity resources;
- Provision of new and improved urban green infrastructure;
- Improving connectivity between the Town Centre and natural assets such as the River Barrow and River Burren;
- Improving public transport connectivity for Carlow both locally and regionally;
- Promoting the delivery of energy efficient buildings, sustainable energy measures for the public realm and encouraging innovative solutions from the private sector; and
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes.



Key Projects

• Project Linkages

• Key Development Interventions

- Relocation of the existing road in the Potato Market to the edge and claiming the space for the newly created Public Plaza.
- Redevelopment of Potato Market with ancillary hard and soft landscaping
- Development of link street with new traffic circulation procedures

• Key Linkage Interventions

- Removal of units on Barrack Street to facilitate link space
- Provision of vehicular entrance to service yard for Carlow Shopping Centre
- Opening up of linkages to Tullow St., Dublin St., Carlow College and Railway Station

• Key Features

- Establishes a new market area with trading facilities
- Promotes greater pedestrian activity
- Provision of an enhanced public realm
- Readdresses car dominance in the area
- Promotes vibrancy and vitality
- Incorporation of nature based solutions such as rainwater harvesting, green walls and the use of solar energy.

• Key Physical Changes

- The provision of sheltered and serviced market spaces that can be used all year round
- The creation of a pedestrian and cycle friendly space
- Utilisation of hard and soft landscaping to reduce the visual dominance of vehicular traffic
- The creation of an additional connection point from Potato Market to Barrack Street
- Introduction of planting and seating to improve the public realm

Outcomes

- A sizeable Public Plaza made possible by relocating and reducing the dominance of the existing road in Potato Market.
- An inviting link street from Potato Market to Barrack Street with further connections to Fairgreen Shopping Centre, Carlow College, Shamrock Square and out to the Railway Station.
- A high quality public realm scheme using materials which is complementary of the existing area and which serves to enhance the overall vibrancy of the space.
- An increase in pedestrian and cycling activity and a noticeable reduction in the use of cars as primary modes of transport within and throughout the Town Centre.
- A greater sense of the impact of health and wellbeing within an urban environment and the improvement of the relationship between cars and pedestrians.

Project Summary

The various projects outlined as part of this intervention will act as the catalyst for change in Carlow Town. The reimagining of the Town Centre in Carlow will help bring a sense of identity to residents and visitors while also improving overall visitor and shopping experience.

Retail Prosperity

Through continued and active engagement with stakeholders in the Town it is known that the approximate weekly footfall at Fairgreen Shopping Centre is 100,000 with the corresponding figure for the Town Core being 10,000. The bringing together of these two pillars of the Town Centre area will help consolidate the retail offer and build resilience for the retail sector going forward. As we move into a more 'experiential' environment for retail the links between the old and the new have never been as important.

The linking of these areas has been in the pipeline for a long number of years with the time to implement being now. Taken in conjunction with the Rebuilding Ireland secured funding of c.€1.2 million for the refurbishment of the Barrack Street properties, this proposal will ensure the most efficient use of public funds from different sources which together will achieve a greater return on investment.



Potato Market & Barrack Street Link



Potato Market & Barrack Street Link



Shamrock Square Junction



An Exemplar

The Potato Market as the centrepiece of an overall strategy of regeneration in Carlow Town will be defined and identifiable from its landmark canopy. As the key defining feature of this new sizeable Public Plaza, a costing exemplar for a canopy structure has been identified in order to provide an indicative cost.

Canopy structures are relatively underutilised in Ireland which considering the climate is somewhat surprising. Finding reference examples can thus be difficult, however, a direct comparable to the style and type of canopies proposed in Potato Market exists in Waterford. While the proposals are bespoke structures there are great similarities with the metal and mirrored glass canopy designed and built to cover the Apple Market area in Waterford City. The structure, which is situated between Waterford's Viking and Norman Walls, covers an area of 1,400sq.m. and consists of a triangular steel and glazed canopy held up by nine steel columns. While this structure is specific in design and scale to its setting, and included specially developed reflective material, it is a good price exemplar of a similar type of project and cost c. €1.2 million.



Potato Market Carlow



Apple Market Waterford

Phasing & Costs

Potato Market

- The overall cost for the Potato Market Proposal is €7,761,588.
- The works will be carried out on a phased basis over 2021 and 2022 with €3,880,794 envisaged as required per annum at this juncture.
- Subject to the completion of the Part 8 process the abovementioned allocation of costs per annum may be altered to reflect a more detailed work programme
- The above costs include for Local Authority resources at €113,351 over the 2 years.

Kennedy Avenue

- The overall cost for the Kennedy Avenue Proposal is €1,755,763.
- The works will be carried out on a phased basis over 2021 and 2022 with €877,882 envisaged as required per annum at this juncture.
- Subject to the completion of the Part 8 process the abovementioned allocation of costs per annum may be altered to reflect a more detailed work programme
- The above costs include for Local Authority resources at €56,675 over the 2 years.

Barrack Street incl. Shamrock Square

- The overall cost for the Barrack Street incl. Shamrock Square Proposal is €3,725,103.
- The works will be carried out on a phased basis over 2023 and 2024 with €1,862,551 envisaged as required per annum at this juncture.
- Subject to the completion of the Part 8 process the abovementioned allocation of costs per annum may be altered to reflect a more detailed work programme.
- The above costs include for Local Authority resources at €75,567 over the 2 years.

Barrack Street Pedestrian Link

- The overall cost for the Barrack Street Pedestrian Link Proposal is €3,033,916.
- The works will be carried out on a phased basis over 2022 and 2023 with €1,516,958 envisaged as required per annum at this juncture.
- Subject to the completion of the Part 8 process the abovementioned allocation of costs per annum may be altered to reflect a more detailed work programme.
- The above costs include for Local Authority resources at €113,351 over the 2 years.

Investment and Regeneration

The Barrack Street pedestrian link is a fundamental part of the Town Centre Intervention and represents a true collaboration between the Local Authority, the private sector and state agencies. In particular, the Rebuilding Ireland funding of c.€1.2 million for the refurbishment of the derelict properties along Barrack Street is important along with Musgraves who own land along the route and are supporting this Intervention. This cross sectorial level of support and investment is crucial to successful regeneration and all parties realise the cumulative benefit to the Town.

The adjoining Fairgreen Shopping Centre has also committed to a Phase 3 development of their modern shopping facility, which received planning permission in 2020. When implemented along with the Barrack Street pedestrian link, these developments will merge the 100,000 per week footfall of Fairgreen and the 10,000 per week footfall of the Town Core to create an overall investment package that will drive regeneration.



Naturalised green parking reference for Barrack Street (Zephyr-paysages, Place de Chevigné – Saint-Fulgent, France)



Green Planting used as a screen, reference, (Kingdom Street, Paddington, London)





CASE STUDY: STRØGET – COPENHAGEN

Introduction:

In 1962 Copenhagen City Council decided to establish a car free pedestrian zone along Strøget (located in the centre of Copenhagen), to counter the influx of motorised vehicles along the streets of Copenhagen. Initially, Strøget was trial tested as a pedestrian zone over a two year period and in February 1964 the tested zone was made permanent. Strøget was the first pedestrian street in the world and has since become Copenhagen's largest shopping area and stretches 1.1 kilometres long. Up until 1962, all the streets were filled by cars and all the squares were used as car parks. The pedestrian street starts at the Town Hall Square and ends at Kongens Nytorv – or visa versa. The Strøget area encompasses a number of side streets and many historic squares. The 1.1 km stretch covers the streets Frederiksberggade, Nygade, Vimmelskaftet, and Ostergade. Strøget is home to a large variety of shops catering to every budget and includes flagship stores of international brands.

Key Features of the Area

Strøget is famous for its variety of shops, restaurants, cafes, theatres, museums and eateries. Strøget is also popular amongst street performers due to the number of pedestrians passing through. The auto – free zone has become a haven for tourists from all over the world. Visitors are attracted the noiseless environment, the fresh air, the location, the atmosphere, the vibrancy and vitality, interaction amongst people, and the creation of a safe and secure zone. This active adjacent commercial business along Strøget is helped by the footfall of the pedestrian space.

The colourful bespoke pavement pattern along the street gives the space a unique

characteristic. This bespoke grid pattern provides connectivity and easy orientation along the thoroughfare as well as creating a unique characteristic similar to Potato Square in Carlow.

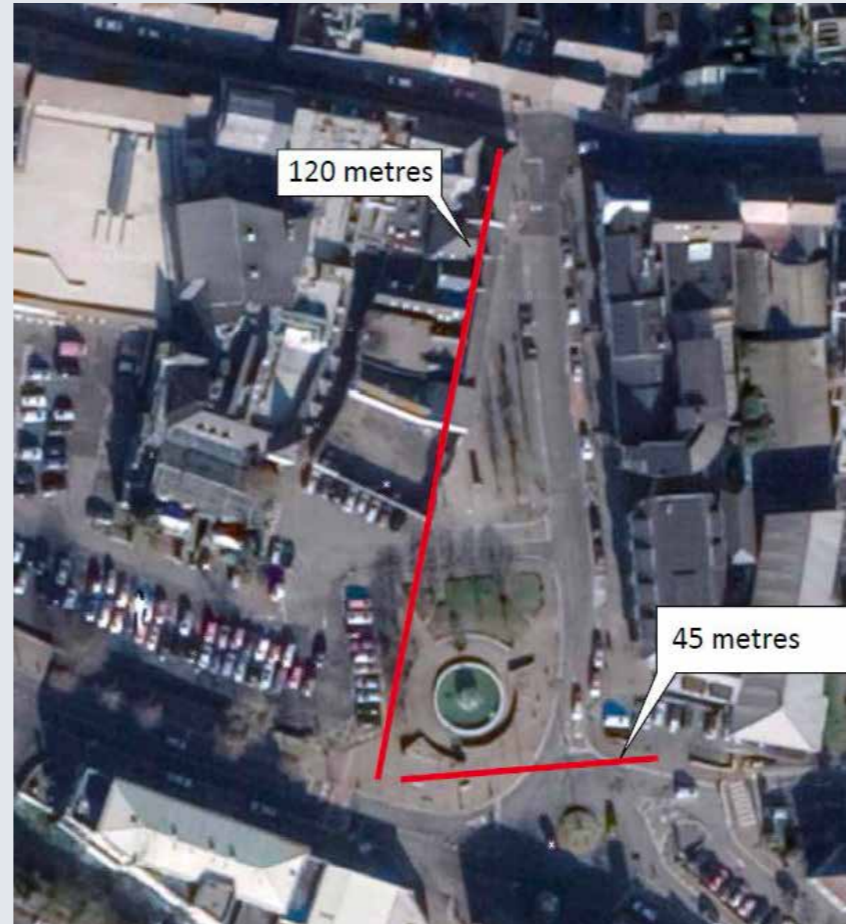
Jan Gehl played a significant role in the design of Strøget Street and was an early advocate of traffic calming, and designs to accommodate bicycles, and particularly pedestrian – only streets. Gehl noticed that people enjoy observing other people. A key notable feature of Strøget Street is the number of benches along the street facing the street.

The Stork fountain is located at the intersection of Strøget, on Amagertirv Square, which is a welcome sight amongst the many restaurants and cafes and pedestrians and cyclists will pass it along the Strøget. This fountain creates a relaxing ambiance amongst what otherwise is an extremely crowded street in Copenhagen, the fountain anchors the space.

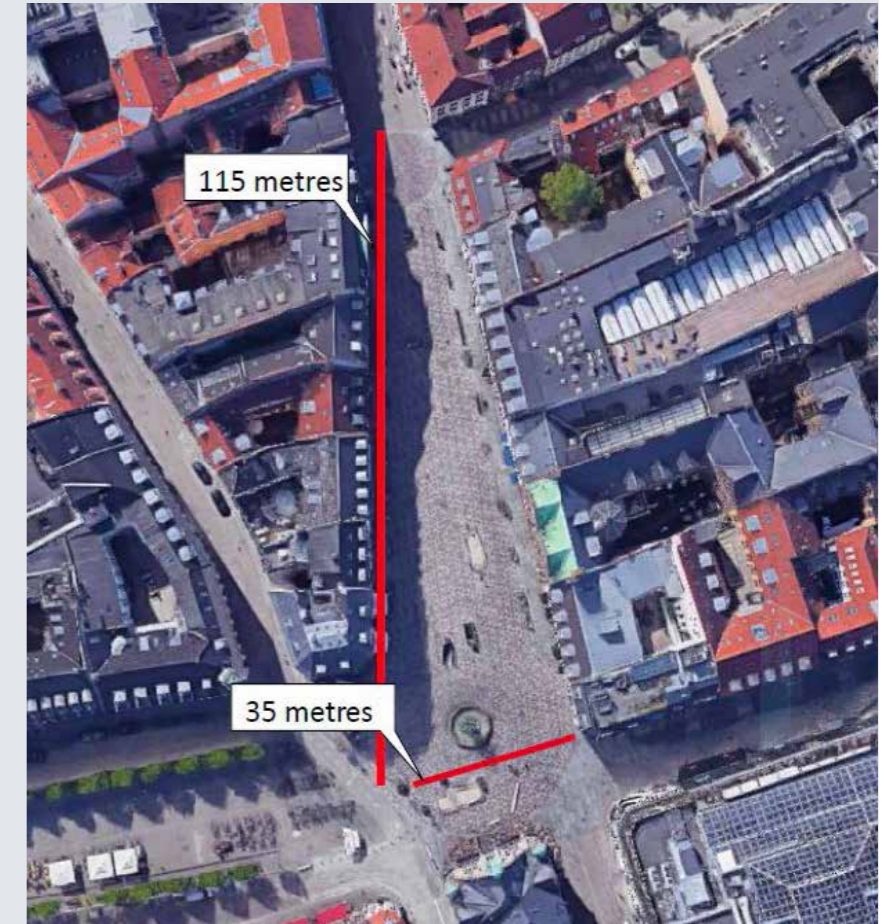
Copenhagen city centre has some 7,000 residents. The pedestrianisation of Strøget has allowed for the integration of living areas and city life. Most residents occupy space above ground floor use which is something that is not apparent in Carlow Town centre with the vast amount abandonment of buildings.

Strøget learnings brought to Potato Market

It is obvious auto – free zones increase pedestrian activity, the atmosphere in a town or city and the general interaction amongst people. In Potato Market the proposal completely removes the dominance of the car and while it is still accommodated its location been marginalised and a public plaza created for pedestrians to use and retail to prosper from.



