



NEWCASTLE WEST LOCAL TRANSPORT PLAN



Comhairle Cathrach & Contae **Luimnigh**

Limerick City & County Council

FOR: LIMERICK CITY AND COUNTY COUNCIL



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Abbreviations

LCCC	Limerick City and County Council
LSMATS	Limerick Shannon Metropolitan Area Transport Strategy
LTP	Local Transport Plan
ABTA	Area Based Transport Assessment
RSES	Regional Spatial and Economic Strategy
NCM	National Cycle Manual
DMURS	Design Manual for Urban Roads and Streets
TII	Transport Infrastructure Ireland
TMG's	Traffic Management Guidelines
NTA	National Transport Agency
OSI	Ordnance Survey of Ireland
CSO	Central Statistics Office
ED	Electoral Division
AADT	Annual Average Daily Traffic
NCW	Newcastle West
AIRO	All-Island Research Observatory
ED	Electoral Division
LDP	Limerick Development Plan 2022-2028

1. INTRODUCTION

1.1 Overview

MHL & Associates Ltd. Consulting Engineers have been appointed by Limerick City and County Council to carry out an Area Based Transport Assessment (ABTA) and develop a Local Transport Plan (LTP) for the town of Newcastle West in County Limerick. The objective of the plan is to provide a long term strategic integrated Local Transport Plan for the town that incorporates all land transport modes and to inform the preparation of the Newcastle West Local Area Plan (LAP) 2023-2029.

An ABTA is recommended as the preferred form of technical assessment, which can be used to appraise and guide the formulation of transport policies within the LAP and, more generally, the integration of land use and transport planning in the form of the LAP's accompanying Local Transport Plan (LTP). The area assessment will identify current mobility/transport issues in the locality and focus the Transport Plan on appropriate transport solutions for the Newcastle West area, appraising transport demand and opportunities in a manner which typically results in firm proposals for transport infrastructure and accompanying transport demand management, including non-infrastructure measures to encourage sustainable travel behaviour that can be incorporated into the Newcastle West LAP. The ATBA informs the LTP which will allow development to occur in line with the objectives of national, regional, and local planning policies.

Newcastle West is the county town of Limerick and sits on the River Arra. It is also the county's largest town with a population of 6,619 (as per the 2016 Census). It's situated on the N21 national primary road, where it is joined by the R520, R521 and R522 regional roads. Newcastle West has also been identified as a Key Town in the Southern Regional Spatial and Economic Strategy, and in the Limerick Development Plan 2022-2028. A Key Town is a settlement with a strong employment base and a broad range of services that serves a wide catchment area. The Key Town plays a critical role in underpinning the RSES objectives to ensure a consolidated spread of growth beyond the cities to the subregional level. It is envisaged that the Key Town will be a focus for significant growth. The Southern Regional Spatial and Economic Strategy describes the location of Newcastle West as presenting opportunities for future economic development and employment growth.

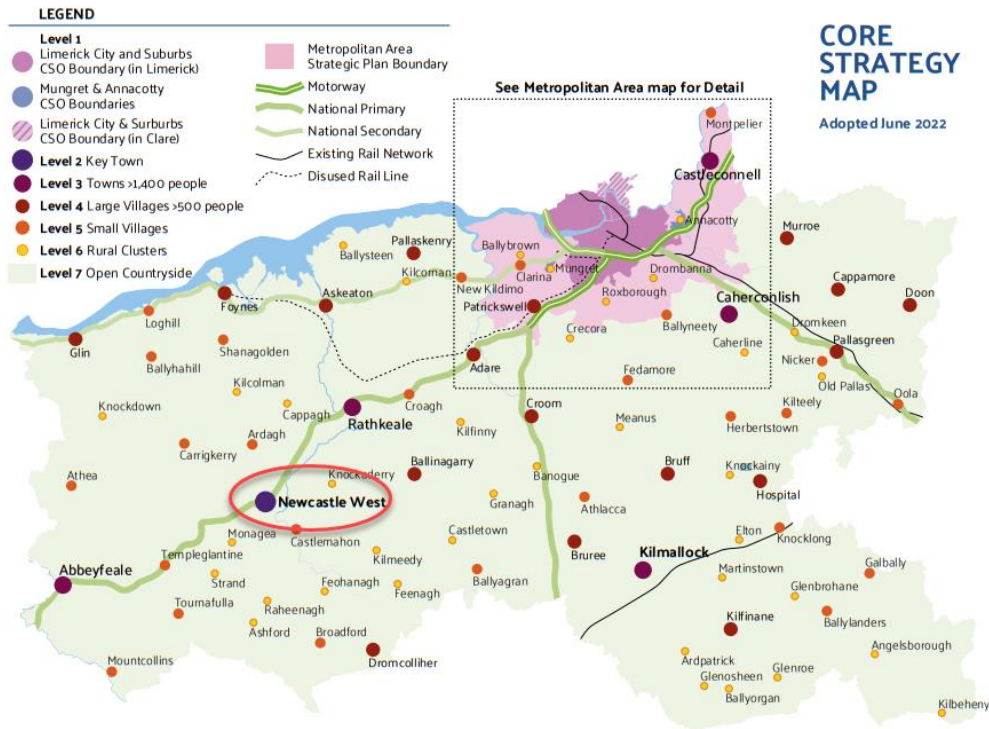


Figure 1.1: LDP- Core Strategy Map (NCW: Key Town) (c: LCCC)

LDP: "Newcastle West has been identified as a Key Town in the Southern Region. The Council acknowledge the importance of this designation. A Key Town is a settlement with a strong employment base and a broad range of services that serves a wide catchment area. The Key Town plays a critical role in underpinning the RSES objectives to ensure a consolidated spread of growth beyond the cities to the subregional level. It is envisaged that the Key Town will be a focus for significant growth."

The town is a key service provider of regional importance in West Limerick and beyond the administrative boundary of Limerick County into North Kerry. The town has a wide range of retail, commercial, social, and civic services, that serve not only the resident population but also the greater West Limerick-North Kerry area. The RSES identifies the importance of supporting Newcastle West as a strategically located urban centre of significant sub-regional context and highlights that strong subregional interdependencies exist between Newcastle West, Listowel, Rathkeale and Abbeyfeale. There are a number of industries / large employers located in the town. Transport connectivity is crucial for Newcastle West to fulfil its distribution / logistics role for enterprise and employment, and general quality of life as people commute to school, work, and the town centre.

This report sets out to determine the extent of existing transport infrastructure and options within the town before recommending potential measures to improve, in particular, those modes of transport which are deemed sustainable i.e., walking, cycling & bus. Focus will be placed on improving links between residential areas and essential services, including schools, places of work, the town centre as well as other amenities.

1.2 Study Objectives and Principles

The overall objectives of this report are founded in the core purpose of what an ABTA and LTP should achieve - effective integration of land use and transport planning, providing for more sustainable and equitable forms of development. An important aspect of this is to capture more

sustainable travel mode share by discouraging unnecessary car use. These objectives are in line with overarching National, Regional and Local Planning Policies (as outlined in Section 3).

This objective is to be achieved through the delivery of facilities which are designed in compliance with the National Cycle Manual (NCM), the Design Manual for Urban Roads and Streets (DMURS), Transport Infrastructure Ireland (TII) Publications and the Traffic Management Guidelines (TMG's).

The strategic aim of the LTP is to provide for the planning and delivery of transport infrastructure and services in the town over the period of the Limerick Development Plan 2022-2028, the Newcastle West Local Area Plan 2023-2029, and beyond, which will:

- co-ordinate transport and land use planning,
- reduce the demand for travel and the reliance on the private car in favour of more sustainable forms of transport,
- Providing a safe and sustainable transport network,
- Identify strategic walking and cycling infrastructure to prioritise for funding.

The LTP will be required to examine all transport modes and how they interact. The Local Transport Plan for Newcastle West has been prepared to make sure that movement and accessibility of all forms, across all modes is considered; The Local Transport Plan incorporates the most recent land use plan for the town.

1.3 Study Methodology and Report

This area assessment has been prepared to align with the ABTA How to Guide, Guidance Document – Pilot Methodology, prepared by TII and the NTA. The report seeks to facilitate and inform the integration of land use and transport planning at the earliest possible stage in the preparation of the Plan, with an emphasis on enabling sustainable transport outcomes for the Plan area. The ABTA approach provides a clearly defined methodology to support better integration of land use and transport planning at different spatial levels, from strategic to local, enabling greater consistency and effectiveness at local, county, regional and national levels.

The report broadly follows the ABTA Guidance document in following the prescribed steps:

- Part 1: Baseline Assessment: establishes the receiving plan area characteristics in terms of transport demand / demand patterns, mode split and infrastructure provision, with practical examples of how this information can be illustrated.
- Part 2a: Establish context for the area assessment and local transport plan provides guidance on the forecasting of future transport demand, how objectives can be set for an Transport Plan.
- Part 2b: Options Development: methods for identifying potential transport measures.
- Part 3: Scenario Assessment: provides guidance on how to appraise the transport options developed, using the defined transport objectives, with practical examples at the Development Plan and Local Area Plan levels.
- Parts 4 and 5: Plan Preparation and Finalisation: provides guidance on the preparation of the assessment, as supplemental to the Development Plan or Local Area Plan preparation, in particular the establishment of transport policies/objectives and associated steps to finalise the plan.
- Part 6: Monitoring and Evaluation: Sets out the requirements relating to monitoring and evaluation of the plan.

1.3.1 LTP /area assessment summary methodology

Baseline Study - discovery process (Census data, Geodirectory, AIRO SAP, QGIS, Catchment analysis using QGIS, Travel Demand analysis, future travel demand analysis using preliminary land use zoning.

Study Context - review of relevant policies, strategies, and frameworks.

Options Assessment – Identification of key trip attractors, identify gaps in walking/cycling network, QGIS analysis, identification of current road projects, traffic modelling of key NCW junctions, identify road proposals to encourage active travel in the town, reviewing existing parking infrastructure and measures to improve parking facilities.

Implementation Plan – development of short, medium- and long-term implementation of options/interventions.

Consultation and Plan finalisation – Summary of LCCC feedback, inclusive of transport feedback into future LAP process, finalization of proposed options/interventions based on LCCC/Stakeholder consultations.

Review – Monitoring of LTP actions/interventions with periodic review into the future.

2. CONTEXT FOR THE AREA BASED TRANSPORT ASSESSMENT

2.1 National Policy

2.1.1 ABTA Policy and Guidelines

The Area Based Transport Assessment (ABTA) is a process where land use and transport planning are integrated at the earliest point of the planning process, a key requirement of government planning guidance, with existing and future transport integration at the centre of local authority plan preparation process. The ABTA assessments are complementary to corresponding LTP planning used in the preparation of local area plans. The intended effect of an LTP is to ensure that the assessment of transport demand and its associated impact plays a central role in informing the development proposals.

The LTP allows for early identification of requirements for a specific locality constraint, particularly in relation to movement and accessibility, to address issues of the environment, employment, education, recreation, health, and housing.

The developing LTP is a requirement for any new Local Area Plan whereby Local Authorities must show that they comply with government policy in terms of the transport assessment requirements. A key focus of any LTP is the importance of sustainable transport and proper integration between transport and development.

2.1.2 National Planning Policy Framework

The National Planning Framework (NPF) is a high-level strategic plan provided by the Government for sculpting the development and future growth of Ireland until 2040. To help guide future development and investment, the NPF sets out 10 National Strategic Outcomes, some of which include Enhanced Regional Accessibility, Sustainable Mobility, and a Transition to a Low Carbon and Climate Resilient Society.

A new region focused strategy was implemented which divides Ireland into three regions. Newcastle West is located in the Southern Region, which contains three cities (Cork, Limerick and Waterford). This region is anticipated to accommodate 380,000 additional people by 2040, increasing the population to almost 2 million.

Key future planning, development and place-making policy priorities for the Southern Region which are relevant to Newcastle West include:

- *"Measures to support the integrated development of remoter parts of this region, particularly rural peninsular areas and towns on its western seaboard, including the ongoing investment in the transport and communications area, particularly in the roll-out of the national broadband scheme and further promotion and development of attractions to capitalise on underutilised potential in the tourism and local enterprise areas."*
- *"More emphasis on consolidating the development of places that grew rapidly in the past decade or so with large scale commuter driven housing development with a particular focus on addressing local community and amenity facility provision in many of the larger commuter towns through targeted investment under relevant NPF National Strategic Outcomes."*
- *"Developing a more integrated network of greenways, blueways and peatways to support the diversification of rural and regional economies and promote more sustainable forms of travel and activity-based recreation."*

From the ten National Strategic Outcomes: NSO 1: Compact Growth, NSO 2: Enhanced Regional Accessibility and NSO 4: Sustainable Mobility are the three most relative to the Newcastle West Local Transport Plan.

Other highly applicable National Policy Objectives (NPOs) to Newcastle West are:

- *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."*
- *NPO 30 - "Local planning, housing, transport/accessibility and leisure policies will be developed with a focus on meeting the needs and opportunities of an ageing population along with the inclusion of specific projections, supported by clear proposals in respect of ageing communities as part of the core strategy of city and county development plans."*

2.1.3 National Development Plan 2021 - 2030

The National Development Plan (NDP) is part of Project Ireland 2040 and sets out the Government's investment strategy that supports the positive implementation of the new National Planning Framework. Over the next two decades, the National Development Plan is designed to influence national, regional, and local planning and investment decisions in Ireland.

The Government's commitment to achieving Ireland's infrastructure and investment requirements over the coming 10 years is demonstrated in the National Development Plan. This is to be achieved through an investment of €165 billion from 2021-2030. The National Development Plan has allocated funding for the N/M20 Cork to Limerick Road, BusConnects for Limerick City, as well as €360 million annually for active travel schemes, which all benefit Newcastle West.

2.1.4 National Sustainable Mobility Policy – Action Plan 2022-2025

National Sustainable Mobility Policy – Action Plan is a sustainable transport policy for Ireland for the years 2022 to 2025. Providing this policy is a primary objective for the Government due to the current unsustainable transport and travel trends in the country.

This document sets out a long-term objectives to reduce the percentage of "single occupancy" car-based trips, with a particular focus on increasing modal share for sustainable travel modes. If this shift is not achieved, congestion and transport emissions will get worse, and quality of life will decline despite large investment in road infrastructure.

The Government's vision and high-level targets for transport in Ireland are outlined in this document and are as follows:

- Improve quality of life and accessibility to transport for all and, in particular, for people with reduced mobility and those who may experience isolation due to lack of transport.
- Improve economic competitiveness through maximising the efficiency of the transport system and alleviating congestion and infrastructural bottlenecks.
- Minimise the negative impacts of transport on the local and global environment through reducing localised air pollutants and greenhouse gas emissions.

- Reduce overall travel demand and commuting distances travelled by the private car.
- Improve security of energy supply by reducing dependency on imported fossil fuels.

Investment into Irish roads is a key requirement in improving the public transport, as good quality roads are essential for bus transport providers. The proposed policy is to maintain investment in roads that will eliminate bottlenecks, improve congestion in towns and villages, and provide essential infrastructure links to support the National Planning Framework, Project Ireland 2040.

2.1.5 Road Safety Authority Road Safety Strategy

The Road Safety Authority (RSA) Road Safety Strategy 2021-2030 sets out targets to be achieved in terms of road safety in Ireland in addition to the policy to achieve these targets. The primary target of the latest strategy is:

“Ireland has set a target to reduce road deaths and serious injuries by 50% by 2030, in line with the EU. By 2030 we will reduce deaths on Ireland’s roads by 50% from 144 to 72 or lower. We will reduce serious injuries on Ireland’s roads by 50% from 1,259 to 630 or lower.”

In order to achieve these targets three phases have been set out:

- Phase 1 2021-2024 – Reduce deaths on Irish roads by 15% from 144 to 122 or lower. Reduce serious injuries on Irish roads by 10% from 1,259 to 1,133.
- Phases 2 and 3 will be developed in the final 6 months of the preceding phase and will follow an evaluation of recent progress and benchmarks.
- The final objective for 2050 is to achieve Vision Zero – by 2050 no one will be killed or seriously injured on Ireland’s roads.

The plan sets out engineering and infrastructure strategies and the benefits they may have in terms of reducing collisions.

2.1.6 Spatial Planning and National Roads

SPNR guidelines set out planning policy considerations relating to development affecting national primary and secondary roads, including motorways and associated junctions, outside the 50-60 kmh speed limit zones for cities, towns, and villages. Key principles of these guidelines:

- Land-use and transportation policies are highly interdependent:
- Proper planning is central to ensuring road safety.
- Development should be plan-led:
- Development Management is the key to Plan Implementation:
- Planning Authorities and the National Roads Authority and other public transport bodies must work closely together.

This area-based assessment and Local Transport Plan states that safeguarding the function and levels of safety of the strategic national road network in the area as a key objective of the plan, reflecting the provisions of the Section 28 Ministerial Guidelines. The N21 is a national primary road is a strategic national road and is included in the EU Trans European Network (TEN – T). The TEN – T regulations target the gradual development of the transport network with the core network, as a priority by 2030 and the remainder of a comprehensive network by 2050.

Development plans require that significant development proposals be accompanied by traffic and transport assessments (TTA) and/or road safety audits and refer to the TII Publications and to the Traffic Management Guidelines. LTP transport interventions are to take account of TII requirements/government policy, with close cooperation necessary for any future implementation of LTP actions

2.1.7 National Cycle Policy Framework

The National Cycle Policy Framework (NCPF) sets out a goal to provide a strong, vibrant cycling culture in Ireland so that 10% of all journeys will be by bicycle by the year 2020. Since the 1980's cycling rates have steadily declined, with a reduction of 83% of primary school students cycling from 1986 to 2006. The NCPF contributes to a sustainable travel vision by adding sustainable transport targets outlined in the Smarter Travel document. The NCPF outlines 19 objectives that cover Infrastructure, Communication/Education, Financial Resources, Legislation and Enforcement, Human Resources and Coordination, and Evaluation and Effects.

2.2 Regional Policy

2.2.1 Regional Spatial and Economic Strategy for the Southern Region

The Regional Spatial and Economic Strategy (RSES) for the Southern Region sets out a strategic vision to direct future growth of the Region over the medium to long term.

This RSES will aid in the implementation of the strategic planning set out in the NPF. The RSES Strategy identifies Newcastle West as a key town within the Southern Region. The RSES also identifies the importance of developing and improving the Strategic Greenway Network, which includes reference to the Limerick Greenway (Great Southern Trail) to extend to Listowel:

"Development of the Great Southern Trail as a recreational greenway for walking and cycling through West Limerick with the potential of extending to Listowel."

The RSES designates that Newcastle West will play a significant role in strengthening the urban structure of the Region. Newcastle West's two main strategic attributes are its significant employment location and synergy with North Kerry towns. Some of the key infrastructural requirements for the development of Newcastle West include:

- *"Newcastle West Distributor Road and other transport measures through a Local Transport Plan. *"* *This refers to the N21 NCW Road Scheme.
- *"Development of a regional athletics hub to service 9 athletic clubs and 41 primary and post-primary schools in the catchment area of Newcastle West."*
- *"Investment for the development and full utilisation of the Limerick Greenway."*

2.2.2 Limerick Cycle Network Plan

The Limerick Cycle Network Plan sets out the National Transport Authority's plan for cycle plans across Ireland, which includes Limerick County, consisting of urban cycle routes, greenways, and interurban routes. To achieve strategic goals and meet national cycling usage goals, the Cycle Network Plan intends to ensure that cycling is promoted and enhanced as a method of transport. Newcastle West has been identified in the Cycle Network Plan as an important town for development.

The Newcastle West primary cycling routes identified within the Plan are:

- Bishop’s Street
- Hazel Grove
- N21 / Sheehan’s Road
- St. Ita’s Road
- Bridge Street
- The Square
- Additional primary routes that will link different areas of Newcastle West to the town centre.
- R522 Cork Road
- Station Road
- Churchtown Road
- Bóthar Buí

Secondary routes which have also been identified for Newcastle West include:

- Maiden Street
- Sheehans Road
- Assumpta Park
- Woodfield Grove
- Knockane



Figure 2.1: Proposed NTA Cycle Network Plan for Newcastle West (

2.3 Local Policy

2.3.1 Limerick Development Plan

The Limerick Development Plan 2022-2028 identifies Newcastle West as Level 2 Key Town. Key towns are areas with a “strong employment base” and a “broad range of services that serves a wide catchment area” and is defined thus:

“The Southern Regional Spatial and Economic Strategy describes the location of Newcastle West as presenting opportunities for future economic development and employment growth.”

The Limerick Development Plan 2022-2028 lists the percentage allocation of various towns, villages, and settlements growth in Limerick.

The Table below highlights an extract from the Development Plan which provides population and housing units allocation for Newcastle West for 2022-2028.

Level	Settlements	Census 2016 population	Population totals 2028	Population growth as % of 2016 base ¹	Additional households forecasted 2022-28	Target residential density ranges (UPH) ²	Zoned land Required (hectares)	Existing zoned land available (hectares)	Infill or brownfield as % of total zoned lands ³	Shortfall (-) or excess (+) of zoned land (hectares)
Limerick Shannon Metropolitan Area (in Limerick)	Limerick City and Suburbs (in Limerick)	89,671	123,242		11,054	35 to 100+	259.25	353.06	84%	93.81
	Annacotty	2,930	3,641		235	45+	5.22	8.38	80%	3.16
	Mungret	277	687		153	35+	4.37	4.38	100%	0.01
	City and Suburbs (in Limerick), Mungret and Annacotty	92,878	127,570	37%	11,442		268.84	365.82	84%	96.98ha. (Capacity for 12,750 units on zoned lands)
	Castleconnell	2,107	2,697	28%	205	10 or 22+	11.59	24.89		13.30
	Patrickswell	847	1,153	36%	95	10 or 22+	5.36	37.93		32.57
	Clarina	294	591	101% ⁴	20					
	Montpelier	150	172	15%	7					
	Rural Metro Area	8,676	9,237	6%	104					
	Remainder of Metro Area	12,074	13,850	16%	431		16.95	62.82		45.87
	Limerick Shannon Metropolitan Area (in Limerick)	104,952	141,420	35%	11,873		285.78	440.57		154.78
Key town	Newcastle West	6,619	8,607	30%	706	10 or 35+	30.26	139.02		108.76
Level 3 Towns	Abbeyfeale	2,023	2,589	28%	211	10 or 22+	11.89	45.50		33.61
	Kilmallock	1,668	2,135	28%	162	10 or 22+	9.14	19.61		10.47
	Rathkeale	1,441	1,844	28%	147	10 or 22+	8.30	38.12		29.82
	Caherconlish	1,476	1,815	23%	125	10 or 22+	7.02	9.94		2.92
	Level 3 Aggregate	6,608	8,383	27%	645		36.35	113.17		76.82

Table 2.1: Settlement Hierarchy, Population and Household Growth up to end of Plan Period Q2 2028 Plus Zoned Land Provision

Chapter 7 and chapter 8 of the Limerick Development Plan outlines mobility and transport objectives for Limerick. Objectives and policies of importance to Newcastle West are as follows:

- **TRP3: Integration of Land Use and Transport Policies** – support and facilitate the integration of land use and transportation policies ensuring the delivery of sustainable compact settlements served by sustainable modes of transport.

- **TRP6: Delivery of Transport Infrastructure in Line with National Policy** – N21 Newcastle West and N21 Abbeyfeale Road Scheme, key projects in enhancing regional connectivity with the Southwest Region and alleviating congestion in both Newcastle West and Abbeyfeale.
- **TRP8: Local Transport Plan** – prepare a Local Transport Plan (LTP), Mobility and Public Realm Plan for the key town of Newcastle West, in consultation with the National Transport Authority, Transport Infrastructure Ireland (TII), and other relevant stakeholders, as part of the Local Area Plan process and for other settlements as deemed necessary.
- **TRO15: Transport Interchange** – Facilitate the provision of quality transport interchanges, in order to facilitate focused access to multiple public transport modes and to maximise the movement of people via sustainable modes. Three railway lines in Limerick are either no longer in use or have effectively been removed. The Limerick to Tralee line, which travels via Newcastle West and Abbeyfeale, is one of these three railway lines.
- **TRO31: N21 Newcastle West and N21 Abbeyfeale Road Schemes** – support the delivery of the N21 Newcastle West and N21 Abbeyfeale Road Schemes, subject to all environmental and planning assessments.
- **TRO41: Strategic Regional Roads** – improve, manage, and maintain the strategic regional road network in Limerick which includes the:
 - R521 - Foynes/Newcastle West
 - R522 - Newcastle West/Dromcolliher/County Boundary
 - R520 - Newcastle West/Junction with R518

2.3.2 Newcastle West Local Area Plan

Since 2014, the Newcastle West Local Area Plan 2014 – 2020* (*as extended) has served as a foundation for the development of Newcastle West. The goal of this LTP is to provide information on transport objectives for the successor of this LAP – the Newcastle West Local Area Plan 2023 – 2029.

In the previous LAP, the following transport objectives are notable:

- A. Improve public transport infrastructure within Newcastle West.
- B. Encourage the provision of off-street public parking areas.
- C. Safeguard the capacity of the R521 and the N21 and ensure that any future developments do not compromise the strategic functions of these roads.
- D. Ensure that the local road network and associated junctions with the regional road have sufficient capacity to facilitate the extent of the development planned.
- E. Promote the delivery of a southern distributor road to allow for improved accessibility and a more efficient local road network. The phasing of zoned lands adjoining the indicative road will be concurrent with the construction of the road.
- F. Encourage walking and cycling as more convenient, popular, and safe methods of movement in Newcastle West.

2.3.3 Opportunity Sites

Opportunity sites have been identified as part of the Newcastle West LAP 2023-2029. These include:

1. **Lands to the east of Churchtown Road/R521**– This area is zoned as part of the Residential Development and is within walking distance to the Greenway.
2. **Lands to rear of Church Street and Bishop’s Street** – A high level of vacancy is apparent on Church Street, with some of the retail/commercial units recently built on Bridewell Lane also vacant. The site is located in an Architectural Conservation Area (ACA).
3. **Brewery Lane** – The site is located within the ACA; however, it consists of a poor-quality path surface.
4. **Connecting the Demesne and River Arra Walkway linking into the Castle Demense** – Between west of Courtenay Bridge and east of Bridge Street and onward along Maiden Street and Demesne.
5. **Market Place** – Site is located to the southwest of Assumpta Park, comprising unmaintained grassland and is currently zoned Town Centre
6. **Nash Backlands, The Square, and Castle Demesne Backlands** – This significantly under-utilised area is located next to the town’s commercial district and between The Square and the Demesne, two primary focal points for the town of Newcastle West
7. **Former Olympic Ballroom, Sheehan’s Road** – Located on the junction of Sheehan’s Rd and the Assumpta Park, this site is zoned residential.
8. **Maiden Street** – Located between NCW Square and Lower Maiden Street, it is a prime location adjacent to the town centre with vast potential in terms of public realm.
9. **The Square** – Located between the majority of the other opportunity site, is a prime location with vast potential in terms of public realm.

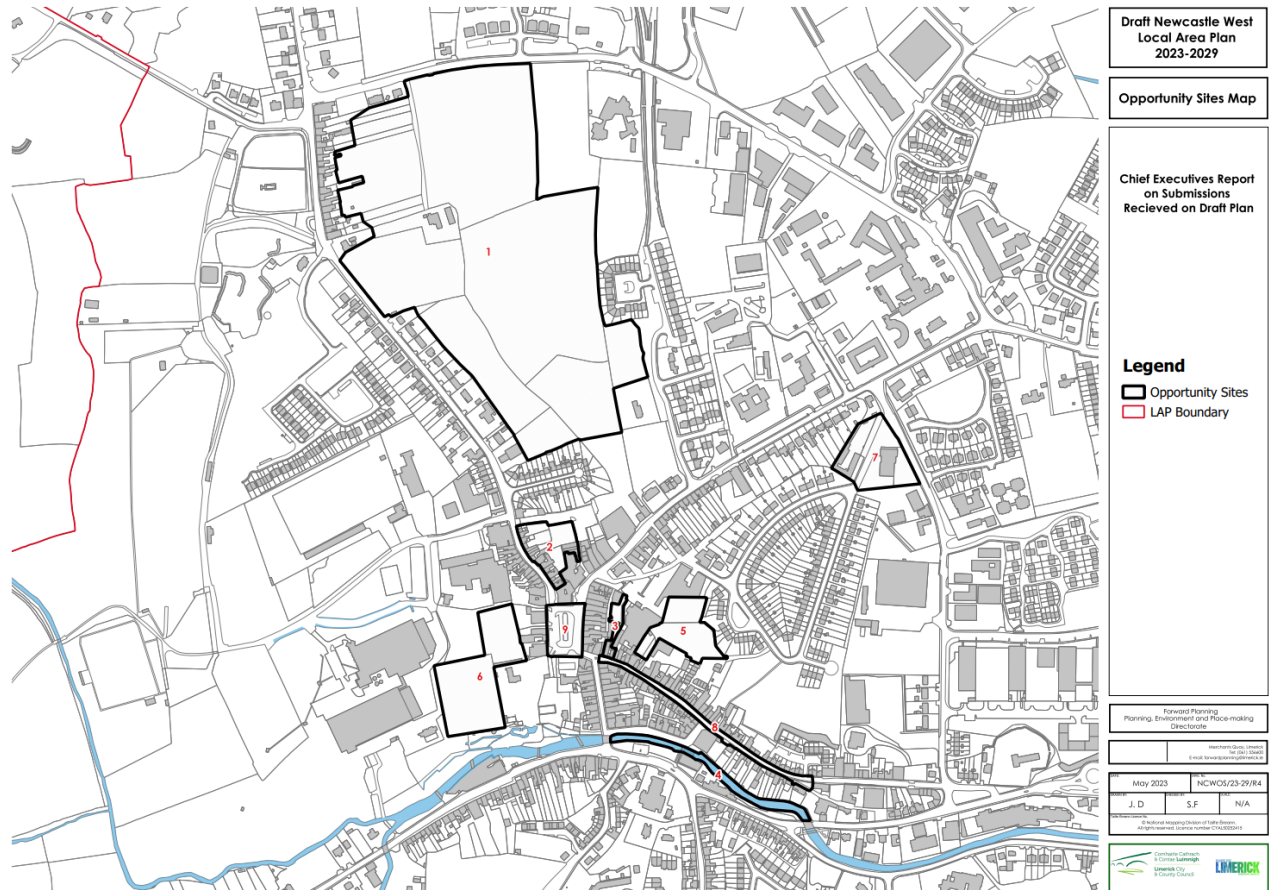


Figure 2.2: Location of Opportunity Sites, Newcastle West (LCCC)

2.3.4 Traffic Management Plan

As part of the desktop study for this LTP and area assessment, previous transport and mobility reporting was interrogated. The objective of this baseline review was to identify travel modes and determine means to prioritise walking and cycling modes of travel for the town. There is potential to improve the Newcastle West residents' quality of life by providing transport links with active travel at the centre. The car will maintain a key role in the town as Newcastle West is a market town and Key Town in the Limerick Development Plan. Traffic management at key junctions and routes is therefore a priority.

Pedestrian connectivity improvements would prioritise safe and appropriate crossing locations at the Station Road / Churchtown Road Junction, Bishop's Street, the Bishop's Street / Market Place junction and Sheehan's Road. The Demesne provides access to the green spaces, sports facilities and walking routes.

Reviewing CSO area data and historic records, the following mobility characteristics for NCW are evident:

- The car is the primary mode of travel in Newcastle West, with +75% of residents travelling to work, school, or college by car either or as a driver or a passenger.
- Public transport use was found to be high for school and/or college students (19%).
- Walking and cycling have a low uptake in Newcastle West despite a high number of trips taking less than 15 minutes.

2.3.5 NCW Local Area Plan Consultation

As part of the preparation for the Newcastle West Local Area Plan, a public and stakeholder consultation was to be held. The goal of this consultation was to better understand the main concerns that the locals believe are crucial for their town.

The NTA and TII provided recommendations based on the previous LAP for Newcastle West. The main recommendations are as follows:

- It is of significant importance that national roads continue to play a strategic role for catering for inter-urban and inter-regional transport requirements.
- Providing for and safeguarding the provision of the N21 Newcastle West Bypass Scheme should be incorporated into the Local Area Plan.
- A Local Transport Plan should be undertaken to support and inform the Local Area Plan Review process and that the Local Transport Plan should be based on the ABTA guidance produced by the NTA and TII.
- Any zoning strategy prepared should support compact growth and present an ability to serve areas of existing and planned new development by active travel and sustainable mobility measures.
- It is recommended to reference the TII Traffic and Transport Assessment Guidelines (2014) in the Local Area Plan relating to development proposals with implications for the national road network.

3. NCW BASELINE ASSESSMENT

3.1 Overview

The Baseline Assessment comprises of:

- Analysis of baseline situation using 2016 Census Data, AIRO Small Area Data, topographical information review, OSI mapping geometric review, online resources, and site visits.
- Baseline catchment analysis using GIS analysis.
- Travel demand analysis using 2016 Census commuting statistics.
- *Future travel demand analysis using the Draft LAP land-use zoning map provided by the Planning Department of LCCC.*

3.2 Transport Assessment Study Area

For the purposes of this LTP, the red line in Figure 3.1 demarcates the Newcastle West Local Area Plan boundary and this has been taken as the study area extents for the area assessment (ABTA). The extents area was chosen as it encompasses more of the built environment and majority routes into the town whilst also encompassing the expanded built-up areas. Also noted is the CSO Settlement Boundary (cyan boundary line) which favourably overlays with the assessment extents chosen.

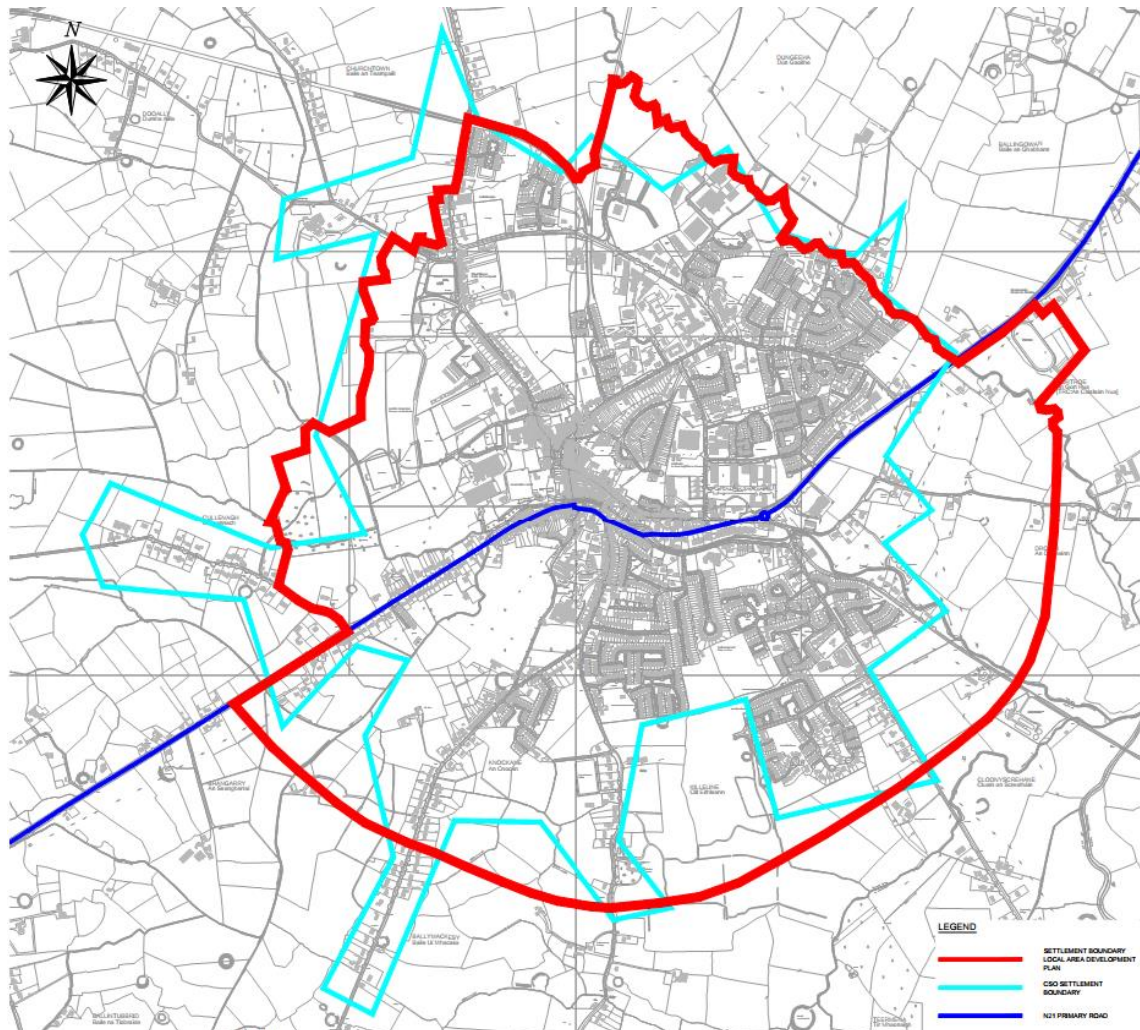


Figure 3.1: LTP assessment study area

3.3 Settlement Context

3.3.1 Area Modal Statistics

CSO Census 2016 data outlines the number of commuters in individual electoral areas travelling for Work, School or College. This information provides an insight into wider travel patterns for a particular location. The dominant mode of travel in Newcastle West is the car. 78% of residents travel to work, school or college as a car or van driver or passenger. Minimal options for public transport are reflected with 3% using bus as a mode of travel.

In 2016, 997 commuters who lived in Newcastle West worked outside of the area, while 1,683 commuters travelled in for work. This resulted in a net flow of 686 commuters into Newcastle West. This is reflected in demand for car parking across the town.



Figure 3.2: Map of CSO Census (SAP's) with NCW Electoral Division overlaid (in blue)

The graphic in Figure 3.3 identifies the number of commuters travelling to and from the electoral areas adjoining the wider Study Area. The commuter modal choice breakdown is also noted in the following figure.

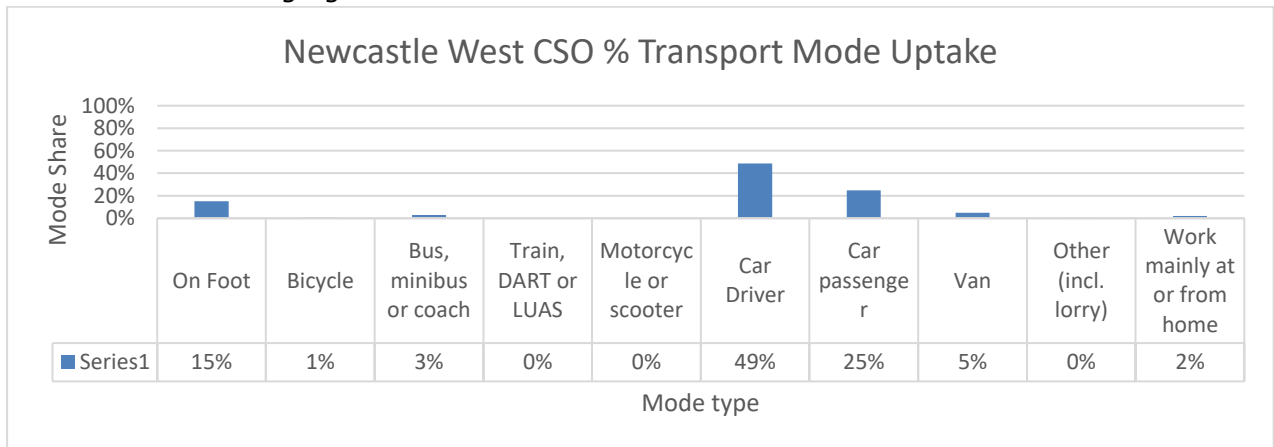


Figure 3.3: Commuter Modal Choice Breakdown for Newcastle West (CSO 2016 Census)

Walking and cycling rates in Newcastle West are low, with 15% of trips being made on foot and 1% of trips being made by bicycle. This is despite 45% of trips to work, school or college for the residents of Newcastle West taking less than 15 minutes.