Potato Market, Carlow



Strøget, Copenhagen



2. Cultural Quarter

Vision

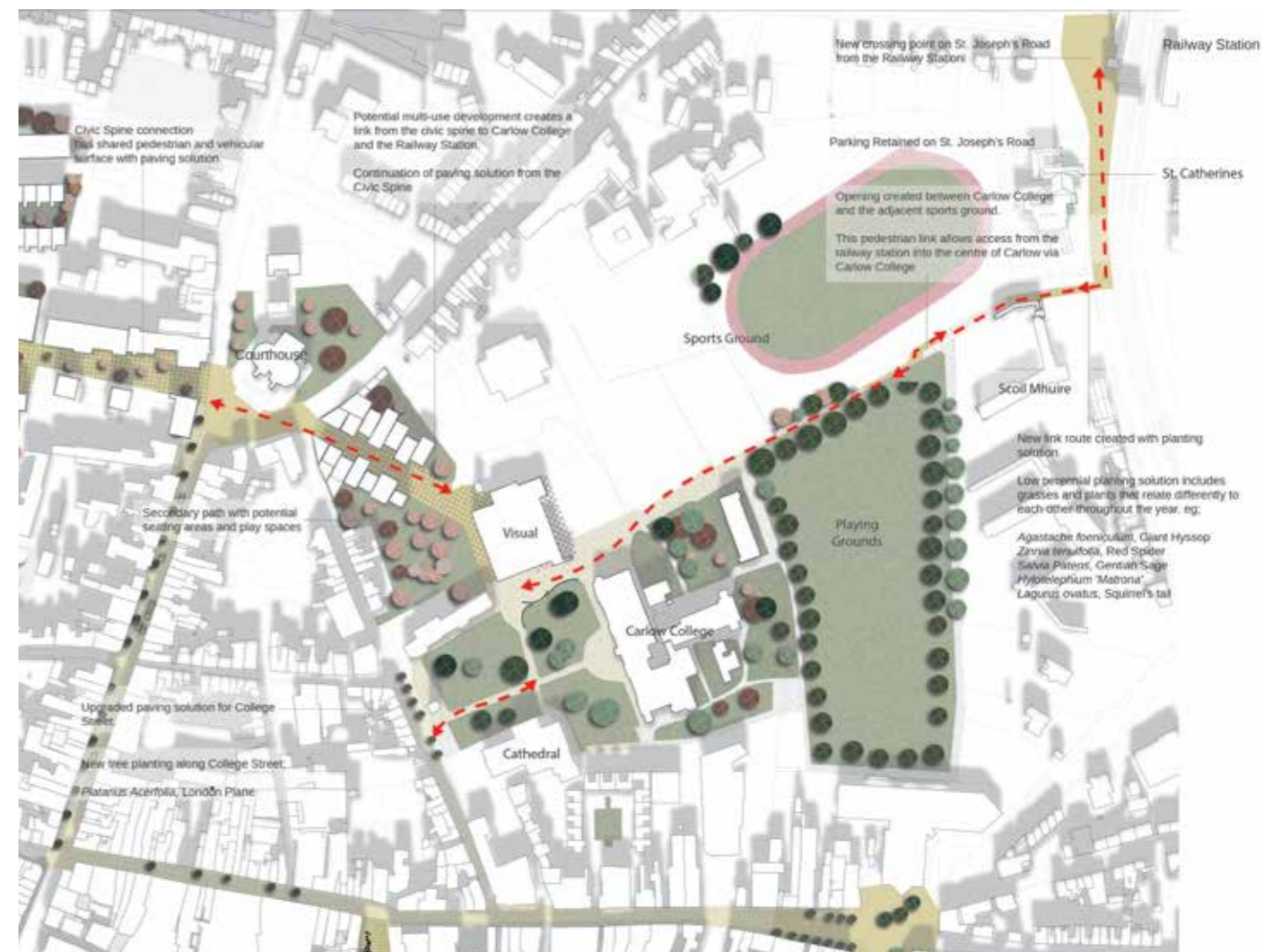
The Cultural Quarter consists of the Carlow College campus, Visual, and the Carlow Courthouse. Ideally located within the Town Centre, Carlow College is situated within an expansive eighteenth-century campus positioned behind the main shopping district. The original campus entrance on College Street is located approx. 100m from Tullow Street and is the main pedestrian entrance for students in the College. The campus is also located a short distance from the Railway Station on St. Joseph's Road, however, there is no direct access between the two.

Carlow College is an important asset in the Town and is a key employer and education provider serving the Town and wider area. The College occupies a major landholding and contributes to civic, cultural, religious, educational and recreational amenities for Carlow Town. The Vision for this Intervention Area is to provide additional connectivity through the Town Centre, from east to west and from north to south. The Barrow Track lies to the west of the

site and the Railway Station to the north-east. Permeability through Carlow College as a public space is a key component of this Strategy and is promoted through the design features of this Intervention.

This Intervention will improve the connections between key retail, recreational, educational and civic spaces in Carlow Town as well as to public transport, and will entice people to spend more time in a vibrant and modern Town Centre. It will further act to support and enhance the strategic partnership between Carlow College and IT Carlow. Through enhanced connections with public transport, improvements in the public realm and general enhancements to the attractiveness of the Town Centre, this Intervention will support Carlow in becoming a first class destination for higher education.

Layout Plan



Health & Wellbeing Principles

- Promotion of walking and cycling as primary modes of transport with the town;
- Provide additional opportunities for physical activity;
- Greater accessibility to urban green space;
- Improved air quality through reduction in car usage;
- Promotion of public transport usage;
- Creation of an inviting space through interventions in the physical environment;
- Promotes community initiatives; and
- Contributes to a positive outlook and good mental health.



The area around the railway station and down through Carlow College will undergo a significant visual transformation. Transport is fundamental to connecting people, businesses and services and improving the integration of the public transport network with Carlow will result in significant benefits for the Town. Carlow College has a number of locational advantages in terms of recreational, cultural and civic amenities such as VISUAL, the Courthouse, Carlow Cathedral and sports grounds within its campus. The use of the grounds at Carlow College as a connection point will allow the area to be embraced as a cultural quarter of the Town.

This Intervention ensures the optimum use of underutilised spaces and connections while integrating the existing social, educational, cultural and historic assets of the Town. The greater exposure of these assets will build civic pride and promote local appreciation for the betterment of all. The opportunity exists to utilise publicly owned buildings, such as the library, for potential reuse as a cultural hub and act as a connection point between the Town Centre and the College campus.

Furthermore, the natural environment is a key asset in any urban area and the location of Carlow College in the Town offers a unique asset which can be optimised through well-designed upgrades to play a role in an expanded open space network. Its sylvan qualities and linkage capability provides a special opportunity to link the Train Station to the Town Centre in a direct manner along a route of interest and beauty, supporting the greening of Carlow and its aim to become more sustainable. The connection to the Civic Spine in relation to the Barrow Track is an important opportunity which can be explored in conjunction with the College and allow for a major east-west connection across the Town and would provide greater accessibility to the River Barrow.

Sustainability Principles

- Prioritising walking, cycling and public transport use;
- Improving public transport connectivity for Carlow both locally and regionally;
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes;
- Provision of new and improved urban green infrastructure; and
- Maintaining, enhancing and protecting healthy air and water and enhancing biodiversity resources.

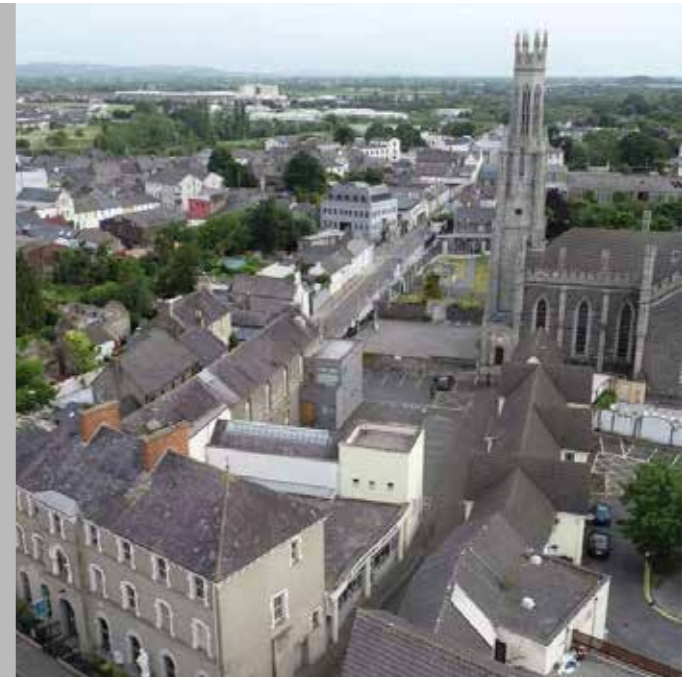
Public transport is hugely important for connecting people to opportunities, getting residents to work, education and training, connecting businesses with suppliers and customers, as well as providing easy access for tourists and visitors to get to events, leisure activities and shopping. Therefore, the focus on integrating the rail station with the Town Centre will provide huge economic benefits to the Town with a well-connected, integrated and attractive transportation system, where people will choose Carlow as a place to live, study in, invest in, and set up a business or visit.

The projects within this Intervention will not only be of interest to visitors but will engage the Town's residents and bring greater utilisation of the area as part of the wider network of activity routes proposed around the Town Centre. By delivering this Intervention, the amenity for everyone will be greatly improved. It has the potential to be recognised as an exemplar for connectivity between a Town's public transport node, an educational campus and a revamped urban centre. The opportunity to link these key urban components will have cumulative benefits to not only the Town but Carlow College and the train station in terms of attractiveness, convenience and accessibility.

Carlow College is at the centrepiece of the overall strategy of regeneration in Carlow Town and promotes healthy, innovative, culturally rich and socially connected community activity. The main design feature of this Intervention, the connection between the campus and St. Joseph's Road, will require collaboration with St. Catherine's Community Services Centre and St. Leo's College.

Presentation Buildings Project / Carlow Library

Carlow County Council are exploring the potential of regenerating Carlow Library and the Presentation Buildings along Tullow Street. Incorporating the Public Library, County Archive, Genealogy Centre, County Museum, Tourist Information Centre and Civic & Learning Space, the Presentation Buildings are a key community asset where residents and tourists frequent and spend time. The regeneration of these buildings into a modern cultural destination will support a reimagined Town Centre, facilitate improved social infrastructure and act to attract footfall. This regeneration project will also act to support the Cultural Quarter Intervention as it links the Town Centre with Carlow College, the Cathedral and Visual, creating a synergy between the two Character Areas and reinforcing the concept of the 'Heart of the Town' back into Carlow.



Visual

Visual is one of Ireland's leading contemporary art spaces situated in the heart of Carlow Town and opened in 2009. It houses a 335-seat theatre and the largest white-cube gallery space in the Country where it produces a programme of both commissioned and existing high-quality national and international contemporary art, plus a host of performances and events in multiple disciplines, including theatre, dance, film, comedy, literature and music.

This €18 million development was a joint project funded by the Local Authority with a grant of €3.17 million from the Department of Arts, Sport & Tourism under the ACCESS Programme. The site was generously donated by Carlow College and an international architectural

competition was held by the RIAI, with the final award of contract to Terry Pawson, a British architect with vast experience in designing buildings for the arts and cultural sectors.

This facility is not only an important hub of activity in its own right but it will also act as a gateway or nodal point for those moving between the Railway Station, the Courthouse and the Town Centre. The integration and linkage of town functions such as culture, transport, civic and educational highlights the importance of the investment sought which seeks to connect key areas of the Town whose adjacencies have not been fully exploited to date.



Key Projects

• Project Linkages

• Key Development Interventions

- Development of a multi-use site at entrance to Carlow College at Old Dublin Road
- Upgraded planting, paving and seating solutions throughout

• Key Linkage Interventions

- Link to Carlow Railway Station onto St. Joseph's Road from Carlow College Campus
- Link to 'Civic Spine' connection point with the Barrow Track site

• Key Features

- Promotion of civic and cultural uses
- Facilitates the creation of a sense of place
- Increased connectivity with backland areas

• Key Physical Changes

- The creation of a pedestrian friendly space through the use of hard and soft landscaping and the provision of urban furniture
- Provision of wayfinding signage to direct visitors and residents
- Provision of formal walking routes
- Improvements to pedestrian and cycling infrastructure

Key Design Moves

- Creation of a new pedestrian/cycle link on St. Joseph's Road via St. Leo's sports grounds through to the Carlow College Campus.
- Creating a pedestrian friendly space through formal walking routes, wayfinding, hard and soft landscaping and urban furniture.

Outcomes

The interventions outlined above should deliver the following;

- The creation of a public realm area which would act as a focal point of the Civic Spine and contribute to the development of a cultural quarter
- The reintegration of the campus grounds into the town by way of improved connectivity to the Town Centre and River Barrow, via College Street and the Civic Spine respectively.
- Greater usage of Carlow Railway Station with the growth of additional connection points. An overall improved planting, paving and seating arrangement.
- A programme of enhancement and improvement works to the Carlow College campus.

Project Summary

The projects listed in this Intervention can be brought about and developed either on their own or as part of a wider development process, e.g. funding applications, public and private ventures. It is important that the major design features outlined in this Strategy are developed in line with the relevant health and wellbeing principles as well as other potential environmental benefits that could be delivered as part of the process.

Retaining Younger Population

One of the key issues affecting population growth in Carlow is the Town's capacity to retain its younger population. Approximately 61% of people in third level education from the South East Region study outside the region and between 2011 and 2016 there was a decrease in the population of Carlow Town in the 20-34 age group of nearly 900 people. Going forward, it will be critical for Carlow to retain a greater proportion of people in this age group. An expanded third level offer, combined with improved career prospects and improved opportunities for living in Carlow Town will help Carlow to compete with other locations.

Railway Link



Visual Public Realm





An Exemplar

The key feature of this Intervention is the Railway Link through Carlow College. The site topography and characteristics as well as the fact that the proposal relates to the provision of new links through an existing campus setting make the identification of an exemplar for comparable costs difficult.

Carlow College in terms of position can be compared to Trinity College, as a historical third level institute that forms an integral part of the built fabric of an urban area. In this regard Trinity College has also faced issues with the enclosed nature of its campus, specifically the lack of integration with Pearse Street. This issue is being addressed through the new €80 million Trinity Business School onto Pearse Street that delivers a pedestrian entrance and the €62 million Printing House Square development, which provides student accommodation and a new public gateway into a new “public city square”.

While this exemplar does not provide costings that can be directly applied to the Railway Link through Carlow

College it does demonstrate how another historic third level institute in a similar position is addressing the issue of a segregated campus. With regard to funding, of note is the fact that most of the new construction activity at Trinity College is funded exclusively from borrowing, philanthropy and private income generated by international students and other sources.

Trinity is making these investments in its campus based on demographic trends that indicate that numbers in higher education will increase by around 20 per cent over the coming decade. Improved facilities will not only be required to accommodate this growth but to attract students to the University in a sector where choice and competition are ever increasing. If Carlow College is to expand as part of the Technological University for the South-East, grow its student population and become a leader in new fields such as construction innovation then it too needs to consider both the improvement of existing facilities and the delivery of new ones. Such development would facilitate improved connectivity between the campus and the surrounding area, specifically the Railway Link through the College.

Phasing & Costs

Cultural Quarter

- The overall cost for the Railway Link through Carlow College Proposal is €2,667,110.
- The works will be carried out on a phased basis over 2021 and 2022 with €1,333,555 envisaged as required per annum at this juncture.
- Subject to the completion of the Part 8 process the abovementioned allocation of costs per annum may be altered to reflect a more detailed work programme.
- The above cost include for Local Authority resources at €94,459 over the 2 years.





3. Barrow Track / Civic Spine

Vision

Carlow's Riverfront provides the opportunity to shape the Town's future and deliver an exemplary model for sustainable compact growth in an urban environment. The vision is to create a distinctive mixed-use quarter, the first of its kind in Carlow, that brings the River back into the heart of the Town Centre as a key attribute.

At present, the River Barrow is not utilised to its full potential within the Town. This Strategy seeks to unlock the potential of Carlow's Riverfront, specifically the lands at Barrow Track which are currently vacant and underutilised.

Located on the northern side of the Town Centre, opposite Carlow Town Park, the Barrow Track lands have approx. 300m of prime river frontage. Entered onto the vacant sites register in 2018 (Reg. No. VS18-22), the site presents the opportunity to deliver an innovative, mixed-use urban quarter, the integration of which with the River Barrow will be a defining feature of the area. It is envisaged that the site can support a significant level of high-quality development that will integrate innovative design solutions and a mix of uses.

The development of this area in line with this Strategy also provides the opportunity to integrate the site with the Town Core to the south and into the wider Town Centre to the east through the delivery of enhanced connects through the Courthouse, to VISUAL and Carlow College.

The delivery of this 'Civic Spine' through the centre of Carlow Town will require cooperation between multiple landowners including Carlow County Council. A collaborative effort is required on multiple fronts to achieve this visionary development for the benefit of the Town as a whole.

Health & Wellbeing Principles

- Improved air quality by promoting pedestrian and cycling movements;
- Provides an improvement in the built environment;
- Creation of a sympathetic design that is visually appealing;
- Offers a place for the community and 'social environment' to thrive;
- Provides areas specifically for recreation, leisure and amenity resources;
- Provides access to urban green space;
- Connection to The Barrow Way; and
- Opportunity to open riverfront amenities and recreational activities.

Layout Plan





“We are realising that if you have people walk and bicycle more, you have a more lively, more liveable, more attractive, more safe, more sustainable and more healthy city” - Jan Gehl

Carlow’s Riverfront will play a critical role in the future growth and expansion of the Town. The River Barrow, and the Barrow Track site in particular, have a much greater potential to contribute to the fabric of Carlow Town than is currently being realised. While it has been recognised that the River Barrow is an important feature for the Town, unlocking its potential has been an on-going challenge. The Barrow Track provides the opportunity for the creation of a new vibrant urban quarter adjacent to the River Barrow that can accommodate various different uses and complement other Town Centre uses, as well as providing connections to Carlow College, Carlow Railway Station, Carlow Castle and more.

The Barrow Track lands present the opportunity to expose the River and integrate it back into the public realm as part of a network of amenity areas within and surrounding the Town. Opening up the River Barrow through the provision of enhanced walkways, new link streets and an additional pedestrian bridge will also deliver a host of practical benefits to the people of the Town. Direct routes east and west across the River and through to the Civic Spine, as well south to the Town Centre and north to connect to the Barrow Way amenity trail, will enhance the quality of place Carlow offers, making it more liveable and visually attractive. The River Barrow also represents the potential for the integration of a Blueway through the town and to be part of a network of multi-activity areas along the Barrow. Activities that could be seen here include paddling trails and boating trails which would promote health and wellbeing in the town while also supporting the tourism industry.

The Barrow Track lands will be a complete community

Sustainability Principles

- Prioritising walking, cycling and public transport use;
- Improving public transport connectivity for Carlow both locally and regionally;
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes;
- Improving connectivity between the Town Centre and natural assets such as the River Barrow and River Burrin;
- Promoting the delivery of energy efficient buildings, sustainable energy measures for the public realm and encouraging innovative solutions from the private sector; and
- Supporting compact urban growth by building on existing assets and capacity to create critical mass and scale for regional growth.

and an attractive neighbourhood in its own right. It will also serve as an exemplar for innovative design and integrated land uses. The vision for this site would see the prioritisation of movement, housing, public realm and social infrastructure. A network of people-first streets, with walkable street designs, enhanced cycling options and accessibility initiatives will improve connections with other parts of the Town Centre. Town Centre living will be realised through the provision of high-quality, mixed low and medium density dwellings. The Barrow Track’s public realm will comprise of public and private open space, with connections to the riverfront and across to Carlow Town Park. These spaces have been designed to draw people of all ages and abilities outdoors, as well as to bring people down to the water. On top of all this, a lively mix of retail, restaurant, café and hotel uses will act to serve a thriving and vibrant streetscape and community. There will also be potential for a community building which would inspire civic engagement and link to the Civic Spine and Carlow College.

Town Centre regeneration has been shown to have measurable benefits beyond the immediate area to the wider physical environment of the Town as people move back to live in the Town Centre, footfall and spend is increased, vitality and viability is improved and further investment is attracted. The Barrow Track lands have a bold vision for a shared street network within a new neighbourhood which prioritises walking and cycling, making car usage secondary and enhancing access to the River Barrow. The neighbourhood will be linked to Carlow Town Park by a new pedestrian bridge and to the Civic Spine by a shared surface link, completing the Town Centre and greenway connections through the site.

River Barrow Water Hub

Carlow County Council have progressed plans for a state-of-the-art Water Hub along the River Barrow. The Water Hub, located on the western bank of the River Barrow and south of Carlow Town Park, will comprise boat houses, changing facilities and a cafe. The Water Hub will bring new life to the underutilised riverbank as well as supporting the active use of the River Barrow. The Water Hub will support this Intervention for a regenerated Carlow Riverfront.



The River Regenerated

The Barrow Way is a 113km pedestrian/cycle path which runs from Robertstown in Co. Kildare to St. Mullin’s in Co. Carlow. The Barrow Way follows the towpath, originally a path alongside the River Barrow where horses pulled barges and goods for transport. The Barrow Track site sits right along this walkway and yet, despite this amenity, has remained undeveloped and underutilised. It is considered that this site offers enormous potential to completely regenerate the Riverfront and to link with The Barrow Way. A mixed-use development providing associated services such as accommodation and retail/restaurants at this location can support the natural amenity and tourist attraction of the River.

The Barrow Way has the potential to become a prime tourist asset for Carlow, similar to the Greenways located in Westport and Dungarvan. In addition to better recreational amenities and improved health outcomes, there is a clear economic value in urban greenways. The Westport Greenway brought in €7.2 million to the local economy in 2011, outlining the positive economic benefits associated with nature-based corridors. The Barrow Track land has the capability of becoming a high-quality mixed-use quarter which puts the focus on the Riverfront and all the potential it has to offer the Town Centre.





Key Projects

• Project Linkages

• Key Development Interventions

- Private mixed use development
- Hotel development
- Low and medium density residential developments
- Community use buildings

• Key Linkage Interventions

- Opening up of Civic Spine
- Pedestrian bridge across the River Barrow to link to Carlow Town Park

• Key Features

- Increased east-west connectivity
- Facilitates pedestrian and cycling movement
- Additional viewpoints from the River Barrow
- Potential for recreational activities on River Barrow

• Key Physical Changes

- Mixed use development consisting of hotel, leisure, residential, community and recreational spaces
- Integration of a water hub at the River Barrow
- Greater connection to Carlow College through the introduction of the 'Civic Spine'
- Development of a bridge connection to Carlow Town Park

Key Design Moves

- Civic Spine connection with shared pedestrian and vehicular surface
- New pedestrian bridge connecting the Civic Spine with Carlow Town Park

Outcomes

The interventions outlined above should deliver the following;

- A mixed use development consisting of commercial, recreational, residential and community uses
- The opening up and positive exposure of the River Barrow
- The development of an underutilised asset in the town

Project Summary

The various projects outlined as part of this Intervention will act as the catalyst for change in Carlow Town. The regeneration of this underutilised site and the integration of the River Barrow into the Town Centre and its reinvigoration will result in a transformative and dynamic new neighbourhood. The delivery of the overall scheme of projects presented as part of this Intervention will require a collaborative approach by both public and private parties.



An Exemplar

As this land is in private ownership, the final layout and detailed design will be subject to consultation with the Local Authority and therefore, it is difficult to determine an exemplar. However, a key feature of this Intervention is the reinvigoration of the riverfront, a challenge facing many regional towns and cities across the Country.

Bonham Quay in Galway City is a high-quality office development located in the City's dock area. The development is located on a long-term vacant site which will help to reinvigorate that surrounding area, incorporating the docklands back into the City Centre. Active ground floor uses and public open space along the waterfront will result in a transformative development for Galway.

Waterford's North Quay development, while a project on a larger scale than envisaged for Carlow Town, is a regeneration project with a vision to build on the context of its riverside location to create a high-quality urban quarter as a natural extension to the City Centre. The project, which will cost in the region of €350 million, will be phased over three to five years.

While these exemplars do not provide costings that can be directly applied to the Barrow Track lands, they do demonstrate how other cities and towns are addressing the issue of underutilised waterfronts.

Phasing & Costs

Barrack Track / Civic Spine

- This area is largely a private development site. The final layout and design of the public realm internal to the site will be the subject to development by the landowners and funded by same.
- Any potential public private partnership will detail the proportionality of costs in relation to the public realm.
- In relation to the pedestrian bridge crossing it is estimated to be in the region of €1.5 - €2 million subject to design.
- The main public proposals include the two new bridges with the delivery of same subject to availability of funding from different sources.

4. Pembroke District

Vision

The Pembroke area is located immediately south west of the Town Core and is a substantial area of underutilised and/or vacant land with pockets of residential on the edge of the River Barrow. The vision for this area as an Intervention is to reimagine it as a new and vibrant residential quarter that benefits from its position on the banks of the River Barrow, new public spaces and enhanced connections with the Town Centre. This Intervention is central to realising one of the key aims of this Strategy, the promotion and delivery of Town Centre living.

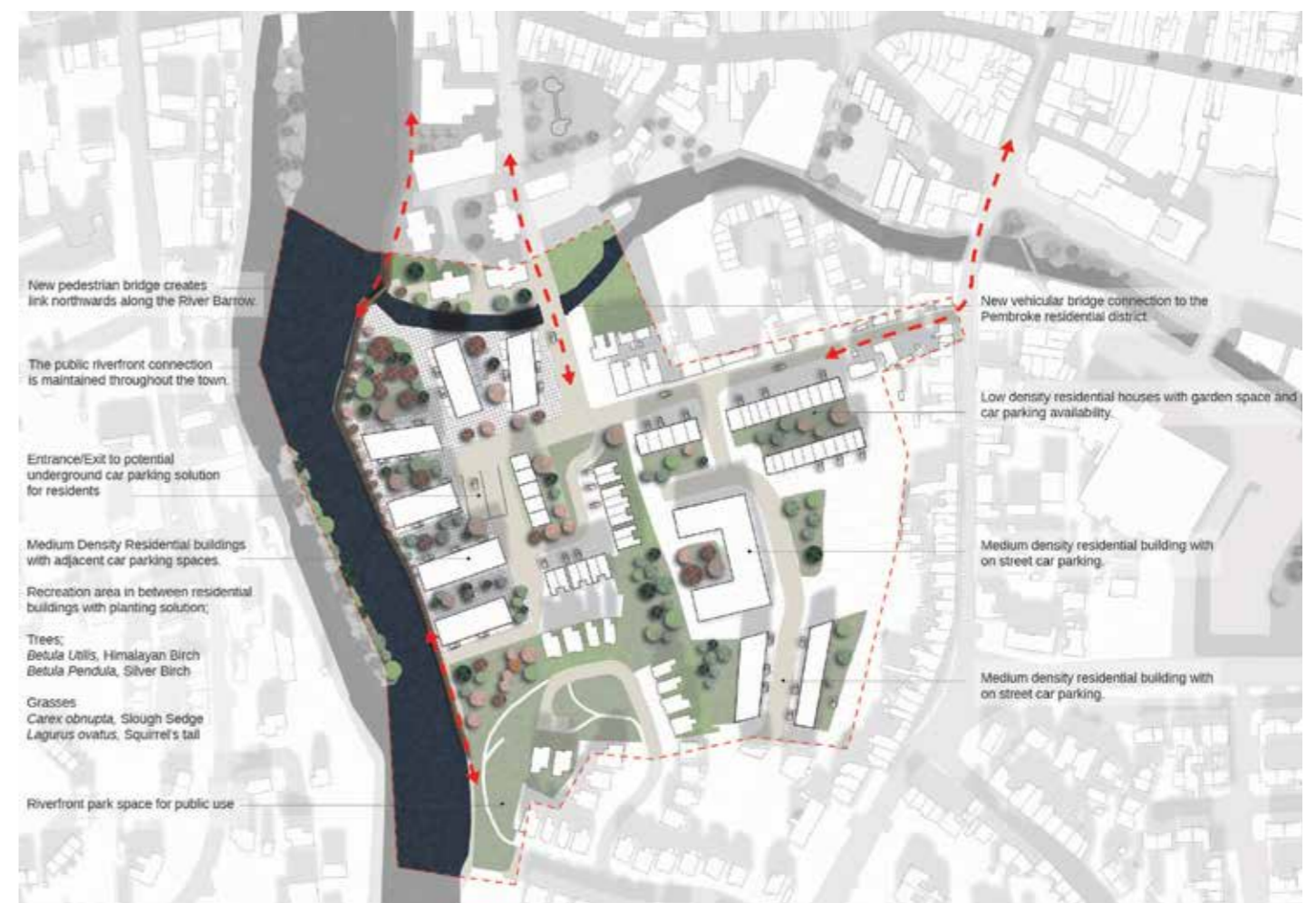
Under the Intervention the area will be transformed to facilitate a range of residential types and densities, attractive to both residents and visitors due to a new public riverfront park, enhancements to the public realm, public riverfront connections and improved connectivity through the provision of two new bridges across the

River Burrin. These bridges will provide direct access for both vehicles and pedestrians to Carlow Castle, which is also subject of an Intervention, with the pedestrian bridge continuing the pedestrian link along the River Barrow which can be expanded in the future as part of the Barrow Track.

Health & Wellbeing Principles

- Provides access to urban green space for residents;
- Promotes walking and cycling modes for use by tourists and visitors;
- Increased opportunity for physical activity;
- Access to the River Barrow as a leisure and recreational outlet; and
- Contributes to a positive outlook and good mental health.

Layout Plan





“Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody” - Jane Jacobs

A new residential district in the Town Centre that integrates with the existing urban fabric, improves the built environment and enhances access to amenities will be a transformational project in terms of achieving a core aim of this Strategy, delivering Town Centre living. The project will not only regenerate a substantial area of largely underutilised land but it will put people back in the Town Centre, help stabilise and grow the local economy and will breathe new life into the existing community. The reuse of these lands will also unlock the River Barrow as an amenity asset for both residents of and visitors to the area, including Carlow Castle to the north.

Living in the Town Centre was once a common feature of Irish Towns with people living close to where they worked, where children went to school and where they socialised. Walking and cycling were the main forms of transport with limited need to travel by car on a daily basis, while the critical mass of the resident population keep local retailers and services providers viable. However, as the population grew and housing demand increased, the development of new housing focused on suburban locations where land was readily available, easily accessible and restrictions to development were limited. The loss of Town Centre living had a severe negative impact on the vitality and viability of many Irish Towns resulting in business closures, vacancy, dereliction and streets dominated by cars.

Sustainability Principles

- Prioritising walking, cycling and public transport use;
- Improving public transport connectivity for Carlow both locally and regionally;
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes;
- Improving connectivity between the Town Centre and natural assets such as the River Barrow and River Burren;
- Facilitating appropriate and well designed access to natural spaces, features and landscapes;
- Promoting the delivery of energy efficient buildings, sustainable energy measures for the public realm and encouraging innovative solutions from the private sector; and
- Supporting compact urban growth by building on existing assets and capacity to create critical mass and scale for regional growth.