School and college trips are important trips to consider when planning the movement plan. Similar to work trips, they occur daily during the week, they potentially are four trips to account for drop off and collection and involve a high amount of traffic converging on a small number of locations at the same time.

3.3.2 Population Size and Density

All-Island Research Observatory (AIRO) data (based on the 2016 Census) was collated, with population statistics for the wider Limerick area around Newcastle West noted in the following figures. Figure 3.4 shows the majority of the area's population is located along the national carriageway road link (N21).

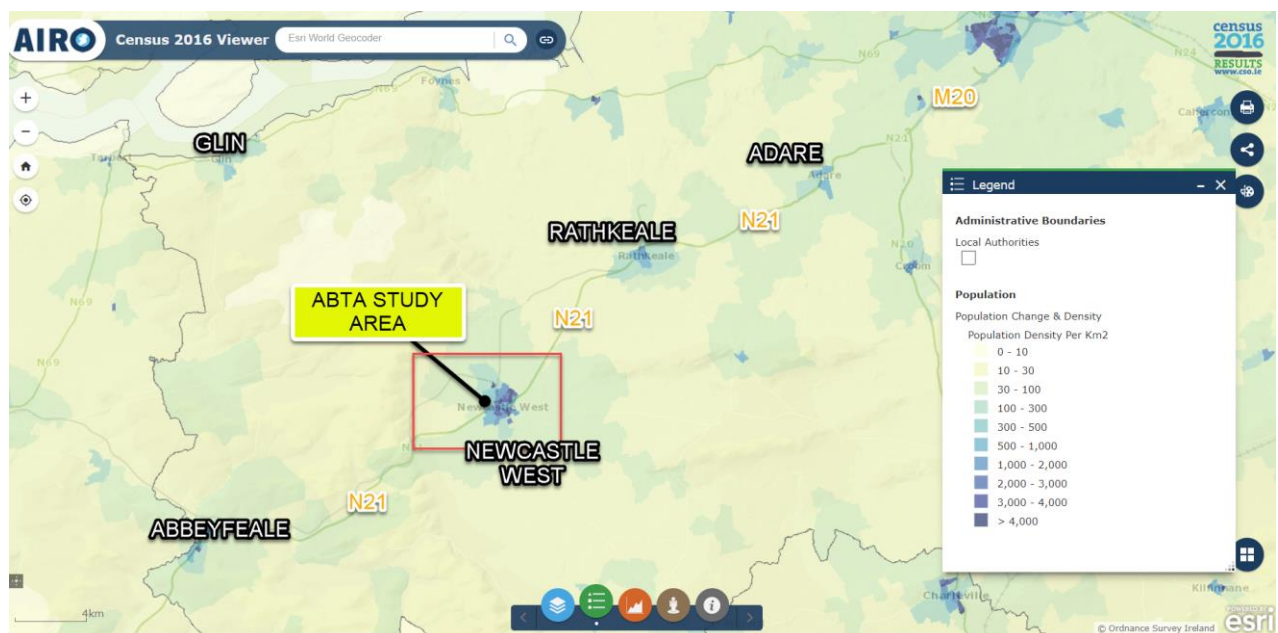


Figure 3.4: Population Density/km² along the N21, Limerick. (c: AIRO)

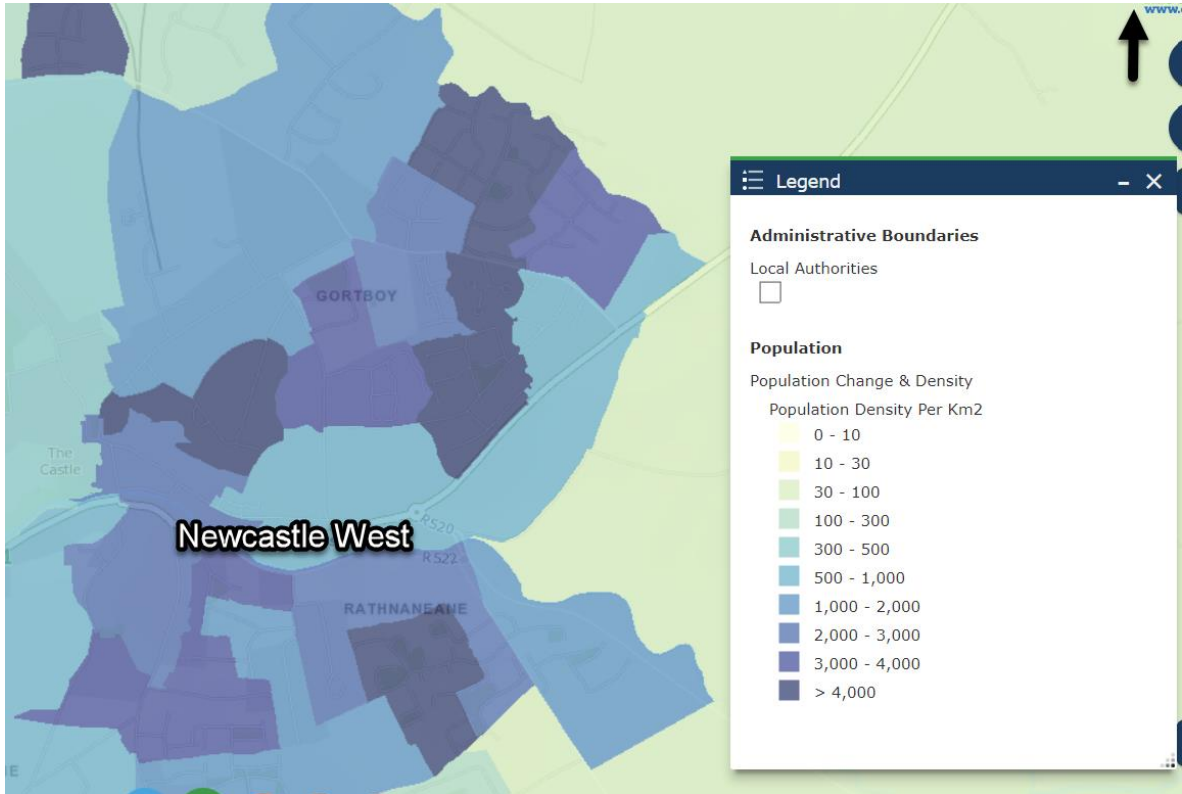


Figure 3.5: Population Density/km2 in Newcastle West (c: AIRO)

Figure 3.5 shows the population density within the town’s LAP. The highest population density is noted in the northeast and southeast of the town.

The Limerick Development Plan 2022-2028 references a 2016 Census Population of 6,619 with a target population of 8,607 in 2028, a 30% population growth as percentage of 2016 baseline.

Settlement Hierarchy	2016 population (CSO census)	Settlement population totals 2028	Additional households forecasted 2022-2028
Level 1 Limerick City and Suburbs (in Limerick), Mungret and Annacotty	92,878	127,570	11,442
Level 2 Key Town	6,619	8,607	706
Level 3 Towns (>1,400 population)	8,715	11,080	850
Level 4 Large Villages (>500 population)	12,964	16,620	1,286
Level 5 Small Villages	5,913	7,216	340
Level 6 Rural clusters	1,882	2,165	105
Level 7 Open Countryside	65,928	70,863	862
Total Limerick	194,899	244,121	15,591

Figure 3.6: Project population and household growth per settlement (c: LCCC)

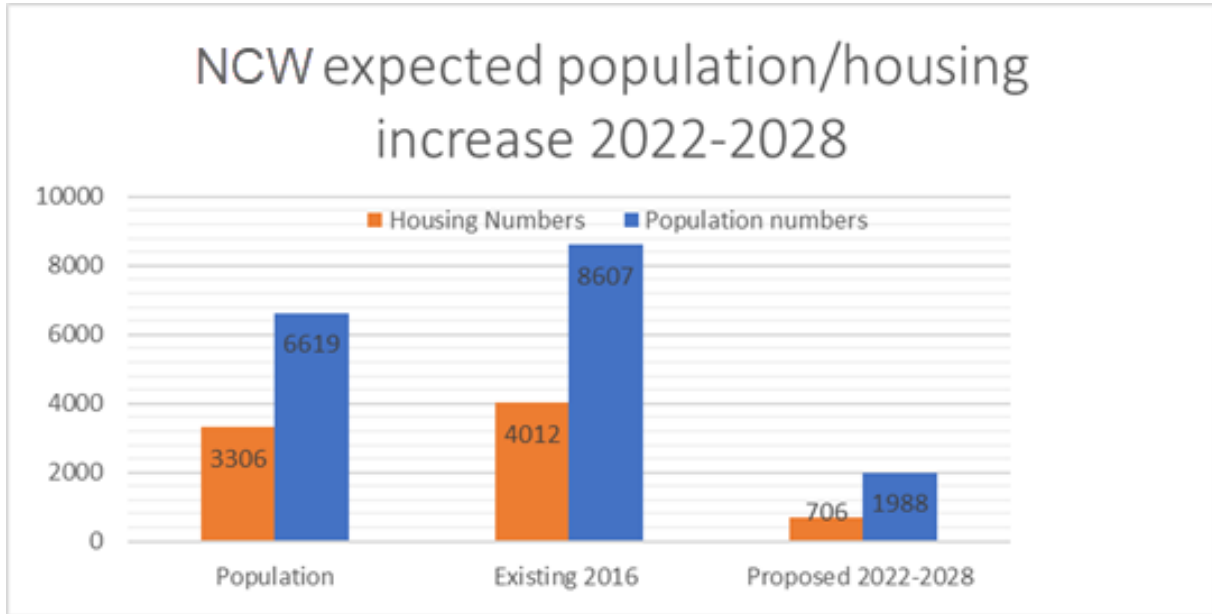


Figure 3.7: Newcastle West expected population/housing increase 2022-28.

3.3.3 Commercial/Residential Distribution

The distribution of Commercial and Residential properties is outlined in the following figures. It shows that the majority of commercial properties are located in two distinct areas, most particularly encompassing much of the town centre and also covering the Industrial/Business Park area to the north of the town. The residential areas are dispersed throughout the town.

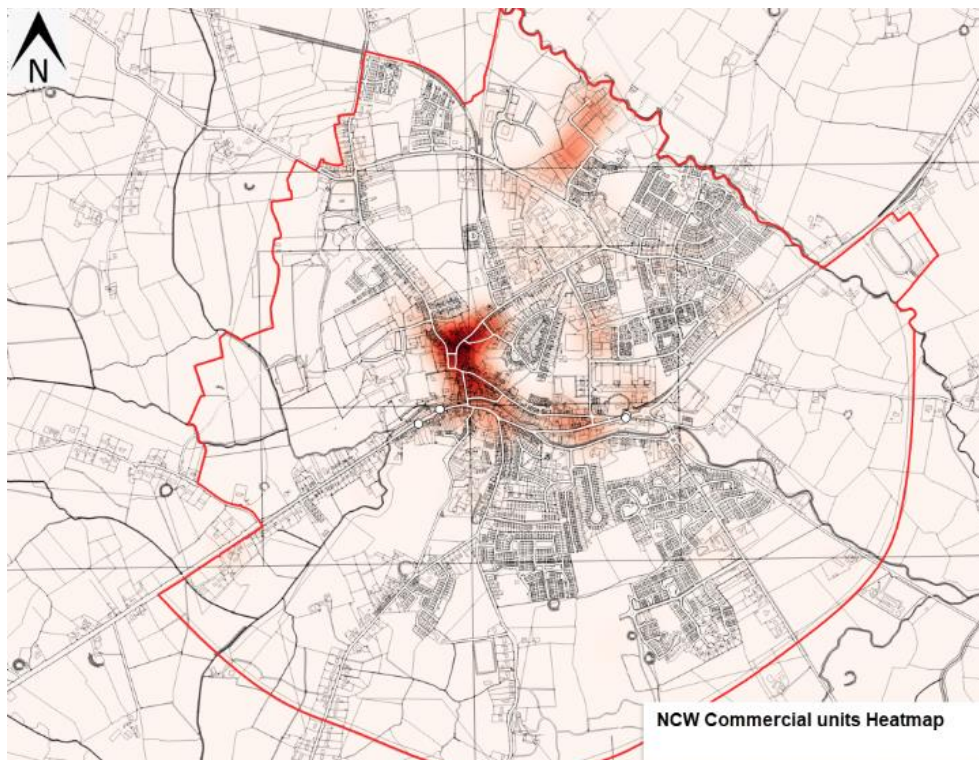


Figure 3.8: Distribution of Commercial properties in Newcastle West

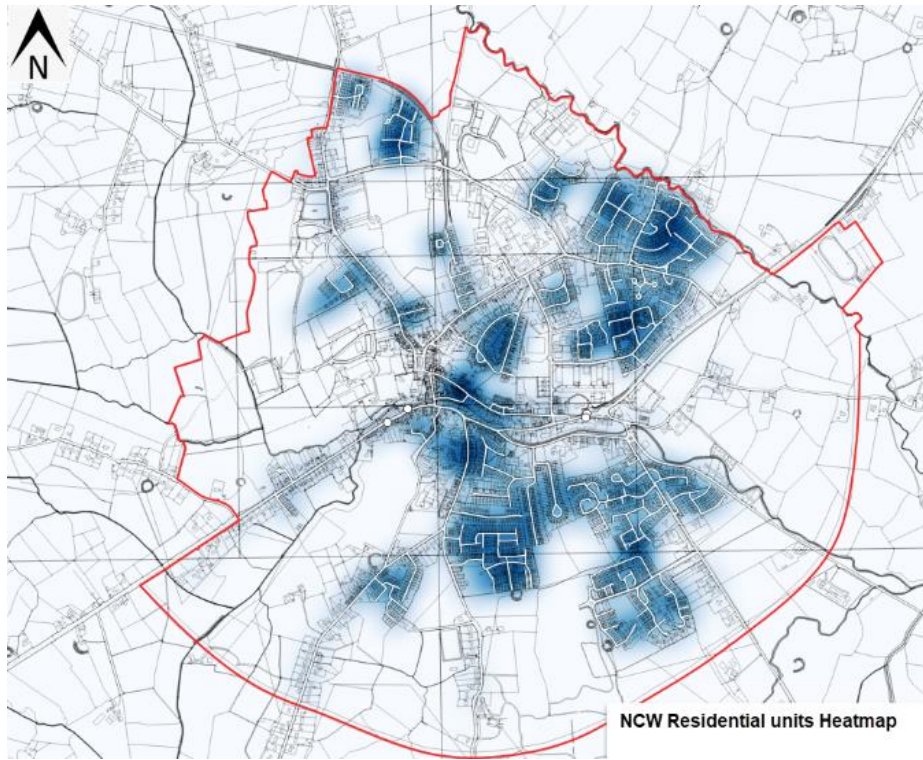


Figure 3.9: Distribution of Residential properties in Newcastle West

3.3.4 Schools and Education Facilities

Figure 3.10 shows the location of the primary schools and secondary schools in Newcastle West. There are three primary schools, two located in the north of the town and one to the south, and two secondary schools.

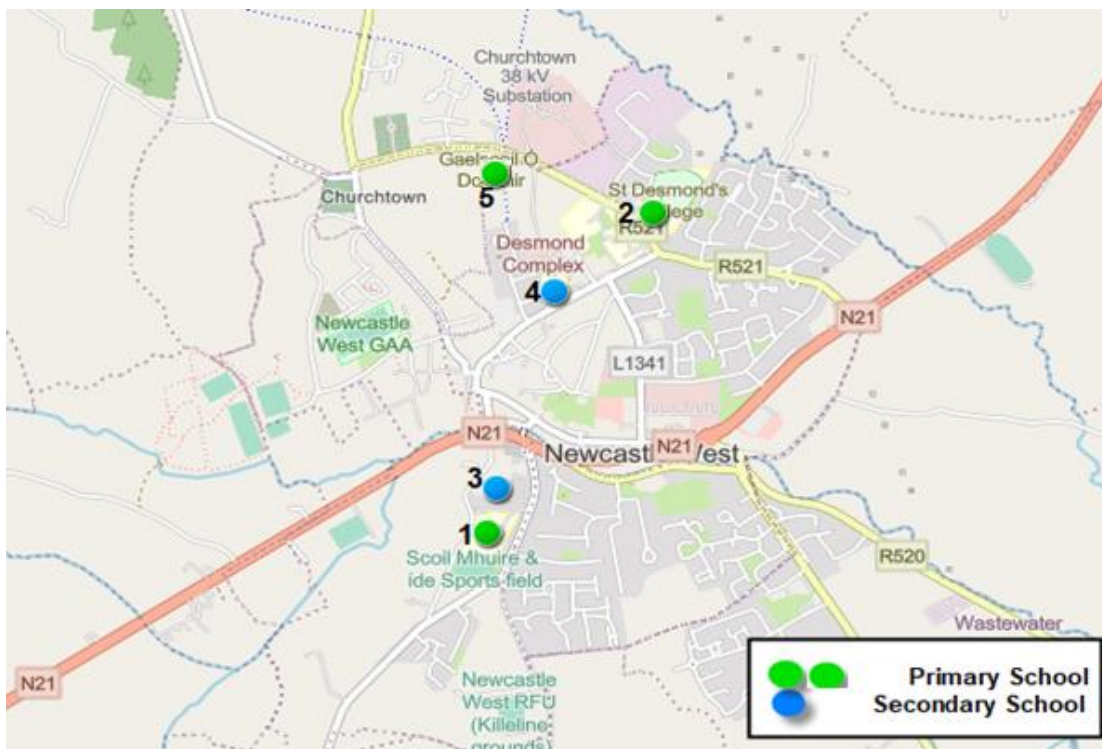


Figure 3.10: Location of Education Facilities in Newcastle West

There is one secondary school located north of the N21 while the other is south of the N21. The practicality of active travel to both schools is somewhat limited due to the limited crossings of the N21, which splits the town. This is particularly the case for residents south of the N21

travelling to Desmond College and those north of the N21 travelling to Scoil Mhuire agus Ide. The locations of both secondary schools encourage vehicle trips, making it critical that safe walking and cycling facilities are provided to this area. The Primary and Secondary schools are listed in Table 2.1 below.

Number	School Name	School Type
1	Scoil Mhuire agus Ide	Secondary
2	Desmond College	Secondary
3	Scoil Iosaf	Primary
4	Courtenay National School	Primary
5	Gaelscoil Ó'Doghair	Primary

Table 2.1: List of Education Facilities in Newcastle West

3.4 Existing Public Transport

Newcastle West is served by regular regional and local bus services, as shown in the table below. Local Link also provides less frequent services to Adare, Kilfinny, Ballingarry, Feenagh, Ballyhahill and Abbeyfeale to provide local services to the Newcastle West Desmond Complex. Bus stops are provided at two locations on the N21, one east of the town at the Longcourt House Hotel, with a bus stop for east and westbound services. Shelters are provided at these bus stops. The second bus stop location is on the west of Newcastle West on South Quay, also for east and westbound services. When required for local services, Local Link will use a car park in the centre of Newcastle West. There are no dedicated bus stop facilities within the town centre.

	FREQUENCY OF SERVICE PER DAY	
	Monday to Saturday	Sunday and Public Holidays
ROUTE 13 Limerick to Tralee	7	8
ROUTE 13 Tralee to Limerick	8	6
ROUTE 14 Limerick to Killarney	4	5
ROUTE 14 Killarney to Limerick	3	5

Table 2.2: Frequency of Bus Services at Newcastle West

Also available is the Green Bus service run by Dublin coach. This service provides a regular timetable between Tralee/Killarney and Dublin, with Newcastle West, Limerick City and UL also served along its route. This service is provided at the Longcourt Hotel in NCW.

3.5 Existing Network Connectivity

3.5.1 Current Network

Newcastle West has a reasonably good provision of footpaths throughout the town centre and in the surrounding routes. Areas for improvement that were identified in the Walking and Cycling Strategy for Newcastle West (2013) have been implemented, including a pedestrian bridge at St. Mary's Road and St. Ita's Road and the provision of a footpath along the south side of the N21 between Sheehan's Road and St. Ita's Road.

There are a number of locations throughout Newcastle West where connectivity of the pedestrian network requires improvement. Safe and easy to use crossing locations improve accessibility for pedestrians and increase comfort levels for those walking. Walking rates within

Newcastle West are low for those making short journeys to work and school. These locations include Station Road and Churchtown Road junction, Bishop Street, Bishop Street and Market Place junction and Sheehan's Road. Also, pedestrian and cycle connectivity between the residential areas to the south of the N21 and the wider town centre to the north of the N21 is particularly poor, with the N21 and River Arra representing particular barriers.

There are notable pedestrian links within the town centre, including Bridewell Lane which links the public car park with Bishop Street. Brewery Lane links Market Place with Maiden Street, but is not open to the public at this time. Nash's Lane allows for vehicular traffic, but is predominantly used by pedestrians to access Aldi and the Demense from the town centre.

As well as providing a movement link for vehicle traffic, the N21 also provides an important east-west link for pedestrian movements. Residential, amenity and schools are located south of the N21, with the town centre and many services provided north of the N21. Consequently, crossing the N21 forms a significant link in the pedestrian network. Controlled crossing points are provided along the route at Sheehan's Road, Bother Buí and Bridge Street.

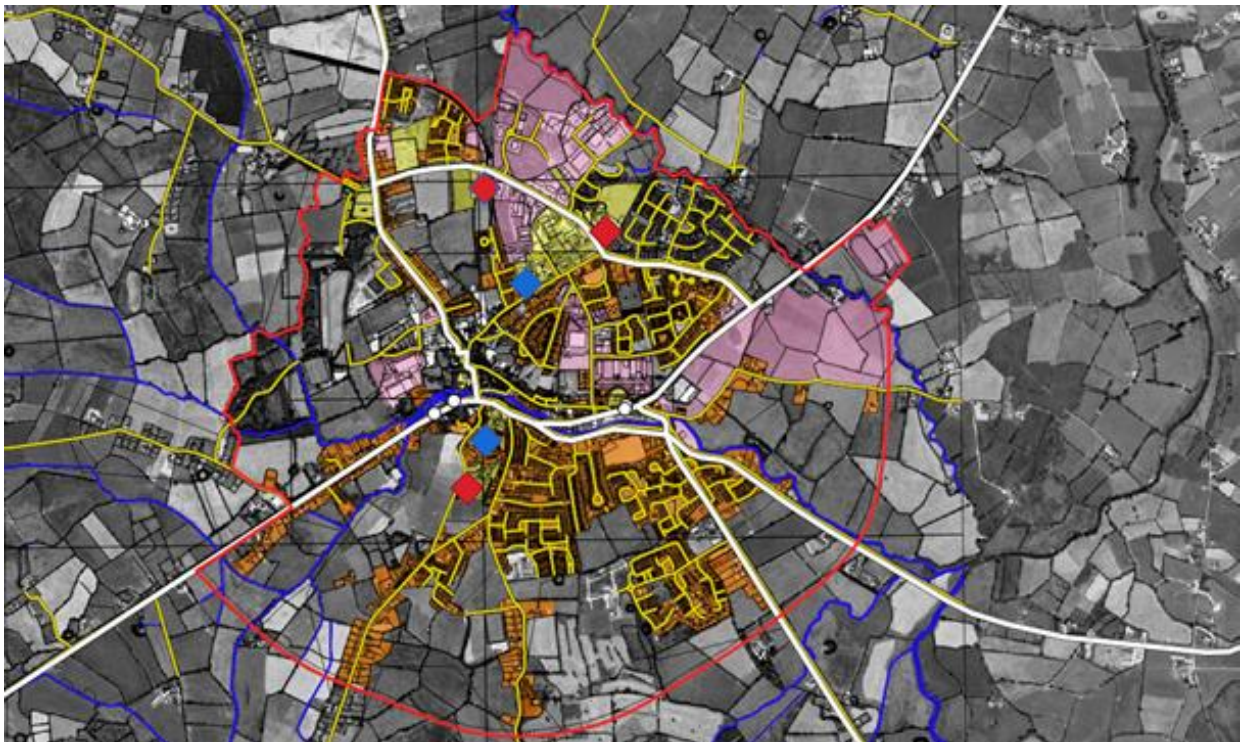


Figure 3.11: Existing Urban area /mobility linkages

Local road and footpath network with National and Regional Road shown in white. Schools identified with red and blue markers. Residential and industrial areas highlighted in orange and pink respectively.

Amenity walking in the town is provided in the Demense and the Limerick Greenway. The Demense is located on the west side of the town centre and can be accessed from The Square, west of Aldi and from Churchtown Road. It provides recreational playing fields, access to sports facilities, green spaces, and walking routes. The connections between the Demense and the town centre will be explored further in this report. Connection to the Limerick Greenway is now available to the north of Newcastle West, in the residential area of Bishop Court, north of Bishop Street. It continues north to Station Road, where a signal-controlled crossing is provided.

The Limerick Greenway is a greenway route suitable for walking and cycling off road. It is part of a national designated cycling and walking route formed by the disused Newcastle West / Limerick / Tralee Railway Line. The completed section includes from Rathkeale westwards to Ardagh, then southward to Newcastle West and then further west to Abbeyfeale. Figure 3.12 below shows Newcastle West in the context of the regional Greenway network.

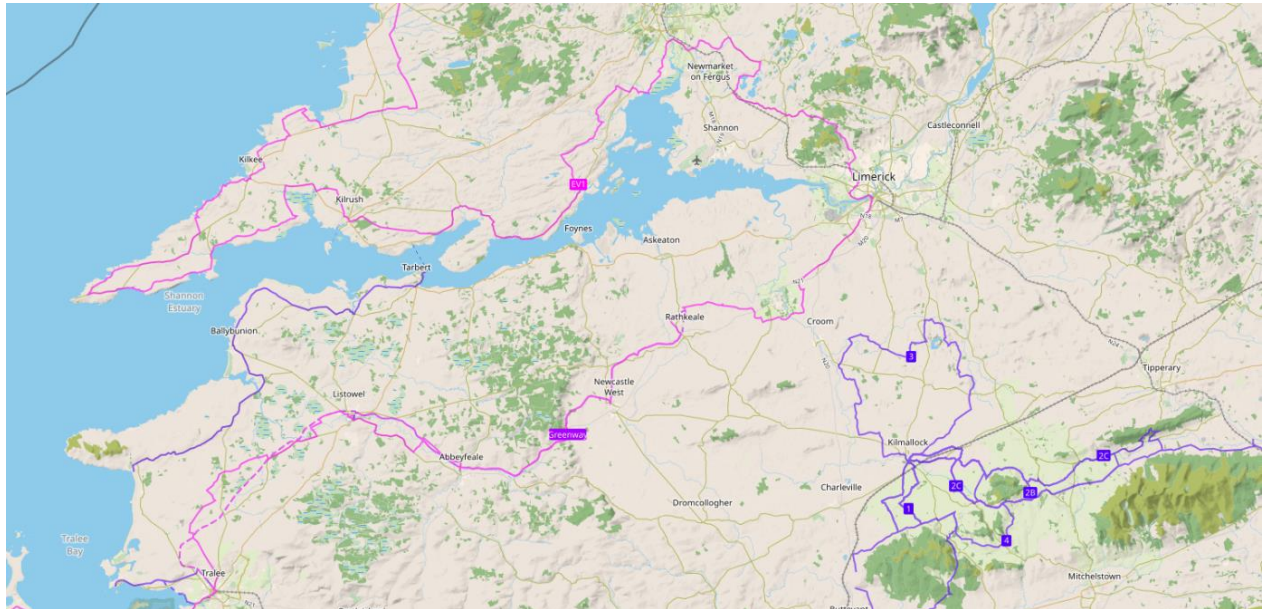


Figure 3.12: Regional Greenway network

3.5.2 Key Connectivity Barriers

Newcastle West is characterised by a large number of cul de sac types of residential estates with limited connectivity. In addition, there are a number of features such as the N21 and the River Arra which present linear barriers to connectivity in the north-south direction. This is illustrated in Figure 3.13 below.

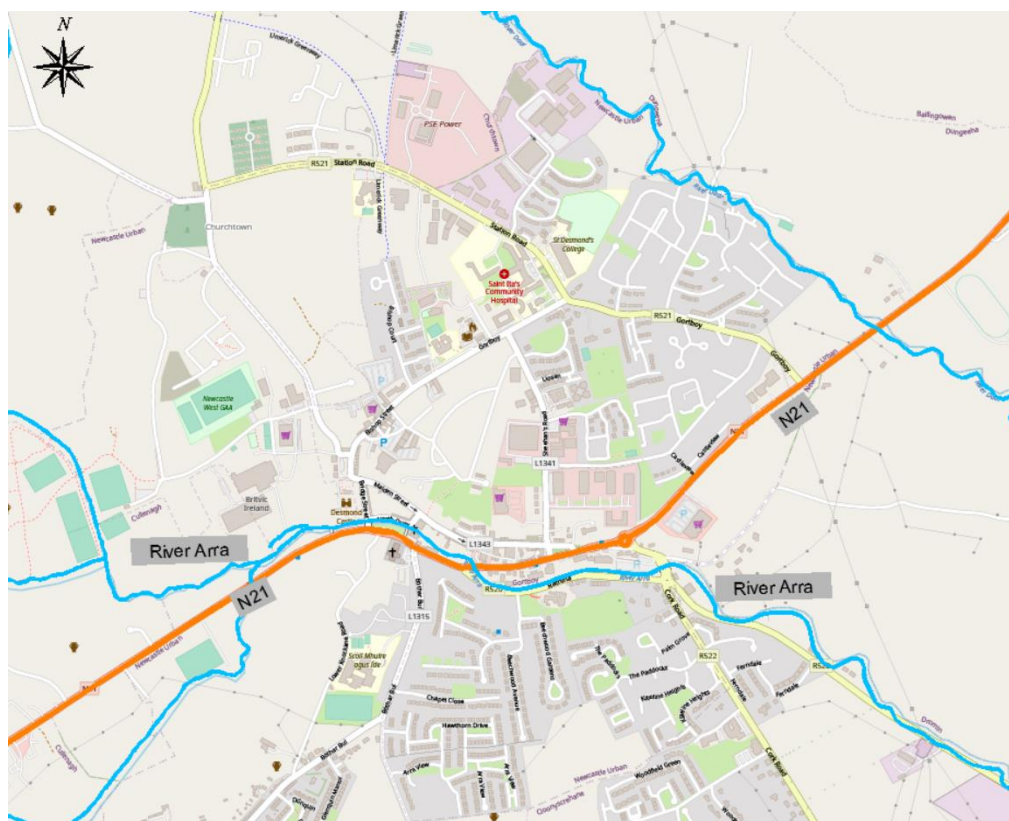


Figure 3.13: Identified Main Barriers to Connectivity in Newcastle West

The biggest issue identified was the difficulty of crossing the N21 throughout the town. Issues crossing the main road north-south through the town presents a major hindrance to connectivity.

3.6 Existing Catchment Area Analysis

This section outlines the current catchment areas for key trip attractors in Newcastle West.

The trip attractors in this analysis include:

- | | |
|----------------------|----------------------|
| 1. Bus Stops | 4. Health facilities |
| 2. Primary schools | 5. Sports amenities |
| 3. Secondary schools | 6. Supermarkets |

The analysis uses GIS software to determine the possibility of arriving at a certain trip attractor in the town within a specified walking and cycling time period.

The baseline catchments for each type of trip attractor are shown from Figure 3.14 to Figure 3.25. In these figures, the shaded lines represent the route, within a certain walking or cycling time period, of the destination with the current pedestrian or cycle network.

3.6.1 Baseline Assessment – Public Transport

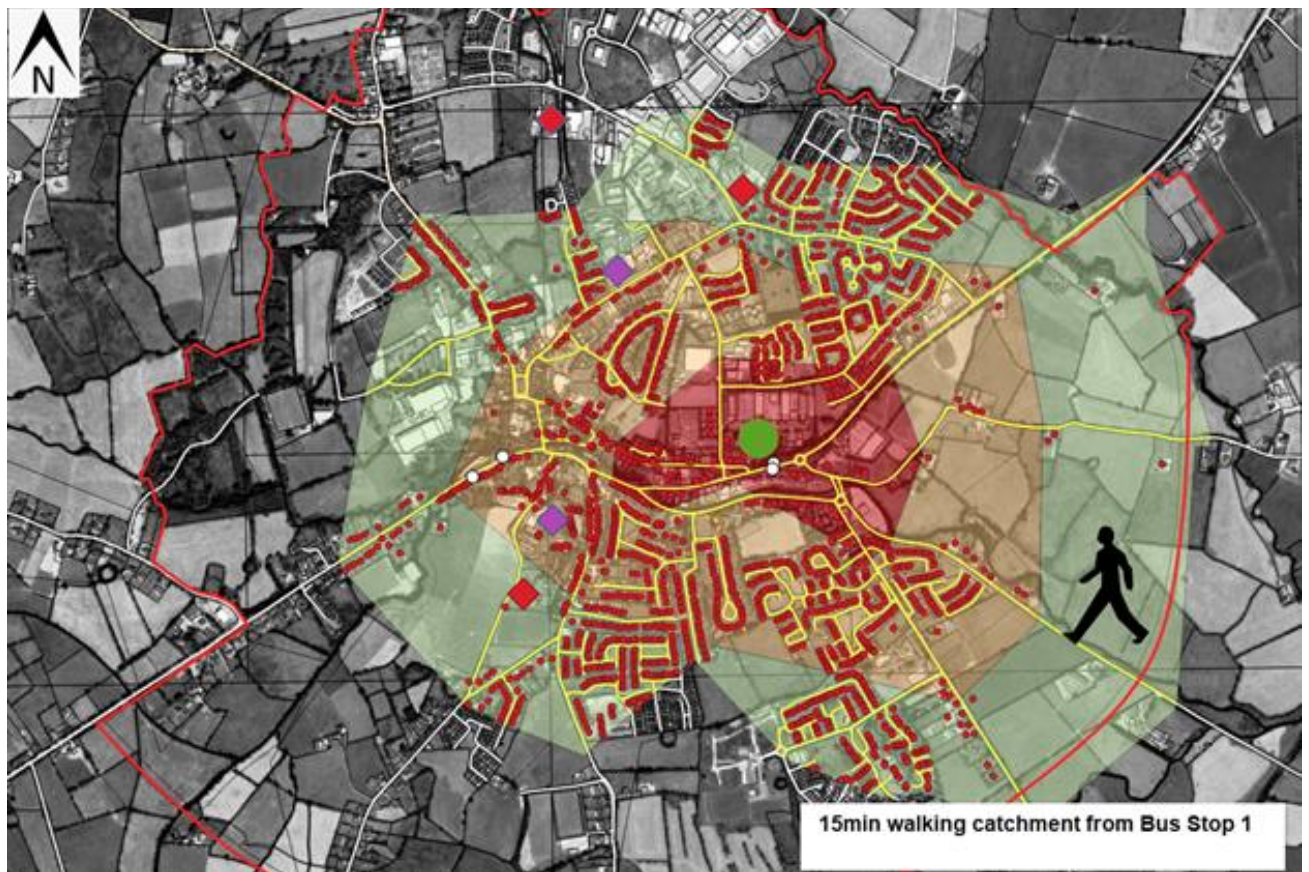


Figure 3.14: Residential Properties within walking catchment of Bus Stop 1

The location of these bus stops that are considered to be within walking distance (15-minute walking duration) of nearby residential properties. The assessment shows that a significant proportion of residential properties are within walking commuter distance, as noted by the isochrone colour banding.

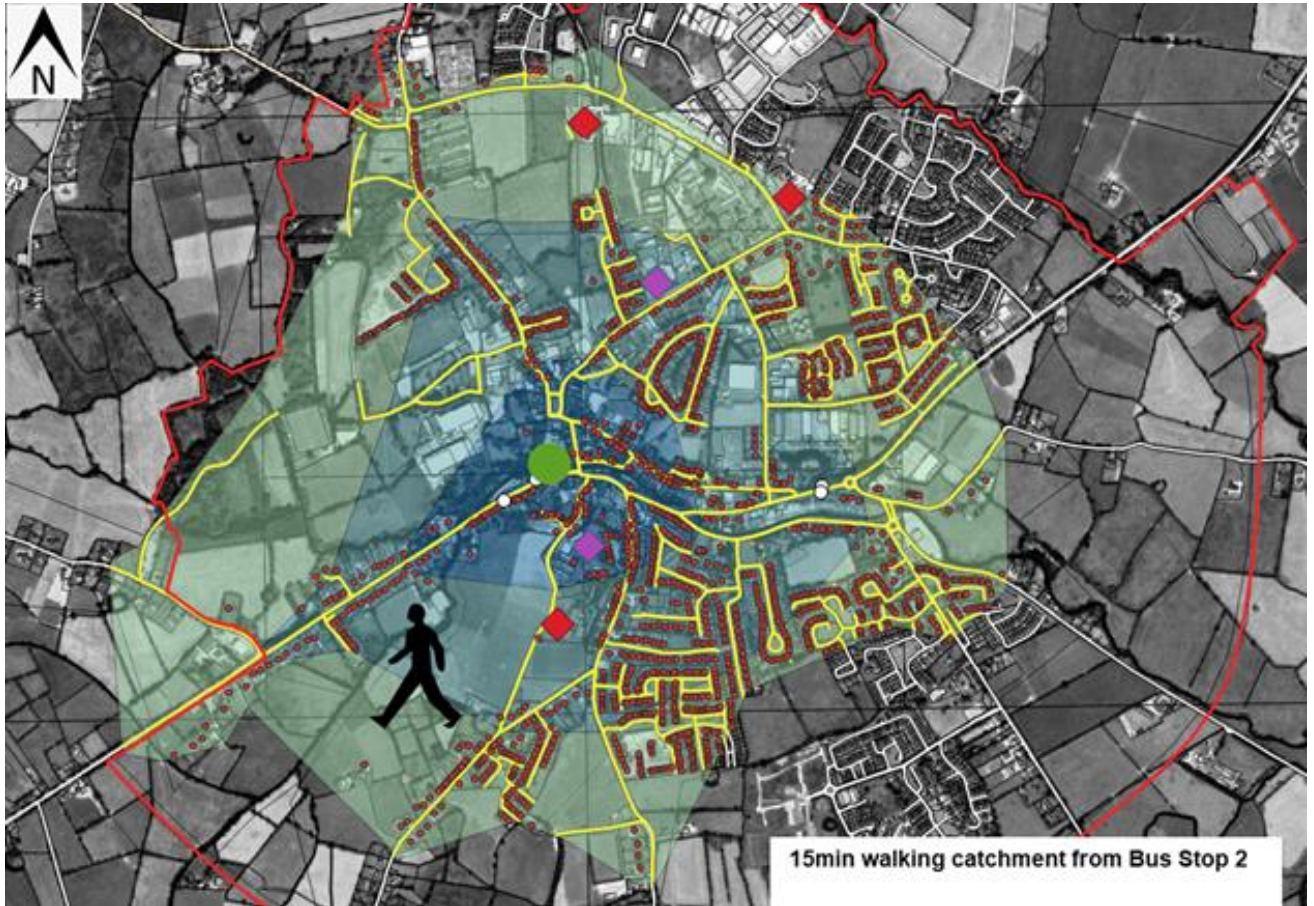


Figure 3.15: Residential Properties within walking catchment of Bus Stop 2

3.6.2 Baseline Assessment – Primary/ Secondary Schools



Figure 3.16: Secondary School Baseline Catchment Area (1km catchment)

The appraisal of the exiting road network was undertaken in QGIS where existing road networks were cross referenced with existing school locations in the town. The findings of this assessment are noted in Figures 3.16 and 3.17, where areas currently serviced by existing road links within the 1km catchment are highlighted.

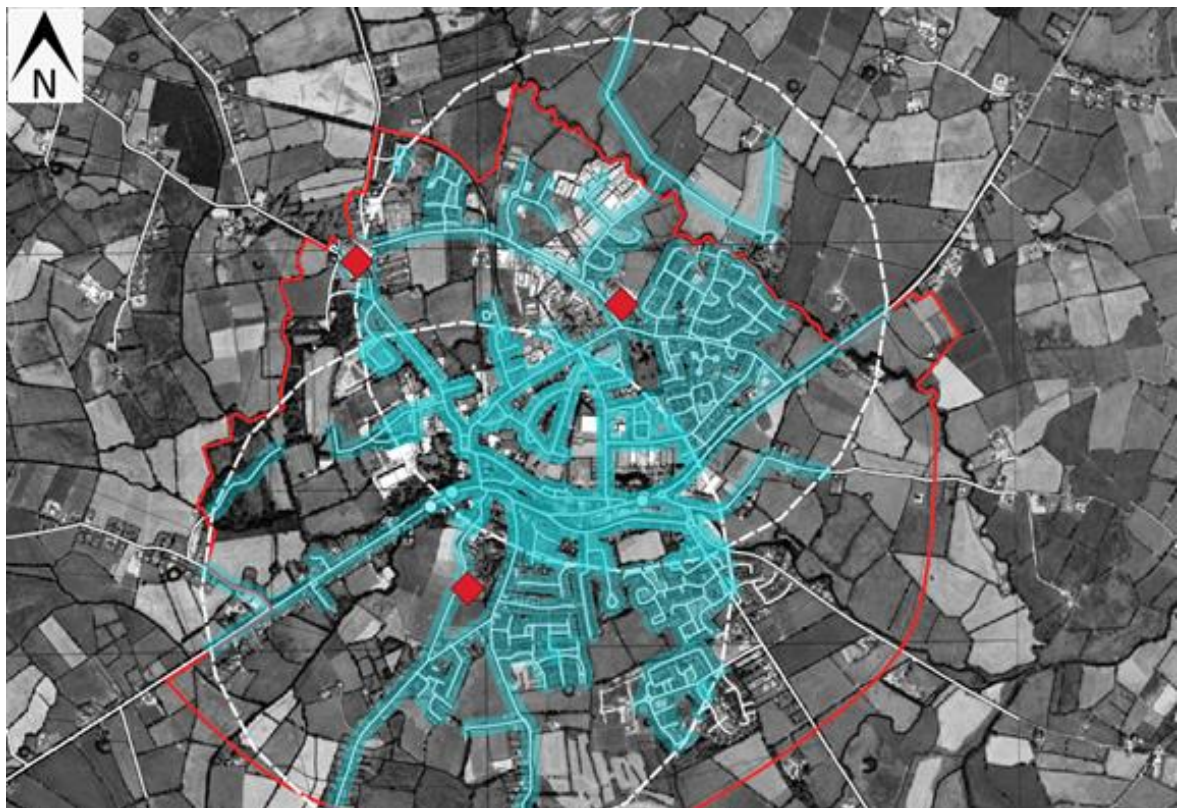


Figure 3.17: Primary Schools Baseline Catchment Area (1km Catchment)



Figure 3.18: Primary School Walking Isochrones (with residential property unit catchment numbers)

The appraisal of the walking distances from the primary and secondary schools to nearby residential units was quantified in QGIS, where 5,10,15min walking isochrones were cross referenced with existing residential housing locations in the town. The findings of this assessment are noted in Figures 3.18 and 3.19, where the distance travelled, and coverage achieved is evident.



Figure 3.19: Primary School Walking Isochrones (with residential property unit catchment numbers)

This GIS appraisal methodology was repeated for the following also:

3.6.3 Baseline Assessment – Health Centres

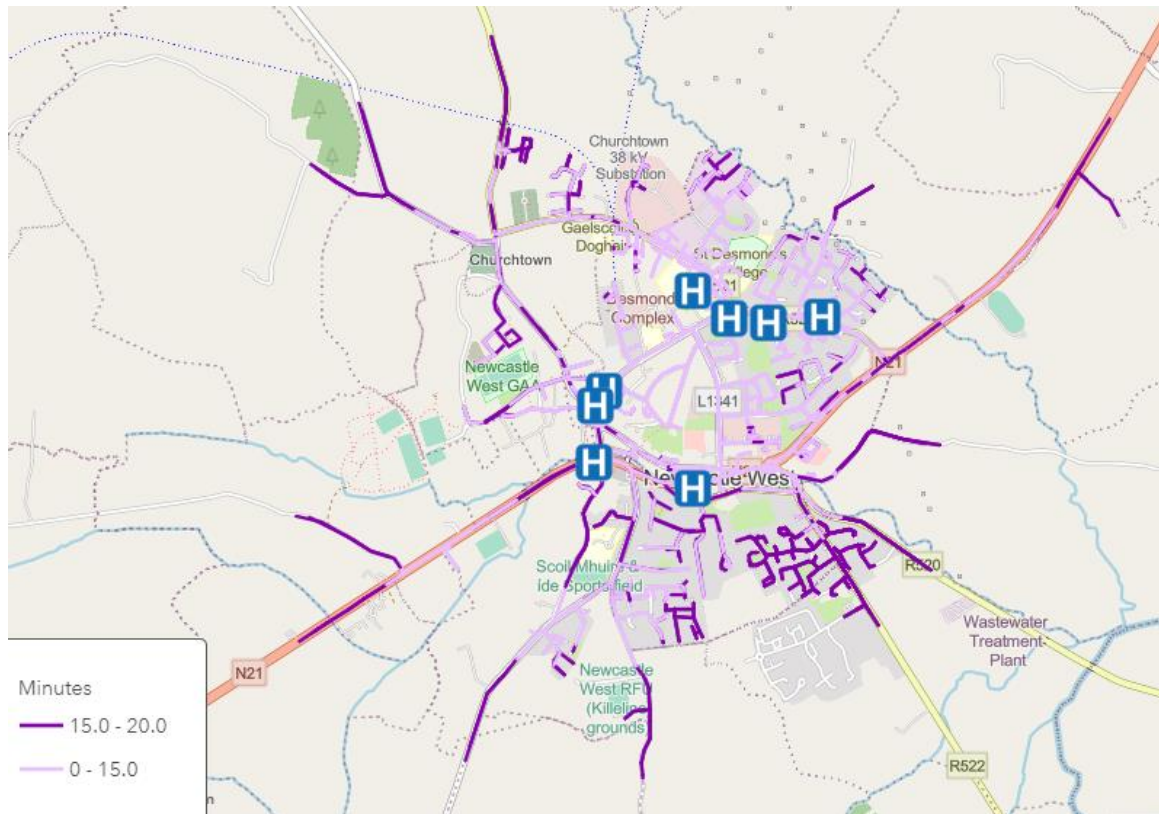


Figure 3.20: Health Facility Baseline Catchment Area (10-15-minute walking distance)

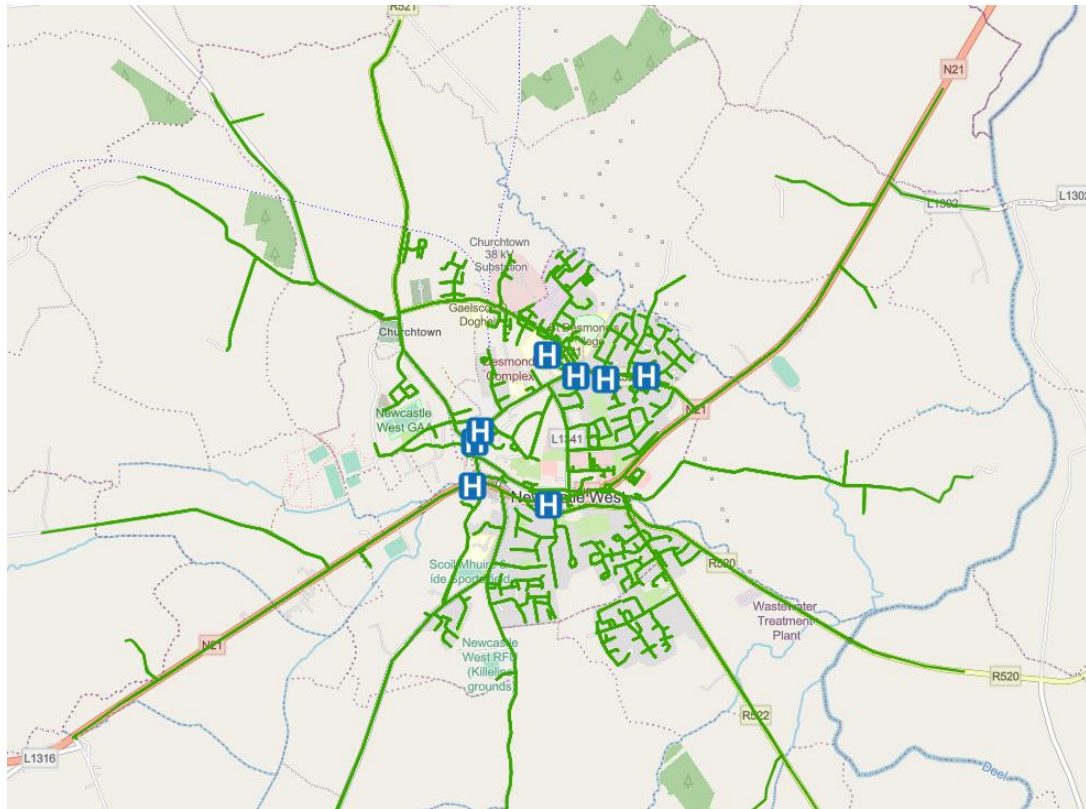


Figure 3.21: Health Facility Baseline Catchment Area (10-minute cycling distance)

3.6.4 Baseline Assessment – Sports Amenities

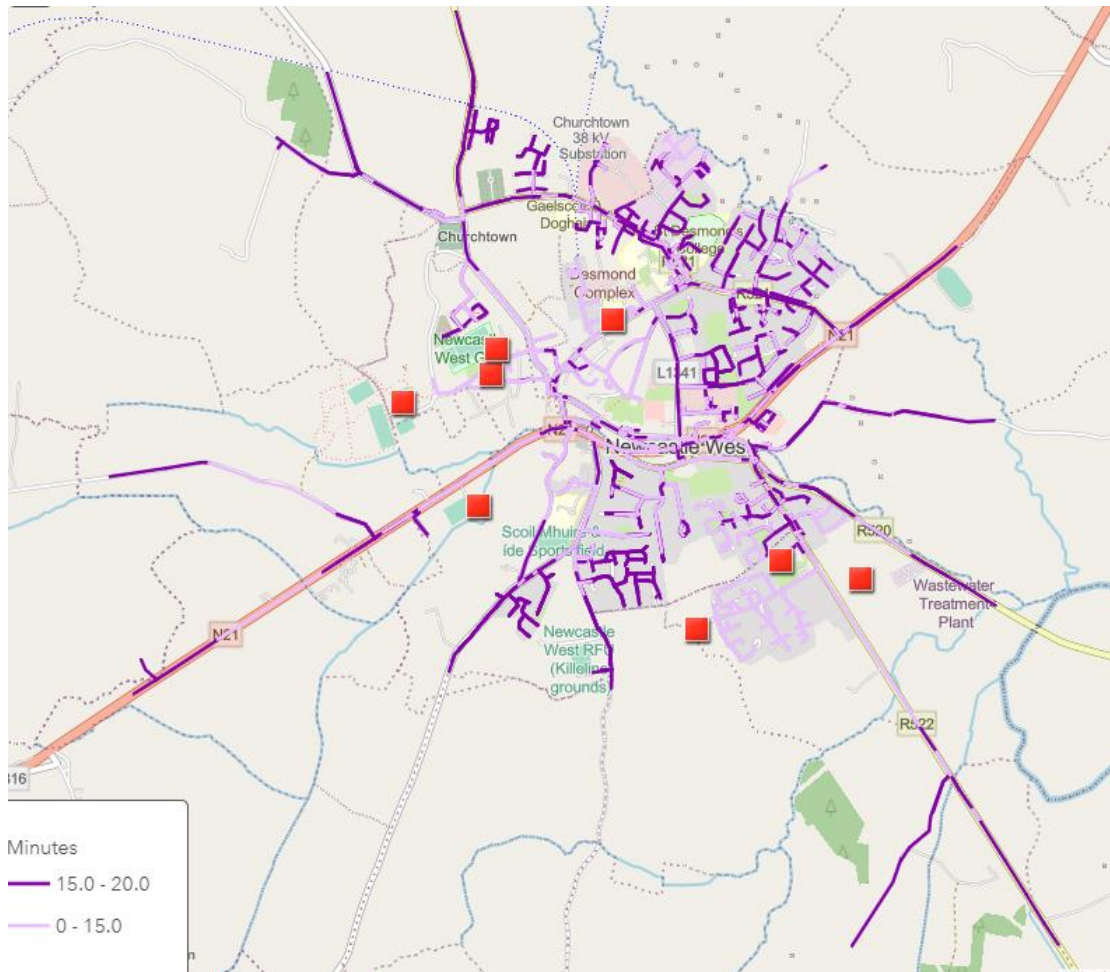


Figure 3.22: Sports Amenity Baseline Catchment Area (15-20-minute walking distance)

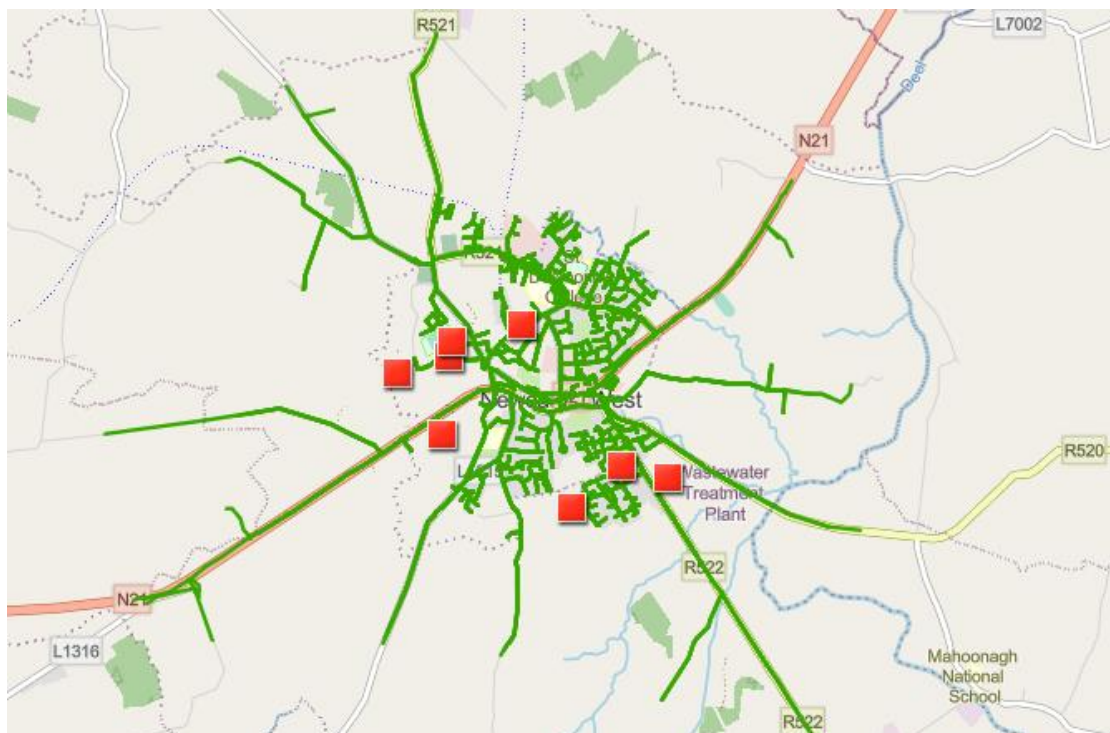


Figure 3.23: Sports Amenity Baseline Catchment Area (10-minute Cycle)

3.6.5 Baseline Assessment – Supermarkets

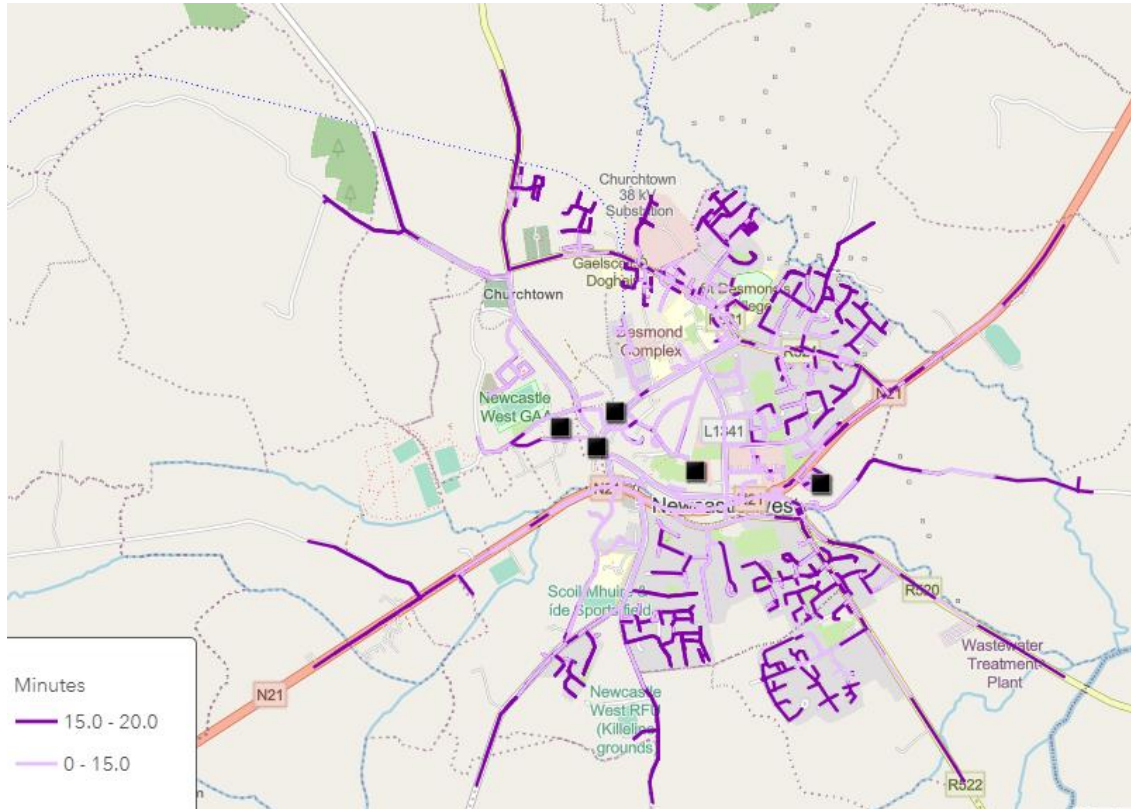


Figure 3.24: Supermarket Baseline Catchment Area (15-20-minute walking distance)

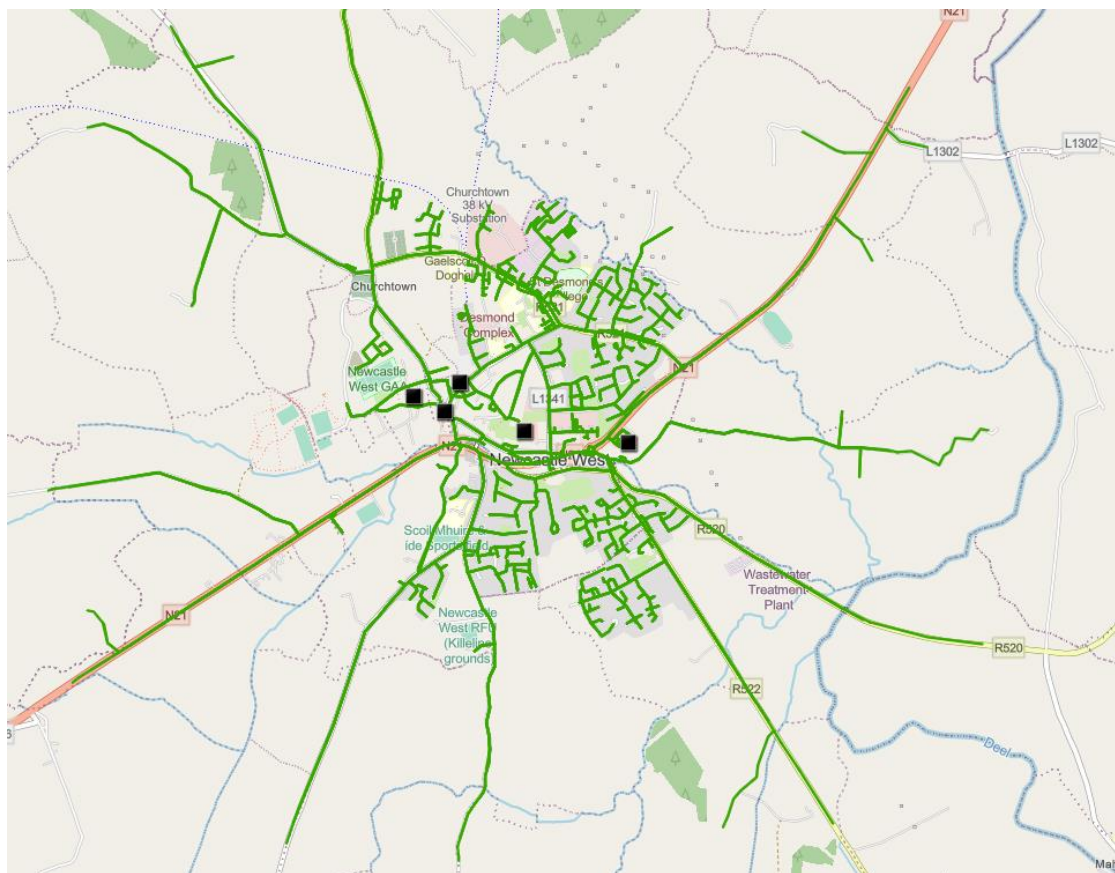


Figure 3.25: Supermarket Baseline Catchment Area (10-minute cycling distance)

3.7 Existing Cycling Infrastructure

The topography of Newcastle West is relatively flat, and the primary attractors and facilities are largely clustered in the town centre. This highlights that with the correct infrastructure in place, cycling should be an attractive mode of transport for the town.

However, there are currently low levels of cycling infrastructure implemented in Newcastle West. An existing greenway emerges in the north of the town onto Station Road and Bishop Court. This greenway connects Newcastle West to neighbouring towns in the north and west directions. The greenway at present does not have appropriate/ available cycle infrastructure in Newcastle West to connect into to. This is evident in the following figures.



Figure 3.26: Limerick Greenway Connectivity to Station Road, Newcastle West



Figure 3.27: Limerick Greenway Connectivity to Bishop Court, Newcastle West

3.1 Existing Walking Infrastructure

Newcastle West is reasonably well served by a wide network of footpaths. The quality of this footpath network ranges significantly throughout the town, with much of the town centre served by narrow, substandard footpath, reflective of their historic origins. An assessment of this footpath network is outlined below which broadly outlines the relative quality of service of pedestrian facilities.

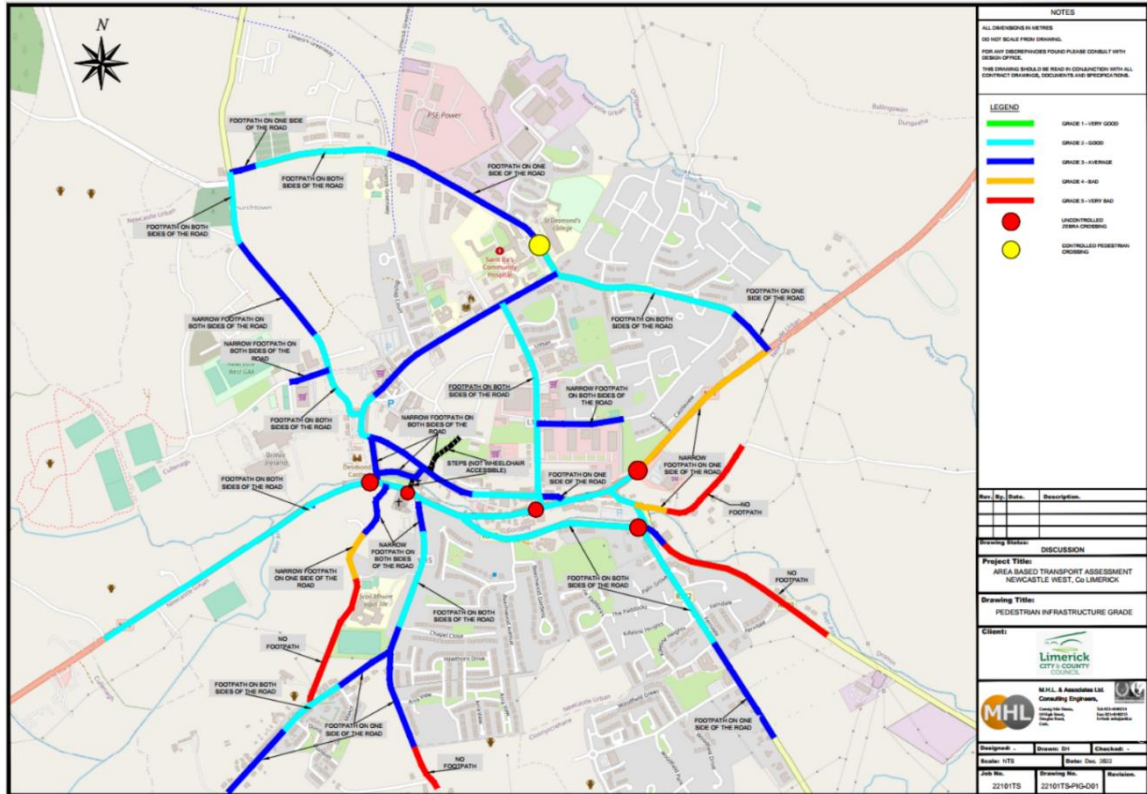


Figure 3.28: Newcastle West footpath network assessment

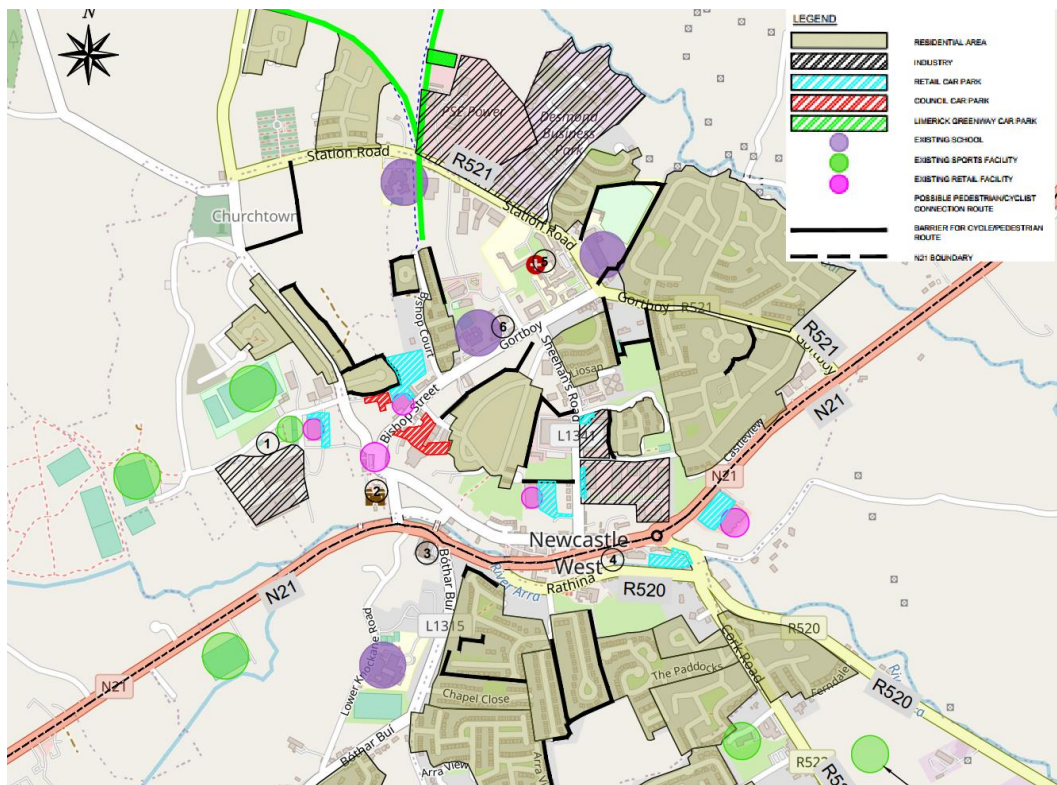


Figure 3.29: Newcastle West Footpath/Cycle Barriers to Connectivity

3.2 Existing Road Network

3.2.1 National and Primary Roads

A number of strategic routes go through Newcastle West, including the N21 National Primary Road, the R521 to Foynes, the R522 to Charleville and the R520 to Kilmallock. These are identified as strategic routes in the Limerick City & County Development Plan 2022– 2028. The N21 National Primary Route connects Limerick and Kerry and plays an important role in the regions transport links. Transport Infrastructure Ireland (TII)'s traffic count data and Jacob's N21 NCW Road Scheme provides an AADT of over 12'000 with 8.9% of this being HGV traffic. High flows of through traffic have effects on local traffic, with queues forming on the N21 to travel through Newcastle West, especially during times of high tourist activity, such as bank holidays. This also leads to difficulty for local traffic to travel around Newcastle West, as many journeys require crossing or joining the N21.

The R521 to Foynes commences at the Square in Newcastle West and travels north to connect with the N69 at Foynes, providing a key north-south link in Limerick. The R522 and R520 converge at the east of Newcastle West, linked to the N21 by way of a roundabout. The R522 links Charleville with Newcastle West, connecting Cork with east Limerick County. The R520 provides an east/west link between Newcastle West and Kilmallock and Ballingarry.

All of these regional routes are also used by residents of Newcastle West's hinterland to access the town centre. They also provide an important industry link between the regional towns, carrying HGV traffic. The R521 in the north of Newcastle West is connected to the N21 and R522 and R520 by local roads Station Road and Gortboy. With the exception of the roundabout at the N21 and R520, priority Stop controlled junctions are in place along the route. The N21 is heavily congested during peak periods.

3.2.2 Local Roads

Newcastle West has an extensive local road network that connects the residential, business, industry, retail, school, and social services within the town. The local road network around the town generally accommodates footpaths on both sides. Town centre roads are narrow, reflective of their historic origins.



Figure 3.30: Newcastle West National, Regional and Local Road network

3.2.3 Traffic Analysis

As part of the background assessment process, traffic conditions at a number of local roads and junctions were analysed and compared with the base traffic AADT of the N21 Newcastle West Road Scheme. Figure 3.31 below shows Annual Average Daily Traffic (AADT) flows for various links through Newcastle West.



Figure 3.31: The N21 Newcastle West Road Scheme: 2019 modelled AADT and percentage HGV – (C: Jacobs)

Figure 3.32 show that very high traffic volumes traverse the town in various directions, most particularly along the N21 and also along Station Road to the north, Bishop Street, Sheehan's Road and the Gortboy Road.



Figure 3.32: 2022 Count Data- 24 Hour junction traffic counts showing relative traffic volumes.

Figure 3.33 also points to the relative volume of traffic flows at critical junctions in Newcastle West. This graphic clearly shows that the N21 corridor accommodates a very significant confluence of traffic movements.

A profile of traffic flows at each of the junctions was also generated in order to determine the actual pattern of traffic in the town. The figure below, with associated junction map shows this traffic profile.

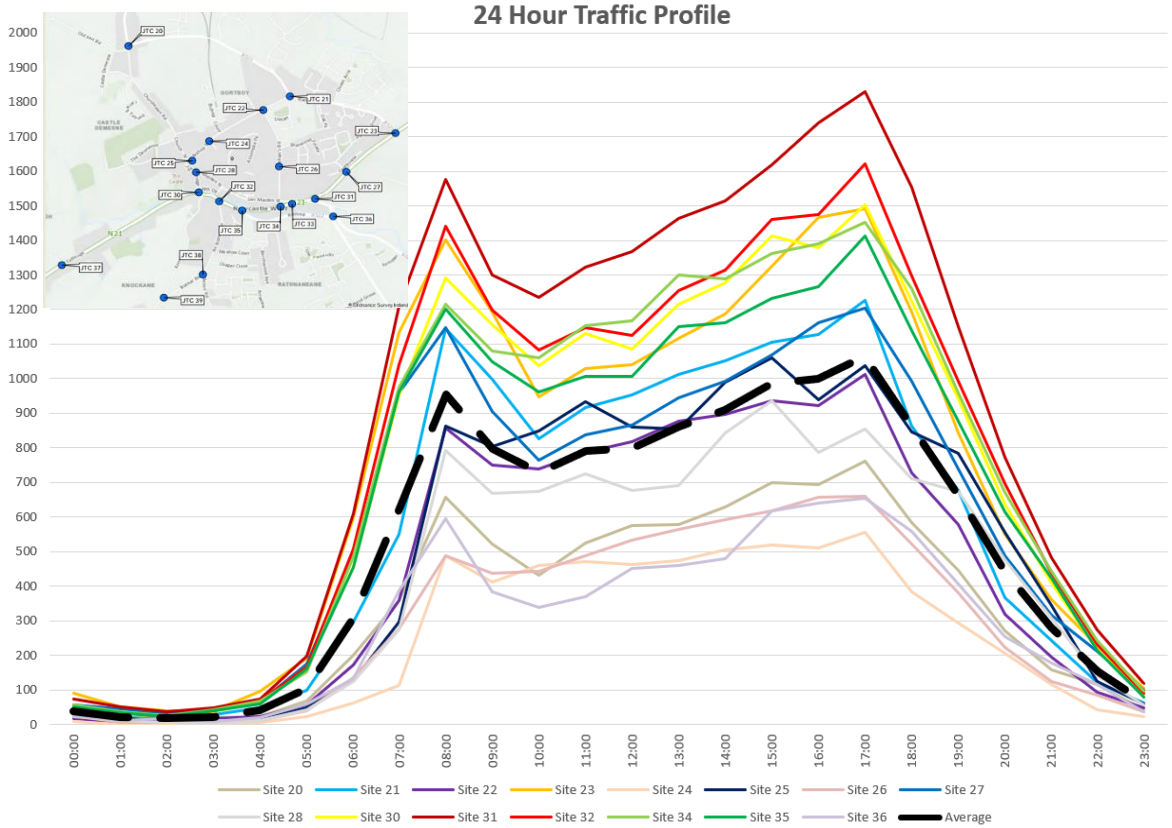


Figure 3.33: 2022 24hr traffic flow profile for assessed NCW junctions, average traffic profile (dashed line)

The profile(s) show that the overall pattern for the town translates to quite a short but very pronounced AM peak period with a more prolonged and more heavily trafficked PM peak. The AM peak can be seen to occur between 08.00 and 09.00 while the PM peak occurs between 16.00 and 18.00. The mid-day peak is not particularly noteworthy, expecting at Junction 25 (Bishop St/The Square) where a peak is seen to occur at between 11.00 and 12.00.

Congestion was observed at various junctions along these heavily trafficked routes. An assessment of the "Current Year" (2022 surveyed traffic) measured peak hour traffic flows was also undertaken to determine the traffic capacity of various critical junctions. The results of this traffic modelling, undertaken for the AM Peak, Mid-day Peak and PM Peak is outlined in the figures below:

AM



Figure 3.34: AM Peak Hour traffic modelling results for junctions throughout Newcastle West

IP

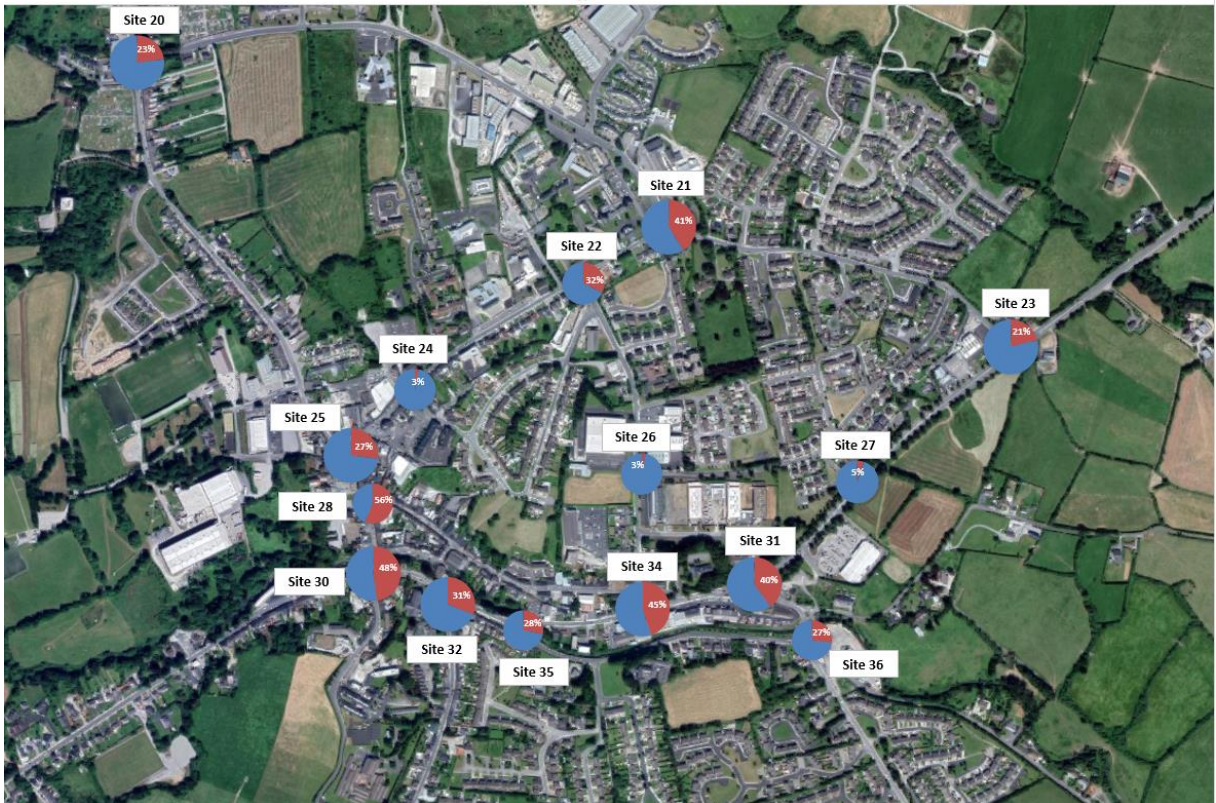


Figure 3.35: Mid-day Peak Hour traffic modelling results for junctions throughout Newcastle West

Morning, mid-day, and evening junction capacity results as noted, are based on individual traffic models developed as part of this assessment.