As we become more climate aware, environmentally conscious and move towards a more sustainable way of living there is a renewed focus on Town Centre living. Urban residential schemes typically rely less on cars as the primary mode of transport due to their location relative to employment areas, services and amenities. In a post-Covid 19 world, Town Centre living enables people to continue to live their lives, meeting their daily needs, while adhering to the advice to ‘stay local’. Along with the other Interventions outlined in this Strategy, the delivery of the Pembroke District Intervention will support the overall strategy of regeneration in Carlow Town and promote healthy, innovative, culturally rich and socially connected community activity.



Residential Use at Pembroke District



Riverside Public Realm at Pembroke District





Key Projects

• Project Linkages

• Key Development Interventions

- Low and medium density residential developments
- Riverfront park space for public use

• Key Linkage Interventions

- New pedestrian bridge linking north on River Barrow
- New vehicular bridge linking to Carlow Castle area

• Key Features

- New residential area near the Town Centre
- Well-connected area for residential expansion
- Opening up of the River Barrow
- Greater utilisation of land

• Key Physical Changes

- Introduction of landscaping and planting programme
- Tangible connection to the Civic Spine and the River Barrow
- Part of the public riverfront connection throughout the Town

Key Design Moves

- Creation of a new pedestrian bridge to create a link northwards along the River Barrow and to Carlow Castle.
- New vehicular bridge connection from the Pembroke District to the Town Centre.

Outcomes

The interventions outlined above should deliver the following;

- A medium to low density residential scheme in the Town which will contribute to the vibrancy of the Town Centre
- The regeneration of an underutilised area of land with a mix of residential and recreational uses
- Improved connectivity in a north-south direction to Carlow Castle and waterfront developments

Carlow Town is the County's largest urban centre, with the portion of the population in County Carlow alone, i.e. excluding Graiguecullen, accounting for over one-third (35.1%) of the County's population. Including Graiguecullen as part of the Town's urban footprint brings the total population of the Town to 24,272, making it the thirteenth largest urban area in the State. With regard to the Town itself, between the 2011 and 2016 Census Graiguecullen and the Carlow Urban ED both experienced a population increase, a positive step in beginning to reverse population decline in the Town Centre.

Project Summary

The delivery of the overall scheme of projects presented as part of this Intervention will require a collaborative approach by both public and private parties. While this Intervention provides an indication of how this strategic Town Centre sites could be developed to deliver a new urban quarter rich with amenity spaces, the delivery of a residential scheme in this area is open to interpretation as detailed design progresses through consultation and partnership with the Local Authority.

An Exemplar

While the main outcome of the delivery of this Intervention will be the creation of a new residential district in the Town Centre, the final layout and detailed design of this will be subject to consultation with the Local Authority and therefore, an exemplar for comparable costs on the residential element is not viable.

A key feature of this Intervention to be delivered, notwithstanding the finalised design of the overall residential element, is the new pedestrian bridge. This bridge will provide a direct pedestrian link north toward the Castle and Town Centre as well as maintain a public River front path along the Barrow.

To provide a benchmark for the capital costs for such a bridge the 'Living Bridge' within the University of Limerick campus was reviewed as an exemplar. While the receiving physical environment and detailed design are unique to that project, it is similar in terms of the range of works. In addition, the 'Living Bridge' brings an additional element than just functionality, taking its design from the organic form of the River, it can accommodate a

Phasing & Costs

Pembroke District

- This area is largely a private development site. The final layout and design of the public realm internal to the site will be the subject to development by the landowners and funded by same.
- Any potential public private partnership will detail the proportionality of costs in relation to the public realm.
- In relation to the bridge crossings the following estimates can be provided; pedestrian bridge €1.5 - €2 million subject to design and approximately €10 million of the vehicular bridge
- The main public proposals include the two new bridges with the delivery of same subject to availability of funding from different sources.

range of social, cultural and educational activities. This is a concept which should be considered in the design of the Pembroke pedestrian bridge given its riverside location, its integration in the wider Barrow track and its proximity to Carlow Castle. Completed in 2007, the 'Living Bridge' has a 350m span across the River Shannon, making it the longest pedestrian bridge in Ireland, and cost €12 million. It was financed through a public-private partnership.



The 'Living Bridge'

5. The Burrin Riverfront

Vision

The Burrin River runs south east to north west through Carlow Town, providing a 'blue' connection parallel to the Town Centre that offers an alternative route within the Town. The vision for this Intervention is to create a continuous link that facilitates an ecological corridor through the Town, exposes the potential benefits that the River presents as an amenity corridor, as well as acting to connect and integrate existing green spaces, Intervention Areas and Carlow Castle into the wider urban fabric of the Town.

Key to the success of this link will be cross-connections to the Town Centre and existing amenity areas, such as Hanover Park and Carlow Castle, and its incorporation as part of the future delivery of development sites along the banks of the River, e.g. the former Cash and Carry site and the underutilised lands adjacent to Carlow Castle fronting the River Barrow.

The Intervention extends beyond the banks of the Burrin River seeking to deliver an animated and usable blue connection that runs to the River Barrow and incorporates pedestrian links along the riverfront and a new connection with the historic Carlow Castle.

Health & Wellbeing Principles

- Provides access to urban green and blue spaces for residents;
- Promotes walking and cycling modes for use by tourists and visitors;
- Access to the River Barrow as a leisure and recreational outlet;
- Increased opportunity for physical activity;
- Contributes to a positive outlook and good mental health; and
- Improved air quality due to encouragement of alternative forms of transport.

Layout Plan





“We dont want a plan based on land uses. We want a plan based on experiences. Who visits downtown to see land uses.” - Mitchell Silver

Now in a ruinous state, Carlow Castle is a thirteenth century castle located on the eastern bank of the River Barrow. Located approximately 100 metres from the River Barrow and less than 100 metres from the River Burrin, this landmark building is situated in the heart of the historic Town Core.

It is an aim of this Intervention to prioritise the exposure of the key heritage and natural assets of the Town Centre. By improving the exposure and interpretation of Carlow’s cultural heritage it is sought to enhance the setting and context of Carlow Castle and help reconnect its history back into the Town Centre. Linking the Town’s built environment with local history and interpreting its social heritage can further deepen Carlow’s sense of place. The cultural heritage embodied in the Town is a significant resource that includes the natural heritage amenities of the River Barrow and River Burrin, which together will act as a major attractor and significant tourist asset for the Town Centre.

There is a unique opportunity in this Intervention to provide a riverside walkway along the River Burrin which runs from the River Barrow, Carlow Castle right through the Town to the south-east. There is limited formal access or pathway along the River Burrin within the Town Centre boundary and this Intervention supports opening up the river as a pedestrian route through the Town that would not only connect into the existing and enhanced pedestrian network but would provide a new and direct

Sustainability Principles

- Prioritising walking, cycling and public transport use;
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes;
- Improving connectivity between the Town Centre and natural assets such as the River Barrow and River Burrin;
- Maintaining, enhancing and protecting healthy air and water and enhancing biodiversity resources;
- Provision of new and improved urban green infrastructure; and
- Facilitating appropriate and well designed access to natural spaces, features and landscapes.

link from the east of the Town at Carlow Castle and the River Barrow to the west at Carlow Shopping Centre and linking through to the existing amenity walkway to the south-east. It also presents an opportunity to provide another amenity corridor for pedestrians and an ecological corridor which will enhance the quality of life in the Town, making it more liveable and visually attractive.

Opportunities for greater connectivity are presented in a multitude of ways within this Intervention, with proposals for a Water Activity Centre on the River Barrow to the north, the Pembroke District intervention to the south and the Town Centre proposals to the immediate east of the area. Carlow Castle will be showcased as a principal identifying characteristic of the public realm and a key link between the different areas within the Town.

There is an additional opportunity on the former Cash & Carry site, which is under public ownership. It is envisaged that this site can support a mixed-use development with the potential for office, other commercial and residential uses while incorporating the River Burrin walkway as an integral element. Furthermore, the upgrading and enhancement of the River Barrow edge for a potential Water Activity Centre will offer a unique attraction for tourists as well as a state-of-the-art facility for locals to enjoy. These features will support Carlow’s regeneration in becoming an inclusive and vibrant Town Centre.



Key Projects

• Project Linkages

• Key Development Interventions

- A walkway along the banks of the Burrin River
- Multi-use development at former Cash & Carry site
- A waterfront edge along the River Barrow for potential water sport activities and a Water Activity Centre
- Development of currently underutilised lands on the banks of the River Barrow, adjacent to Carlow Castle

• Key Linkage Interventions

- New access from the Burrin River walkway to Carlow Castle
- Continuation of boardwalk southwards along River Barrow
- Vehicular bridge connecting with Pembroke site

• Key Features

- A 'blue' connection parallel to the Town Centre
- Greening and tree planting around Carlow Castle and the waterfront
- Integration of Carlow Castle into the urban fabric of the Town Centre
- The promotion of Water Activities on the River Barrow

• Key Physical Changes

- The delivery of an alternative pedestrian route through the Town Centre
- Enhanced ecology within the Town
- Redevelopment of Cash & Carry site to provide a mix of uses that support the vitality and viability of the Town Centre

Outcomes

The interventions outlined above should deliver the following;

- Development of a key pedestrian linkage in a west-east direction through the Town
- Greater connectivity to Carlow Castle and the Pembroke District
- Additional opportunities to redevelop Town Centre sites, e.g. Cash & Carry mixed use development
- The promotion of healthy lifestyles through the utilisation of the Town's existing natural assets

Project Summary

The delivery of this Intervention will require a collaborative approach by both public and private parties as it addresses a number of individual projects. While this Intervention demonstrates how a blue link along the River Burrin would connect existing amenity spaces as part of an ecological corridor, the delivery of the Cash & Carry site and the area adjacent to Carlow Castle is open to interpretation as detailed design is progressed by the Local Authority or through consultation and partnership with the Local Authority.

An Exemplar

The key project within this Intervention is the Burrin River walkway, which will deliver a new pedestrian route and facilitate an ecological corridor through the Town Centre.

A similar project, the River Triogue Blueway, was proposed as part of the Strategy 2040: A Vision for Portlaoise, which sought to open up the Triogue as a linear park through the Town. The linear park would provide a host of practical benefits to the people of the Town delivering a useful pedestrian and cyclist corridor and connecting the southern and northern areas in a very direct manner. Similar to the River Burrin walkway the Triogue Blueway will also act as a new amenity spaces that will enhance the quality of life in the Town, making it more liveable and visually attractive.

As with the River Burrin walkway, the entire length of the public realm improvements as part of the River Triogue Blueway are unlikely to be delivered in one project and will be phased due to the mixture of public and private land covered. To date €100,000 has been secured for a new pedestrian path and cycleway along the Triogue River. These upgrades were identified as key components of the Strategy.



The Triogue Blueway Route

Phasing & Costs

The Burrin Riverfront

- This area consists of significant tracts of private development land. The final layout and design of the public realm internal to the site will be the subject to development by the landowners and funded by same.
- Any potential public private partnership will detail the proportionality of costs in relation to the public realm.
- The public realm improvements along the River Burrin will consist primarily of soft landscaping measure and it is estimated that the cost could be in the region of €800,000 to €1.2 million
- The entire length of the public realm improvements along the River Burrin are likely to come forward in different phases due to the mixture of public and private land covered by this intervention.

6. Link Streets (Dublin St. & Tullow St.)

Vision

Urban linkages are important for the regeneration of the wider Town and this intervention looks at two prominent streets in the Town, Dublin Street and Tullow Street. These are already primary retail streets with independent shops, restaurants, cafés, pubs and nightclubs. They also provide for the movement of people in the Town, both east to west and north to south. The upgrading of these streets will deliver key connections and ancillary services for the community, students and visitors alike.

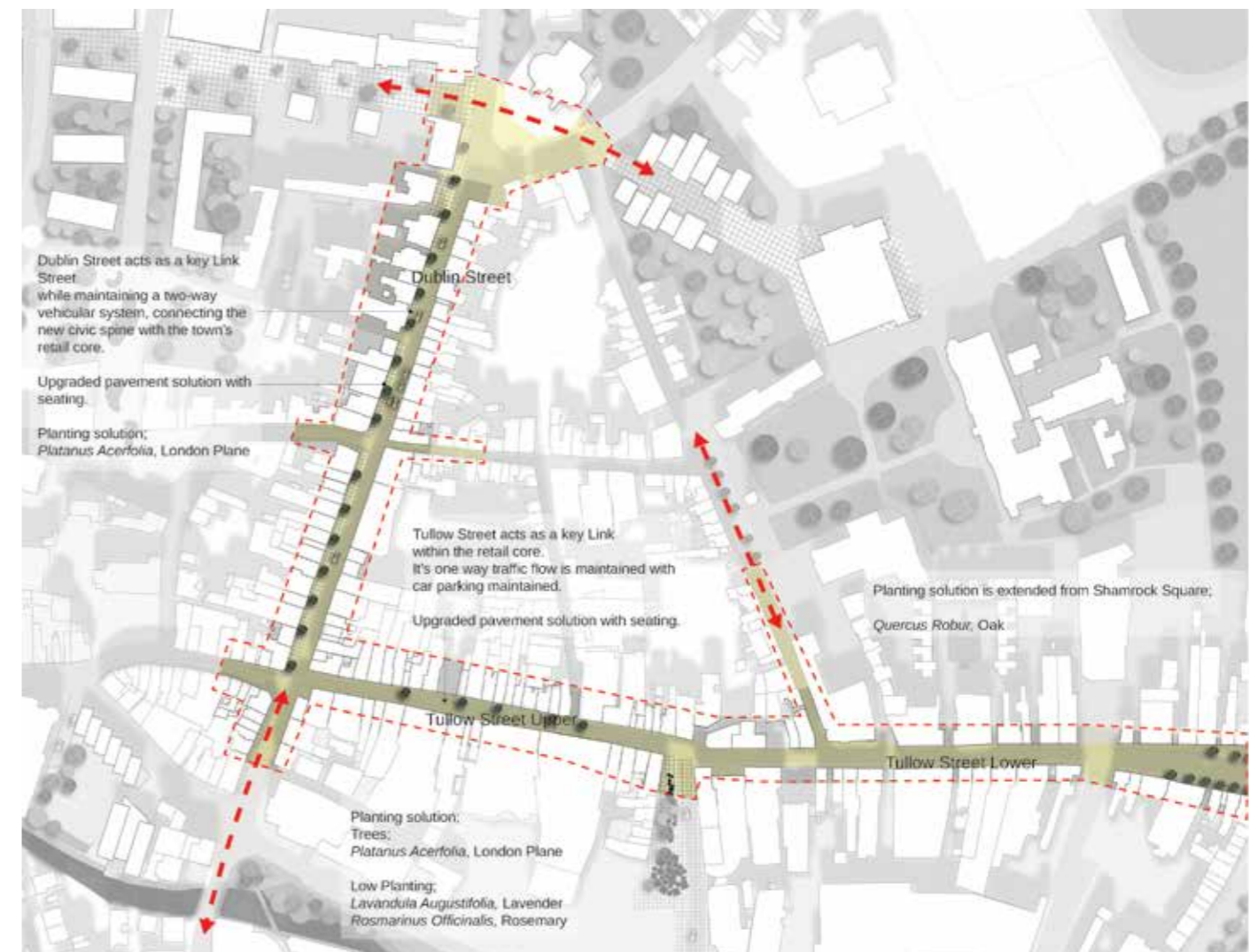
The upgrading of the urban environment and public realm along these streets also provides the opportunity to address existing traffic and pedestrian safety issues. This Intervention has looked at ways in which existing public space can be enhanced and largely traffic-dominated streets can be 'greened'. Through the consolidation of on-street parking, along with the introduction of trees, lush planting and new seating areas the critical role of the Town Centre as the heart of Carlow will be reinforced.