Figure 3.36: PM Peak Hour traffic modelling results for junctions throughout Newcastle West

The traffic modelling carried out in the junction assessment employed static junction of the individual junctions. It showed that a number of junctions, particularly those along the N21 are approaching capacity in the AM and PM peak periods. The isolated assessment of these junctions likely underestimates the level of congestion, whereby the interaction of congested junctions located in close proximity to one another reduces the overall network capacity, and that of the individual junctions also.

The congestion of the N21 route is subject to ongoing "N21 Newcastle West Road Scheme". This project is being progressed by TII. A number of Stage 1 Route Corridors were identified from which a Preferred Route Corridor was identified. These route corridors are shown in the graphic below:

The Stage 1 Assessment proposes that the new corridor is to be a Type 2 Dual Carriageway with a dedicated cycle facility to be provided as part of the overall solution, generally running parallel to the carriageway. The new carriageway is estimated to result in a significant reduction in thru movements, along the old N21 compared to the current situation.

A comparison of estimated 2042 traffic for both the "Do Nothing" scenario and the "Do Something" (with new road scheme) scenario are outlined below. They show that as a result of the completion of this bypass road traffic volumes are expected to be reduced by more than 50% along the existing N21 road.



Figure 3.37: The N21 Newcastle West Road Scheme - 2042 modelled future AADT and percentage HGV – Do Minimum (C: Jacobs)

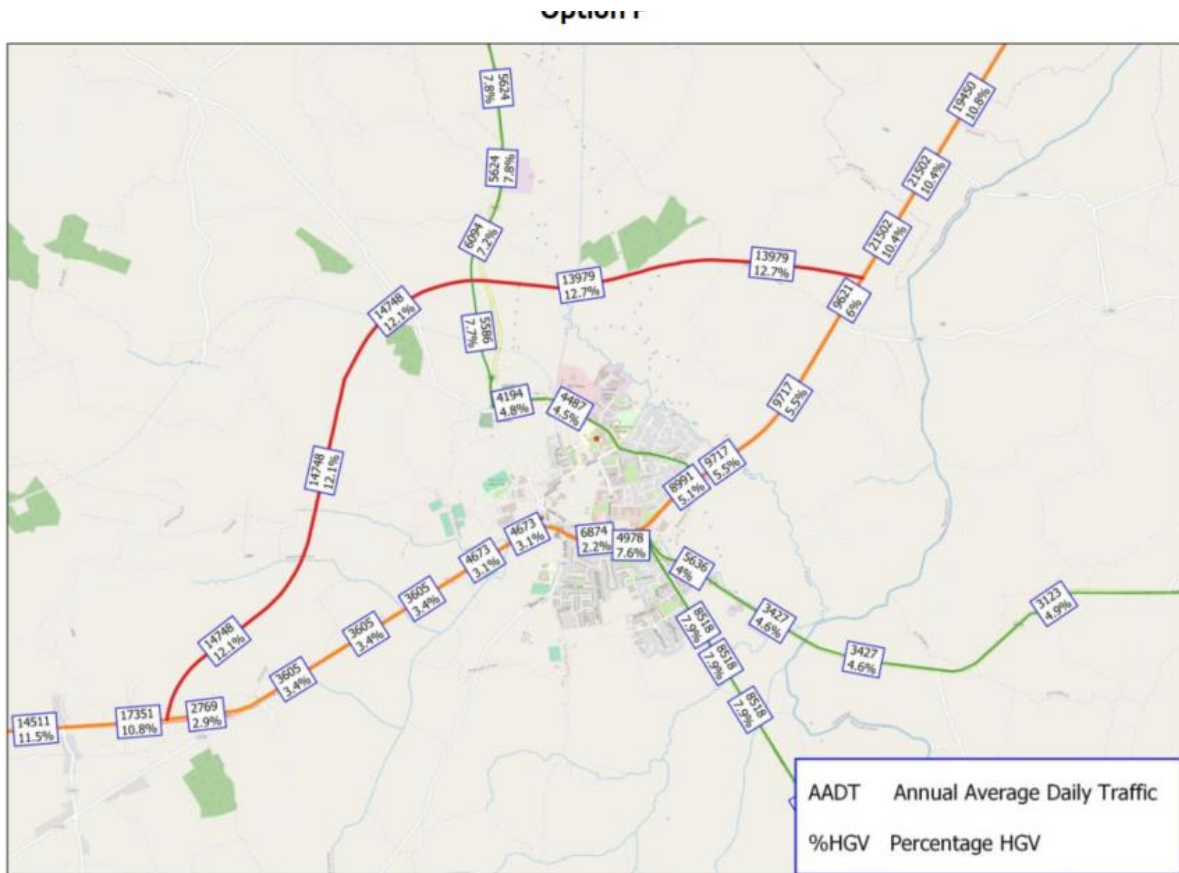


Figure 3.38: N21 Newcastle West Road Scheme - 2042 modelled future AADT and percentage HGV – Option F (C: Jacobs)

Indicated traffic volumes as per Jacob’s N21 Newcastle West Road Scheme Traffic Modelling Report N21-JAC-TTP-NWP-RP-OS-0001 | Rev 0, dated March 2022.

3.3 Existing Parking Provisions

Parking is accommodated in Newcastle West by way of on street and public and private car parks. Extensive on-street parking was observed throughout the town. The town square also accommodates town centre parking in a high value amenity area. A graphic showing vehicle parking areas is shown below:



Figure 3.39: Newcastle West Parking Areas.

3.4 Travel Demand

This section sets out the travel demand for the Study Area that will be used for deriving a preferred approach for the study. In the case of Newcastle West, travel demand can be assessed on both a regional level and on a local level.

Data provided by the CSO from the 2016 census provides origin and destination data between Electoral Districts (EDs) for each commute on census day in an anonymised data set. Assessment of this data has provided a rich source of information for commuting patterns related to the town of Newcastle West. The provision of roadways and transportation services can be assessed against the data provided in the census. While the existing services provided will closely align with the commuting patterns, gaps can be identified, and sustainable improvements considered.

Within Newcastle West, it is anticipated that development will occur as set out in the Limerick Development Plan 2022-2028. The transportation infrastructure required for new residential and commercial development will be assessed in accordance with sustainable transportation objectives.

Together, local commuting patterns, regional commuting patterns and assessment of new growth areas provide for future travel demand and a basis for the provision of sustainable transportation solutions.

3.4.1 Existing Travel Modes

As previously identified the uptake in sustainable travel modes for Newcastle West is low. In terms of overall travel, 15% of commuters travel by foot with only 1% cycling. Similarly, the uptake of Public Transport is very low with 3% of commuters travelling by bus. This is made

up in the main of school bus travel, as outlined in the table below. The data also shows that car-based commuters (inclusive of lgv/vans) account for 78% of all commuter travel in Newcastle West.

Mode	To Education	To Work	Total
On Foot	10%	26%	15%
Bicycle	1%	1%	1%
Bus, minibus, or coach	1%	9%	3%
Train, DART, or LUAS	0%	0%	0%
Motorcycle or scooter	0%	0%	0%
Car Driver	69%	5%	49%
Car passenger	9%	59%	25%
Van	7%	0%	5%
Other (incl. lorry)	1%	0%	0%
Work mainly at or from home	2%	0%	2%

Table 2.3 Overall Commuter Mode Share for Newcastle West (Ref. 2016 CSO Census data)

The Limerick Development Plan sets out mode split targets for Newcastle West. These mode split targets are:

	Overall Target
On Foot	20%
Bicycle	5%
Bus, minibus, or coach	7%

Table 2.4 Overall Commuter Mode Share Targets for Newcastle West (Ref. Limerick Development Plan 2022-2028)

3.4.2 Regional Travel Patterns

Commuting data in the 2016 Census provides information on the numbers of commuters with an origin or destination in Newcastle West and information on the ED where each such journey commenced or ended. This information is shown geographically in Figures 3.40 And 3.41.

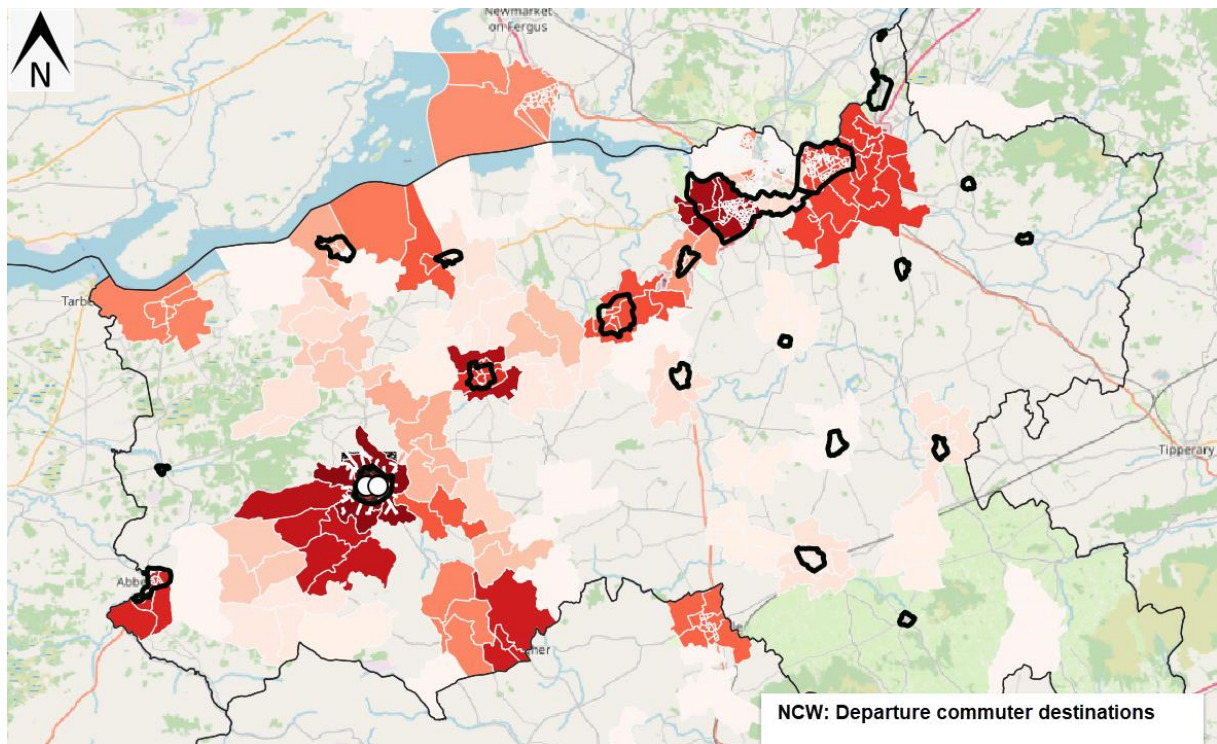


Figure 3.40: Regional Map showing destination of commuters originating from Newcastle West

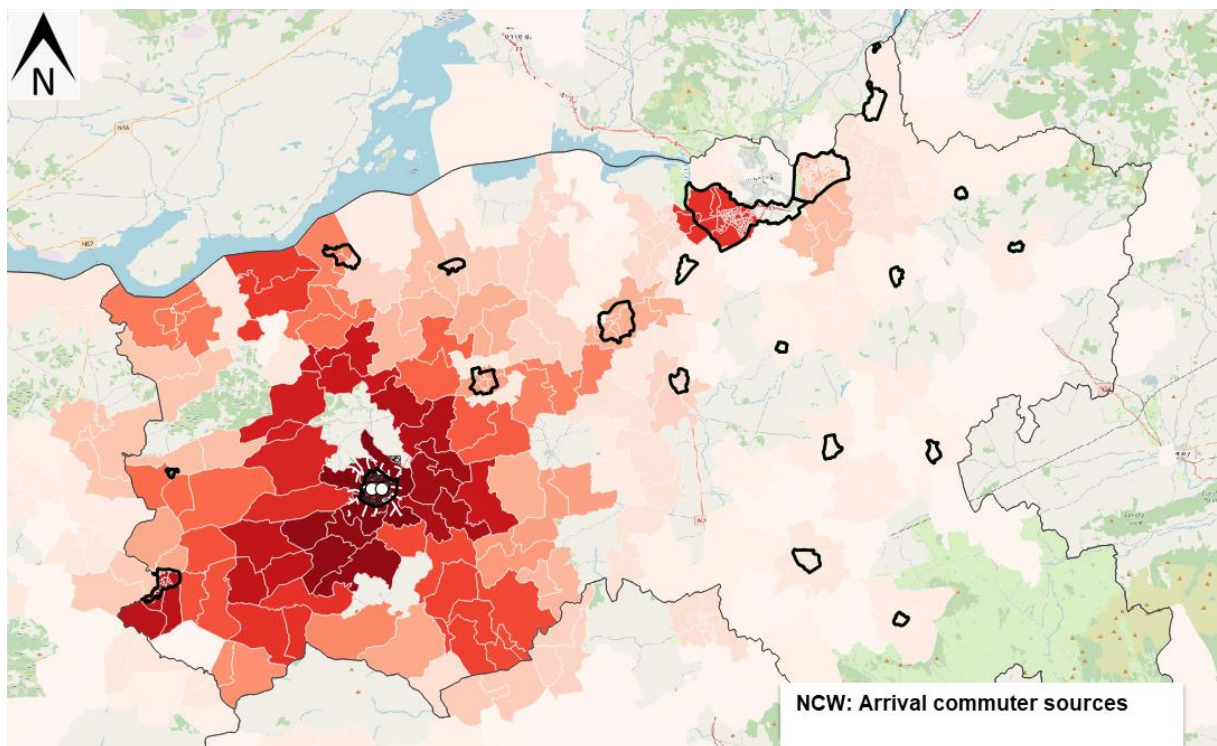


Figure 3.41: Regional Map showing origin of commuters travelling to Newcastle West

The graphics shown point to a number of trends. Inward commuters, travelling to Newcastle West comprise to a large extent of education-based travel. Much of this quantum of commuters travels to Newcastle West from the hinterland and surrounding rural areas. A number of

workers also likely commute to local businesses and industries from the western side of Limerick City.

Commuters departing from Newcastle West are more dispersed, reflective of the fact that they comprise mostly of workers. A significant proportion of these commuter can be seen to commute to Limerick City. The importance of the N21 route to these commuters can be seen in figure 3.41, with a very significant proportion of workers working along this corridor.

The pattern of outward commuter travel points to the potential gain in Public Transport uptake along the N21 route if an improved service, and associated town connectivity improvements were implemented.

3.4.3 Local Travel Patterns

A review of walking, cycling and public transport uptake in the wider town area was also undertaken to determine current active travel commuter patterns.

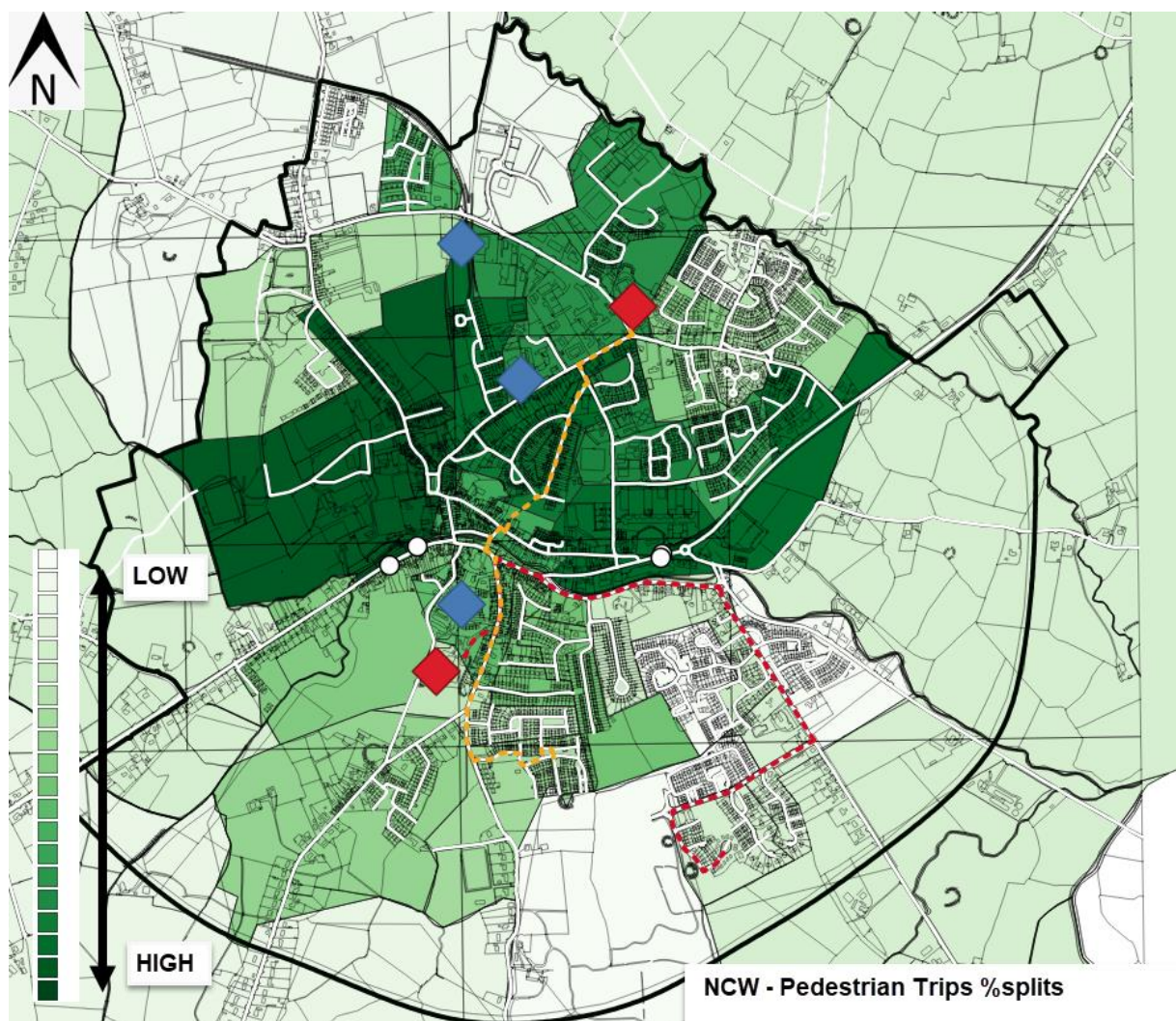


Figure 3.42: Newcastle West Pedestrian Walking Uptake

Key Findings:

- Proportion of walking uptake is very low to the south of the N21.
- Proportion of walking uptake to the southeast most notable.
- Walking uptake to the north is reasonably good but with poor uptake from the Cluain Arra estate area.

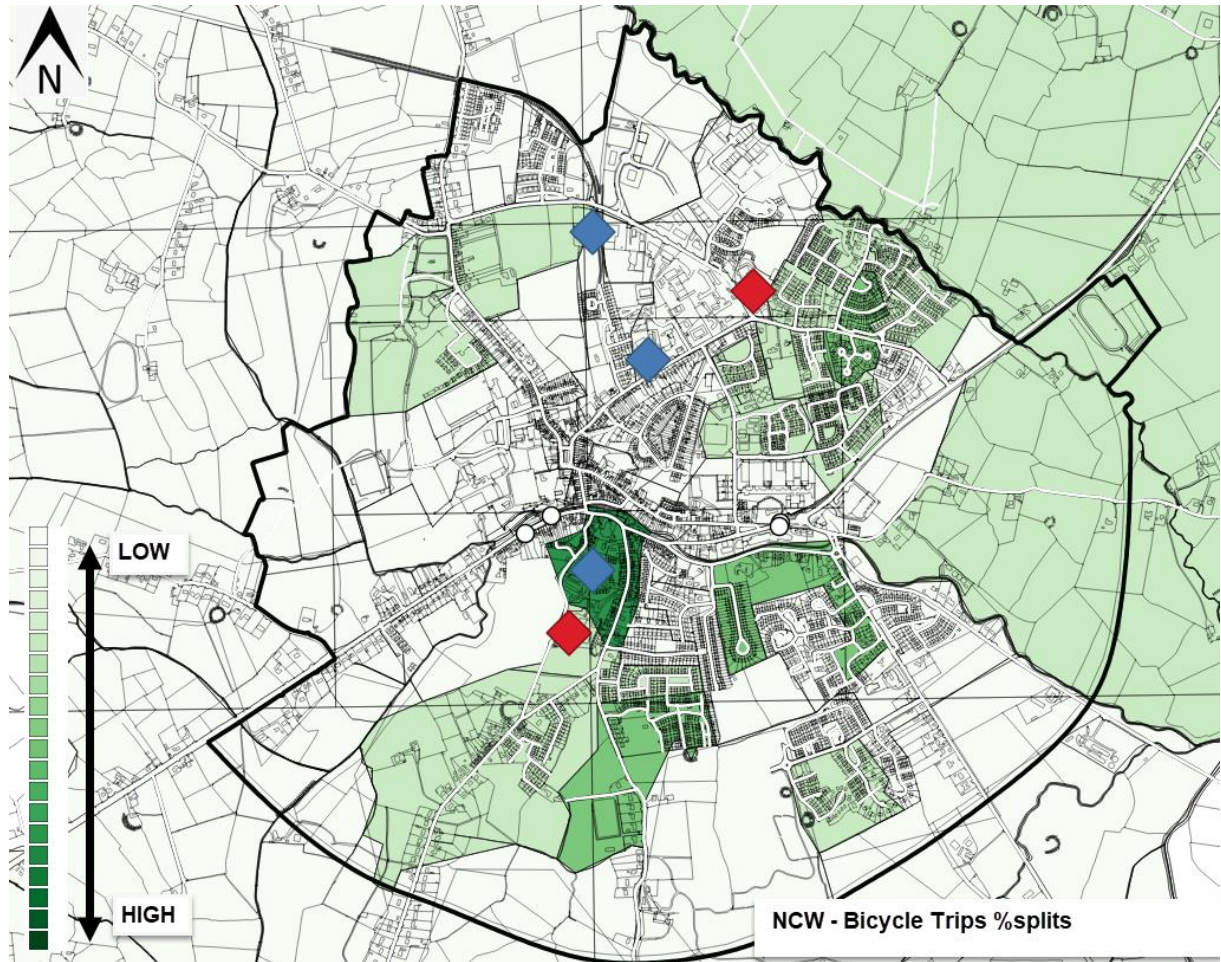


Figure 3.43: Newcastle West Pedestrian Walking Uptake

Key Findings:

- Proportion of cycling uptake is very low throughout Newcastle West
- Some cycling uptakes in the vicinity of Scoil Iosaf Primary School and Scoil Mhuire and Ide Secondary School.
- Statistics do not consider the impact of the Greenway (2016)

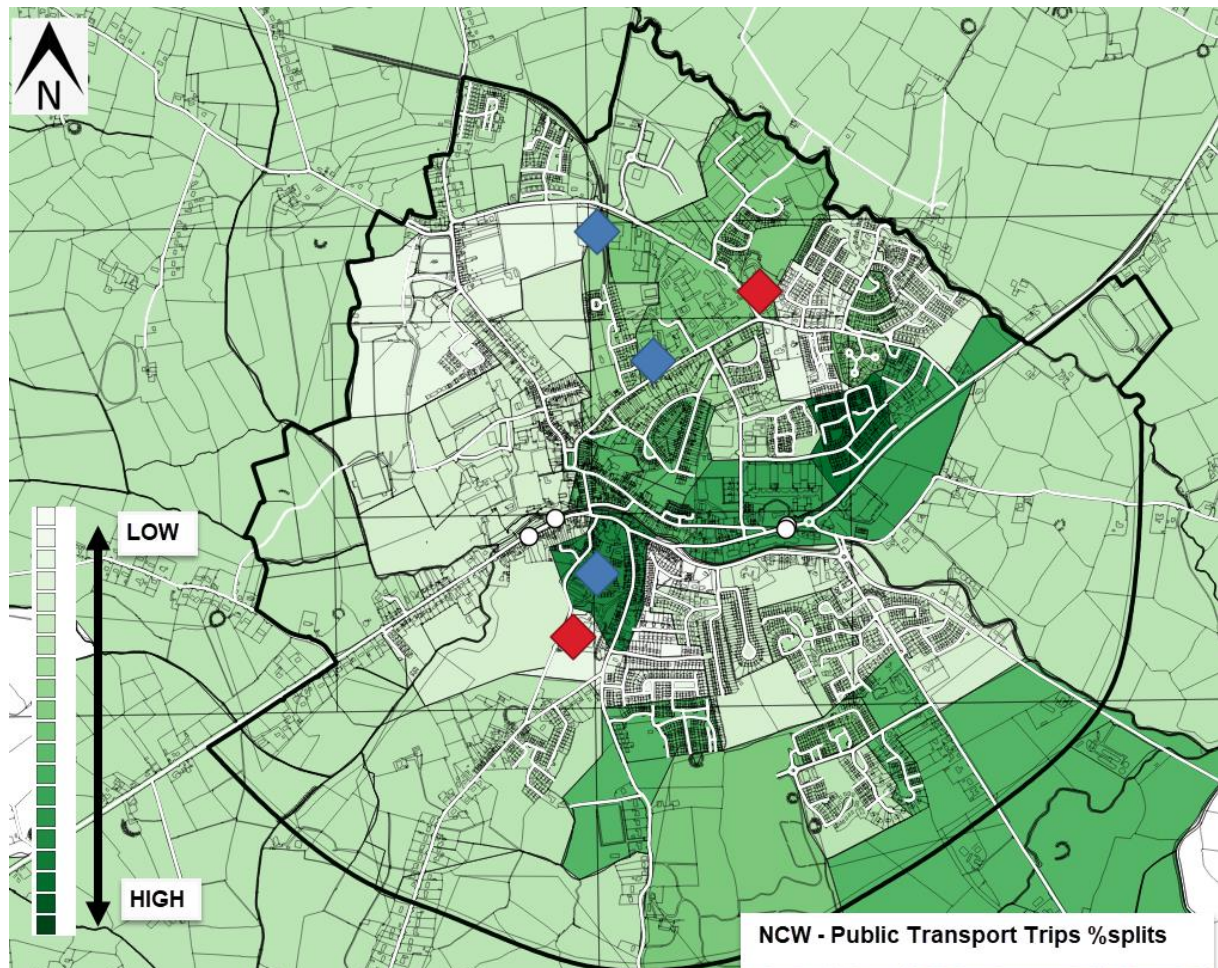


Figure 3.44: Newcastle West Public Transport Uptake

Key Findings:

- Proportion of public transport (bus) uptake is very low throughout Newcastle West
- Majority of public transport commuting associated with school bus travel, arriving from surrounding ED's.
- Some bus commuters from the town centre, primarily to the north of the N21. These areas are generally the older residential areas.

3.5 Future Growth

As per the Limerick Development Plan, a population growth of circa 2,000 is projected for NCW for the 2022-2028 development plan, equating to a growth in housing units of 706.

This is a large reduction on the growth provided for in the previously adopted Local Area Plan for the town, reflecting the current National Planning Framework policy of reducing unsustainable population/ housing targets and associated zoning.

The Limerick Development Plan 2022-2028 references a 2016 Census Population of 6,619 with a target population of 8,607 in 2028, a 30% population growth as percentage of 2016 baseline, with an average household size of 2.68 persons.

3.6 Draft NCW LAP 2023 –Zoning Map

The Draft NCW LAP, was provided by Limerick City and County Council's Planning Department as the basis in integrating growth objectives for the town whilst accounting for transport constraints/opportunities in the area, ensuring the development of land-use plans is a collaborative and iterative exercise between Planners and Transport Engineers. This draft map is shown below, split between 4no. primary land use categories.

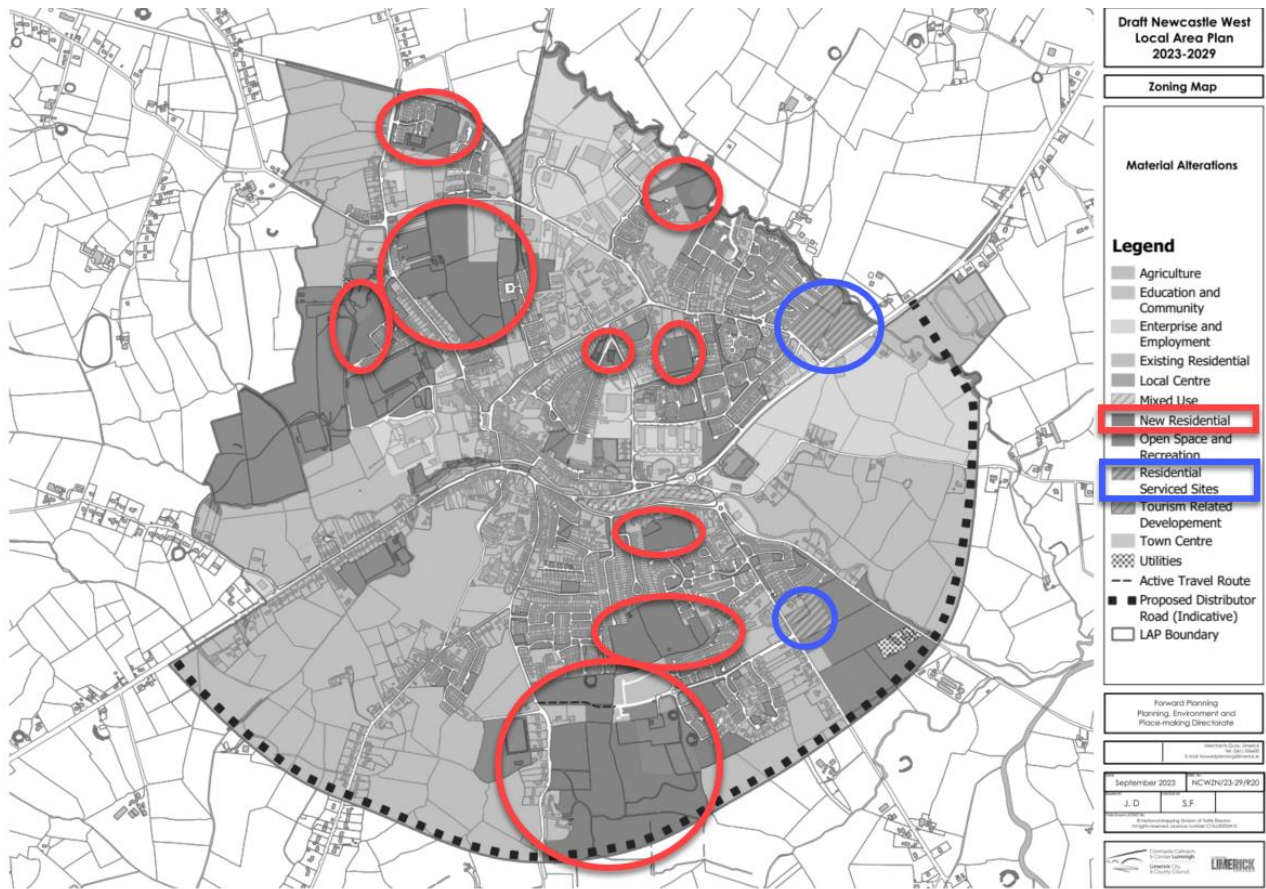
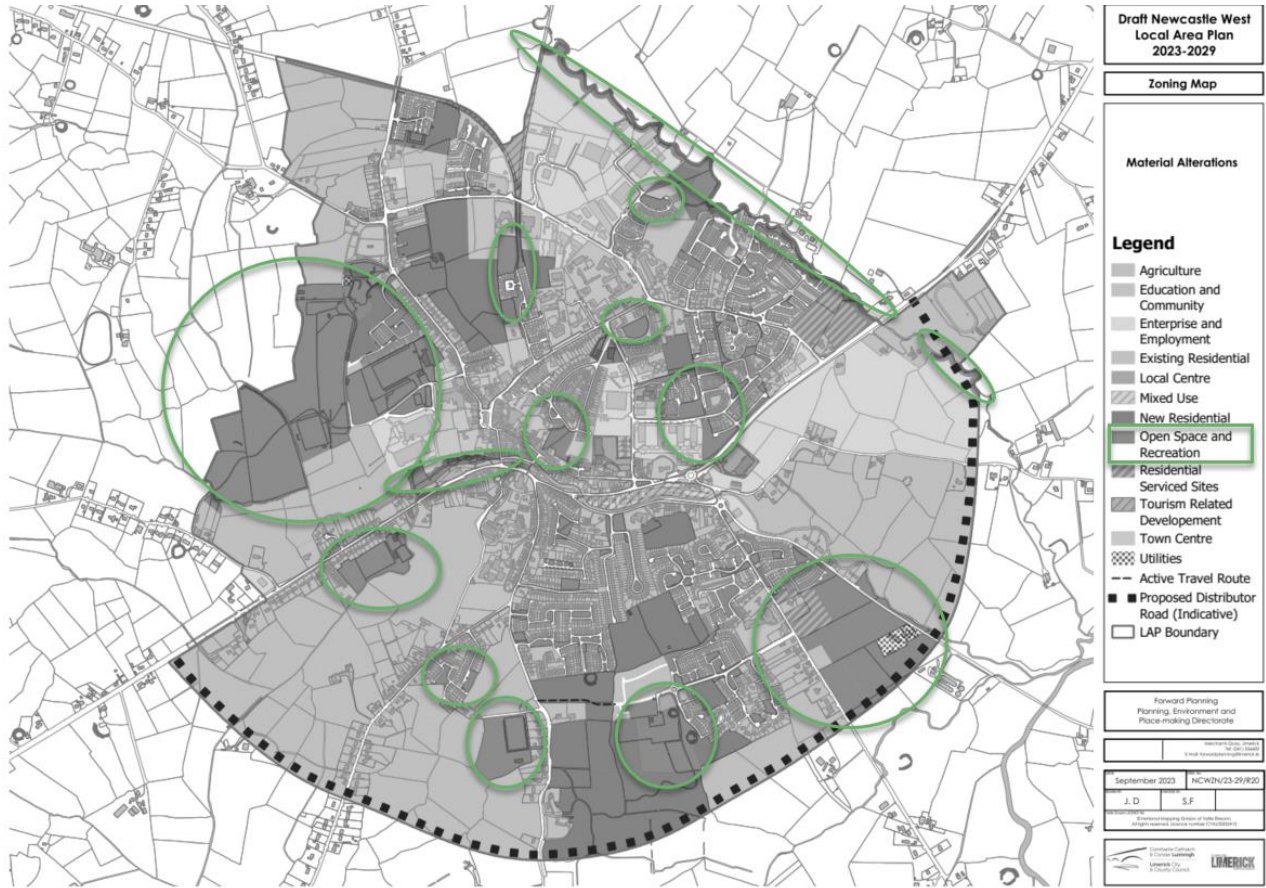


Figure 3.45: Newcastle West Primary Lane Use Breakdown – Residential and Open Space

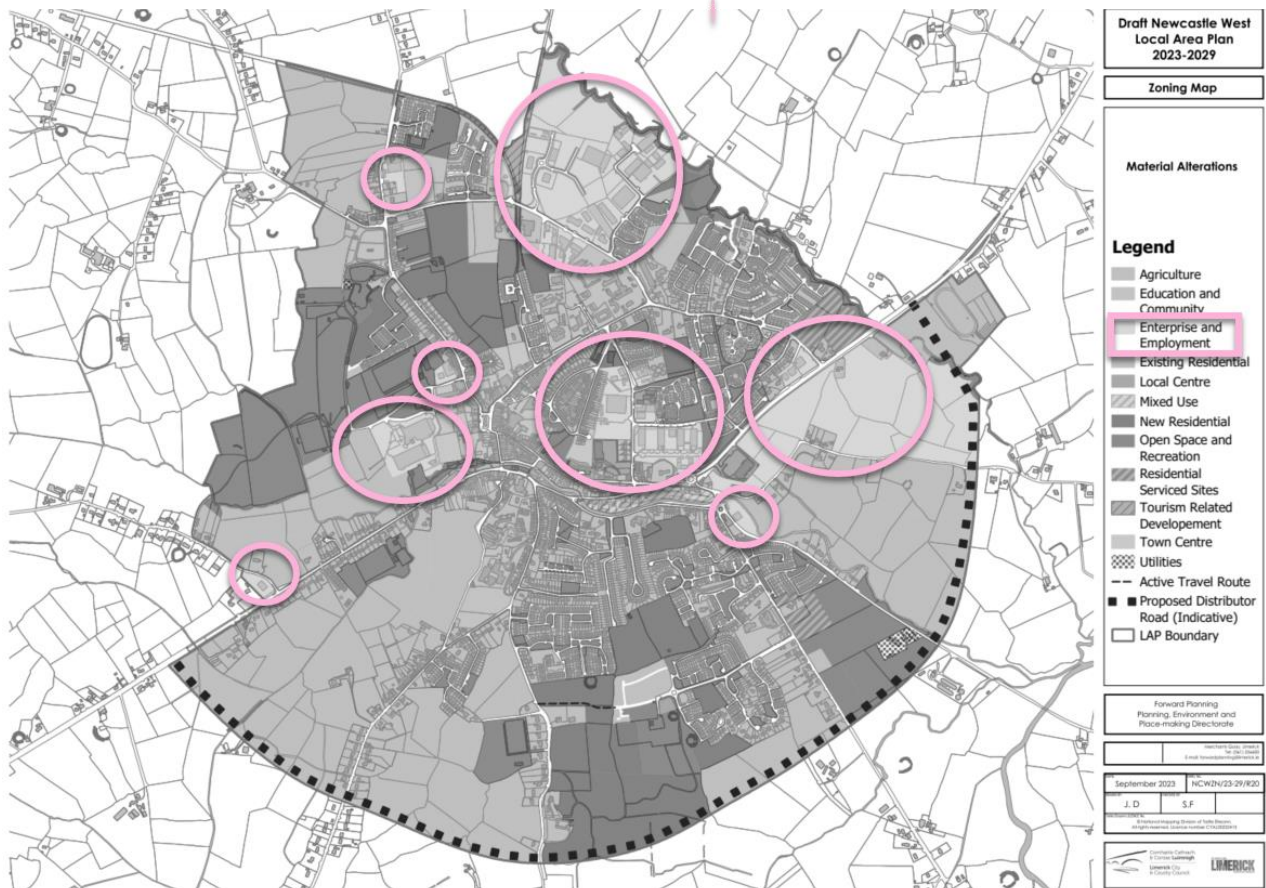


Figure 3.46: Newcastle West Primary Lane Use Breakdown – Enterprise & Employment




Land Use	Map Ref	Notes	Mobility Commentary
Open Space	Green	Significant land holding west of town	Opportunity to enhance active travel linkages with cross connections between zoned open spaces south the existing residential neighbourhoods. Amenity connections through the lands zoned to the west of the town would provide excellent synergies with the urban realm improvements proposed for the nearby town centre.
Residential	Red	Proposed residential zoning distribution primarily in a north/ south axis	Opportunity to connect existing and proposed residential zoning plots with the creation of an active travel north-south route, linking the majority of NCW's residential catchment areas. Cross connections to the western bounds of the town, and linkage to the greenway will enhance pedestrian/cyclist network permeability in the area, connecting geometrical isolated locations.
Education	Yellow	Schooling/ Community concentrated to the north of town centre	Opportunity to rationalise existing road/ street geometries to promote active travel connectivity / linkages, providing improved connections to residents to the south to the main town /community facilities.
Employment	Pink	Enterprise is concentrated to the northwest and east of study extents	Opportunity of northern zoning to provide active travel links with greenway. Eastern zoning well positioned with direct connectivity for HGV traffic to direct access the N21.