This Intervention seeks to support the vitality of the Town Centre as the retail/commercial core while delivering the visual uplift that will unify the overall Town Centre, including the River Barrow, Civic Spine and key retail and educational areas. The greening of these streets will also contribute to improved visual amenity and the realisation of the overall climate change objectives that are a core element of this Strategy.

Health & Wellbeing Principles

- Provides improvements in the public realm to encourage activity;
- Allows for linear green spaces to be developed;
- Increased opportunity for physical activity;
- Improved air quality (reduction in car numbers);
- Contributes to a positive outlook and good mental health; and
- Promotes community initiatives.

Layout Plan





“Nothing in this world is more simple and more cheap than making cities that provide better for people” - Jan Gehl

Renewing and improving streets is a constant feature of urban development and it is essential that each time alterations occur, that they bring benefits that realise a more accessible and pedestrian friendly environment. Along Dublin Street and around the Tullow Street area, the Strategy promotes a more ‘walkable’ Town Centre.

Tullow Street and Dublin Street are key link streets which form part of the historic Town Centre of Carlow and are at the heart of its retail and commercial offer. Upgrading the streetscape along these will provide a distinct improvement in road safety, traffic capacity, pedestrian priority, enhanced linkages and town liveability.

The improvements are designed to make the area more user-friendly to pedestrians and cyclists, with design changes to encourage people of all ages and abilities to walk or cycle for leisure, travel or exercise. In relation to exercise, linking into the other Interventions proposed, these changes will have the cumulative benefit of creating routes around the Town Centre which can be used for physical activity and add to the overall attractiveness of the Carlow Town as a place to live. Improving the connections between the key retail, educational and civic spaces in the Town will entice people to spend more time in a vibrant and modern Town Centre.

Sustainability Principles

- Prioritising walking, cycling and public transport use;
- Creating a vibrant Town Centre through the delivery of an enhanced public realm with improved accessibility for sustainable transport modes;
- Improving connectivity between the Town Centre and natural assets such as the River Barrow and River Burren; and
- Facilitating appropriate and well designed access to natural spaces, features and landscapes.

The important role this Intervention plays in the network of streets around the town core is not only functional but also perception. As one arrives in a place it is often as they transition between different areas that they alter their behaviour or become more aware of their surroundings. This Intervention will alert people to the connections between different areas of the Town Centre, from the Civic Spine to the Retail Core. It will have the effect of encouraging people to look for new links and to move around and through the Town.

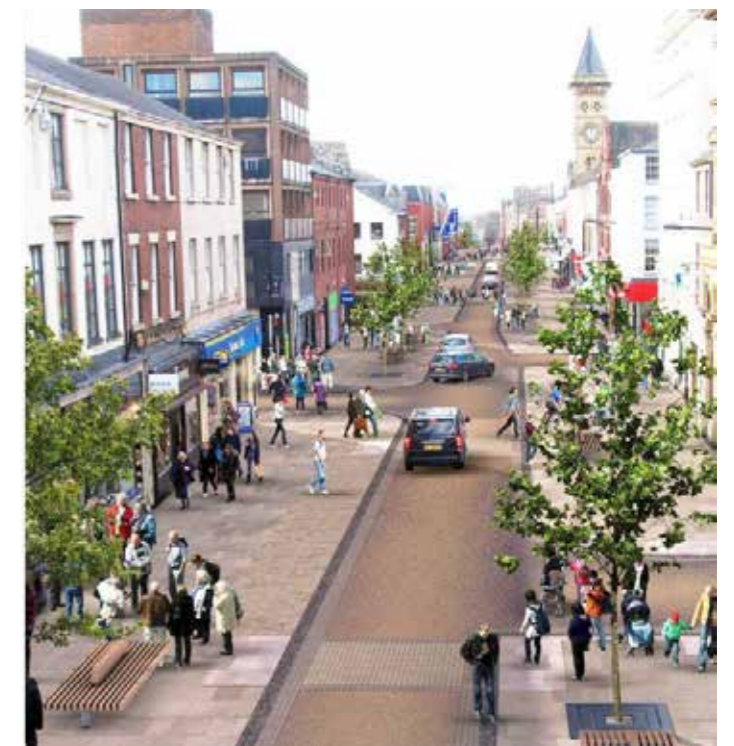
The creation and maintenance of a healthy public realm for Carlow is essential to the achievement of a thriving, vibrant, sustainable and attractive Town Centre that everyone can enjoy and take pride in. The places where we live and work have a significant impact on people’s health and wellbeing and a built environment that encourages more walking/cycling has a direct benefit on people’s health. Furthermore, the ability to easily navigate a space through good design, lighting and signage can contribute to a person’s ability to function and to feel good, while good amenities, such as seating, encourage usage of public spaces.

Post-COVID Carlow

Carlow County Council is strengthening its position to be proactive and ahead of the curve in supporting public realm initiatives which aim to make public spaces usable, safe and inviting in a post-COVID society.

The vision for this Strategy places the Health & Wellbeing of Carlow Town at the core of its regeneration. This Intervention and the initiatives proposed will provide a safe and open environment for pedestrians and will demonstrate that properly planned and designed urban areas and amenity spaces can be safely accessed post-COVID.

Carlow Town will have the capacity for larger pedestrian-friendly infrastructure with less reliance on and support for car usage. The focus will be on how people can safely move around with proper social/physical distancing and space to walk and cycle, which people are choosing to do in increasing numbers as a result of COVID-19.



Clonakilty

Fishergate, Preston, England.



Key Projects

• Project Linkages

• Key Development Interventions

- Development along Tullow Street and Dublin Street comprising upgraded paving solutions, planting scheme and street furniture.

• Key Linkage Interventions

- Improved connectivity at junctions (Tullow/Dublin Street, Potato Market, Shamrock Square)

• Key Features

- Development of a safe and walkable space
- Improved relationship between cars and pedestrians

• Key Physical Changes

- Redevelopment of the public realm
- Introduction of shared surfaces
- Improved planting and greening arrangements
- Consolidation of on-street parking



Project Summary

The regeneration of Dublin Street and Tullow Street can be implemented over a phased period so as not to hinder the business currently operating in the area. Key to the development of this Intervention will be 'buy-in' from both traders and the local community in order to facilitate the improvements in the public realm and recognise the need to reduce car numbers in the Town Centre.

Outcomes

The interventions outlined above should deliver the following;

- An improved Town Centre experience for pedestrians, cyclists and motorists;
- Enhanced connections between key Town Centre areas; and
- Increased vitality and vibrancy which will improved Town Centre retail numbers.

An Exemplar

The key feature of this Intervention is the upgrading of the streetscape along Dublin Street and Tullow Street. The costing for the projects contained in the Link Streets Intervention will be dependent on the detailed designs brought forward in terms of materials, fixtures, ground works etc. Notwithstanding this, in order to assist with achieving a high level understanding of such costs, the upgrade works to O'Connell Street in Limerick were reviewed as an exemplar as it is a recent example of a budget based on current market costs for such street improvement works.

The works to O'Connell Street which cover the area from the junction of Denmark Street to Barrington Street, a distance of approximately 786 metres in length, have been costing at approximately €9.1 million. For this investment Limerick City & County Council secured €4.1 million in European Regional Development Funding via the Designated Urban Centre Grants Scheme. Based on the above costing for O'Connell Street, Dublin Street could at today's rates cost somewhere in the region of €1.5 - €1.8 million.

Commercial Activity

This Intervention will provide a platform for additional commercial activity along Dublin Street and Tullow Street. The Fairgreen Shopping Centre currently experiences an approx. weekly footfall of 100,000 visitors, compared to that of approx. 10,000 visitors to a traditional major retailer in the Town Centre. This contrast in footfall between the peripheral retail core and the historic Town Centre is significant.

This Intervention, through the enhancement of connections between these two core retail areas, as well as to the Civic Spine, will improve overall accessibility within the Town Centre, encouraging a more even distribution of footfall and resulting in improved retail prosperity along these streets.

The enhancement of the streetscapes will also provide an incentive for property owners and businesses in the area to improve their commercial offering in keeping with the surrounding spaces.

Phasing & Costs

Dublin Street

- The overall cost for the Dublin Street Proposal will be in the region of €1.5 - €1.8 million.
- At this juncture it is envisaged that the works will be carried out in a single phase project.

Phasing & Costs

Tullow Street

- The overall cost for the Tullow Street Proposal is €1,871,255.
- At this juncture it is envisaged that the works will be carried out in a single phase in 2024.
- Subject to the completion of the Part 8 process the abovementioned allocation of costs per annum may be altered to reflect a more detailed work programme.
- The above cost include for Local Authority resources at €47,229 over the 2 years.

Appendix I Urban Design Principles

Throughout the Carlow 2040 Regeneration Strategy, various high-quality design principles have been adopted and applied throughout the scheme. One of the key design principles that can be seen applied in the strategy document is the importance given to place-making and creating opportunities for communities to flourish. One of the key elements to successful neighbourhoods, towns & cities and successful communities is the creation of vibrant places with a strong sense of identity. Heritage, civic and community assets (building, structures, landscape elements etc.) present a significant opportunity for such place-making.

In Carlow Town, key sites were identified such as Carlow College, Visual, the River Barrow / River Burrin and Potato Market and the creation of interesting and dynamic places which have these sites at their core were examined and the linkages emphasised. For example, at the Barrow Track area the presence of the nearby Visual, the courthouse and Carlow County Council offices were identified. It was proposed to make a pedestrian 'Civic Spine' through this area, connecting Carlow College to the new Barrow Track development and linking to Carlow Town Park on the opposite bank of the River Barrow. This area would aim to introduce a unique identity as a 'Civic Spine' with a mix of Civic Buildings, public streets and plazas, all of which are integral to community life. The opening up of a strong and legible pedestrian route with the key existing and new buildings and spaces provides for a desirable route through the emerging Cultural Quarter.

Another design principle applied throughout the Carlow

Strategy is a 'Pedestrian First' approach. This approach seeks to promote a reduction in car dependency and looking at alternative modes of transportation; walking, cycling & public transport. An example of this is the key link proposed through Carlow College to connect the Town Centre to Carlow Railway Station. This aims to promote a 'Pedestrian First' approach on two levels; first by providing routes for the public to access the Town Centre without the need of the car and secondly, by promoting the use of the rail network as a mode of transport. Another example of the 'Pedestrian First' approach is the creation of a pedestrian link from Potato Market to Barrack Street.

Civic Spine:

For the Civic Spine area, a modular and/or prefabricated building system could be achieved. This approach would be sustainable and low impact on the environment in terms of its construction. The scale of these structures work in conjunction with the adjacent Visual building and Carlow College. Aiming to complement the impressive Visual building, 3/4 storey structures are proposed. The route through the Civic Spine will be publically accessible, with various spaces created due to the irregularity of the built edge. The resultant pockets of new space aim to create distinct public meeting points. The structures also offer private terraces integrated into the modular structure.

Pembroke Lands:

At the Pembroke site, a cluster of 4/5 storey, lightly coloured brick residential buildings are proposed. The decision of height was based on analysis of immediately adjacent buildings along the River Barrow. These residential

structures propose pitched facades which extend to all four sides of the building. This aims to create visual interest along both the riverfront as well as within the green spaces between the buildings. The buildings are set back from the River Barrow. This allows for a contiguous walkway to be opened between the proposed residential units and the River Barrow. The building blocks themselves have been spaced to allow green areas to be created between the blocks. These would be communal spaces to be used by the residents. However, public permeability has also been provided between and through the buildings. This strikes the balance between creating meaningful public space as well as private space for occupants of the residential units. Car parking would be provided through a mix of on street and underground parking.

Barrow Track Lands:

The Barrow Track is proposed as a mixed use development which can incorporate residential and hotel/commercial uses. It is envisaged that a mix of brick buildings and timber structure buildings could be proposed. These structures offer contrasting facades to add vibrancy along the riverfront. The buildings are proposed as a mixture of 4/5 storey. Similarly, to the Pembroke Lands, the Barrow Track building frontage has been set back from the river to allow for a linked and contiguous riverfront walkway. Permeability

through the site is created by a pedestrian East-West route, connecting the River Barrow to the Civic Spine and Carlow College. Within this area a mixture of lower-density housing has also been proposed. This lower-density housing would have private green space. This would allow for a more diverse community. To the south of the site, a site has been maintained for residential parking which provides a key pedestrian connection to the Town Centre.

Town Centre:

For the Town Centre (Potato Market, Barrack Street and Tullow Street), pedestrian zones have been proposed. These distinct areas would each have unique identities aided by a mix of different materials used throughout. For example, the Potato Market proposal shows a bespoke design of a 'crackled surface'. This is intended to contrast with the concentric circle brick pavement used at the Barrack Street pedestrian link. Within Potato Market, elevated elements have been used to create edges framing the bigger public space. These elevated areas provide seating and planting areas adding to the potential vibrancy of the public realm. Similarly, along the Barrack Street link route, green areas have been included within the concentric circle design. These green areas are proposed to have different functions from incidental play areas to planting zones for trees and block planted elements.





Nature of Uses:

A key component in the creation of successful place-making is the provision of a mix of uses to include retail, commercial workspaces and residential uses. Historically, Carlow like many other County Towns would have had a rich mix of business including retail, light industrial workshops and residential units above the premises below. The aim of the Carlow 2040 Regeneration Strategy is intended to show how some of the uses and activities and vibrancy can be restored through the delivery of the interesting and dynamic public spaces surrounded by new interventions which seek to create activation at street level with passive overlooking by the new residential opportunity sites identified.

- **Potato Market** – Public space providing an area for a mix of uses from arts performance to a regular Farmers Market.
- **Barrack Street Link** – A new pedestrian route providing for a direct connection from Potato Market through a new link at Barrack Street to connect to the Fairgreen Shopping Centre.
- **Civic Spine** – Potential mix of uses to include office, residential and potential hotel uses.
- **The Pembroke Lands** – Predominantly residential use with potential for some activation by other uses along the River Barrow frontage.
- **The Barrow Track** – Mix of residential use with potential for some activation by other uses along the River Barrow frontage including hotel and office uses.