Table 3.1 Newcastle West Primary Lane Use Breakdown – Mobility Commentary

3.7 Opportunity Sites

Eight opportunity sites have been identified in Newcastle West and these are as follows:

- 1 Churchtown
- 2 Lands to rear of Church Street and Bishop's Street
- 3 Brewery Lane
- 4 Demesne and River Arra Walkway
- 5 Market Place
- 6 Nash Backlands
- 7 Former Olympic Ballroom, Sheehan's Road
- 8 Maiden Street
9. The Square

Ref	Zone	Notes	Transport Implication of Development	LTP actions
1		<p>C.12 hectares zoned New Residential, within walking distance of the town centre, the Demesne parkland and is adjacent to the Greenway.</p>	<p>Any development to address linkages to the Gaelscoil, Greenway, Demense and the town centre to ensure that local residents have easy access to facilities and amenities and ensure quality permeability.</p> <p>LTP recommended linkages- : RN2, RN3, RN4 RN18. CI1, CI2, CI21, CI24. WN3, WN4, WN5, WN24, WN27</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>New footpaths, junction improvement and new crossing facilities, redefined street with wider pedestrian facilities where space permits, removal of linear parking to gain off street footway, segregated and on road cycle facilities, completion of Greenway connection, traffic management measures, traffic control, carriageway improvements.</p>
2		<p>0.4 ha. Site zoned Town Centre. Desirable re-development of the site includes, a mix of residential units, tourist related services, tourist accommodation, office development or a cultural/arts facility.</p>	<p>Maximise the opportunity of the existing pedestrian access at Bridewell Lane and access to the existing car park.</p> <p>LTP recommended linkages- : RN3, RN4. CI1, CI3. WN4, WN5.</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>New footpath, on-road cycle facility, traffic control, carriageway improvements, new footpath / crossing.</p>
3		<p>A formal thoroughfare linking Market Square to Maiden Street. It is located approximately 100m east of The Square in the ACA.</p>	<p>This area is important from a public realm and improvements would provide a better quality pedestrian link in the heart of the town.</p> <p>Widening or opening up the entrance at the Market Square and the provision of quality street furniture, seating and bicycle parking.</p> <p>LTP recommended linkages- : RN4, RN6, RN7, RN17 CI3, CI6, CI5, CI20. WN5, WN7, WN8, WN22</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>New footpath / crossing, improved Pedestrian facilities/ Traffic Management, new junction arrangement, on-road cycle facility, Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.</p>

<p>4</p>		<p>Prime location adjacent to the town centre with vast potential in terms of public realm, connectivity, and permeability.</p>	<p>Improve pedestrian and cycle links adjacent to the River Arra for approximately 500m between west of Courtney Bridge and east of Bridge Street. In order to facilitate safe cyclist and pedestrian movement an elevated boardwalk could be provided over the river subject to appropriate ecological assessment.</p> <p>LTP recommended linkages- : RN 6, RN10, RN17 CI4,CI7, CI20 WN6,WN7,WN9,WN22, WN23</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>Traffic management and parking control measures, improved pedestrian facilities/ traffic management, car prohibition, improve segregated cycle facilities including new Active Travel bridge over River Arra linking to N21 crossing to Sheehan's Road</p>
<p>5</p>		<p>Site comprises unmaintained grassland, currently zoned Town Centre. Site is a prime location adjacent to the town centre with some opportunities for redevelopment including potential for residential, retail, office and community uses.</p>	<p>Maximise the opportunity of the existing pedestrian access.</p> <p>Opportunities in terms of public realm, connectivity, and permeability.</p> <p>LTP recommended linkages- : CI 5, CI20. WN7, WN22.</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts..</p>	<p>Improved Pedestrian facilities/ Traffic Management, New cycle connections to town centre</p>
<p>6</p>		<p>Nash Backlands, The Square and Castle Demesne.</p> <p>1. The site is zoned for Town Centre, located immediately off the square</p> <p>2. Given its strategic location in relation to the retail core and its considerable size, the site presents significant potential for reinforcing the use, function, and character of the Town Centre.</p>	<p>Opportunity for a mixed use development in the heart of the square including residential, office, retail and tourism. Site would provide an opportunity for increased permeability, linking the square to the demesne.</p> <p>LTP recommended linkages- : RN3, RN4, RN7. CI1,CI3, CI6,CI18. WN4, WN8,WN20.</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>New footpath, new junction arrangement, new footpath and cycle connections to Demesne, traffic control, carriageway improvements, traffic, and parking control measures</p>

<p>7</p>		<p>Former Olympic Ballroom, Sheehan's Road. Site is a prime location proximate to the town centre with opportunities for redevelopment, and the provision of Public Realm.</p>	<p>Opportunities in terms of public realm, connectivity, and permeability.</p> <p>LTP recommended linkages- : RN 4, RN5, RN16. CI3, CI4, CI19, CI26. WN5, WN6, WN21.</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>Traffic and parking control measures, new cycle facility along Sheehan's Road, new footpath / crossing, new connections to existing local and estate roads, New pedestrian and cycle facilities</p>
<p>8</p>		<p>Site is a prime location adjacent to the town centre with vast potential in terms of public realm, connectivity, and permeability.</p>	<p>Opportunities in terms of public realm, connectivity, and permeability.</p> <p>LTP recommended linkages- : RN6, RN8, RN17. CI5, CI7, CI20. WN7, WN9, WN22, WN23.</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>Improved Pedestrian facilities/ Traffic Management/ New crossing, improved cycle connections, urban realm and active travel improvements, traffic management measures, improved pedestrian facilities/ traffic management, car prohibition</p>
<p>9</p>		<p>Town centre with vast potential in terms of public realm, connectivity, and permeability.</p>	<p>Opportunity for a mixed use development in the heart of the square including residential, office, retail and tourism. Site would provide an opportunity for increased permeability, linking the square to the demesne.</p> <p>LTP recommended linkages- : RN3, RN4, RN7. CI1, CI3, CI6, CI18. WN4, WN8, WN20.</p> <p>Supportive linkages measures as noted in the potential neighbourhood linkages layouts.</p>	<p>Improved Pedestrian facilities/ Traffic Management/ New crossing, improved cycle connections, urban realm and active travel improvements, traffic management measures, improved pedestrian facilities/ traffic management, car prohibition</p>

Figure 3.47 Transport Analysis of Opportunity Sites (LAP 2023-2029)

3.7.1 Summary of Baseline Assessment and Feedback into LAP

Newcastle West's Road network is defined by the N21 national primary road which runs through the town centre in an east – southwest direction. This route serves as a main link between Limerick City, Killarney, and Tralee, as well as Abbeyfeale to the west of the town and Rathkeale directly to the northeast.

Catchment analysis provided an overview of the current walking/cycling catchments for key locations throughout the town.

Commercial activities are concentrated in the centre of NCW town as well as in industrial estates in the northern and eastern peripheries.

Regional bus services in Newcastle West are limited in frequency but do provide connections to a number of hinterlands and major towns in the county and beyond.

Newcastle West is characterised by a large number of cul de sac types of residential estates with poor connectivity. In addition, there are a number of features such as the N21, and the river Arra which present physical linear barriers to connectivity in the north south direction.

Primary and secondary schools in Newcastle West are located to the north and southwest of the town. This currently limits the practicality of active travel to school, particularly for residents to the southeast of the town due to existing limited connectivity. The disconnect between cul de sac residential estates and existing schools encourages car trips, making it critical that safe walking and cycling facilities are provided to this area.

There are currently no dedicated cycle facilities in the town with paths/ road verges not suitable for cyclists in a number of areas.

The existing N21 road safety record was reviewed to account for the traffic volumes bisecting the town's urban area.

3.8 Strengths, Weaknesses, Opportunities and Threats Analysis

A wide range of background data and information has been gathered in relation to influencing policy, area characteristics, travel patterns and transport infrastructure for the Plan's study area. The findings of the baseline assessment have been summarised as a Strength, Weaknesses Opportunities and Threats (SWOT) Analysis. The strengths and weaknesses focus on the existing characteristics of the Plan area, whilst the opportunities and threats identify external or long-term influences on the Plan. As outlined in the Guidance Document, the consolidation of the baseline assessment into a SWOT analysis will help inform the latter stages of the plan.

STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
Strong links to National Road network	N21 and River Arra present particular barrier for integration of south side of the town	Transit orientated development around improved active travel infrastructure	Scale of achievable development is reliant on substantial public transport enhancements and substantial investment in walking and cycling infrastructure
Strong links to regional greenway network	Road network is congested during peak periods	Improved active travel connectivity owing the N21 bypass	Phasing of development to create continuous active mode infrastructure and a sense of community
N21 bypass will present improved traffic conditions throughout the town	Poor level of public transport	Improved bus service would serve a high proportion of commuters working along the N21 corridor	Ability to fund and deliver critical infrastructure required to overcome physical severances (N21 and River Arra) in order to deliver a permeable active travel network
Street Network conducive to implementation of improved walking and cycling facilities	Lack of available route to link greenway network to town centre	Existing greenway presents significant active travel opportunities	Lack of funding for N21 bypass.
Moderate gradients suitable for active travel modes	Private vehicles are established predominant mode of transport for the area	Available developable lands are of sufficient scale and can be strategically located to influence trip making and future travel behaviours.	Part M compliance, Mobility access for all NMU'S/ residents/ visitors to NCW.

Table 2.5 NCW SWOT Table

4. LTP PROCESS & OPTIONS ASSESSMENT

4.1 Introduction

The Area assessment and Local Transport Plan focuses is to determine the best options /interventions to achieve transportation objectives for the study area in question, namely Newcastle West in this instance.

Referencing relevant transportation and development policies, including the baseline study findings for NCW, the following travel modes were evaluated to determine interventions to integrate and promote active travel, sustainable travel and reduce the residents of the town dependency of private car usage.

The travel modes assessed were:

- Walking,
- Cycling,
- Road Network
- Parking
- Public Transport (Bus)

4.2 Walking /Cycling Strategy

4.2.1 Walking - Connectivity Overview / Objectives

The study area of Newcastle West is topologically split between historic main town centre, and commercial and residential dendritic street layouts formed by a large number of cul de sac type residential estates with poor connectivity. Additionally, the River Arra and the N21 present connectivity barriers. As noted in the baseline study, walking, and cycling trips within the town are limited, due to the nature of the existing service provision and connectivity linkages. The existing spatial relationship between existing housing, schools, businesses, and amenities encourage car trips.



Figure 4.1 DMURS- Typical dendritic spatial layout, restricted permeability

One of the key objectives of this LTP is to provide an integrated walking network for Newcastle West, with the focus on increasing the walking mode share and improving safety. With a key focus on connecting communities with legible connectivity linkages and permeable footpath networks, this can be achieved by improving existing walking infrastructure and by creating new connectivity links, thereby increasing the catchment areas of key trip attractors in the town.

4.2.2 Walking / Connectivity Actions/ Interventions

Connectivity and walking interventions for the study area are as tabulated. Taken together, these actions will provide an integrated walking network for Newcastle West. These connectivity interventions are illustrated in following figure.

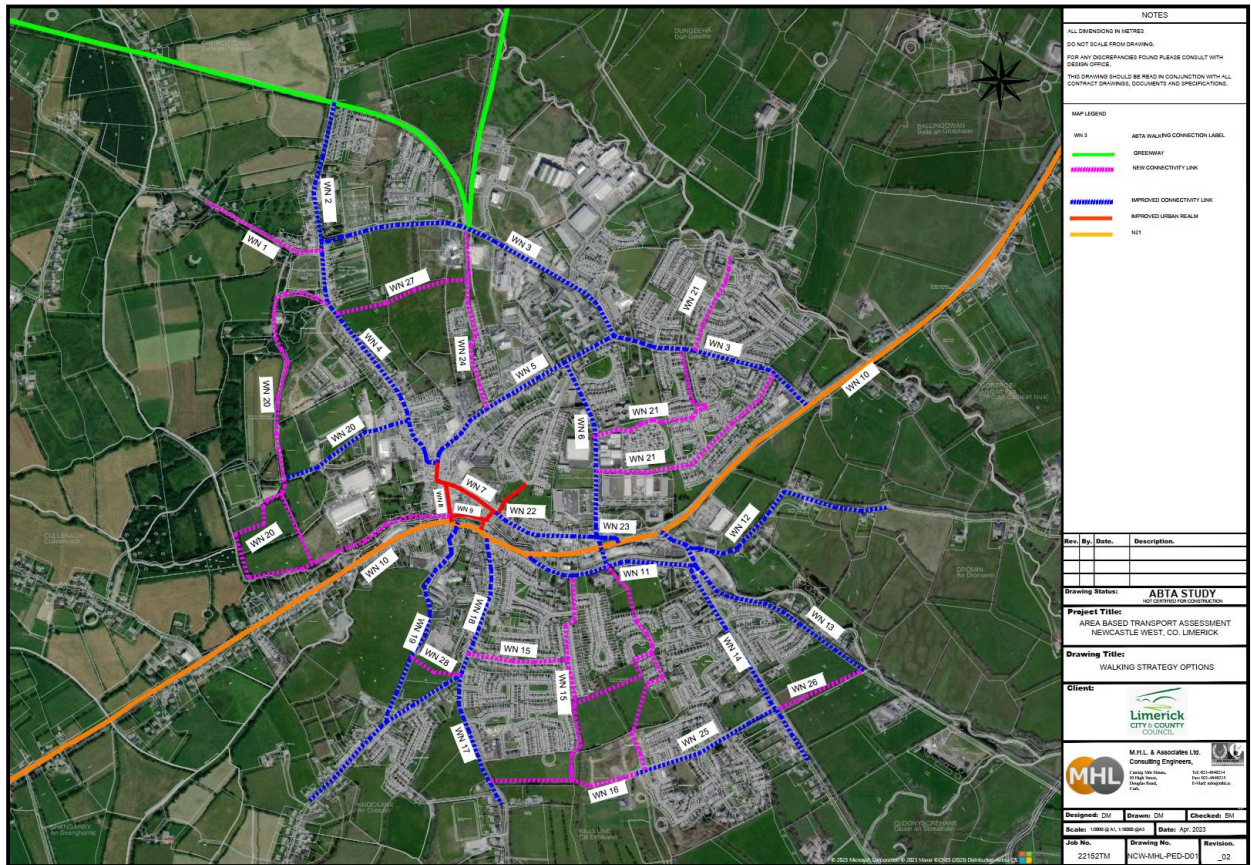


Figure 4.2 Map of Pedestrian Infrastructure Actions

4.2.3 Walking / Connectivity Strategy Assessment

To provide a holistic approach to this assessment, improved conditions for cycling and walking were the primary criteria for this LTP. The objective of providing combinations of link formations enable wider walking /cycling routings to key destination and transport nodes, i.e. (businesses, schools, public transport locations.)

The benefit of this whole area approach ensures appropriate walking and cycling catchment improvements are integrated together. As a result, it is not appropriate to assess each connectivity intervention option individually.

This section assesses the expansion of walking distance catchments in Newcastle West with the implementation of the new connectivity measures. To conduct this analysis, a Do-Something path network was created which contained the baseline path network with the addition of all proposed paths and road improvements. The table summarises the benefits of the strategy through improved catchment characteristics for key destination transits. Refer to Dwg.: NCW-MHL-PED-D01 R02.

NCW LTP - Walking/ Pedestrian				
	Action/ Intervention	Description	Type	Need for intervention
	WN 1	Provide pedestrian improvements at junction between R521 and Churchtown road	New buildouts, improved pedestrian crossing	Enhance pedestrian connections at this location, improving NMU safety.
	WN 2	Extend/ install footpath connection where current intermittent provision is located north of the Station Road Junction, along the R521 and tie into existing network,	New footpath	Connect existing residential areas with existing footway network
	WN 3	Improved pedestrian facilities along the Station Road and Gortboy Road from R521 Churchtown Road to N21. Improved pedestrian/cycle crossings along this route also. Pedestrian crossing at Churchtown Rd/Station Rd.	New footpaths, junction improvement and new crossing facilities	Improved local connection with greenway
	WN 4	Redefined street with wider pedestrian facilities where space permits along R521 Churchtown Road	New footpath	Improved local connection for Churchtown Road,
	WN 5	Removal of some linear parking to gain off street footway, pedestrian crossing at Cork Rd/ Bishop St. junction. Improved pedestrian and cycle connectivity to Courtenay National School.	New footpath / crossing	Connection between greenway to town centre, existing schools, residential areas and to proposed residential, commercial and community zoned lands
	WN 6	Continuous footway and 2-way cycle facility along Sheehan's Road.	New footpath	Connection between greenway to town centre, connecting new residential, commercial and community zoning within area
	WN 7	Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.	Improved Pedestrian facilities/ Traffic Management	Improved traffic control and increased uptake in active travel modes
	WN 8	Junction Improvements and new pedestrian/cycle crossings along the N21 to make provision for improved connectivity for active travel modes.	New junction arrangement	Pedestrian / cycle connection from Bridge St. through to N21.
	WN 9	Maintain one-way traffic circulation along North Quay with urban renewal improvements to allow for the installation of improved active travel network improvements	Improved Pedestrian facilities	Improved local connection
	WN 10	Improved traffic management measures along the N21 to facilitate improved active travel network improvements.	Traffic management and improved pedestrian/cycle measures	Improved connectivity across the N21.
	WN 11	Implement 1-way traffic system along the Flood Relief Road to facilitate the delivery of improved pedestrian facilities to improve connectivity from the southern portion of Newcastle West to the town centre and north.	Improved pedestrian facilities including new Active Travel Bridge over River Arra linking to N21 crossing.	Improved connectivity for existing residential area and new residential lands

		New active travel bridge connection over River Arra and N21 pedestrian/cycling road crossing.		
	WN 12	New active travel connection from Flood Relief Road to south-eastern Enterprise and Employment zoning.	Off road active travel route	Improved connectivity to Enterprise and Employment zoning
	WN 13	Improved active travel facilities along Castlemahon Road (R520)	On road pedestrian facilities along R520	Improved connectivity to residential area
	WN 14	Improved active travel facilities along Old Cork Road (R522)	Improved pedestrian facilities along R522	Improved connectivity to sports facilities and established residential area
	WN 15	Active travel connections to existing Beechwood estate roads to improve permeability and provide improved north/south active travel connectivity for zoned residential lands	New pedestrian/cycle connections to existing local and estate roads	Connectivity for existing residential area and new residential lands
	WN 16	New active travel route	New pedestrian and cycle facilities inclusive of appropriate traffic calming/signage, DMURS compliant street design.	Connectivity for existing residential area and new residential lands
	WN 17	New residential lands east of Knockrane Road.	New Residential Lands Link	Active travel connection between zoned residential lands,
	WN 18	Implementation of traffic management measures and road improvement works along Bothar Bui Road to make provision for improved active travel facilities.	Traffic control with improved pedestrian facilities.	Improved connectivity to schools, sports facilities and established residential area
	WN 19	Implementation of secondary cycle network improvements, including footpath improvements along Lower Knockane Road.	New footpath	Active travel connection between zoned residential lands,
	WN 20	Improved pedestrian permeability to the Demesne to connect to the town-wide footpath network.	New footpath connections to Demesne	Improved connectivity to amenity facilities
	WN 21	Develop Active Travel connection from Sheehans Road to Castlevue Estate, forming a connection to Gortboy Road.	New connections to existing local and estate roads	Improved connectivity to established residential area
	WN 22	Develop urban realm improvements in centre of town	Improved Pedestrian facilities/ Traffic Management	Active travel connection, Urban realm improvement,
	WN 23	Develop urban realm improvements in centre of town	Improved Pedestrian facilities/ Traffic Management/ New crossing	Active travel connection, Urban realm improvement,
	WN 24	Completion of Greenway connection to Bishop Street/Town Centre. New controlled crossing facilities at Station Road crossing.	New greenway connection to wider town	Improved Active Travel Connectivity. Road Safety.
	WN 25	Improved pedestrian/cycle permeability along Woodfield Estate, connecting zoned lands to existing urban connections	Improved Link	Active travel connection between zoned residential lands, open space zoning

WN 26	Improved pedestrian/cycle permeability between R520 and R522, connecting zoned lands to existing urban connections.	New Residential Lands Link	Active travel connection between zoned residential lands, open space zoning
WN 27	Improved pedestrian/cycle permeability along, connecting zoned lands to existing urban connections	New Link	Active travel connection between zoned residential lands,
WN 28	New pedestrian /cyclist link between Bothar Buí Road and Lower Knockrane Road	New link	Active travel connection between zoned residential lands, schools

Table 4.1 Pedestrian Infrastructure intervention /actions

To assesses the expansion of walking distance catchments in the study area, a Do-Something path network was created which contained the baseline path network with the addition of all proposed paths, roads, and footbridges with QGIS. The following points are noted:

Health Facilities: There is a large catchment increase due to the new connectivity measures, mostly due to the benefits active travel measures noted, providing a north /south corridor;

Primary and Secondary Schools: There is an increase in the catchment area of both primary and secondary schools. In particular, the benefits to connectivity is notable, with the new connectivity measures to the south of the town proving to be highly effective;

Further Education / Adult Education: There is also benefits to access to further education / adult education facilities, providing an increased catchment area for walking/cycling.

Sports Amenities: There is an improvement to access to sports amenities, particularly for residents south of the town, due to the new connectivity measures proposed.

Bus stops: Without altering the existing bus stops locations, the improved connectivity linkages benefit a wider residential population in terms of improved catchment. This highlights the necessity of these improved connections and associated permeability.

The following figures note the enhanced catchment coverage associated with walking /cycling network improvements, notably extensive coverage to the existing and proposed development locations with the town's boundary extents.

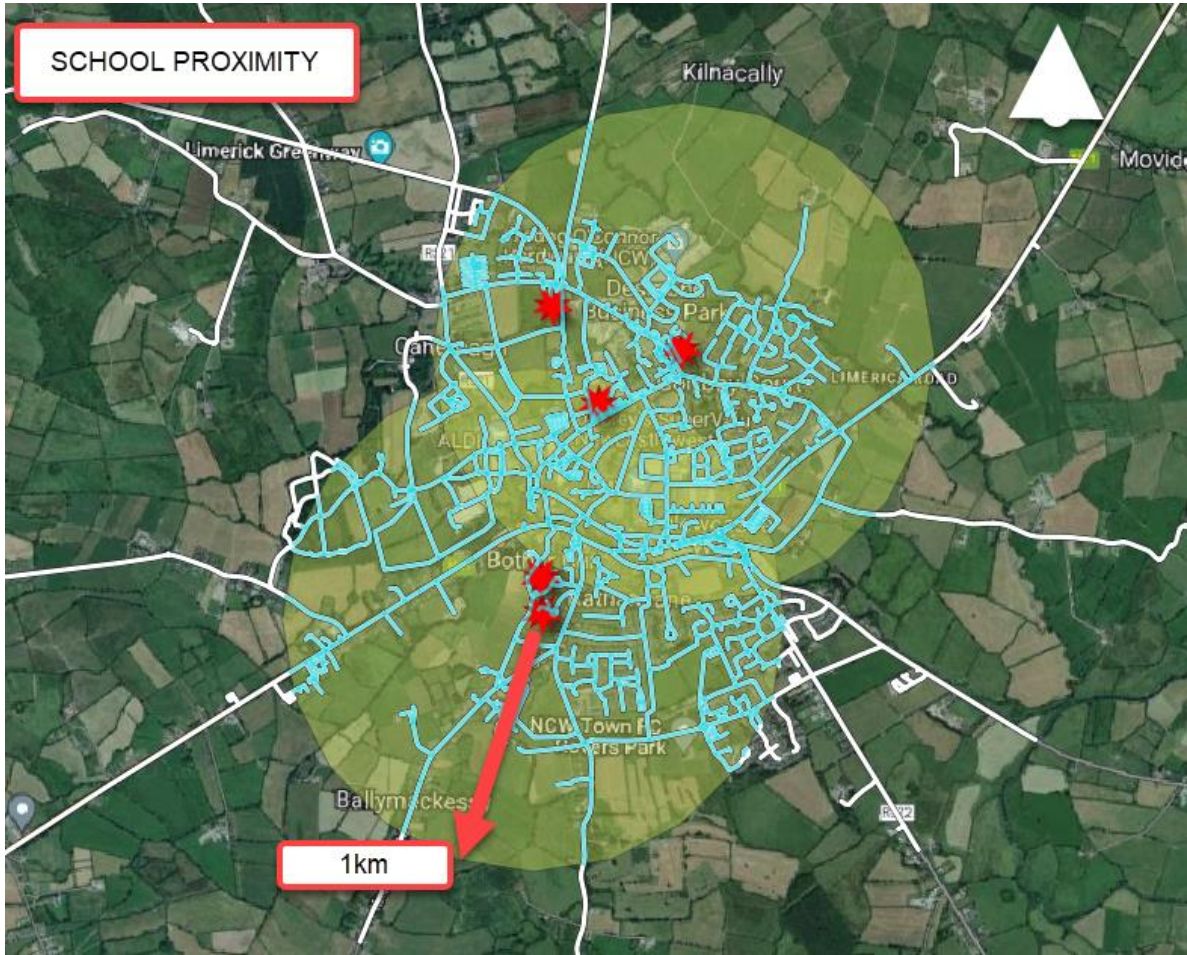


Figure 4.3 School catchment coverage with network improvements (1km walk)

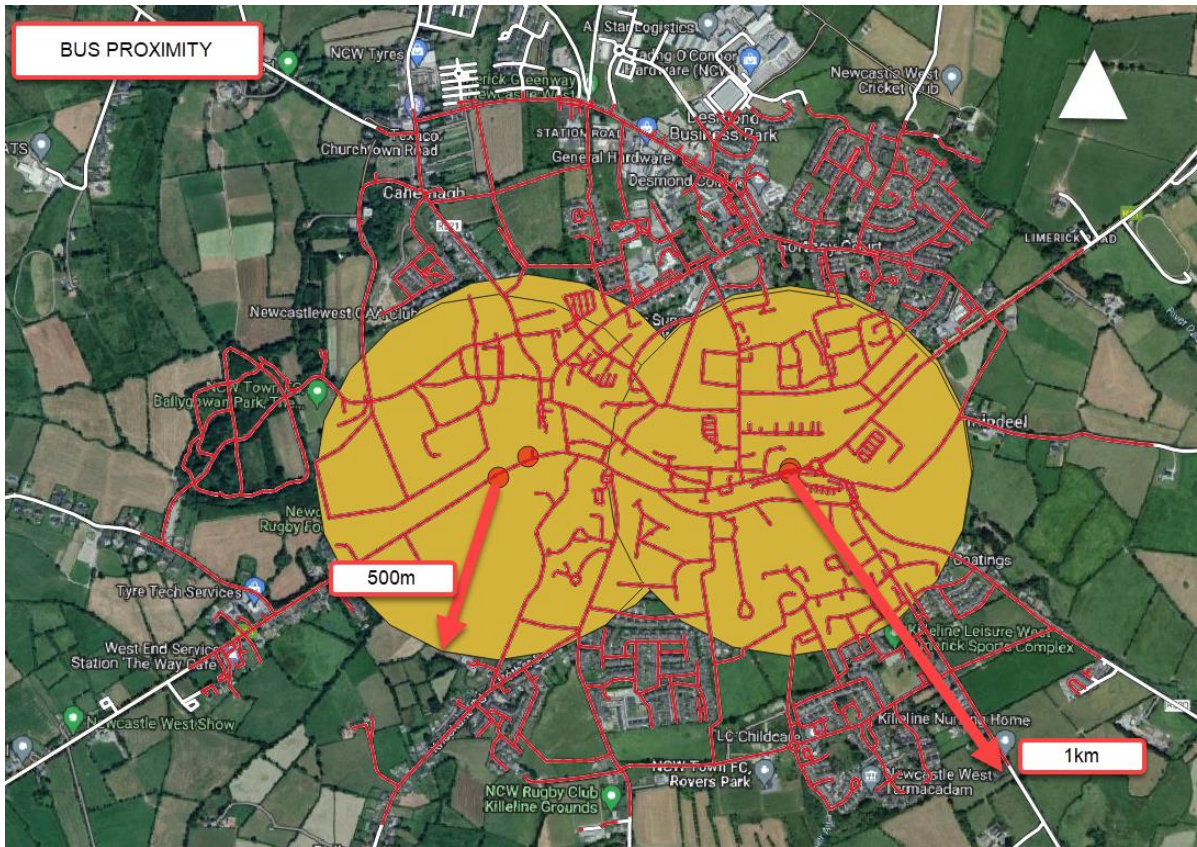


Figure 4.4 Bus catchment coverage with network improvements (500m, 1km walk)

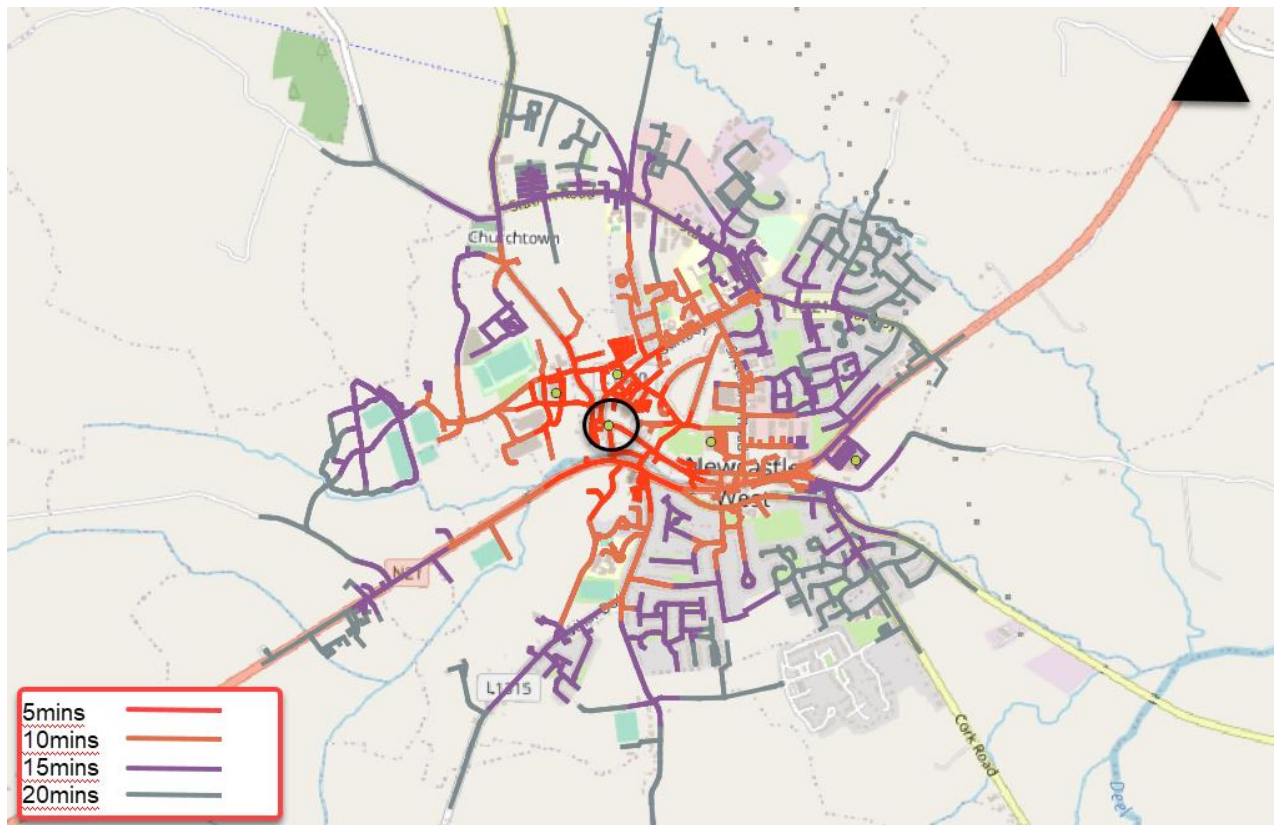


Figure 4.5 Town coverage with network improvements (5m, 10m, 15m, 20m walk)

4.3 Cycling Strategy

4.3.1 Cycling - Connectivity Overview / Objectives

Apart from the greenway, there are currently no dedicated cycle facilities within the study extents. Cyclists are currently under served within the existing road network. Given the high number of internal commuting trips within the town, there is an opportunity to increase cycling mode share.

The objective of this LTP is to focus on improving the cycling mode share, particularly to schools, by providing an integrated cycle network for the town and improve safety for cyclists. These cycle measures are as shown in the figure below.

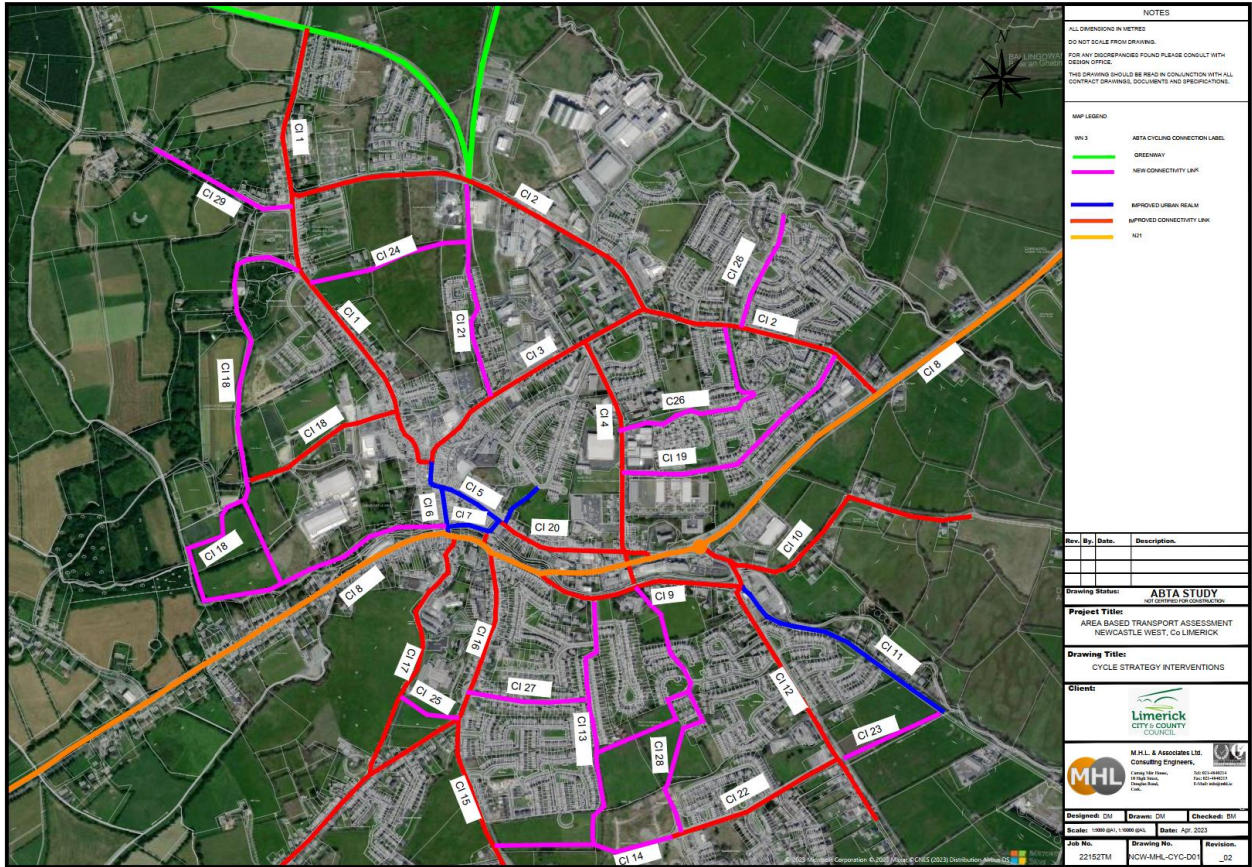


Figure 4.6 Map of Cycling Infrastructure Actions

4.3.2 Cycling / Connectivity Actions

Cycling interventions are as tabulated below, with the type of cycle infrastructure to be provided (cycle track/lane, shared street, greenway, etc.) as indicated. Exact details of the cycle interventions, for example, if it is segregated or on-road would be examined at detailed design stage. Refer to Dwg.: NCW-MHL-CYC-D01 R02.

A key object of the proposed interventions is to connect the wider trip attractors in the area, inclusive of the largest single retail development in Newcastle West located on the N21. This would be of great benefit to the locality. Interventions along the N21 would be subject to the protection of the roads strategic function and safeguarding the levels of safety, as per the requirements of Transport Infrastructure Ireland.

NCW LTP - Cycling			
Action Intervention	Description	Type	Need for intervention
CI 1	Extend/ install footpath connection where current intermittent provision is located north of the Station Road Junction, along the R521 and tie into existing network,	New cycle facility	Connect existing residential areas with existing footway network
CI 2	New cycle route along Station Road and Gortboy Road from R521 Ardagh Road to N21. Improved pedestrian/cycle crossing along this route also.	Segregated and on road cycle facilities	Improved cycle connectivity and permeability
CI 3	Removal of some on streetcar parking to facilitate installation of cycle route and new pedestrian crossing at Cork Rd/ Bishop St. junction	On-road cycle facility	Improved cycle network connectivity

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CI 4	Continuous footway and 2-way cycle facility along Sheehan's Road.	New cycle facility along Sheehan's Road	Connection between town centre and connecting new residential, commercial and community zoning within area
CI 5	Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.	Improved Cycle connections	Improved traffic control and increased uptake in active travel modes
CI 6	Junction Improvements and new pedestrian/cycle crossings along the N21 to make provision for improved connectivity for active travel modes.	New junction arrangement	Pedestrian / cycle connection from Bridge St. through to N21.
CI 7	Maintain one-way traffic circulation along North Quay with urban renewal improvements to allow for the installation of improved active travel network improvements	Improved Cycle facilities	Improved local connectivity
CI 8	Implementation of improved cycle facilities along the N21, inclusive of proposed pedestrian/ cycle network interventions to the east connecting with the Tesco superstore located south of the N21.	Inter Urban route	Inter Urban Connectivity
CI 9	Implement 1-way traffic system along the Flood Relief Road to facilitate the delivery of a 2-way segregated cycle facility to improve connectivity from the southern portion of Newcastle West to the town centre and north.	Improve segregated cycle facilities including new Active Travel bridge over River Arra linking to N21 crossing to Sheehan's Road.	Improved connectivity for existing residential area and new residential lands
CI 10	New active travel connection from Flood Relief Road to southeastern Enterprise and Employment zoning.	Off road active travel route	Improved connectivity to Enterprise and Employment zoning
CI 11	Improved active travel facilities along CastleMahon Road (R520)	On road cycle facilities along R520	Improved connectivity to sports facilities and established residential area
CI 12	Improved active travel facilities along Old Cork Road (R522)	On road cycle facilities along R522	Improved connectivity to sports facilities and established residential area
CI 13	Active travel connections to existing Beechwood estate roads to improve permeability and provide improved north/south active travel connectivity for zoned residential lands	New pedestrian/cycle connections to existing local and estate roads	Connectivity for existing residential area and new residential lands
CI 14	New active travel route	New pedestrian and cycle facilities	Connectivity for existing residential area and new residential lands
CI 15	New residential lands east of Knockrane Road.	New Residential Lands Link	Active travel connection between zoned residential lands,
CI 16	Implementation of traffic management measures and road improvement works along Bothar Bui Road to make provision for improved active travel facilities	Traffic control with improved pedestrian facilities. On road cycle route.	Improved connectivity to schools, sports facilities and established residential area

CI 17	Implementation of secondary cycle network improvements along Lower Knockane Road.	New footpath	Active travel connection between zoned residential lands,
CI 18	Improved cycle connectivity to the Demesne to connect to the town-wide cycle network.	New cycle connections to Demesne	Improved connectivity to amenity facilities
CI 19	Develop Active Travel connection from Sheehans Road to Castlevue Estate, forming a connection to Gortboy Road.	New connections to existing local and estate roads	Improved connectivity to established residential area
CI 20	Implementation of NCW urban cycle network on Maiden St.	New cycle connections to town centre	Improved connectivity to amenity facilities
CI 21	Completion of Greenway connection to Bishop Street/Town Centre. New controlled crossing facilities at Station Road crossing.	New greenway connection to wider town	Improved Active Travel Connectivity. Road Safety.
CI 22	Improved pedestrian/cycle permeability along existing residential roadway, connecting zoned lands to existing urban connections	New Residential Lands Link	Active travel connection between zoned residential lands, open space zoning
CI 23	Improved pedestrian/cycle permeability along Woodfield Estate, connecting zoned lands to existing urban connections	New Residential Lands Link	Active travel connection between zoned residential lands, open space zoning
CI 24	New pedestrian /cyclist link between Bishop Ct./Gortboy and Churchtown Road/ R521	New link	Active travel connection between zoned residential lands, schools
CI 25	New pedestrian /cyclist link between Bothar Buí Road and Lower Knockane Road	New link	Active travel connection between zoned residential lands, schools
CI 26	New pedestrian /cyclist link between Cluain Arra and surrounding estates with Station Roadane Road.	New link	Active travel connection between zoned residential lands, schools

Table 4.2 Cycle Infrastructure intervention /actions

4.4 Roads Strategy

4.4.1 Roads - Connectivity Overview / Objectives

The main objective of this LTP in terms of roads, to reduce unnecessary vehicular trips through the town centre and identify mitigation measures to improve road safety and minimise collision hotspots.

With the government's current focus on reducing car transport trips, emissions and promote active travel across the country, the focus of this LTP roads strategy is to ensure integration of the recommended network improvements for cycle and pedestrian modes with existing road carriageways, whilst ensuring capacity and road safety of the vehicular network is not undermined.

The focus on reclaiming the street scape is evident in the NCW proposals to pedestrianize the town centre with urban realm improvement works. This ties into this LTP road strategy assessment to prioritize non-vehicular trip generation.

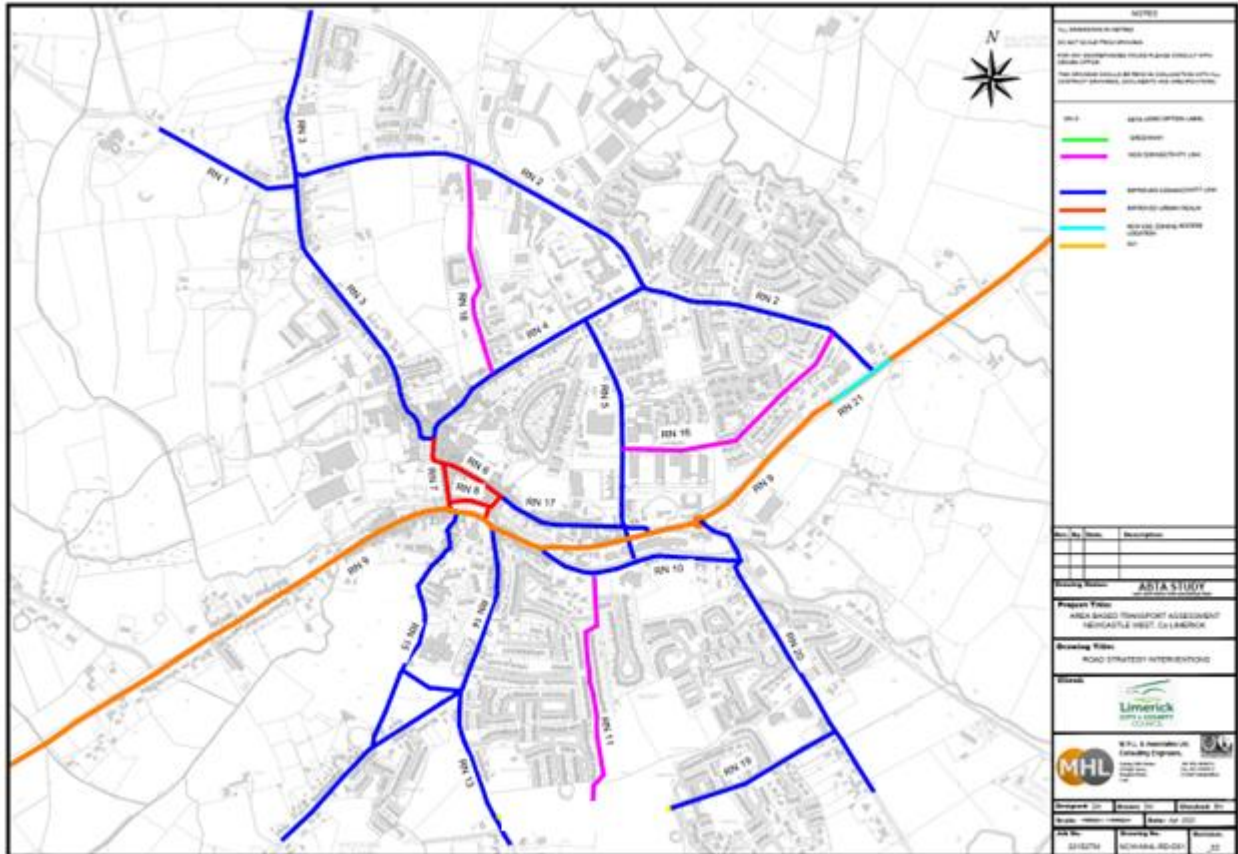


Figure 4.7 Map of Road Infrastructure Actions

4.4.2 N21 NCW Bypass Road

Also, it should be noted that the N21 Newcastle West Road Scheme to the north of the town is currently being investigated by the TII/ Transport and Mobility Directorate.

“Support the progression of the N21 Newcastle West Road Scheme, and associated linkage into the town centre, to provide improved regional connectivity and ensure future development proposals do not compromise the development of this scheme.”

If constructed, this scheme would provide a new east-west link to the north of the town. This new road will provide region with a high-quality connectivity link, reducing traffic through the heart of the urban centre. On completion of the Road Scheme, a major opportunity will exist for the improvement of road safety as a result of the reduction in traffic levels through Newcastle West town centre. It is envisioned that the reduction in traffic along the N21 will further add to the potential modal shift to active travel modes from walking and cycling measures (removing some car based internal trips) This will result in safety improvements, particularly for vulnerable road users due to less congested commercial town core due to N21 mainline traffic flows.

4.4.3 Enterprise and Employment (E and E) Lands

Zoned lands for enterprise and employment are as noted in the figure below, with the larger zoned areas numbered 1 through 2 for clarity.

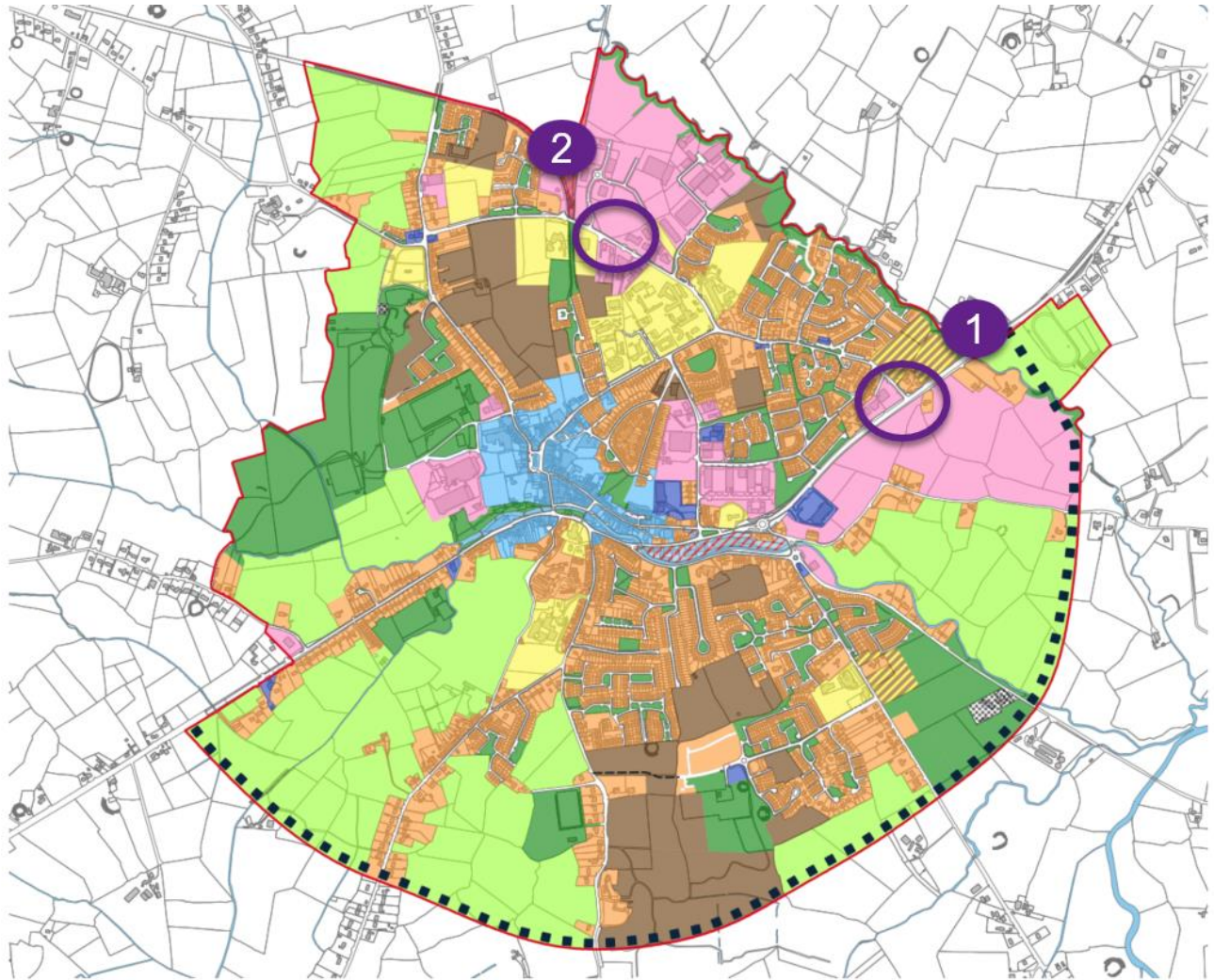


Figure 4.8 Mapped junction options for E&E zoning.

To enable the development of these lands going forward into the implementation the LAP, appropriate junction locations for the E&E sites are as noted in the following figures.

- Zone 1: Appropriate junction access for E and E lands to the southeast of the town would be to directly connect with the nearby N21 carriageway.
- Zone 2: Existing junction access with Station Road for continued development one zoning area 2 would be appropriate.

E&E lands (Zone)	Location	Potential Junction Type	Connecting Road
1	SE	Pending analysis of the land uses proposed to be facilitated and having regard to the need to optimise active travel measures crossing the N21, exact junction intervention to be determined at future consultation / detailed design stage by Limerick City and County Council in collaboration with TII and in accordance with TII Publication DN-GEO-03030 (Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes).	N21
2	N	Existing Priority T Junction / Signalisation pending future development traffic demand	Station Rd.

Figure 4.9 Junction options for E&E zoning



Figure 4.10 Zone 1: Appropriate junction access with the N21 carriageway.



Figure 4.11 Zone 2: Existing junction access with Station Road

4.4.4 Roads / Connectivity Actions

This section presents the appraisal road improvement actions brought forward as part of the LTP. Road interventions are as noted. Refer to Dwg.: NCW-MHL-RD-D01 R02.

NCW LTP - Roadway				
	Action/ Intervention	Description	Type	Need for intervention
	RN 1	Provide improvements at junction between R521 and Churchtown road	New buildouts, traffic control	Enhance pedestrian connections at this location, improving NMU safety.
	RN 2	Traffic control measures along Station Road and Gortboy Road from R521 Ardagh Road to N21. Facilitate improved pedestrian/cycle crossing along this route.	Traffic control measures and reassignment of road space to benefit active travel facilities.	Improved traffic control and cycle/pedestrian connectivity
	RN 3	Redefined street with DMURS compliant streets where space permits along R521 Churchtown Road	Traffic control, carriageway improvements	Improved local connection for Churchtown Road,
	RN 4	Removal of some on streetcar parking to facilitate installation of cycle route and new pedestrian crossing at Cork Rd/ Bishop St. junction	Traffic and parking control measures	Traffic control and reassignment of road space to benefit active travel connectivity
	RN 5	Traffic management interventions to accommodate continuous footway and cycle facilities along Sheehan's Road.	New cycle facility along Sheehan's Road	Improved traffic control and increased uptake in active travel modes
	RN 6	Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.	Urban realm and active travel Improvements	Improved traffic control and increased uptake in active travel modes
	RN 7	Junction Improvements and new pedestrian/cycle crossings along the N21 to make provision for improved connectivity for active travel modes.	New junction arrangement	Pedestrian / cycle connection from Bridge St. through to N21.
	RN 8	Maintain one-way traffic circulation along North Quay with urban renewal improvements to allow for the installation of improved active travel network improvements	Traffic Management Measures	Improved local connectivity
	RN 9	Improved active travel facilities across the N21.	Traffic Management Measures	Improved local connectivity
	RN 10	Traffic management measures to facilitate active travel network improvements on Rathina Road.	Traffic management and parking control measures	Improved town centre pedestrian facilities
	XXX			
	XXX			
	RN 13	Traffic calming measures, pedestrian crossing facilities on Knockane Road	Traffic Management Measures	Improved local connectivity

RN 14	Implementation of traffic management measures and road improvement works along Bothar Buí Road to make provision for improved active travel facilities.	Traffic control with improved pedestrian and facilities.	Improved connectivity to schools, sports facilities and established residential area
RN 15	Traffic calming measures, pedestrian crossing facilities, Implementation of secondary cycle network improvements on Lower Knockane Road.	Traffic Management Measures	Improved local connectivity
XXX			
RN 17	Implementation of appropriate traffic management and traffic routing on Lower Maiden St. to account for potential Improved Pedestrian facilities/ Traffic Management of Maiden St.	Improved Pedestrian facilities/ Traffic Management, car prohibition	Active travel connection, Urban realm improvement,
XXX			
RN 19	Upgraded residential road Woodfield Park Estate to facilitate cycle/ pedestrian linkages to zoned lands	Traffic control measures and reassignment of road space to benefit active travel facilities.	Improved Active Travel Connectivity. Road Safety.
RN 20	Upgraded Cork Road (R522) to facilitate cycle/ pedestrian linkages to zoned lands	Traffic control measures and reassignment of road space to benefit active travel facilities.	Improved Active Travel Connectivity. Road Safety.
RN 21	New Enterprise and Employment development access junction with N21	New junction link	Improved Connectivity. Road Safety.

Table 4.3 Road intervention /actions

4.5 Parking Strategy

4.5.1 Parking – Connectivity Overview / Objectives

Newcastle West is served by a mixture of off-street and on street parking controlled by LCCC and by private entities. A majority of these facilities can be accessed without having to travel through the town centre yet are in easy walking distance of the main retail areas. This area assessment and LTP aims to provide high-level parking objectives to guide this future parking plan. It is recommended that a comprehensive parking plan for the town centre should be implemented, balancing the overall quality and visitor experience with the needs of vehicular access (retail, delivery) to the town centre. Offset parking can be established to account for any loss of street parking due to proposed interventions and can be established in appropriate areas within the LAP zoned locations.

4.5.2 Parking / Connectivity Actions/ Interventions

Parking interventions brought forward as part of the area assessment and Transport Plan are presented below.

NCW LTP – Parking				
	Action/ Intervention	Description	Type	Need for action
	PK 1	Removal of parking to facilitate the implementation of active travel improvements.	Parking Control	To facilitate active travel improvements
	PK 2	Urban renewal of the Square	Improved town centre environment and active travel facilities	To facilitate active travel improvements
	PK 3	Coach/Bus parking	Safe, secure parking along the N21 / near to the town centre.	To facilitate sustainable transport improvements

Table 4.4 Parking intervention /actions

4.6 Public Transport Strategy

4.6.1 Public Transport Overview / Objectives

The baseline assessment of NCW highlighted gaps and deficiencies in the existing public transport provision. Bus connections are solely provided along the N21, with limited frequency to the surrounding hinterlands and main towns in proximity with the town, limiting their potential as viable transport modes for commuting journeys.

The key public transport objectives for the study area are to improve the existing bus services to encourage a shift to sustainable transport modes. This section presents these actions designed to achieve these objectives.

4.6.2 Public Transport Actions/ Interventions

The table below lists the bus transport intervention/s brought forward as part of this Transport Plan.

NCW LTP – BUS				
	Action/ Intervention	Description	Type	Need for action
	PTR 1	Public transport bus set down /parking improvements.	Improvements/ maintenance of interface of active travel interventions on the N21 and surrounding identified linkages.	Enhanced connectivity and incorporation of public transport into area mobility improvements.

Table 4.5 Public Transport intervention /actions

Coach/Bus parking can be facilitated in locations near the NCW town core to offer safe, secure parking. Possible locations could include along appropriate sections of the N21, Rathina Road, Gortboy Road and existing area car parks which can specify coach priority / set down locations. Accessibility requirements and key trip locations /desire routes within the town would mean priority parking locations would be located as noted in figure below, within a 5minute walk of the town core. Priority set down for short duration drop-off can be prioritised within the close zone to the town core, with longer duration parking established further outside the immediate 5min walking radius.

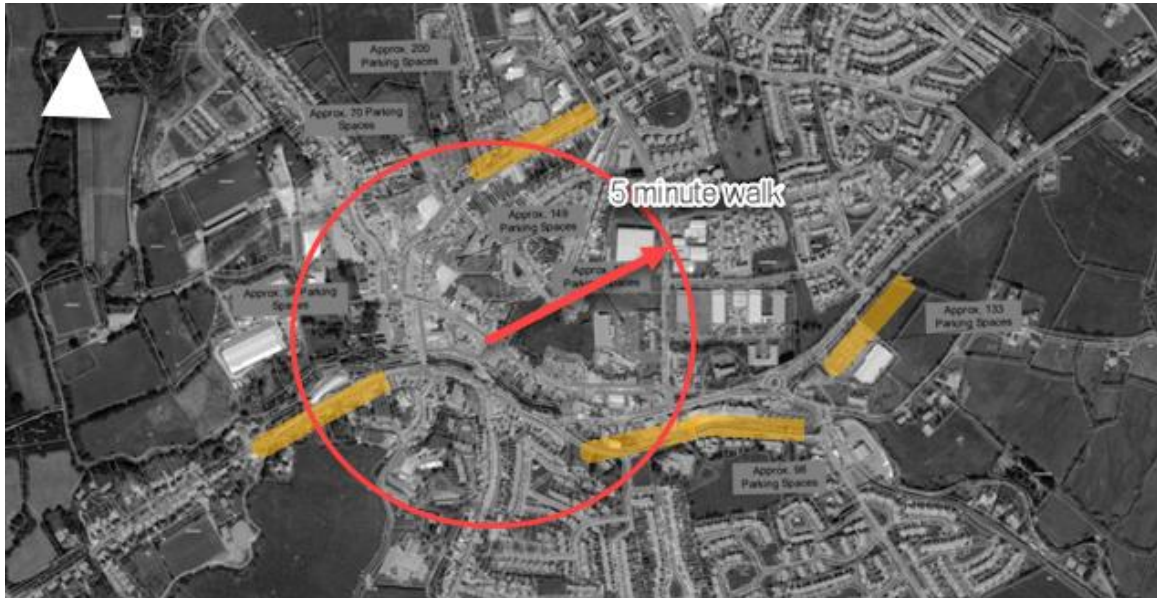


Figure 4.12: Newcastle West Potential Coach Parking Areas.

4.7 Supportive Linkages

4.7.1 Public Transport Overview / Objectives

Indicative supporting active travel linkages, noted in yellow in the summary connectivity map below and in the NCW ATBA drawing pack.

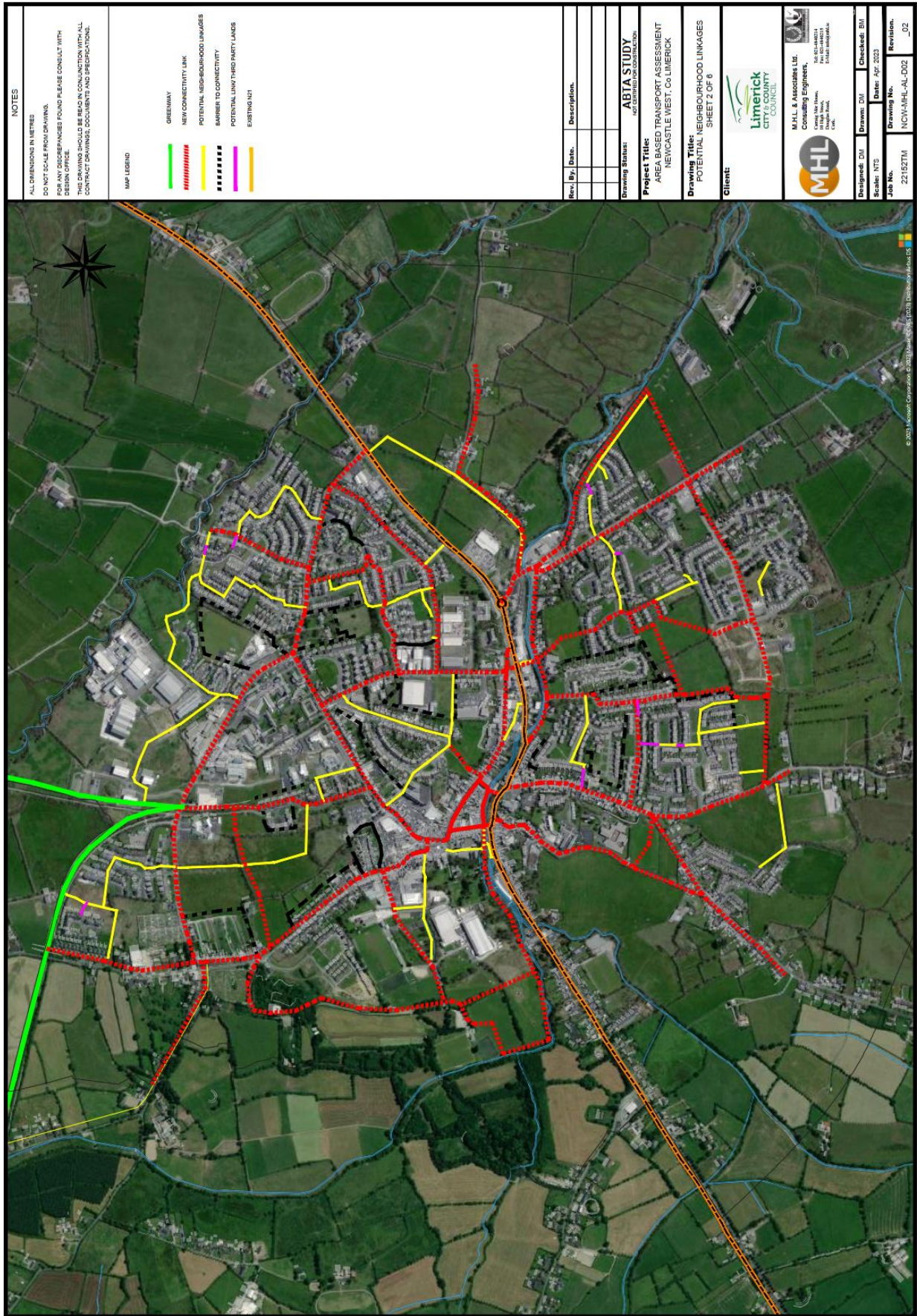


Figure 4.13 Map summary of Connectivity Improvements to be developed over the life of the LAP.

These are further detailed in the following figures and tables, noting the connection improvements to existing residential estate locations within the town’s urban extents.

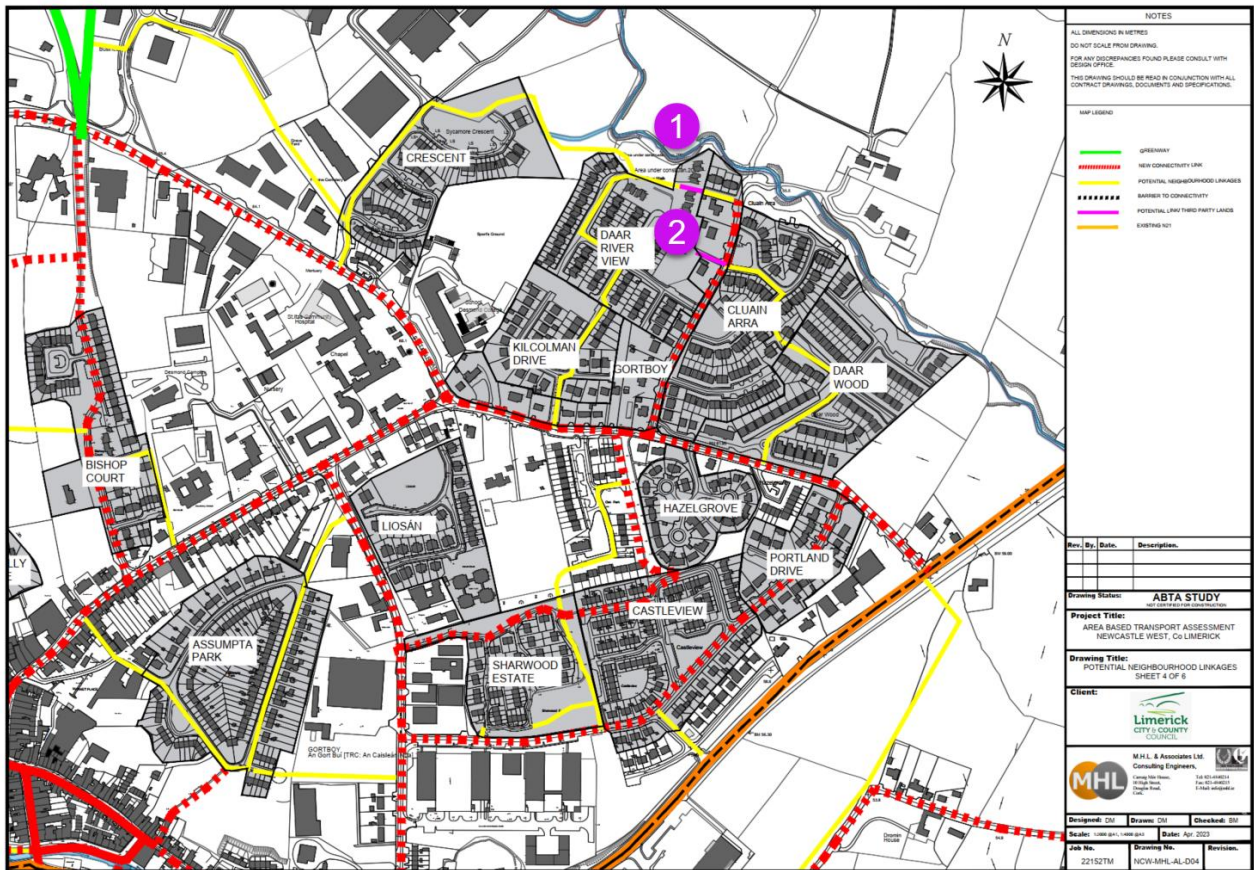


Figure 4.14 Map: Connectivity Improvements to existing residential estates NE.

Supporting linkage options	Description	Type	Note
1	Connection between Cluain Arra and Daar River View Estates	Active Travel Link	Third Party/ Public Lands
2	Connection between Cluain Arra and Daar River View Estates	Active Travel Link	Third Party/ Public Lands

Table 4.6 Supporting Linkages NE

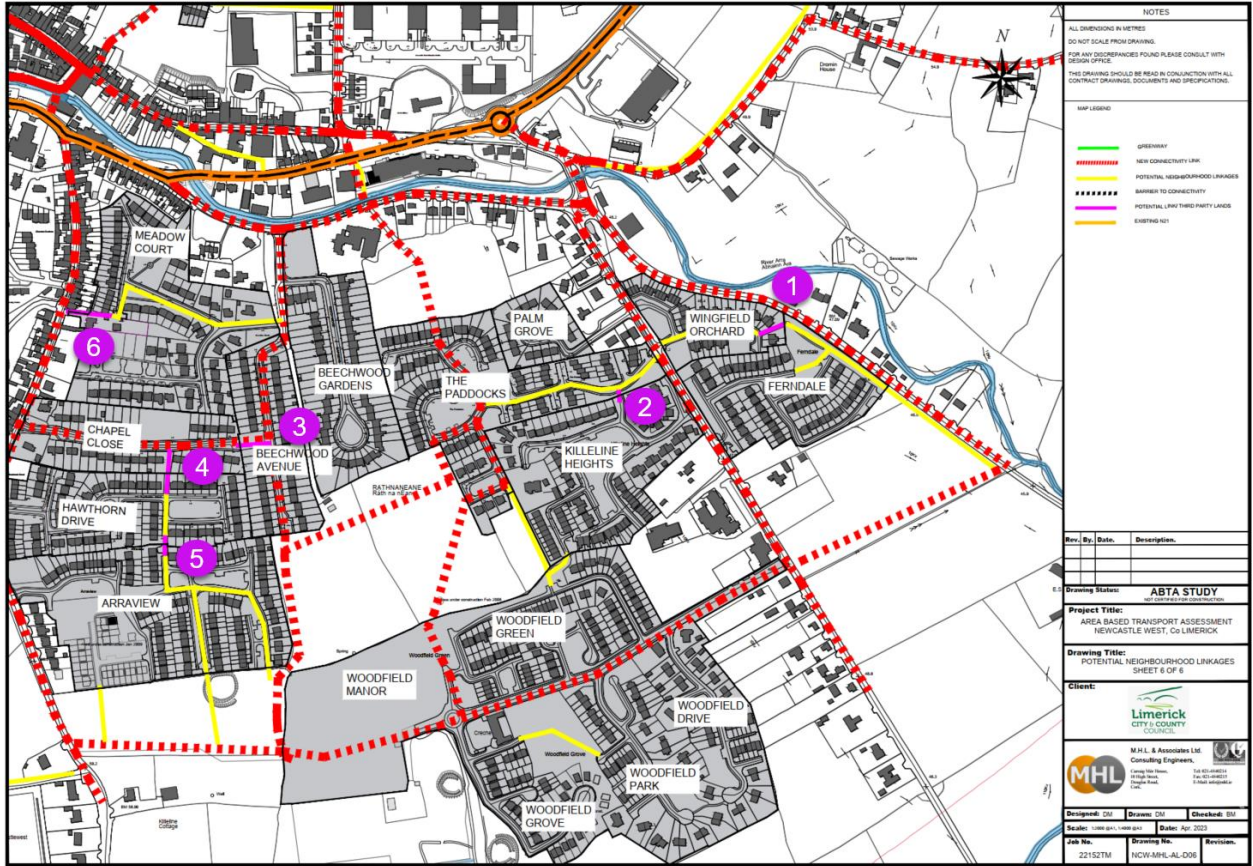


Figure 4.15 Map: Connectivity Improvements to existing residential estates SE.

Supporting linkage options	Description	Type	Note
1	Connection between Wingfield Orchard and Ferndale.	Active Travel Link	Third Party/ Public Lands
2	Connection between The Paddocks Estate and Killeline heights.	Active Travel Link	Third Party/ Public Lands
3	Connection between Beechwood Avenue and Chapel Close.	Active Travel Link	Third Party/ Public Lands
4	Connection between Chapel Close and Hawthorn Drive.	Active Travel Link	Third Party/ Public Lands
5	Connection between Hawthorn Drive and Arraview.	Active Travel Link	Third Party/ Public Lands
6	Connection between Meadow Court and Bothar Buí.	Active Travel Link	Third Party/ Public Lands

Table 4.7 Supporting Linkages SE

5. IMPLEMENTATION

5.1 Detailed design commentary

The LTP examination of transport and mobility in Newcastle West provides a solid baseline, with evidence-based commentary and key supportive analysis for the development of future mobility objectives in the new Local Area Planning for the town. The final NCW LAP may take account of these LTP identified objectives, forming the basis of future mobility projects within the town.

The NCW LTP purpose is not for assessing individual projects within the town, but rather is a broad “global” review of the potential interventions available within the town and should not be considered a definitive analysis of all possible actions but indicates suitable transport objectives for the review and inclusion in the LAP review process.

The final LAP objectives will form the basis for individual mobility projects, with these projects reviewed independently and subject to Public Spending Code (PSC) and the Common Appraisal Framework for Transport Projects and Programmes (CAF). These mobility improvement projects will be subjected to public consultation, environmental and heritage studies, relevant statutory procedures, and consultation with the relevant statutory stakeholders.

5.2 Appraisal Action/Interventions and Timeframes

Newcastle West is one of a number of development areas throughout Limerick which will require investment in transport infrastructure and services and will be subject to corresponding planning and design work to be undertaken on each of the relevant transport measures.

Timelines should be taken as indicative only as they will be subject to resource and funding availability.

Potential timelines for the implementation of measures are broken down as follows:

- Short term: Measure intended for implementation within 1-2 years
- Medium term: Measure intended for implementation within 3-5 years
- Long term: Measure intended for implementation within 6-10 years

5.2.1 Phasing of Walking / Connectivity Interventions

The following table shows the timeframe for the implementation of connectivity interventions for NCW. Some of these measures are linked with public realm projects and development land applications, with timeframes for the implementation of these project dependent.

ID	Action/ Intervention	Description	Timeframe
1	WN 1	Provide pedestrian improvements at junction between R521 and Churchtown road.	ST
2	WN 2	Extend/ install footpath connection where current intermittent provision is located north of the Station Road Junction, along the R521 and tie into existing network,	MT/ LT
3	WN 3	Improved pedestrian facilities along the Station Road and Gortboy Road from R521 Churchtown Road to N21. Improved pedestrian/cycle crossings along this route also. Pedestrian crossing at Churchtown Rd/Station Rd.	MT

4	WN 4	Redefined street with wider pedestrian facilities where space permits along R521 Churchtown Road	MT/ LT
5	WN 5	Removal of some linear parking to gain off street footway, pedestrian crossing at Cork Rd/ Bishop St. junction. Improved pedestrian and cycle connectivity to Courtenay National School.	ST
6	WN 6	Continuous footway and 2-way cycle facility along Sheehan's Road.	MT
7	WN 7	Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.	ST
8	WN 8	Junction Improvements and new pedestrian/cycle crossings along the N21 to make provision for improved connectivity for active travel modes.	ST
9	WN 9	Maintain one-way traffic circulation along North Quay with urban renewal improvements to allow for the installation of improved active travel network improvements	ST
10	WN 10	Improved traffic management measure across the N21 to facilitate improved active travel network improvements.	ST / MT
11	WN 11	Implement 1-way traffic system along the Flood Relief Road to facilitate the delivery of improved pedestrian facilities to improve connectivity from the southern portion of Newcastle West to the town centre and north. New active travel bridge connection over River Arra and N21 pedestrian/cycling road crossing.	ST
12	WN 12	New active travel connection from Flood Relief Road to southeastern Enterprise and Employment zoning.	MT/ LT
13	WN 13	Improved active travel facilities along Castlemahon Road (R520)	MT/ LT
14	WN 14	Improved active travel facilities along Old Cork Road (R522)	MT/ LT
15	WN 15	Active travel connections to existing Beechwood estate roads to improve permeability and provide improved north/south active travel connectivity for zoned residential lands.	MT/ LT
16	WN 16	New active travel route. New pedestrian and cycle facilities	MT/ LT
17	WN 17	New residential lands east of Knockrane Road.	MT/ LT
18	WN 18	Implementation of traffic management measures and road improvement works along Bothar Bui Road to make provision for improved active travel facilities.	MT/ LT
19	WN 19	Implementation of secondary cycle network improvements, including footpath improvements along Lower Knockane Road.	MT/ LT

20	WN 20	Improved pedestrian permeability to the Demesne to connect to the town-wide footpath network.	MT/ LT
21	WN 21	Develop Active Travel connection from Sheehans Road to Castleview Estate, forming a connection to Gortboy Road.	MT/ LT
22	WN 22	Develop urban realm improvements in centre of town.	MT/ LT
23	WN 23	Develop urban realm improvements in centre of town.	MT/ LT
24	WN 24	Completion of Greenway connection to Bishop Street/Town Centre. New controlled crossing facilities at Station Road crossing.	MT/ LT
25	WN 25	Improved pedestrian permeability to greenway to connect to the town-wide footpath network.	MT/ LT
26	WN 26	Improved pedestrian/cycle permeability between R520 and R522, connecting zoned lands to existing urban connections.	MT/ LT
27	WN 27	New open space lands - Cork Road.	MT/ LT
28	WN 28	New pedestrian /cyclist link between Bothar Buí Road and Lower Knockrane Road	MT/ LT

Table 5.1 Pedestrian Infrastructure Intervention Timeframe

5.2.2 Phasing of Cycling Actions/ Interventions

The following table shows the timeframe for the implementation of cycling interventions for NCW. Some of these measures are linked with public realm projects and development land applications, with timeframes for the implementation of these project dependent.

Id	Action	Description	Timeframe
1	CI 1	Extend/ install footpath connection where current intermittent provision is located north of the Station Road Junction, along the R521 and tie into existing network,	MT/ LT
2	CI 2	New cycle route along Station Road and Gortboy Road from R521 Ardagh Road to N21. Improved pedestrian/cycle crossing along this route also.	MT
3	CI 3	Removal of on street car parking to facilitate installation of cycle route and new pedestrian crossing at Cork Rd/ Bishop St. junction.	MT
4	CI 4	Continuous footway and 2-way cycle facility along Sheehan's Road.	ST
5	CI 5	Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.	ST

6	CI 6	Junction Improvements and new pedestrian/cycle crossings along the N21 to make provision for improved connectivity for active travel modes.	ST
7	CI 7	Maintain one-way traffic circulation along North Quay with urban renewal improvements to allow for the installation of improved active travel network improvements	ST
8	CI 8	Implementation of improved cycle facilities along the N21, inclusive of proposed pedestrian/ cycle network interventions to the east connecting with the Tesco superstore located south of the N21.	MT/ LT
9	CI 9	Implement 1-way traffic system along the Flood Relief Road to facilitate the delivery of a 2-way segregated cycle facility to improve connectivity from the southern portion of Newcastle West to the town centre and north.	ST
10	CI 10	New active travel connection from Flood Relief Road to southeastern Enterprise and Employment zoning.	MT/ LT
11	CI 11	Improved active travel facilities along CastleMahon Road (R520)	MT/ LT
12	CI 12	Improved active travel facilities along Old Cork Road (R522)	MT/ LT
13	CI 13	Active travel connections to existing Beechwood estate roads to improve permeability and provide improved north/south active travel connectivity for zoned residential lands.	MT
14	CI 14	New active travel route.	MT/ LT
15	CI 15	New residential lands east of Knockrane Road.	MT/ LT
16	CI 16	Implementation of traffic management measures and road improvement works along Bothar Buí Road to make provision for improved active travel facilities.	MT/ LT
17	CI 17	Implementation of secondary cycle network improvements along Lower Knockane Road.	MT/ LT
18	CI 18	Improved cycle connectivity to the Demesne to connect to the town-wide cycle network.	MT/ LT
19	CI 19	Develop Active Travel connection from Sheehans Road to Castleview Estate, forming a connection to Gortboy Road.	MT/ LT
20	CI 20	Implementation of NCW urban cycle network on Maiden St.	ST
21	CI 21	Completion of Greenway connection to Bishop Street/Town Centre. New controlled crossing facilities at Station Road crossing.	ST/MT
22	CI 22	Improved pedestrian/cycle permeability along existing residential roadway, connecting zoned lands to existing urban connections.	MT/ LT

23	CI 23	Improved pedestrian/cycle permeability along Woodfield Estate, connecting zoned lands to existing urban connections.	MT/ LT
24	CI 24	New pedestrian /cyclist link between Bishop Ct./Gortboy and Churchtown Road/ R521	MT/ LT
25	CI 25	New pedestrian /cyclist link between Bothar Buí Road and Lower Knockrane Road	MT/ LT
26	CI 26	New pedestrian /cyclist link between Cluain Arra and surrounding estates with Station Road.	MT/ LT

Table 5.2 Cycle Infrastructure Interventions Timeframe

5.2.3 Phasing of Road Actions/ Interventions

The following tables shows the timeframe for the implementation of road interventions for NCW.