Legibility / Streetscape:

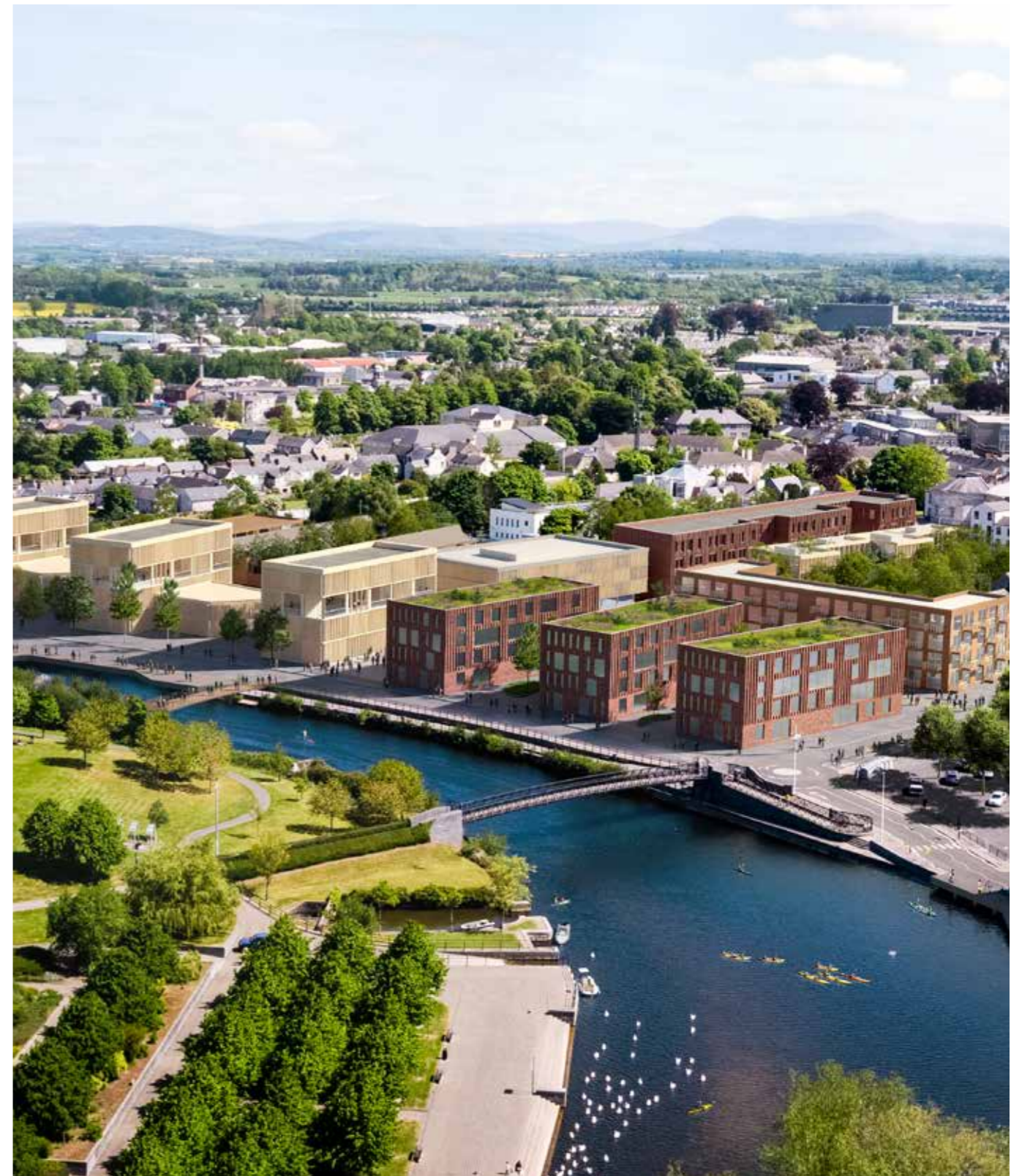
- Street hierarchy clearly defined while providing for a pedestrian priority principle throughout. Access to car parking to be discreet and seek to keep car parking to shared spaces / home zones and underground as required. Pedestrian permeability should be provided while also facilitating safe vehicular access.
- Clear building lines which provide adequate separation from the River Barrow / River Burrin in order to provide adequate protection to sensitive environmental receptors.

- Edge blocks with internal courtyards and garden areas with public permeability linkages provided while protecting the private and semi-private amenity spaces for residents.
- Height range of 4/5 storeys for river frontage and dropping down to 2/2.5-storey townhouses.

Protection of the Existing Environment:

The River Barrow and its tributary River Burrin should be afforded maximum protection as sensitive environmental receptors. As such, great care must be taken in addressing the potential flood risk in respect of the design and construction of new buildings close to these primary environmental assets.

The use of prefabricated components should also be considered in order to reduce the potential detrimental impacts of intensive construction phases. A clear setback strategy should be established in advance of developing briefs for both the Barrow Track and Pembroke Lands.



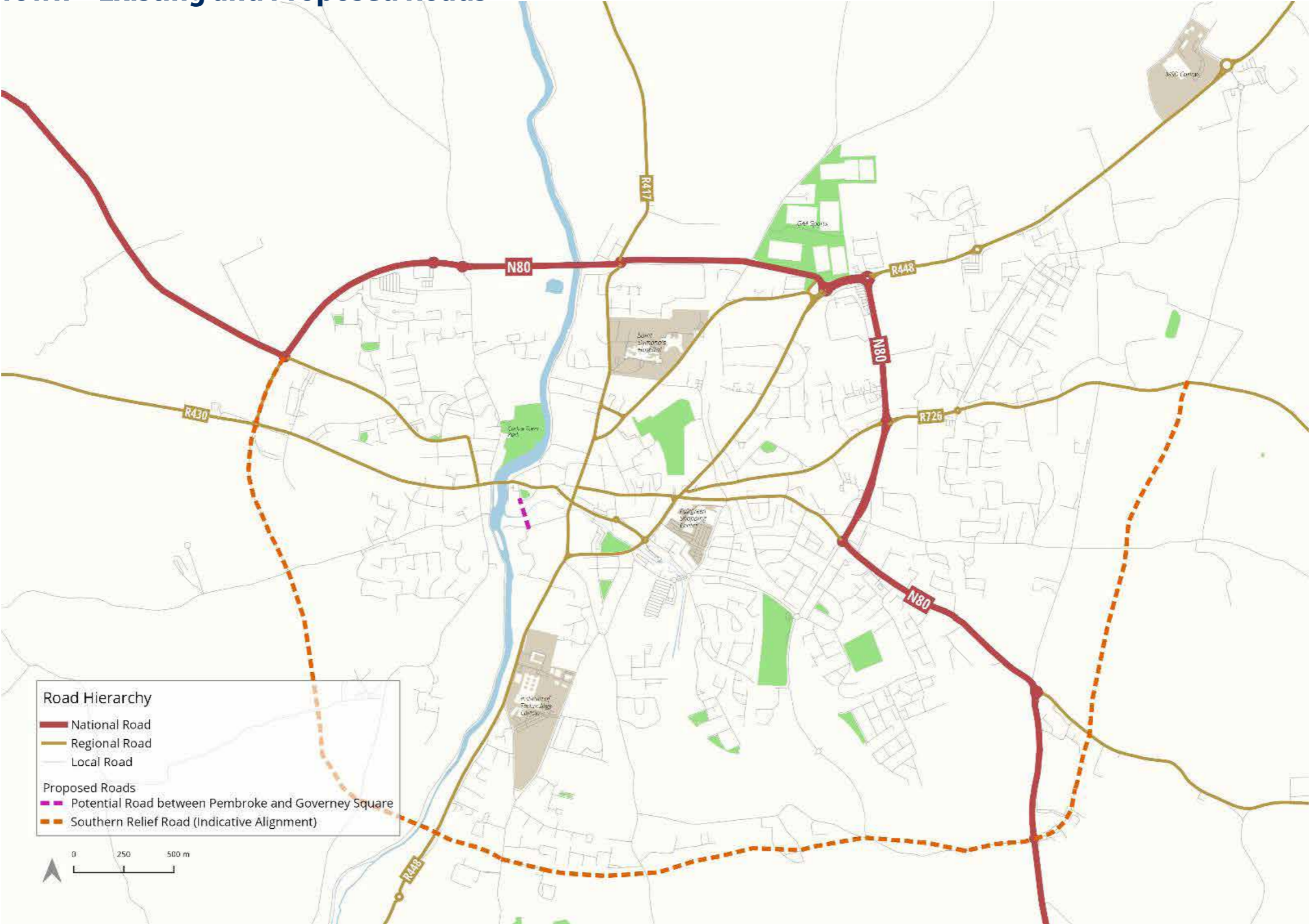


Appendix II Transport and Movement Maps

The following Transport and Movement Maps have been prepared by SYSTRA Traffic Consultants.