Id	Action	Description	Timeframe
1	RN 1	Provide improvements at junction between R521 and Churchtown road	MT/ LT
2	RN 2	Traffic control measures along Station Road and Gortboy Road from R521 Ardagh Road to N21. Facilitate improved pedestrian/cycle crossing along this route.	MT
3	RN 3	Redefined street with DMURS compliant streets where space permits along R521 Churchtown Road	MT/ LT
4	RN 4	Removal of some on streetcar parking to facilitate installation of cycle route and new pedestrian crossing at Cork Rd/ Bishop St. junction	ST
5	RN 5	Traffic management interventions to accommodate continuous footway and cycle facilities along Sheehan's Road.	ST
6	RN 6	Urban Realm improvements plans for commercial centre of town including traffic management measure at the Square to facilitate improved active travel network improvements.	ST
7	RN 7	Junction Improvements and new pedestrian/cycle crossings along the N21 to make provision for improved connectivity for active travel modes.	ST
8	RN 8	Maintain one-way traffic circulation along North Quay with urban renewal improvements to allow for the installation of improved active travel network improvements	ST
9	RN 9	Improved active travel facilities across the N21.	MT/ LT
10	RN 10	Traffic management measures to facilitate active travel network improvements on Rathina Road.	MT/ LT
11	XXX		
12	XXX		
13	RN 13	Traffic calming measures, pedestrian crossing facilities on Knockane Road	MT/ LT
14	RN 14	Implementation of traffic management measures and road improvement works along Bothar Buí Road to make provision for improved active travel facilities.	MT/ LT
15	RN 15	Traffic calming measures, pedestrian crossing facilities, Implementation of secondary cycle network improvements on Lower Knockane Road.	MT/ LT
16	XXX		

17	RN 17	Implementation of appropriate traffic management and traffic routing on Lower Maiden St. to account for potential Improved Pedestrian facilities/ Traffic Management of Maiden St.	MT/ LT
18	XXX		
19	RN 19	Upgraded residential road Woodfield Park Estate to facilitate cycle/ pedestrian linkages to zoned lands	MT/ LT
20	RN 20	Upgraded Cork Road (R522) to facilitate cycle/ pedestrian linkages to zoned lands	MT/ LT
21	RN 21	New Enterprise and Employment development access junction with N21	MT

Table 5.3 Road Interventions Timeframe

5.2.4 Phasing of Parking Actions/ Interventions

The following tables shows the timeframe for the implementation of parking interventions for NCW. Some parking measures are linked with public realm projects and development land applications, with timeframes for parking interventions to coincide with the implementation of these projects.

Id	Action	Description	Timeframe
1	PK 1	Removal of parking to facilitate the implementation of active travel improvements.	ST/ MT
2	PK 2	Urban renewal of the Square	ST/ MT

Table 5.4 Parking Interventions Timeframe

5.2.5 Phasing of Public Transport Actions/Interventions

The following tables shows the timeframe for the implementation of public transport interventions for NCW. Upgrade and improvements in associated facilities under the control of LCCC.

Id	Action	Description	Timeframe
1	PT 1	Removal of linear parking to gain off street footway, pedestrian crossing at Cork Rd/ Bishop St. junction.	ST/ MT

Table 5.5 Public Transport Interventions Timeframe

5.2.6 Key transport interventions to facilitate walking/cycling to schools.

Priority desire lines to key trip attractors such as schools, as indicated in the baseline assessment, would require key short/medium- and long-term interventions as noted in the following figure. The five local schools would be accommodated by the indicated linkages, providing appropriate measures for safe active travel.

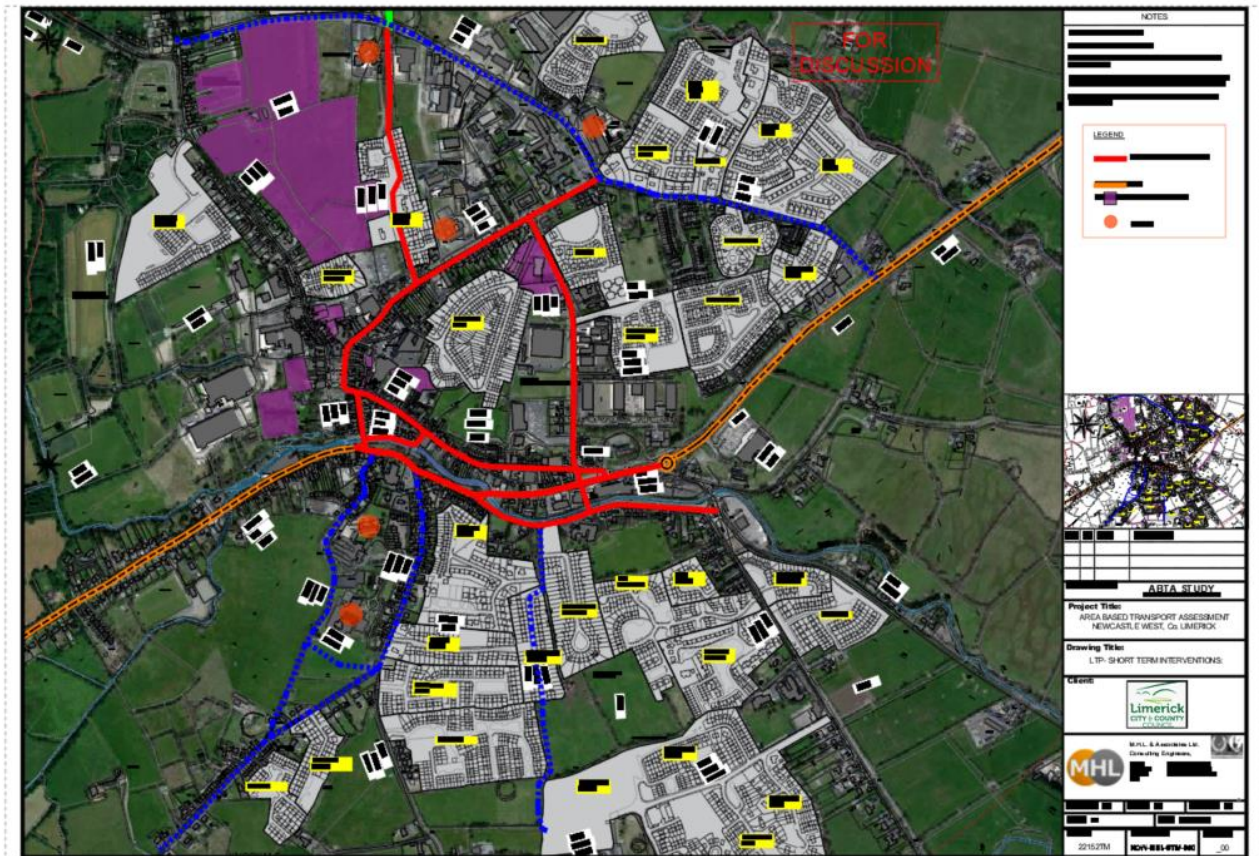


Figure 5.1 Key interventions to facilitate school connecting linkages.

5.3 NTA's Rapid Build Active Travel Facilities

As per NTA:

"The NTA has a dedicated Active Travel team who work in collaboration with Local Authorities across the country on the delivery of hundreds of Active Travel projects. This includes the development of segregated cycle lanes and widened footpaths, new walking and cycling bridges, and new pedestrian crossings. The work of the NTA's Active Travel Programme is underpinned by the aims and objectives set out in the Government's Climate Action Plan 2023. One of the key aims cited is to increase the number of walking and cycling networks so that walking, cycling and public transport will account for 50% of all journeys made by 2030. Projects are funded by the Department of Transport through the National Transport Authority's Active Travel Programme and are managed and delivered by the Local Authorities."

NTA's Rapid Build Active Travel Facilities Advice Note the deliverability of the proposed walking and cycling networks with specific reference to the following:

- Road markings/traffic restrictions;
- Narrowing/converting general traffic lanes to active travel facilities;
- Converting on-street parking to active travel facilities;
- Creating Traffic Free streets; and
- Redesigning junctions to provide greater capacity for walking, cycling and public transport.



Figure 5.2 NTA 2021 Works Summary

By 2025, the NTA aims to have delivered in excess of 1,200 projects equating to 1,000km of combined cycling and walking routes nationwide.

The Local Transport Plan scoring for short term interventions STIV is as follows:

NCW LTP -										
ID	ROAD	CYCLE	WALK	RN	CI	WN	Core	Route	Score	Cost
	RN 8	CI 7	WN 9	ST	ST	ST	1	1	1	3
1	RN 17	CI 20	WN 22	MT/ LT	ST	MT/ LT	3		1	4
2			WN 23			MT/ LT	1			
3	RN 10	CI 9	WN 11	MT/ LT	ST	ST	1		2	5
4	RN 9			MT/ LT			5			8
5		CI 10	WN 12		MT/ LT	MT/ LT	3			
6		CI 11	WN 13		MT/ LT	MT/ LT	3			
7		CI 23	WN 26		MT/ LT	MT/ LT	3			
8	RN 20	CI 12	WN 14	MT/ LT	MT/ LT	MT/ LT	3			
9	RN 19	CI 22	WN 25	MT/ LT	MT/ LT	MT/ LT	3			
10		CI 14	WN 16	MT/ LT	MT/ LT	MT/ LT	3			
11		CI 28				MT/ LT	3			
12		CI 13	WN 15		MT	MT/ LT	5			
13	RN 13	CI 15	WN 17	MT/ LT	MT/ LT	MT/ LT	5			
14		CI 25	WN 28		MT/ LT	MT/ LT	5	2		
15	RN 15	CI 17	WN 19	MT/ LT	MT/ LT	MT/ LT	5	2		
16	RN 14	CI 16	WN 18	MT/ LT	MT/ LT	MT/ LT	5	2		
17	RN 7	CI 6	WN 8	ST	ST	ST	1	1	1	2
18	RN 6	CI 5	WN 7	ST	ST	ST	1	1	1	1
19		CI 18	WN 20		MT/ LT	MT/ LT	5			
20	RN 3	CI 1	WN 4	MT/ LT	MT/ LT	MT/ LT	5			
21	RN 1	CI 29	WN 1			ST	1		1	
22	RN 2	CI 2	WN 3	MT	MT	MT	3			
23		CI 26	WN 21		MT/ LT	MT/ LT	2		2	
24		CI 8	WN 10		MT/ LT	ST / MT	3		1	9
25	RN 4	CI 3	WN 5	ST	MT	ST	1	1	1	6
26			WN 2			MT/ LT	5			
27	RN 5	CI 4	WN 6	ST	ST	MT	1	1	1	7
28			WN 24			MT/ LT	5			
30		CI 24	WN 27		MT/ LT	MT/ LT	5			
30	N21				MT		3			
		17	26	28						

Figure 5.3 STIV scoring matrix.

5.3.1 TII Stakeholder engagement/ consultation

Any Local Transport Plan works to national roads are to be in accordance with:

- TII Publications DN-GEO-03030 (Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes),
- TII Publication ‘The Treatment of Transition Zones to Towns and Villages on National Roads’ (TII Publications DN-GEO-03084) in relation to design standards to be applied to national roads and national road junctions in future interventions,
- TII Publications (Standards) as well as the Design Manual for Urban Roads and Streets (DMURS).

All relevant bodies, including TII, are to be consulted at planning, detailed design, and implementation stages.

6. LTP FINALISATION & CONCLUSIONS

6.1 Consultation

Submissions relating to transport and movement will be assessed and incorporated into this LTP where necessary post consultation for the NCW LAP has been completed.

6.2 Finalisation of LTP and Conclusions

Following public consultation, proposals changes will be tabled and set out in this LTP.

7. MONITORING AND REVIEW

7.1 LTP Assumptions

Area Based Transport Assessment are based on current strategic and development policy, developed assuming travel characteristics of the town, forming a baseline of existing and future proposed transport links, existing demographics and existing surveyed traffic conditions and patterns.

The main assumptions for this LTP and ABTA assessment were:

- Traffic levels in the town are as per the traffic surveys conducted.
- Travel demand and commuting patterns are as per the Census 2016 data.
- New development within the town will occur in locations as shown in the land-use zoning map.

A monitoring and review process should be implemented to adapt the LTP going forward to account for reporting assumptions and subsequently observed / quantified development and traffic data in NCW which was not available to the team at the time of writing this assessment.

7.2 Monitoring Strategy and LTP Review

LTP reviews and monitoring programmes should provide details on the continued adaptation of the transport assessment recommendations, amended to account for real world constraints in NCW and account for feedback from key stakeholders and the general public. Changes subsequent to these reviews and performance monitoring will need to feed into the NCW LAP.

The monitoring strategy should take account of the short, medium, and long-term timeframes to establish a solid framework for review of the Transport Plan's findings and objectives.

ID	Timeframe	Years
1	short term	1-2 years
2	medium term	2-5 years
3	long term	5-10 years

The monitoring strategy should feed into a review of the LTP at 2 years (2025), 5 years (2028) and 10 years (2033) from publication.

Monitoring would focus on:

- Development in the town since the completion of the ABTA/LTP and if it has occurred as originally assumed.
- Follow up traffic surveys to establish medium- and long-term travel patterns and modal splits.
- Update of demographic, community, travel, and population characteristics from updated Census data.
- Review of the LTP assumptions against medium- and long-term travel /commuter conditions.
- Progress on implementation of interventions/actions for each transport mode

The monitoring strategy is to be linked to future LAP reviews.

7.3 Future Developments/ Road Interventions

Future planned developments in Newcastle West including those located in newly zoned residential and commercial development lands need to show that the development is sustainable within the transport network of NCW and supporting road network improvements are justified.

Any proposed future growth in NCW should regard to:

- Consistency with the objectives and measures within this LTP.
- Trip generation associated with specific land use proposals.
- Road network and junction improvements proposals
- Detailed Traffic Management Plans

Impact on the national road infrastructure, with primary focus on the N21.

8. REFERENCES

NTA - Area Based Transport Assessment Advice Note, December 2018

TII - Area Based Transport Assessment Guidance Notes, PE-PDV-02046 April 2018

SAP CSO

LCCC County Development Plan

Planning and Development Act 2000

Walking and Cycling Strategy for Newcastle West (Roughan & O'Donovan)

N21 Newcastle west Road Scheme (Jacobs)

Traffic counter survey NRA

Climate Action Plan -Dept. ECC

Smarter Travel - TFI

Newcastle West Urban Cycle Network – (AECOM)

OpenStreetMap

Google mapping

Bing mapping

National Sustainable Mobility Policy (2022).

NTA's Rapid Build Active Travel Facilities Advice Note

TII Publications DN-GEO-03030 (Design Phase Procedure for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes).

TII Publication 'The Treatment of Transition Zones to Towns and Villages on National Roads' (TII Publications DN-GEO-03084)

TII Publications (Standards) as well as the Design Manual for Urban Roads and Streets (DMURS).

9. APPENDIX

9.1 Existing Road Network

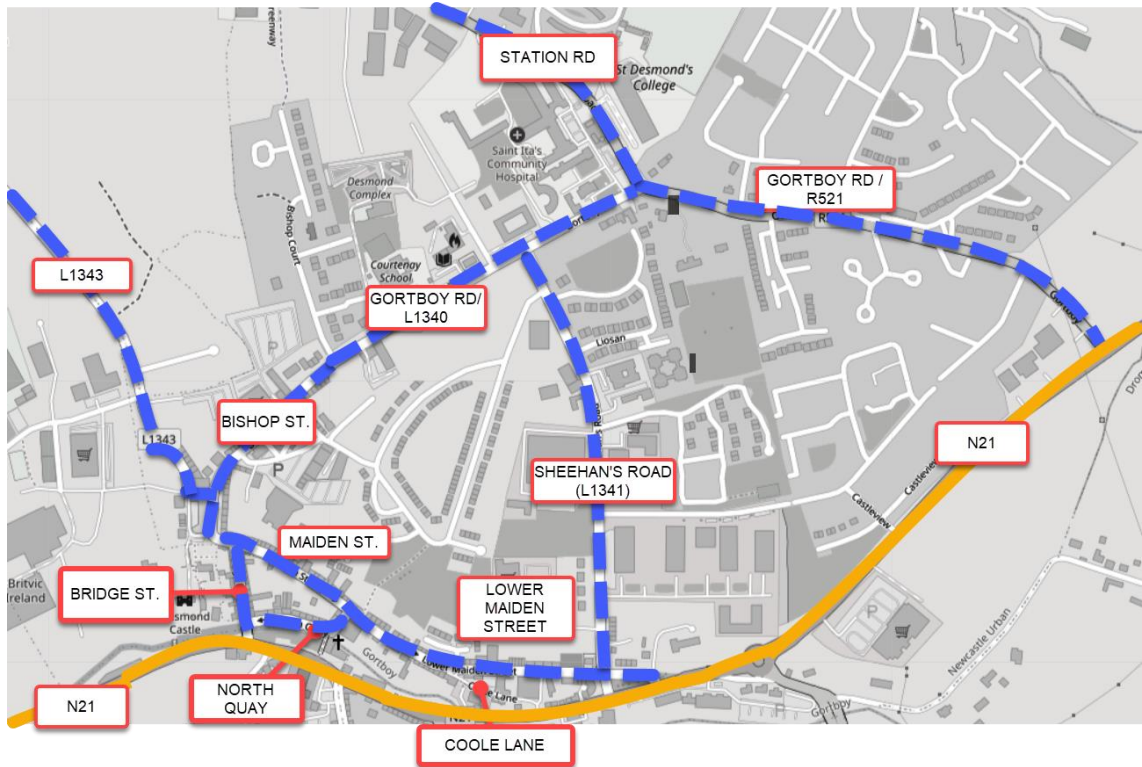


Figure 9.1 – NCW (North of N21)

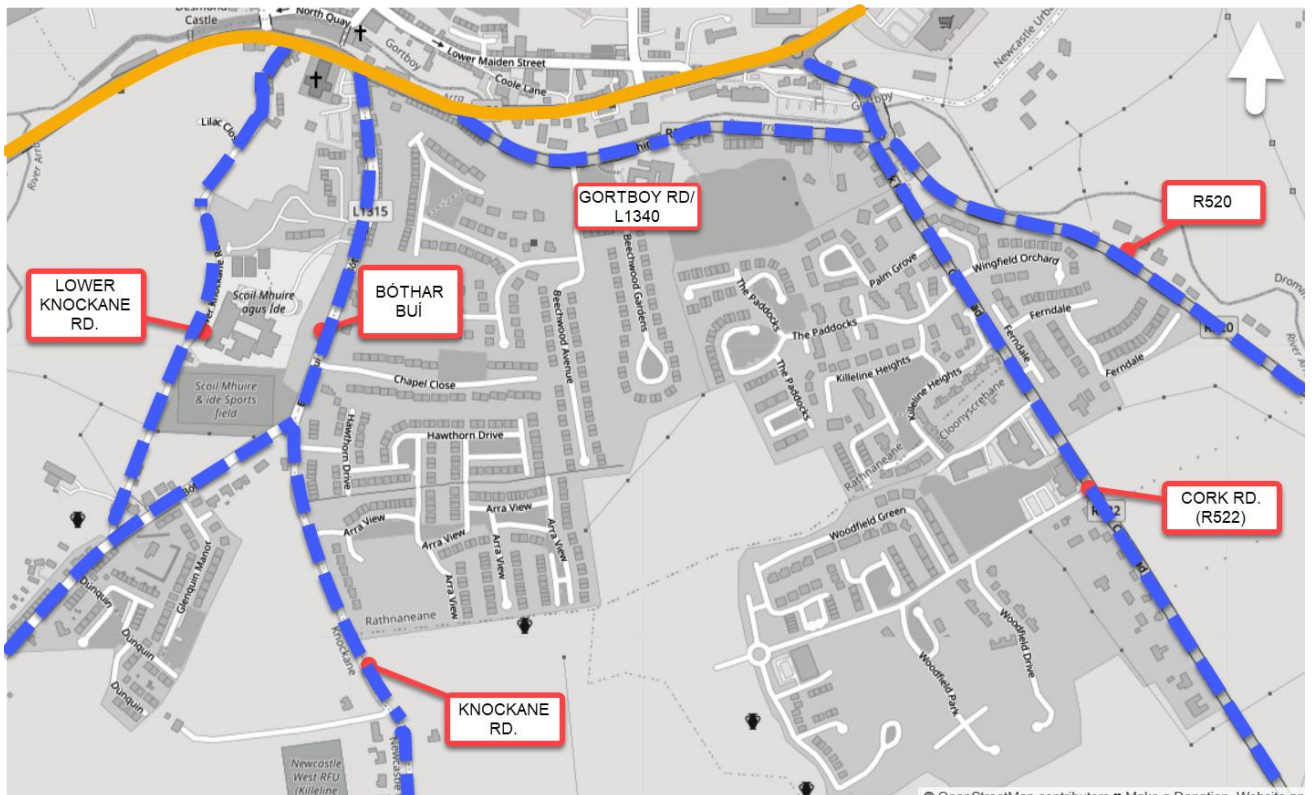


Figure 9.2 – NCW (South of N21)

9.2 Project Context- Local Area Zoning

9.2.1 Previous zoning extents

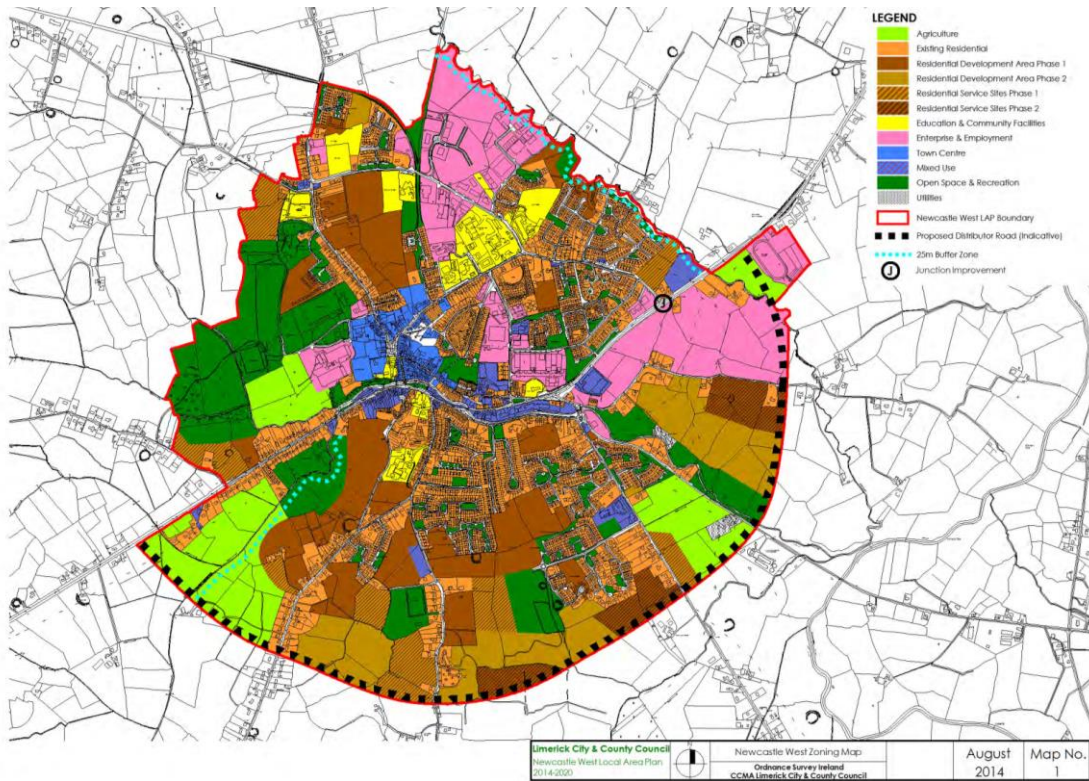


Figure 9.3 – 2014 zoning

9.2.2 2023 -2029 zoning map

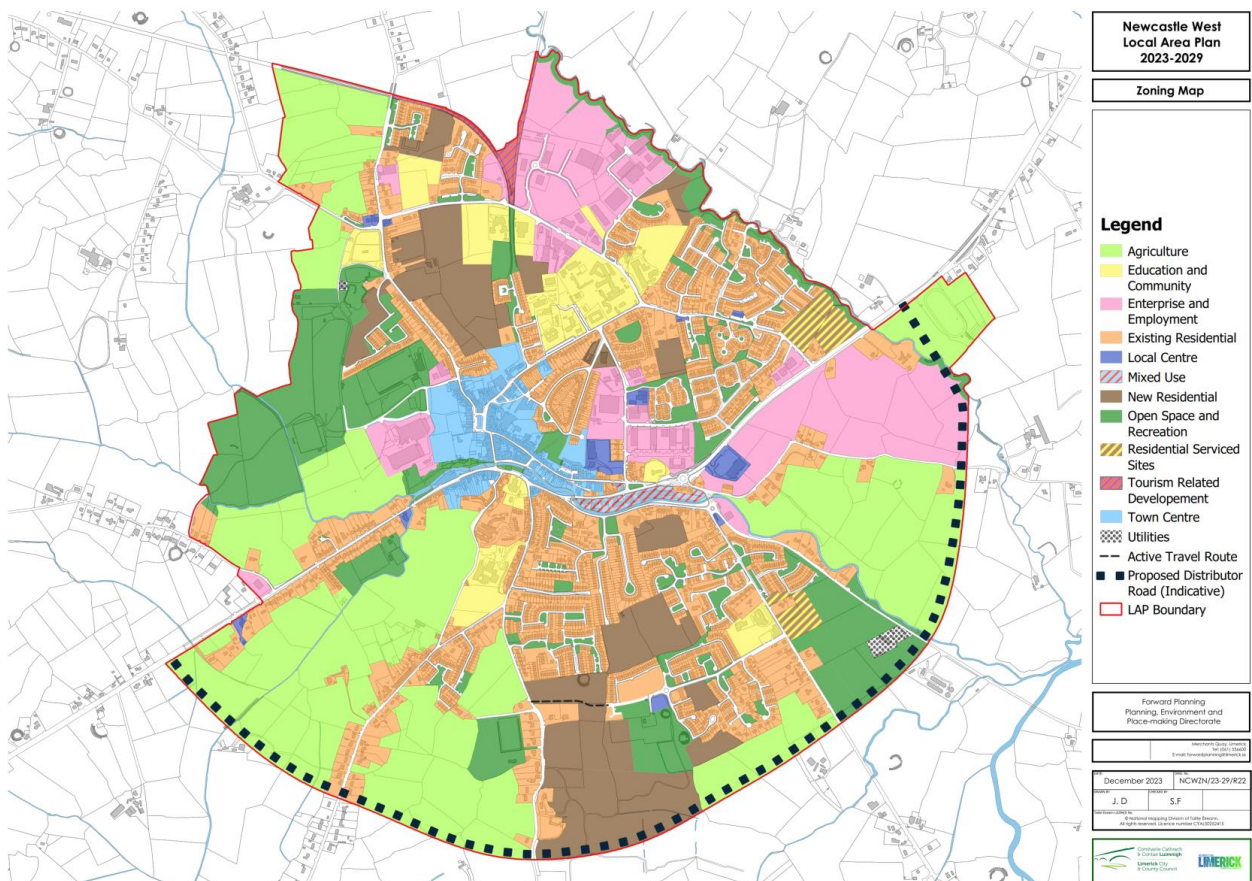


Figure 9.4 – 2023 to 2029 NCW LAP zoning map

9.3 Proposed Zoning areas

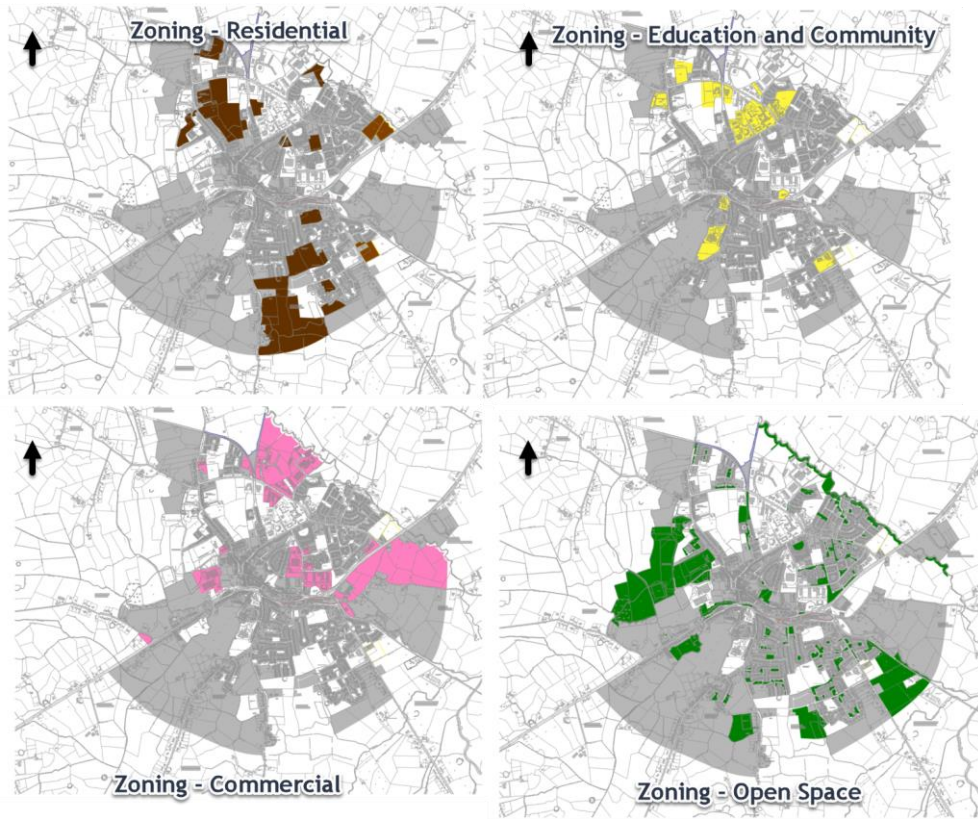


Figure 9.5 – Zoning breakdown

9.4 Proposed Zoning areas- improved linkages for zoning.

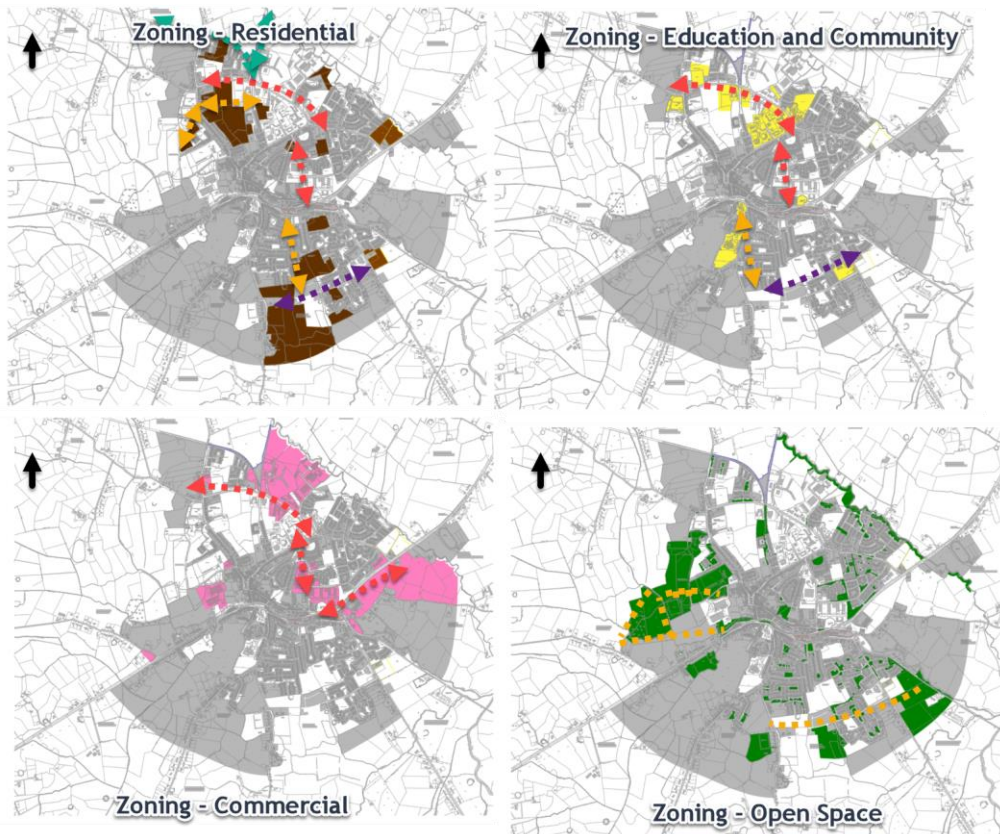


Figure 9.6 – Potential linkages / recommendations

10. STREET REFERENCE

10.1.1 WN 1



Figure 10.1 Churchtown Road (c: Google)

10.1.2 WN 2



Figure 10.2 R521 (c: Google)

10.1.3 WN 3



Figure 10.3 Station Road (c: Google)

10.1.4 WN 4



Figure 10.4 Churchtown Road (c: Google)

10.1.5 WN 5



Figure 10.5 Bishop St. (c: Google)

10.1.6 WN 6



Figure 10.6 Sheehan's Road (c: Google)

10.1.7 WN 7



Figure 10.7 Maiden St. (c: Google)

10.1.8 WN 8



Figure 10.8 R521 (c: Google)

10.1.9 WN 9



Figure 10.9 R521 (c: Google)

10.1.10 WN 10



Figure 10.10 N21 (c: Google)

10.1.11 WN 11



Figure 10.11 Rathina (c: Google)

10.1.12 WN 12



Figure 10.12 Dromindeel Road (c: Google)

10.1.13 WN 13



Figure 10.13 R520 (c: Google)

10.1.14 WN 14



Figure 10.14 R522 Cork Road (c: Google)

10.1.15 WN 15



Figure 10.15 Beechwood Avenue (c: Google)

10.1.16 WN 16 XX

New/ Improved linkage

10.1.17 WN 17



Figure 10.16 Knockane Road (c: Google)

10.1.18 WN 18



Figure 10.17 Bóthar Buí (c: Google)

10.1.19 WN 19

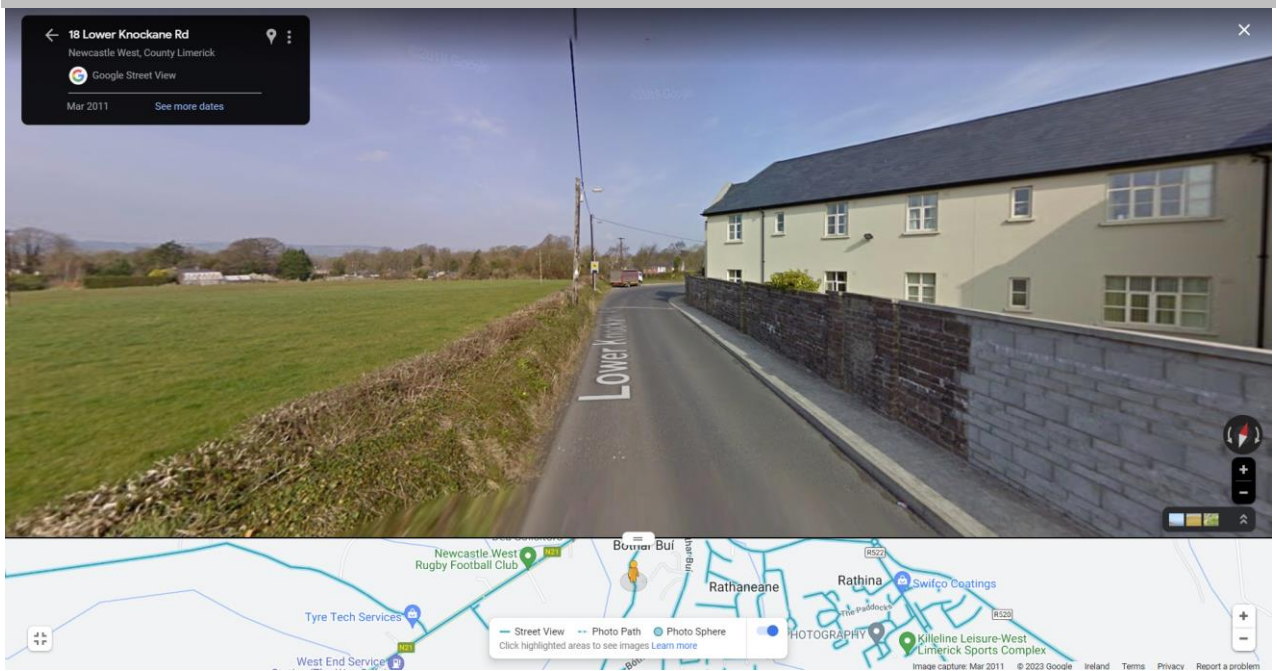


Figure 10.18 Lower Knockane Road (c: Google)

10.1.20 WN20

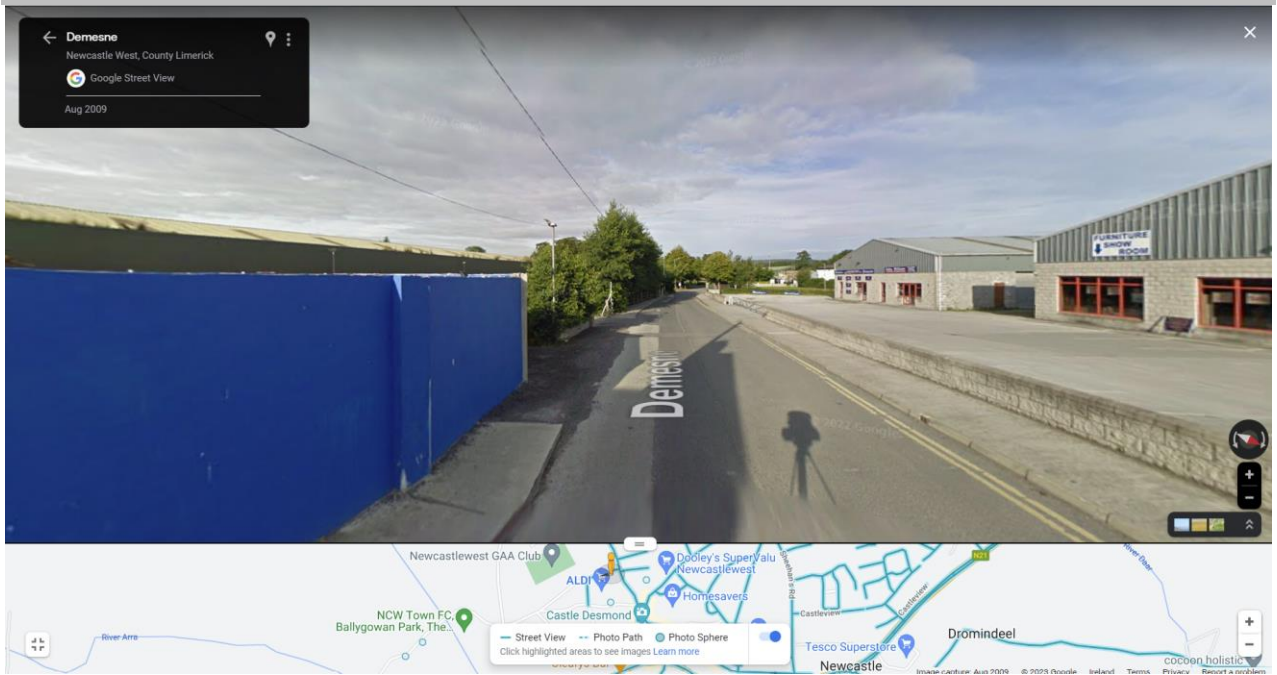


Figure 10.19 Demesne Road (c: Google)