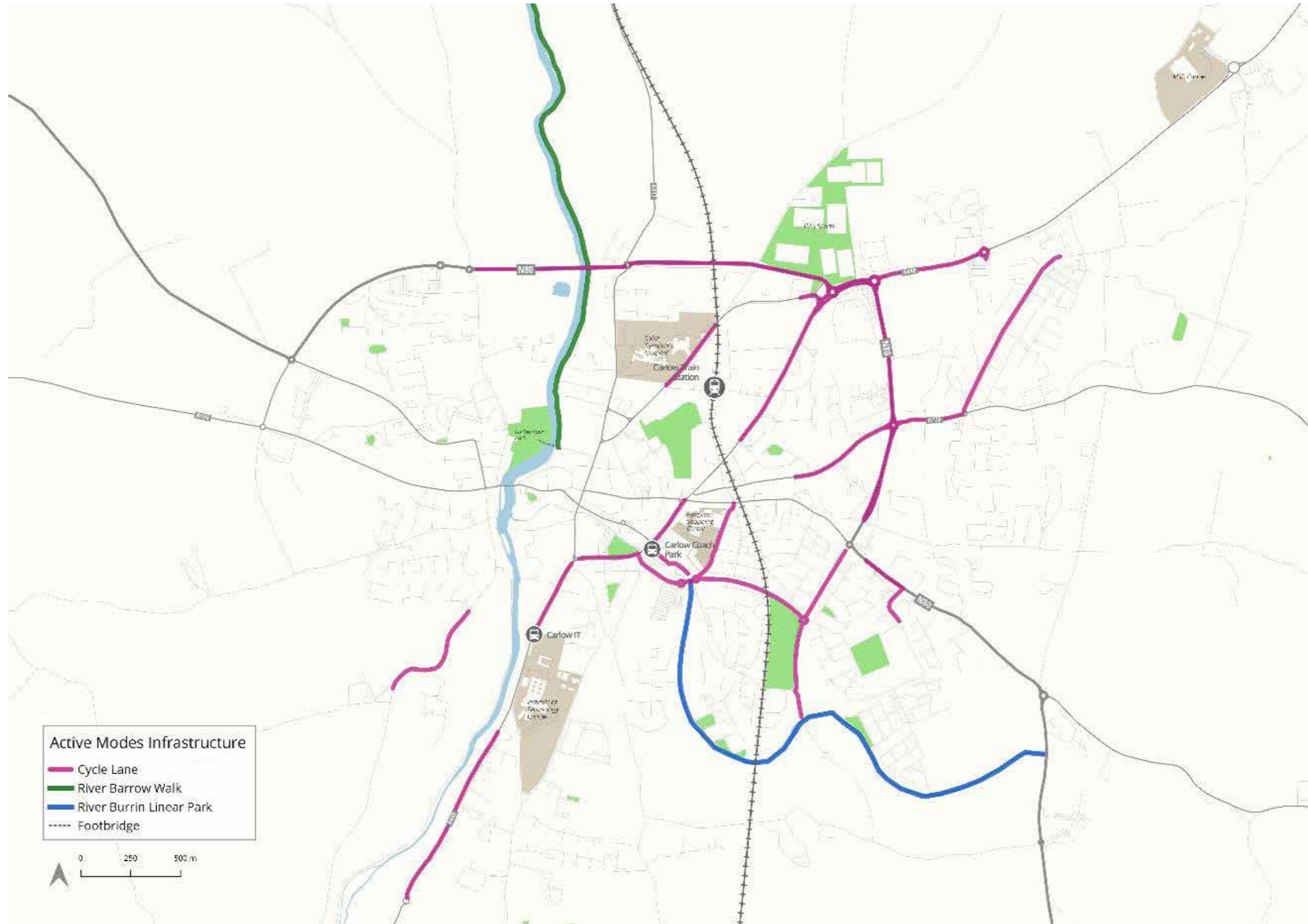


Map 1: Carlow Town – Existing and Proposed Roads



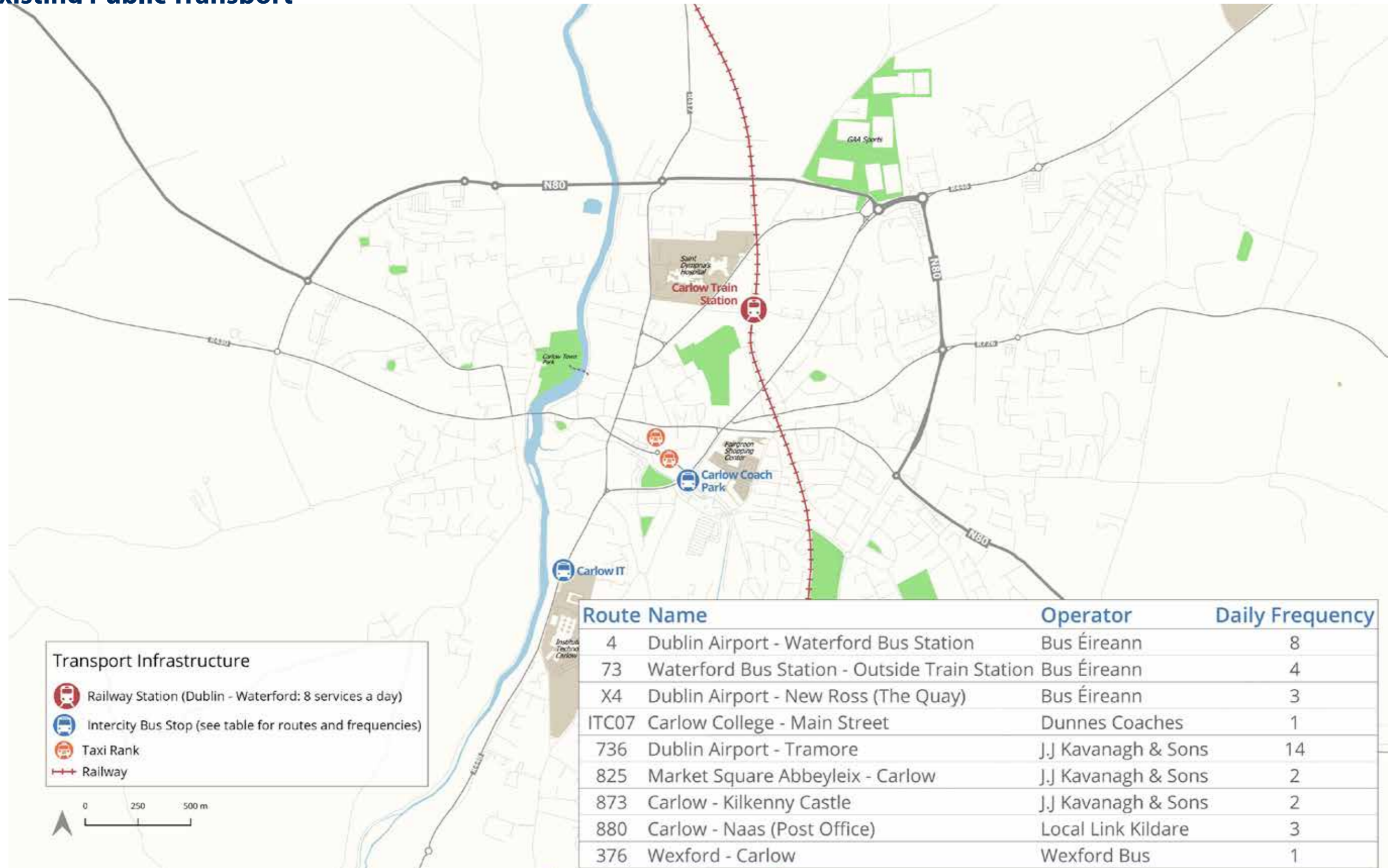


Map 2: Existing Cycling Infrastructure



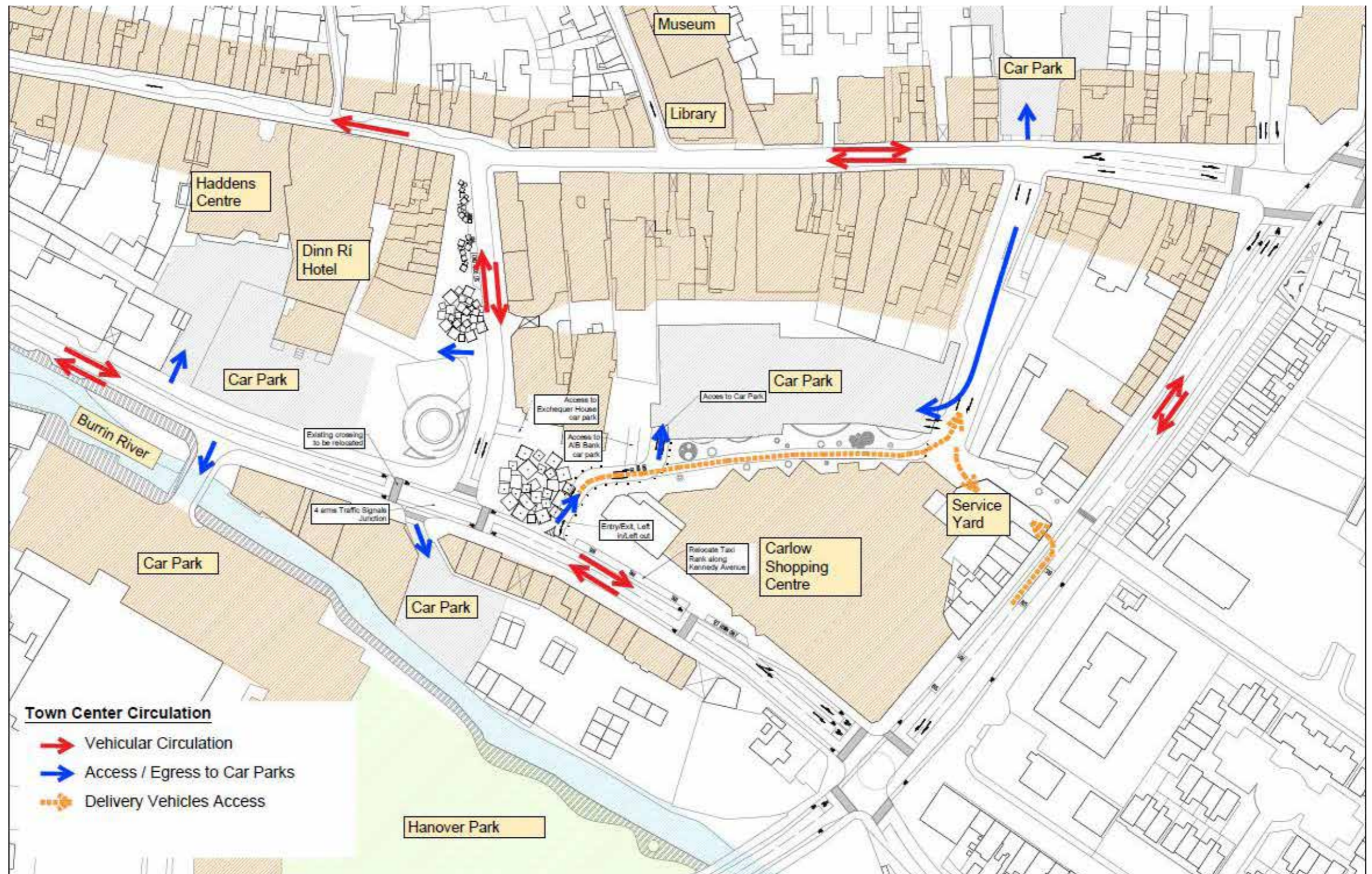


Map 3: Existing Public Transport



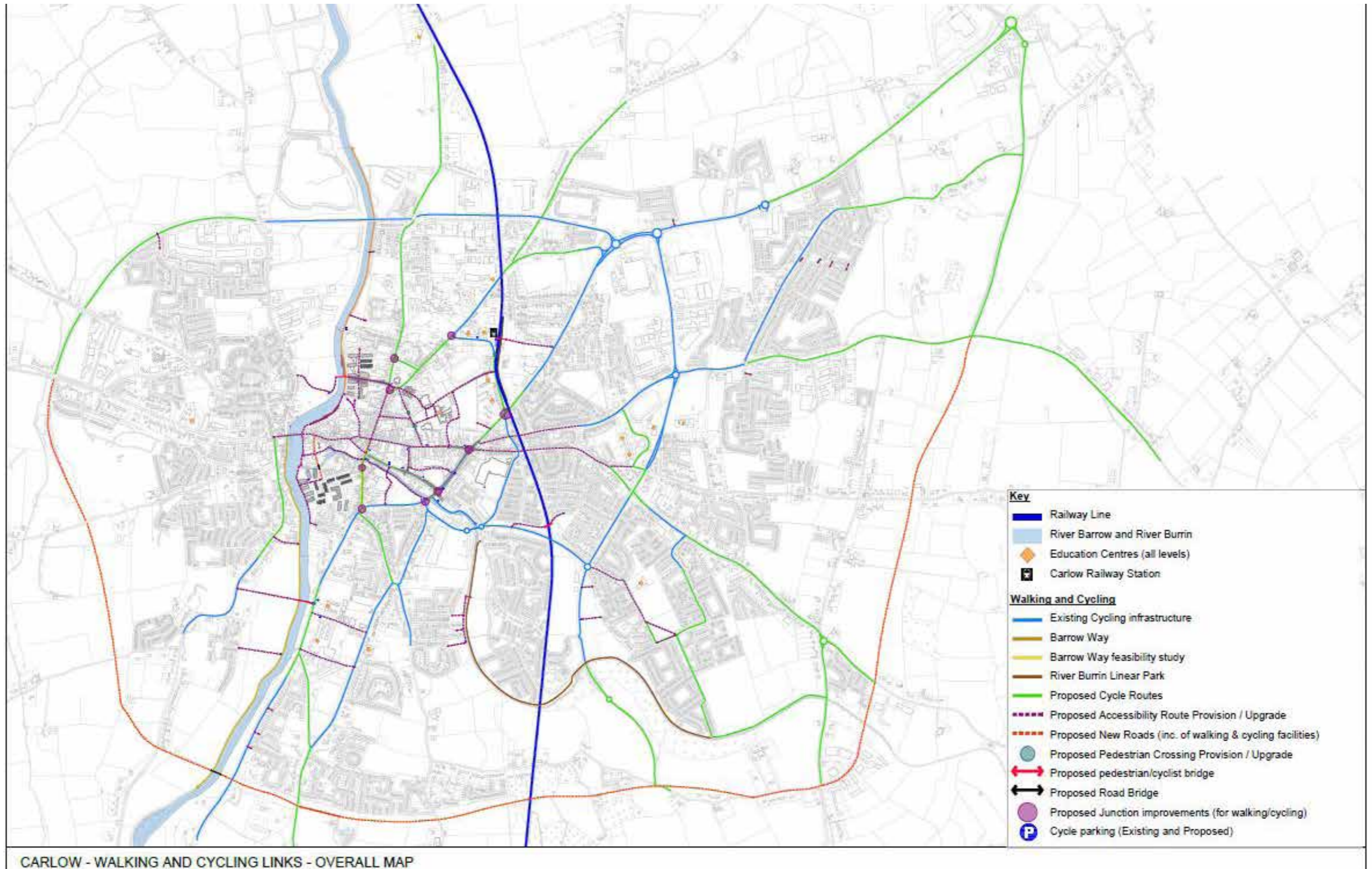


Map 4: Carlow Town Centre Circulation and Proposed Upgrades to Junctions





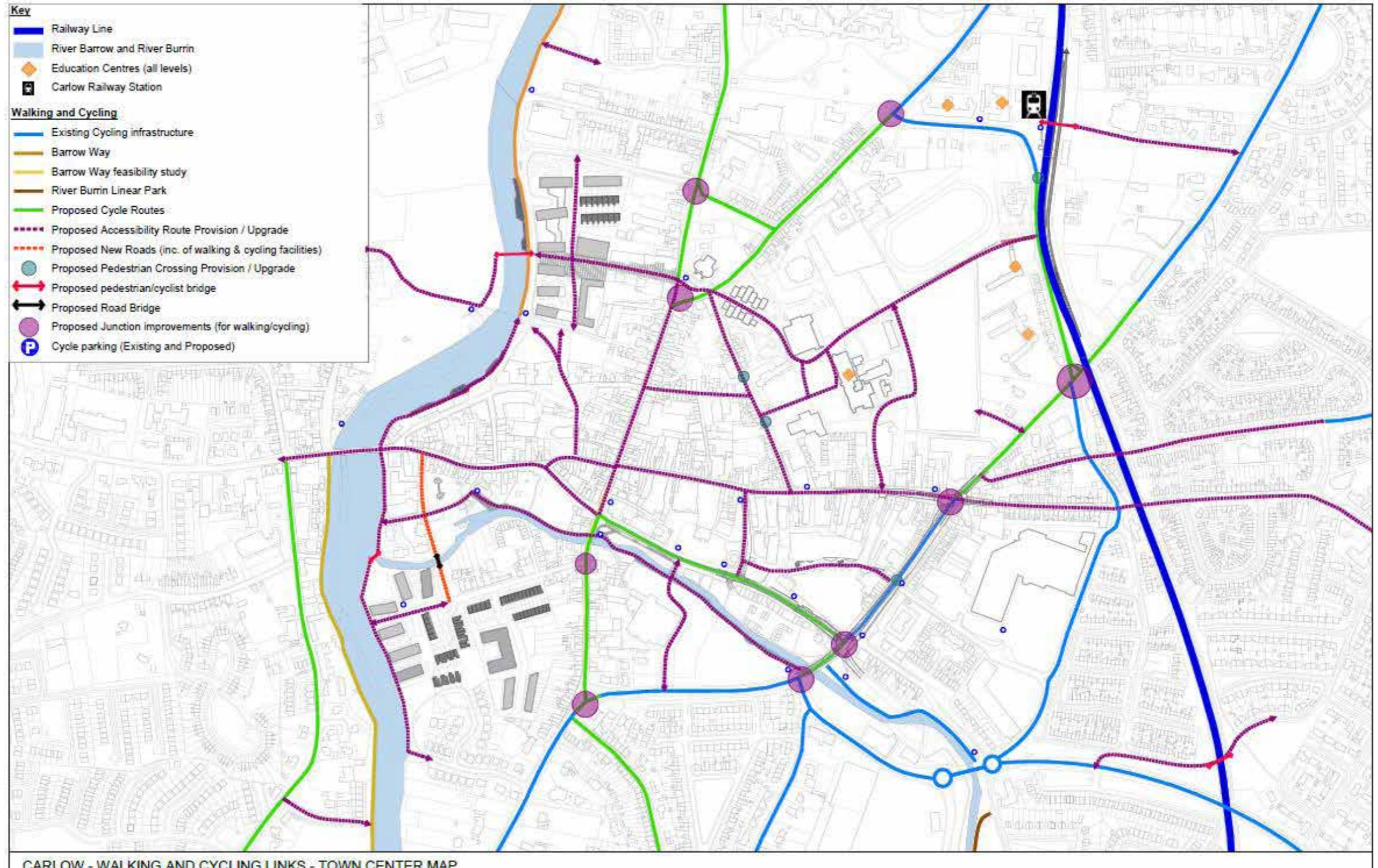
Map 5: Potential Walking and Cycling Links – Overall Map



CARLOW - WALKING AND CYCLING LINKS - OVERALL MAP



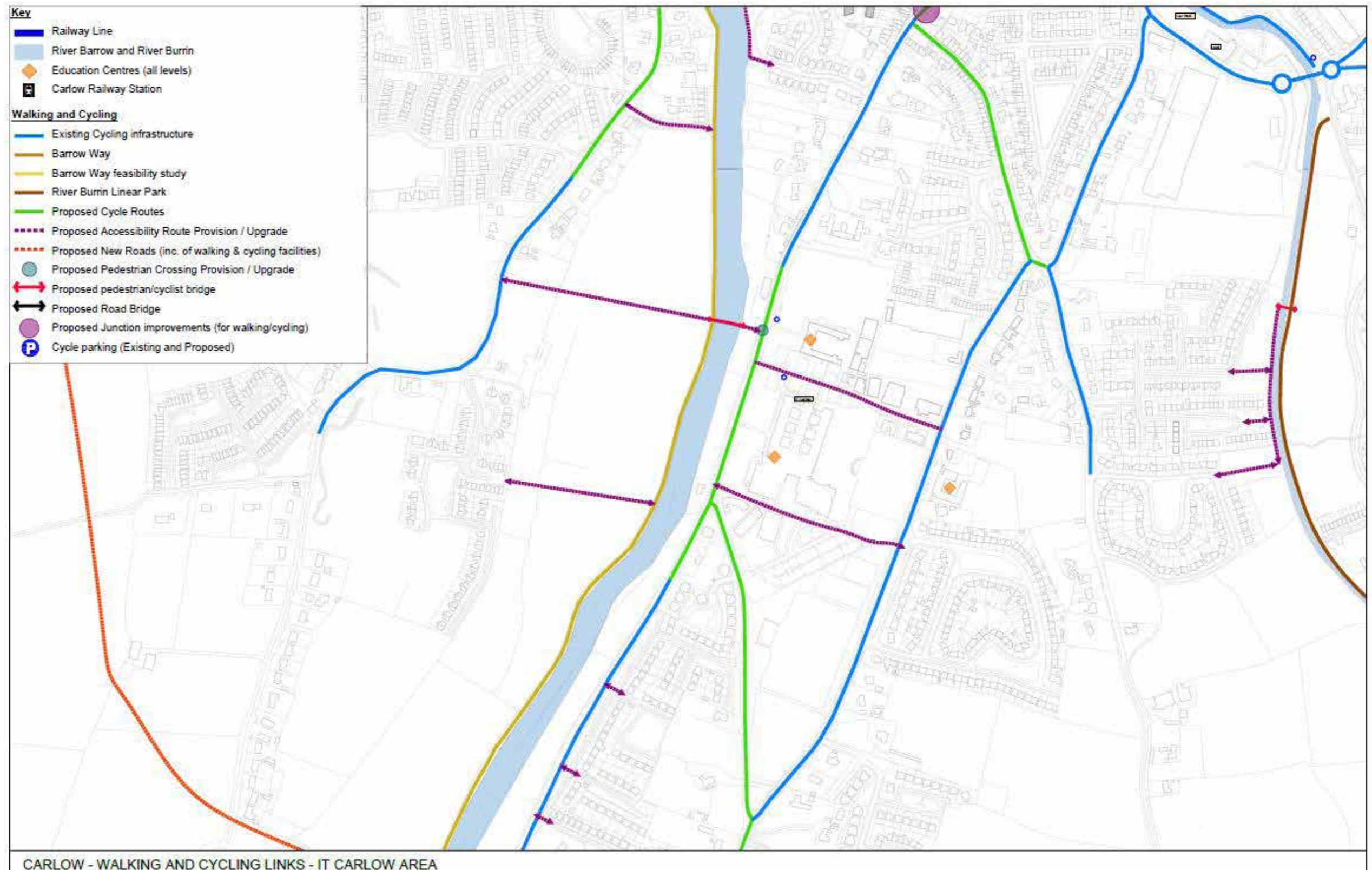
Map 6: Potential Walking and Cycling Links – Town Centre



CARLOW - WALKING AND CYCLING LINKS - TOWN CENTER MAP



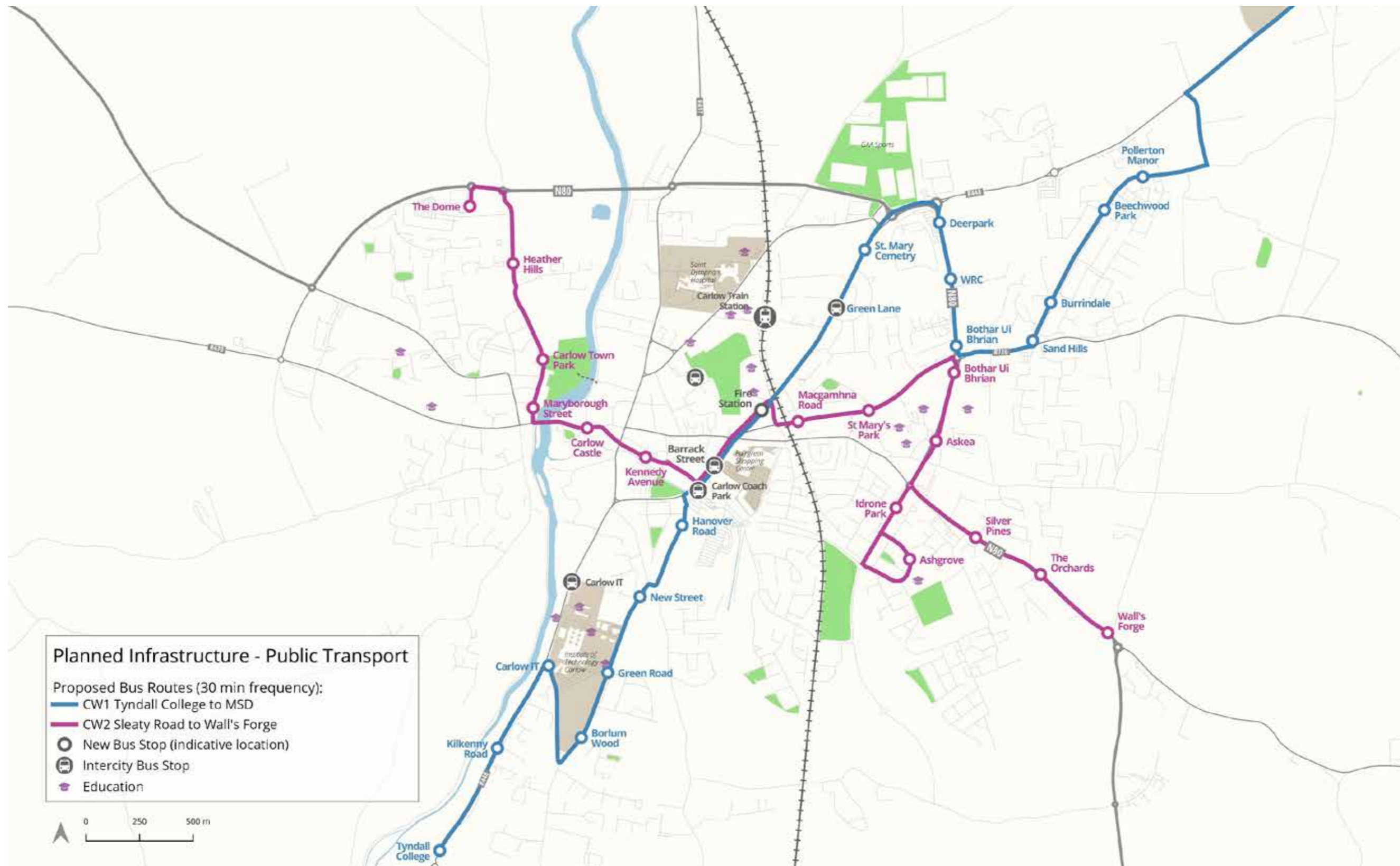
Map 7: Potential Walking and Cycling Links – IT Carlow Area



CARLOW - WALKING AND CYCLING LINKS - IT CARLOW AREA

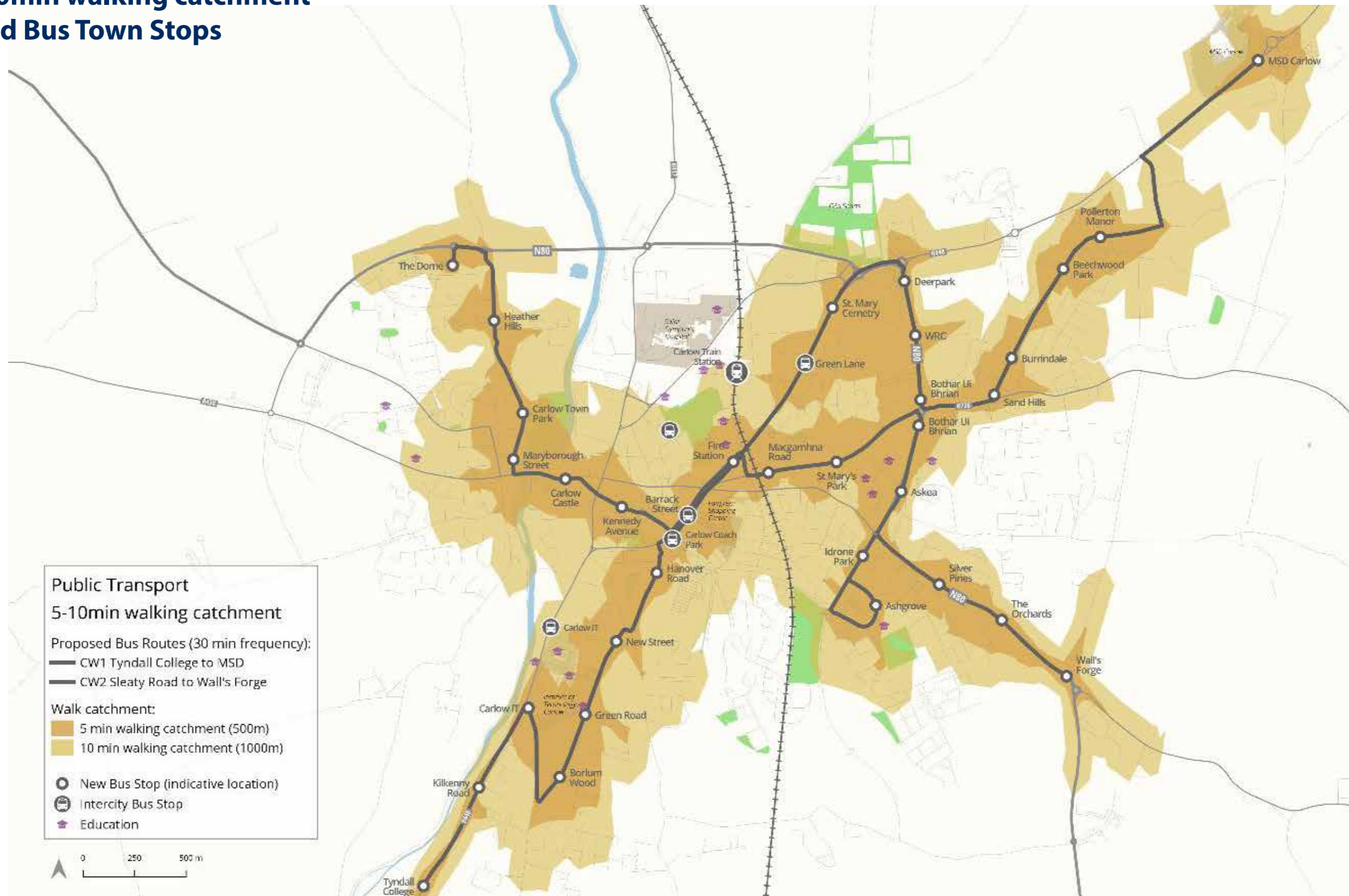


Map 8: Planned Town Bus Routes



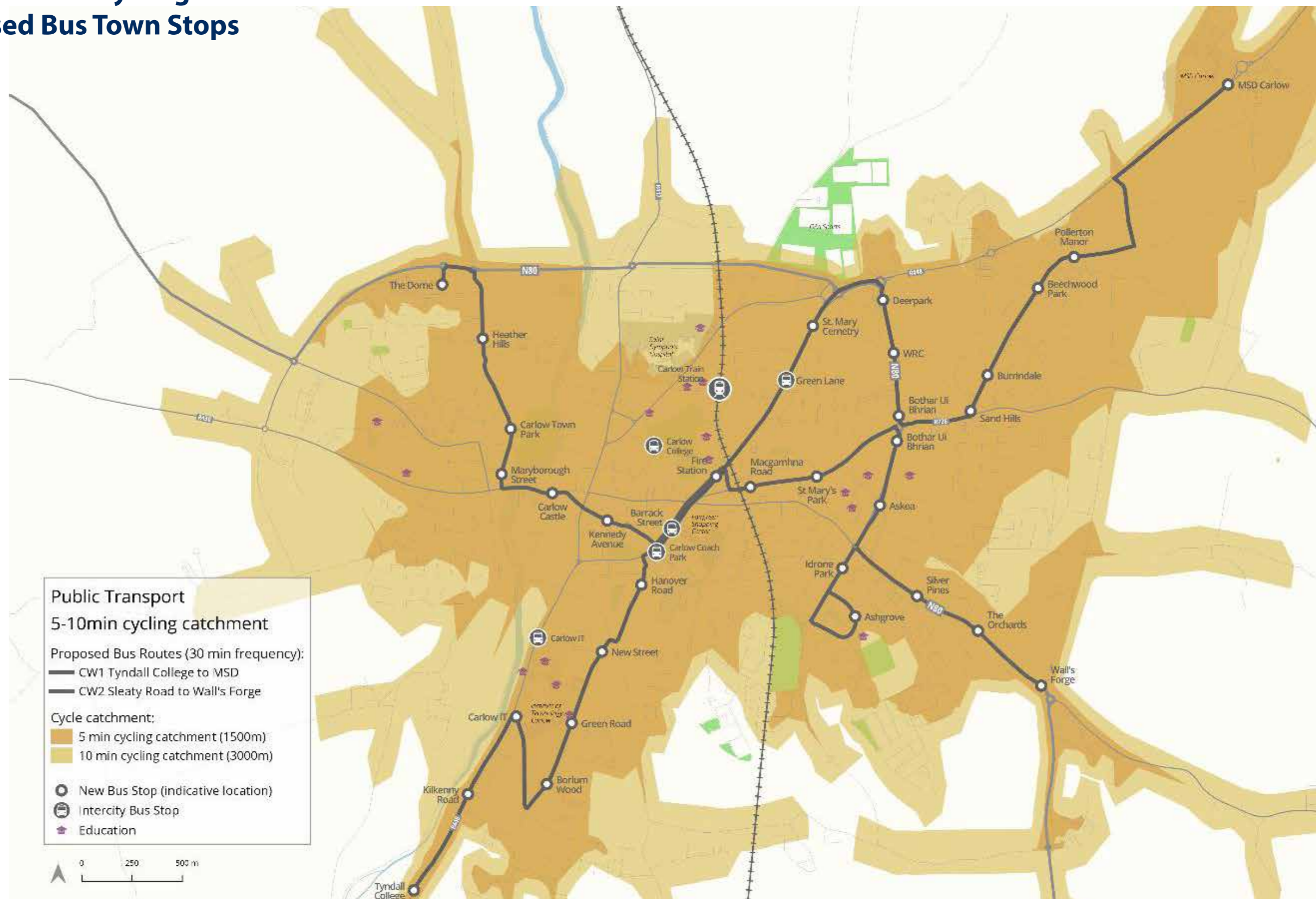


Map 9: 5-10min walking catchment to proposed Bus Town Stops





Map 10: 5-10min cycling catchment to proposed Bus Town Stops





Appendix III Bibliography

1. *Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organization, no. 2, p. 100) and entered into force on 7 April 1948.*
2. Owen Douglas, Mick Lennon, Mark J. Scott. 2017. 'Green space benefits for health and well-being: A life-course approach for urban planning, design and management', *Cities*, Volume 66, pages 53-62.
3. Casimir MacGregor. 2010. 'Urban regeneration as a public health intervention', *Journal of Social Intervention: Theory and Practice*, Volume 19, Issue 3.
4. Laurence Carmichael, Tim G. Townshend, Thomas B. Fischer, Karen Lock, Carl Petrokofsky, Adam Sheppard, David Sweeting, Flora Ogilvie. 2019. 'Urban planning as an enabler of urban health: Challenges and good practice in England following the 2012 planning and public health reforms', *Land Use Policy*, Volume 84, May 2019, Pages 154-162.
5. Health Service Executive (HSE) Public Health Profile Working Group – *Health Profile 2015 Carlow (2015)*.
6. *Healthy Carlow County Plan 2018-2021*, page 25.
7. *Project Ireland 2040: National Planning Framework*, page 82.
8. Wendy Collins Perdue, JD, Lesley A. Stone, JD, and Lawrence O. Gostin, JD, LLD (Hon). 2003. 'The Built Environment and Its Relationship to the Public's Health: The Legal Framework', *American Journal of Public Health*, Vol 93, No. 9.
9. *National Collaborating Centre for Environmental Health, 2018. Healthy Built Environment, National Collaborating Centre for Environmental Health, <https://nceh.ca>.*
10. WPI Economics 2018. 'A Design For Life: Integrating health and wellbeing into design and development', London: British Land.
11. Faculty of Public Health, 2017. *Built environment & physical activity, Faculty of Public Health, www.fph.org.uk.*
12. The Centre for Urban Design and Mental Health, 2020. *How Urban Design can Impact Mental Health, The Centre for Urban Design and Mental Health, <https://www.urbandesignmentalhealth.com>.*
13. World Health Organisation, 2020. *Public health, environmental and social determinants of health (PHE), World Health Organisation, <https://www.who.int/>.*
14. David Roberts, 2020. 'How to make a city livable during lockdown', *Vox (online)*, 22nd April.
15. SideWalk Labs, 2019. *SideWalk Toronto, SideWalk Labs, <https://www.sidewalktoronto.ca/>.*



Appendix IV Visual Key Plan



AVISON
YOUNG

URBAN -
AGENCY

SYSTRA



CARLOW
COUNTY COUNCIL
COMHAIRLE CHONTAE CHEATHARLOCHA