10.1.21 WN 21



Figure 10.20 Castlevue (c: Google)

10.1.22 WN 22 XX

New/ Improved linkage

10.1.23 WN 23



Figure 10.21 Lower Maiden St. (c: Google)

10.1.24 WN 24



Figure 10.22 Bishop Ct. (c: Google)

10.1.25 WN 25



Figure 10.23 Woodfield Park (c: Google)

10.1.26 WN 26 XX

New linkage

10.1.27 WN 27 XX

New linkage

10.1.28 WN 28 XX

New linkage

10.1.29 Walking Radii

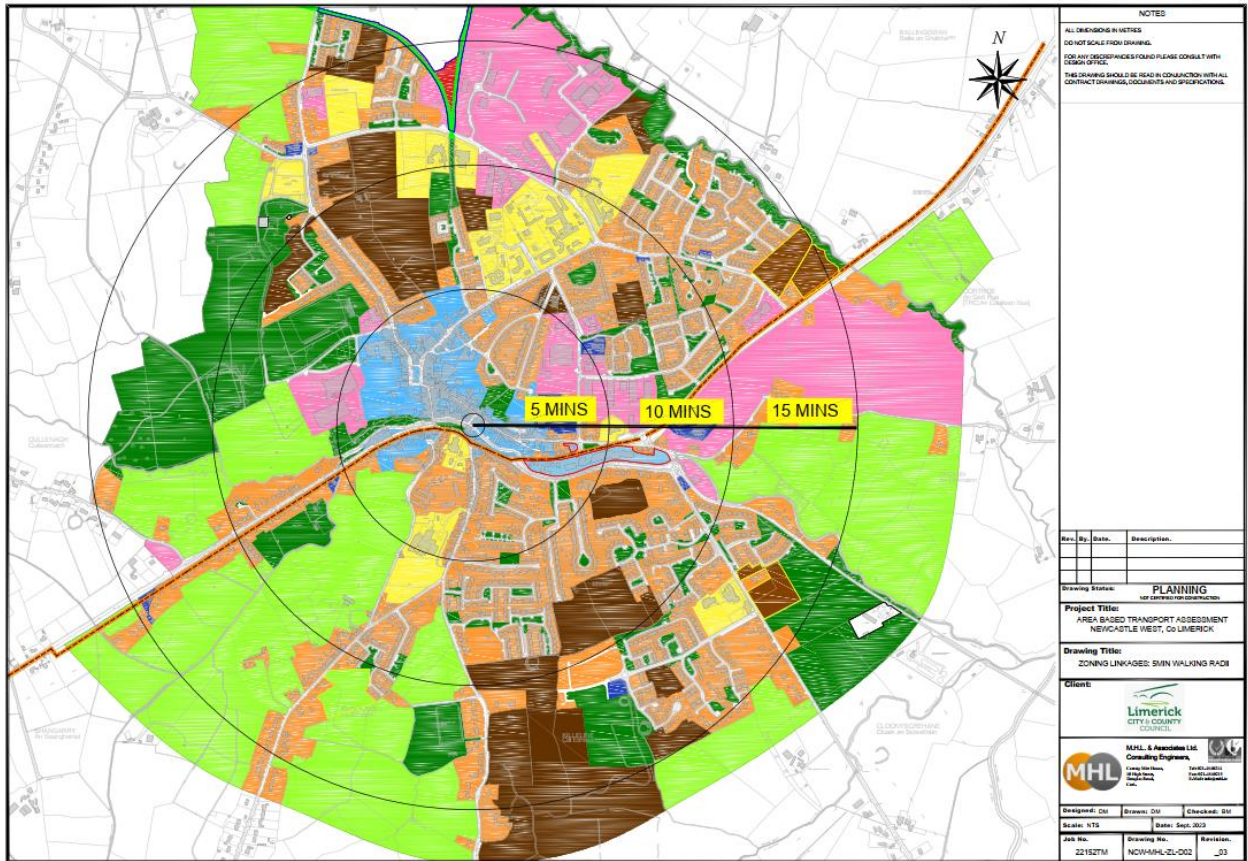


Figure 10.24 NCW 5,10,15 minutes walking radii

10.1.30 Zoning versus Connectivity Linkage Improvements

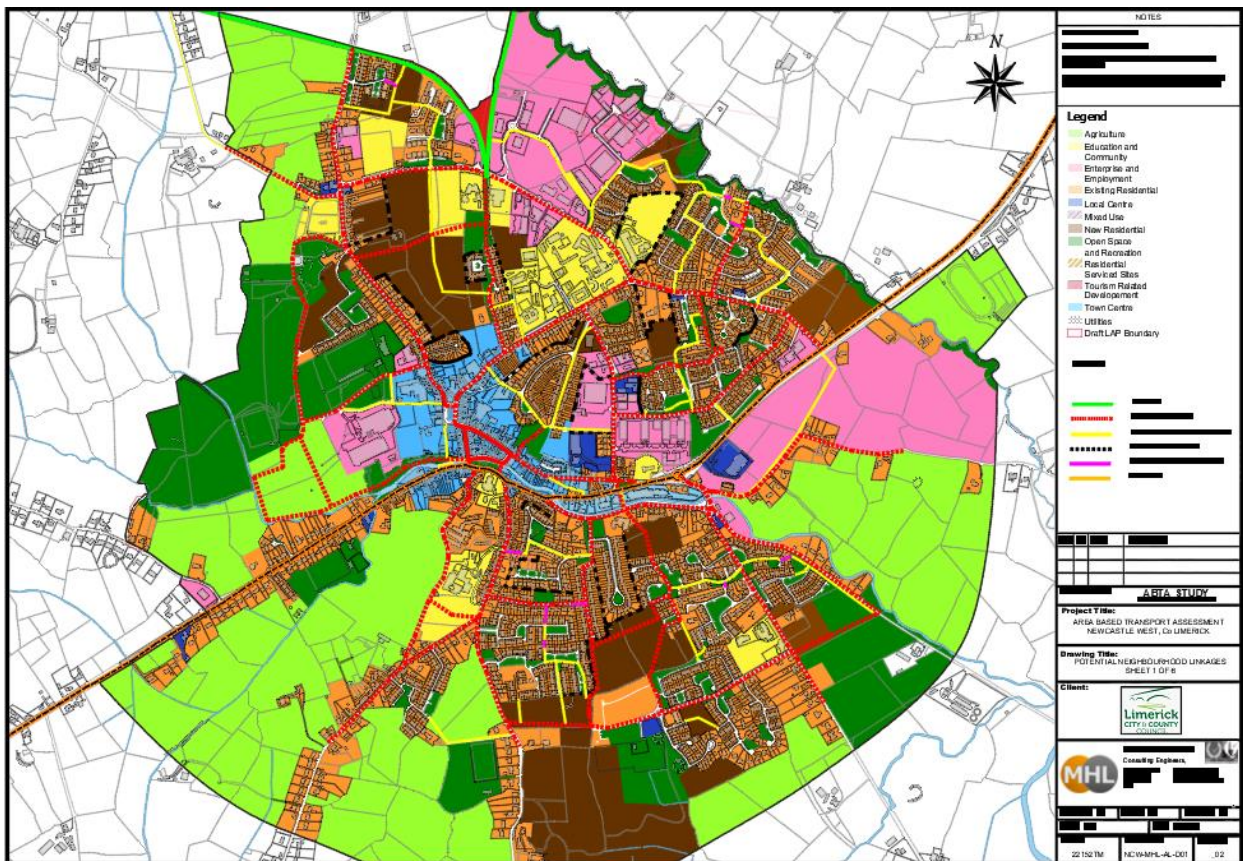


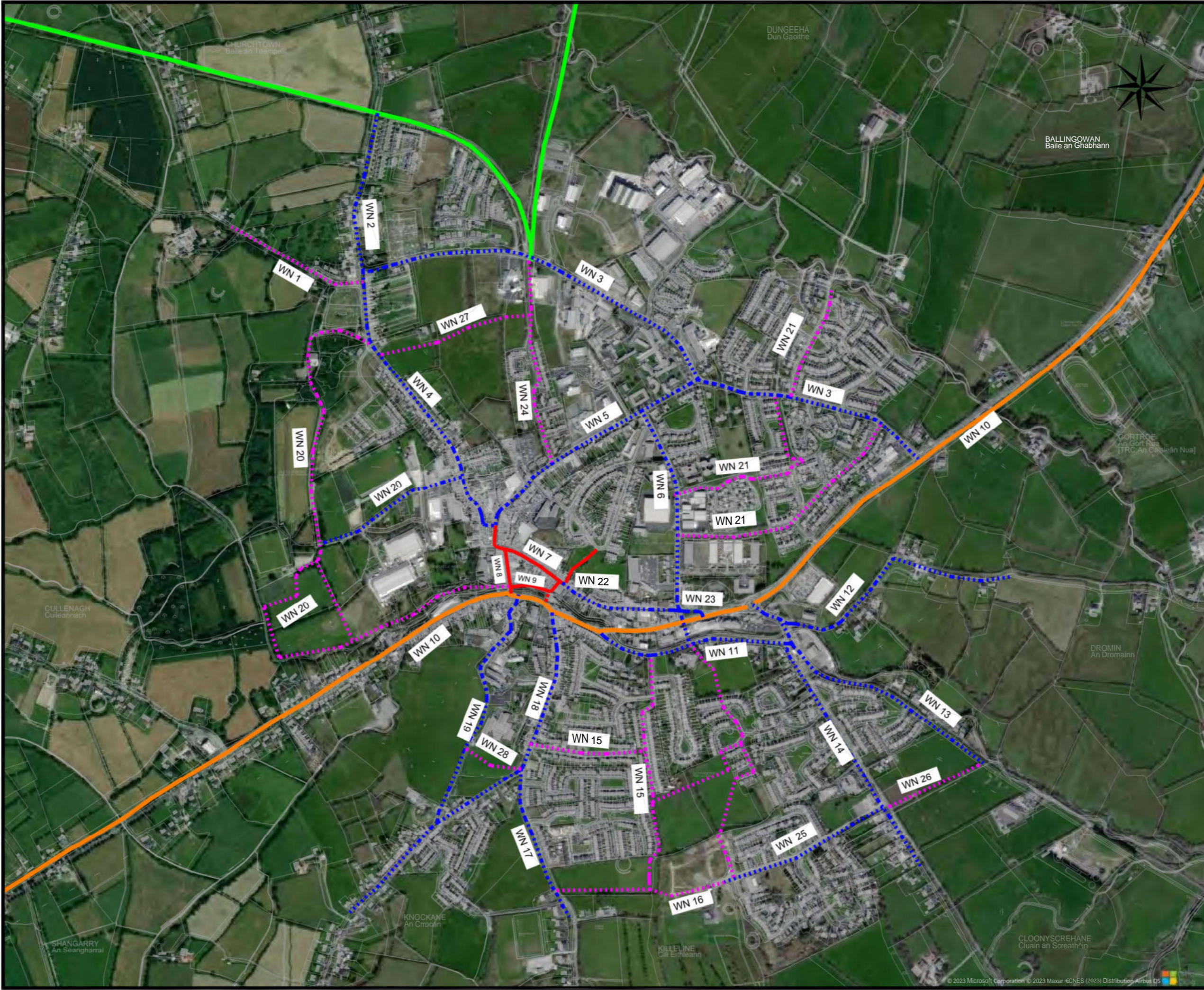
Figure 10.25 Zoning with LTP Linkages noted

11. LTP – MOBILITY LAYOUTS

Please refer to supporting LTP study layouts for further details.

LTP Drawing Listings:

REF.	Drawing Name	Drawing Number	Rev.
1	Walking Strategy Interventions	NCW-MHL-PED-D01	02
2	Cycle Strategy Interventions	NCW-MHL-CYC-D01	02
3	Road Strategy Interventions	NCW-MHL-RD-D01	03
4	Potential Neighbourhood Linkages Sheet 1 of 6	NCW-MHL-AL-D01	03
5	Potential Neighbourhood Linkages Sheet 2 of 6	NCW-MHL-AL-D02	03
6	Potential Neighbourhood Linkages Sheet 3 of 6	NCW-MHL-AL-D03	02
7	Potential Neighbourhood Linkages Sheet 4 of 6	NCW-MHL-AL-D04	02
8	Potential Neighbourhood Linkages Sheet 5 of 6	NCW-MHL-AL-D05	02
9	Potential Neighbourhood Linkages Sheet 6 of 6	NCW-MHL-AL-D06	02



NOTES

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 THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL CONTRACT DRAWINGS, DOCUMENTS AND SPECIFICATIONS.

MAP LEGEND

- WN3 ABTA WALKING CONNECTION LABEL
- GREENWAY
- - - - - NEW CONNECTIVITY LINK
- - - - - IMPROVED CONNECTIVITY LINK
- IMPROVED URBAN REALM
- N21

Rev.	By.	Date.	Description.

Drawing Status: ABTA STUDY
 NOT CERTIFIED FOR CONSTRUCTION

Project Title:
 AREA BASED TRANSPORT ASSESSMENT
 NEWCASTLE WEST, CO. LIMERICK

Drawing Title:
 WALKING STRATEGY OPTIONS

Client:

 Limerick
 CITY & COUNTY
 COUNCIL

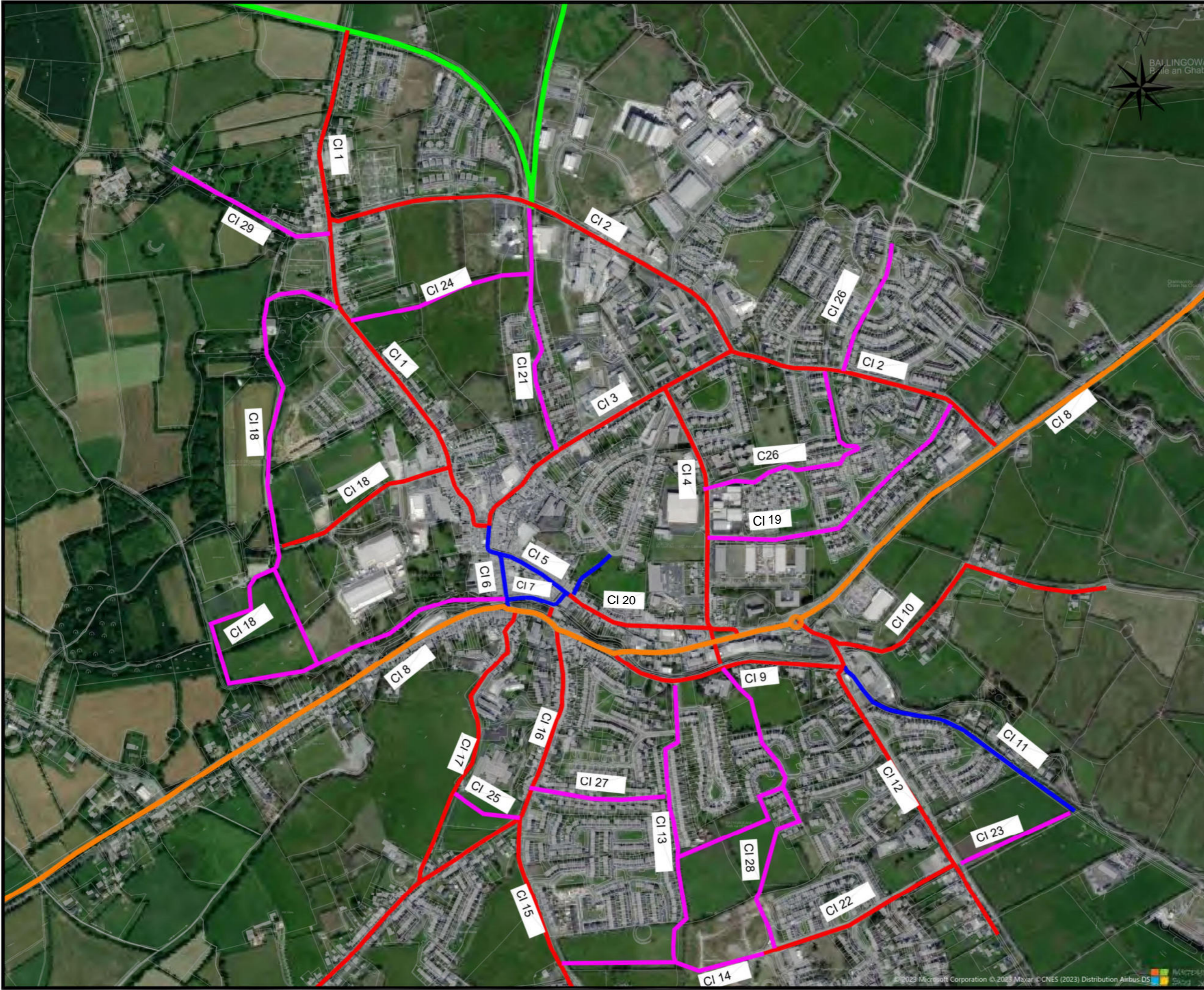
M.H.L. & Associates Ltd.
 Consulting Engineers,

 Canalig Mor House,
 10 High Street,
 Douglas Road,
 Cork.
 Tel: 021-4840214
 Fax: 021-4840215
 E-Mail: info@mhl.ie

Designed: DM **Drawn:** DM **Checked:** BM

Scale: 1:500@A1, 1:1000 @A3 **Date:** Dec.2023

Job No. 22152TM **Drawing No.** NCW-MHL-PED-D01 **Revision.** _02



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MAP LEGEND

WN 3	ABTA CYCLING CONNECTION LABEL
	GREENWAY
	NEW CONNECTIVITY LINK
	IMPROVED URBAN REALM
	IMPROVED CONNECTIVITY LINK
	N21

Rev.	By.	Date.	Description.

Drawing Status: **ABTA STUDY**
 NOT CERTIFIED FOR CONSTRUCTION

Project Title:
 AREA BASED TRANSPORT ASSESSMENT
 NEWCASTLE WEST, Co LIMERICK

Drawing Title:
 CYCLE STRATEGY INTERVENTIONS



M.H.L. & Associates Ltd.
 Consulting Engineers,

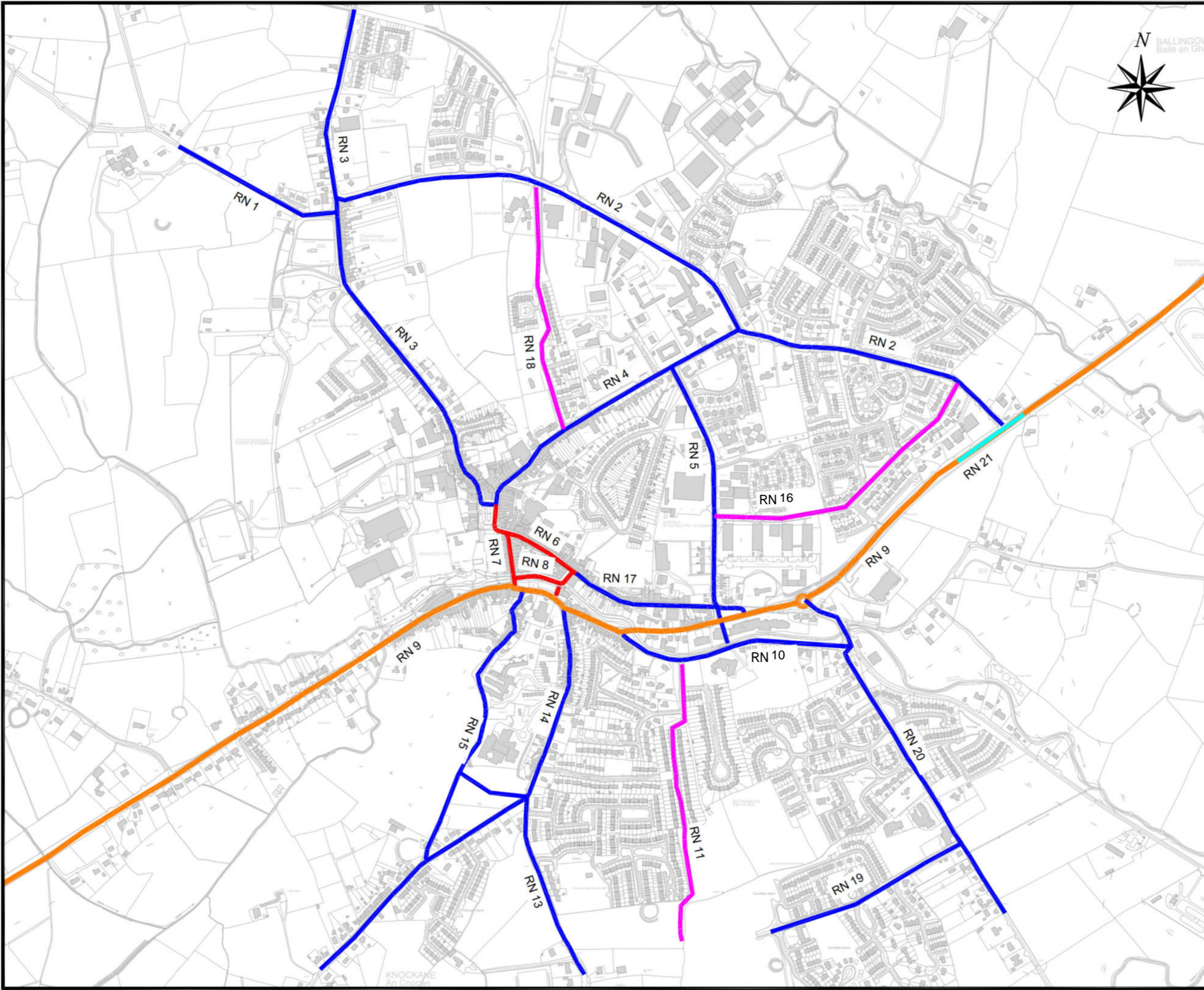
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 10 High Street,
 Douglas Road,
 Cork.

Tel: 021-1840214
 Fax: 021-4840215
 E-Mail: info@mhl.ie

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Scale: 1:5000@A1, 1:10000@A3, Date: Dec. 2023

Job No. Drawing No. Revision.
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- WN 3 ABTA ROAD OPTION LABEL
- GREENWAY
- NEW CONNECTIVITY LINK
- IMPROVED CONNECTIVITY LINK
- IMPROVED URBAN REALM
- NEW E&E ZONING ACCESS LOCATION
- N21

Rev.	By.	Date.	Description.

Drawing Status: **ABTA STUDY**
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
AREA BASED TRANSPORT ASSESSMENT
NEWCASTLE WEST, Co LIMERICK

Drawing Title:
ROAD STRATEGY INTERVENTIONS

Client:



Limerick
CITY & COUNTY
COUNCIL

M.H.L. & Associates Ltd.
Consulting Engineers,



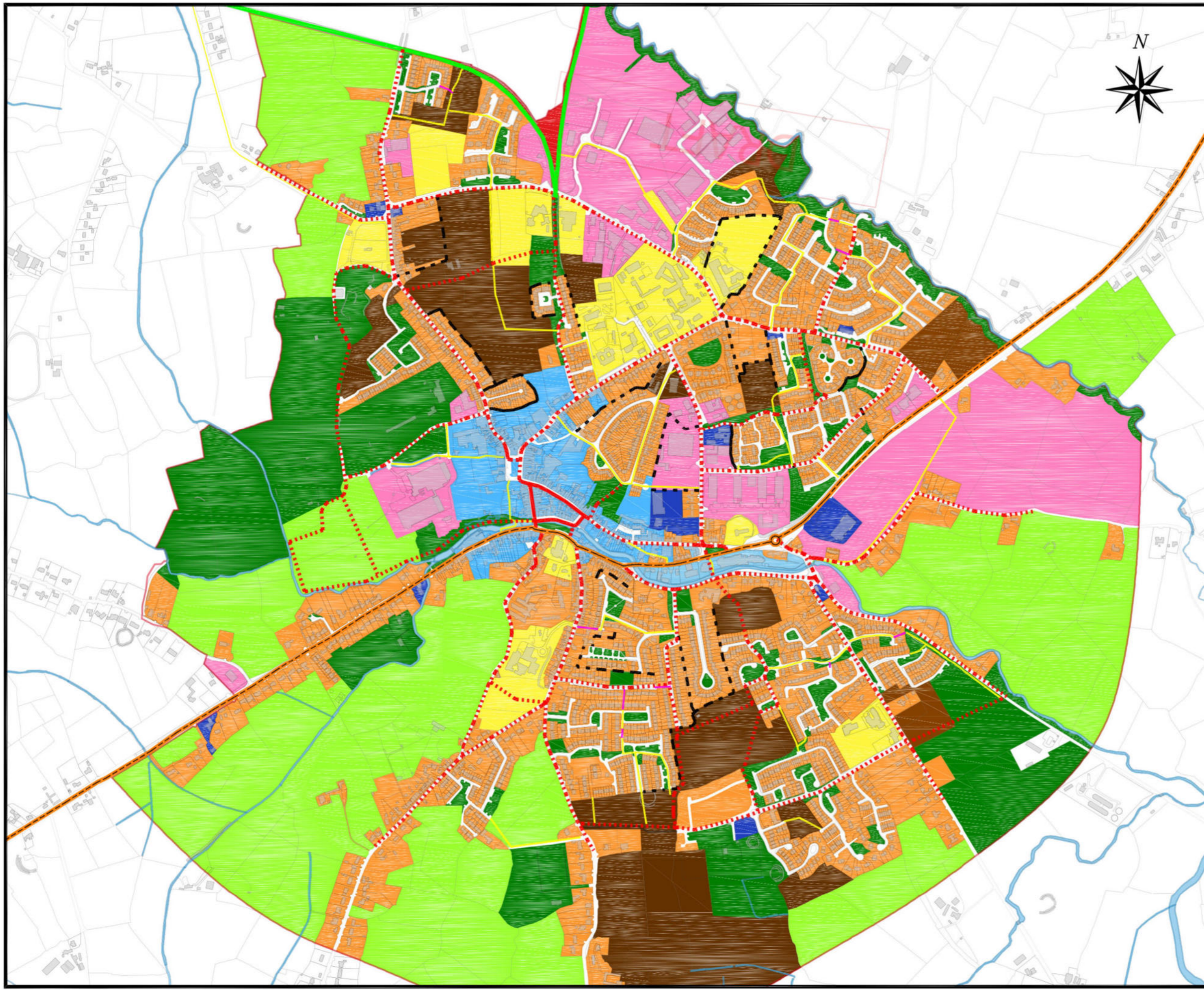
Cairnig Mor House,
10 High Street
Douglas Road,
Cork.

Tel: 021-4840214
Fax: 021-4840215
E-Mail: info@mhl.ie

Designed: DM **Drawn:** DM **Checked:** BM

Scale: 1:5000 @ A1, 1:10000 @ A3 **Date:** Dec, 2023

Job No. 22152TM **Drawing No.** NCW-MHL-RD-D01 **Revision.** _03



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- Legend**
- Agriculture
 - Education and Community
 - Enterprise and Employment
 - Existing Residential
 - Local Centre
 - Mixed Use
 - New Residential
 - Open Space and Recreation
 - Residential Serviced Sites
 - Tourism Related Development
 - Town Centre
 - Utilities
 - Draft LAP Boundary

- MAP LEGEND**
- GREENWAY
 - NEW CONNECTIVITY LINK
 - POTENTIAL NEIGHBOURHOOD LINKAGES
 - BARRIER TO CONNECTIVITY
 - POTENTIAL LINK/ THIRD PARTY LANDS
 - EXISTING N21

Rev.	By.	Date.	Description.

Drawing Status: **ABTA STUDY**
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
AREA BASED TRANSPORT ASSESSMENT
NEWCASTLE WEST, Co LIMERICK

Drawing Title:
POTENTIAL NEIGHBOURHOOD LINKAGES
SHEET 1 OF 6

Client:



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COUNCIL

M.H.L. & Associates Ltd.
Consulting Engineers,



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Cork.

Tel: 0214840214
Fax: 0214840215
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Designed: dm **Drawn:** DM **Checked:** BM

Scale: NTS **Date:** Dec. 2023

Job No.	Drawing No.	Revision.
22152TM	NCW-MHL-AL-D01	_03



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MAP LEGEND

- GREENWAY
- - - - - NEW CONNECTIVITY LINK
- POTENTIAL NEIGHBOURHOOD LINKAGES
- - - - - BARRIER TO CONNECTIVITY
- POTENTIAL LINK/ THIRD PARTY LANDS
- - - - - EXISTING N21

Rev.	By.	Date.	Description.

Drawing Status: **ABTA STUDY**
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
 AREA BASED TRANSPORT ASSESSMENT
 NEWCASTLE WEST, Co LIMERICK

Drawing Title:
 POTENTIAL NEIGHBOURHOOD LINKAGES
 SHEET 2 OF 6

Client:



Limerick
CITY & COUNTY
COUNCIL



M.H.L. & Associates Ltd.
 Consulting Engineers,

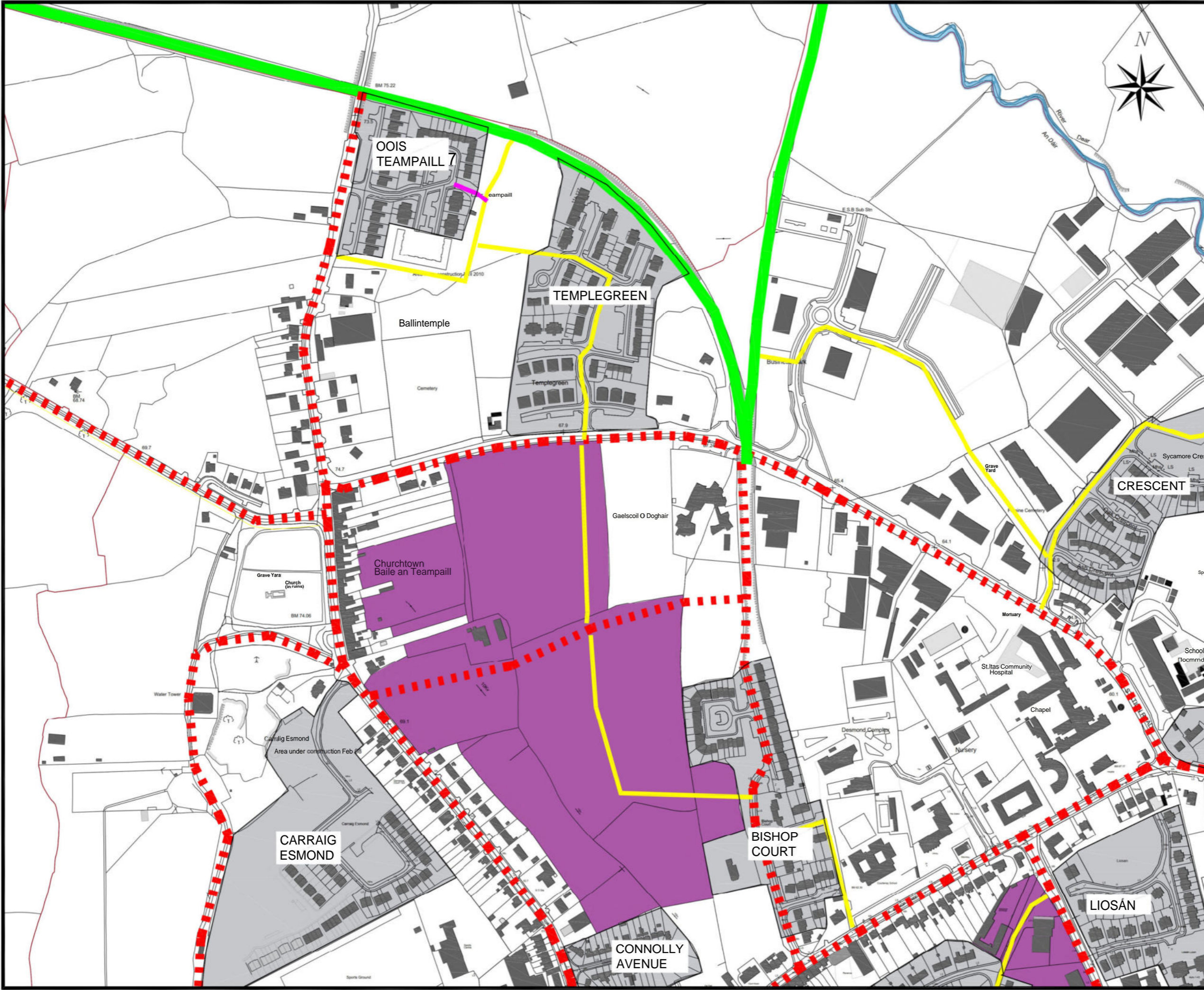
Curraig Mor House,
 10 High Street,
 Douglas Road,
 Cork.

Tel: 021-4540214
 Fax: 021-4540215
 E-Mail: mfo@mhl.ie

Designed: DM **Drawn:** DM **Checked:** BM

Scale: NTS **Date:** Dec. 2023

Job No. 22152TM	Drawing No. NCW-MHL-AL-D03	Revision. _03
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NOTES

ALL DIMENSIONS IN METRES
DO NOT SCALE FROM DRAWING.
FOR ANY DISCREPANCIES FOUND PLEASE CONSULT WITH DESIGN OFFICE.
THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL CONTRACT DRAWINGS, DOCUMENTS AND SPECIFICATIONS.

MAP LEGEND

- GREENWAY
- - - - - NEW CONNECTIVITY LINK
- POTENTIAL SUPPORTING ACTIVE TRAVEL CYCLE/ PEDESTRIAN NEIGHBOURHOOD LINKAGE
- - - - - BARRIER TO CONNECTIVITY
- POTENTIAL LINK/ THIRD PARTY LANDS
- EXISTING N21
- EXISTING RESIDENTIAL ESTATE
- IDENTIFIED OPPORTUNITY SITE

Rev.	By.	Date.	Description.

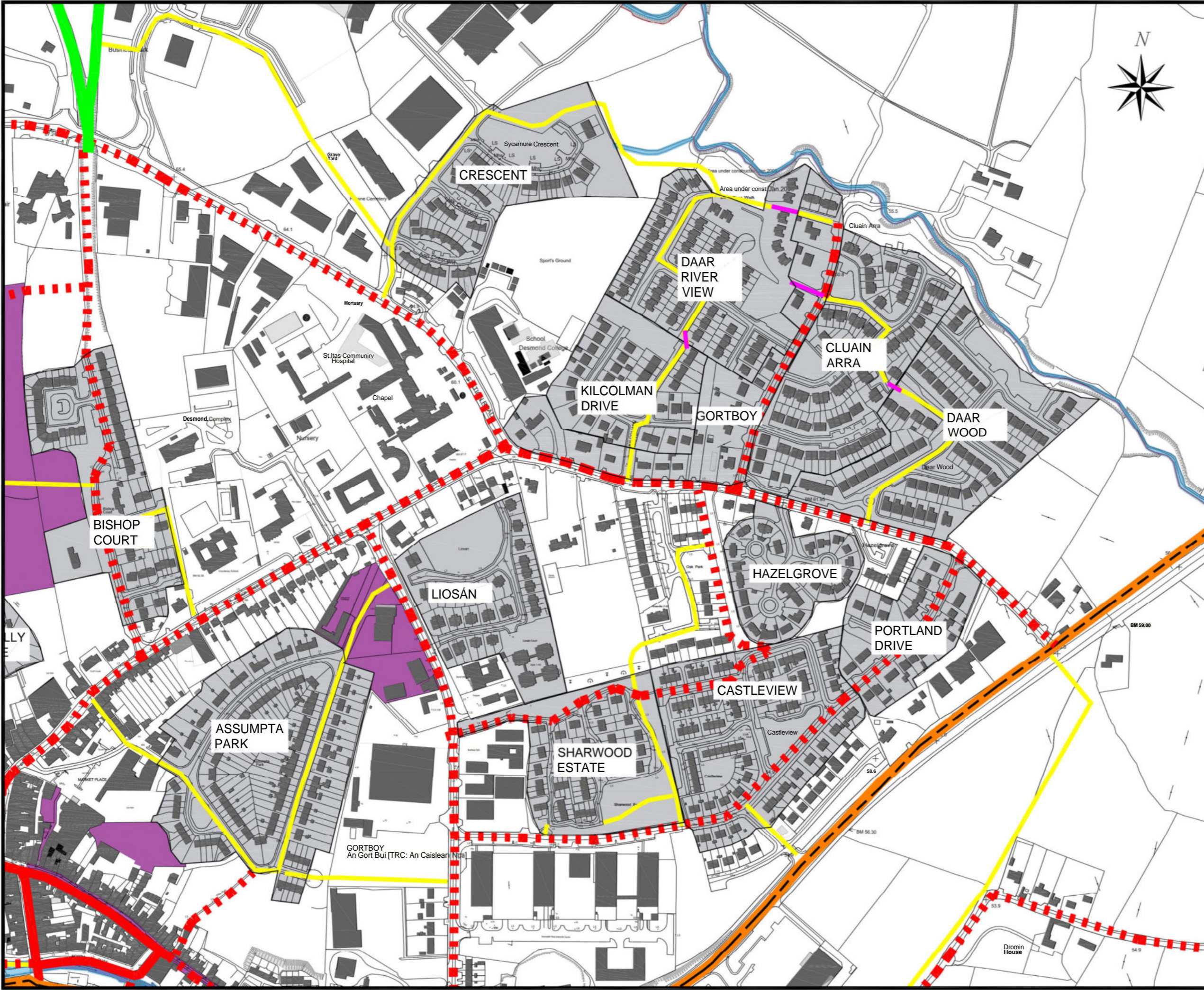
Drawing Status: **ABTA STUDY**
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
AREA BASED TRANSPORT ASSESSMENT
NEWCASTLE WEST, Co LIMERICK

Drawing Title:
POTENTIAL NEIGHBOURHOOD LINKAGES
SHEET 3 OF 6



Designed: DM	Drawn: DM	Checked: BM
Scale: 1:2000 @A1, 1:4000 @A3	Date: Dec. 2023	
Job No. 22152TM	Drawing No. NCW-MHL-AL-D03	Revision. _02



NOTES

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MAP LEGEND

- GREENWAY
- - - - - NEW CONNECTIVITY LINK
- POTENTIAL SUPPORTING ACTIVE TRAVEL CYCLE/ PEDESTRIAN NEIGHBOURHOOD LINKAGE
- - - - - BARRIER TO CONNECTIVITY
- POTENTIAL LINK/ THIRD PARTY LANDS
- EXISTING N21
- EXISTING RESIDENTIAL ESTATE
- IDENTIFIED OPPORTUNITY SITE

Rev.	By.	Date.	Description.

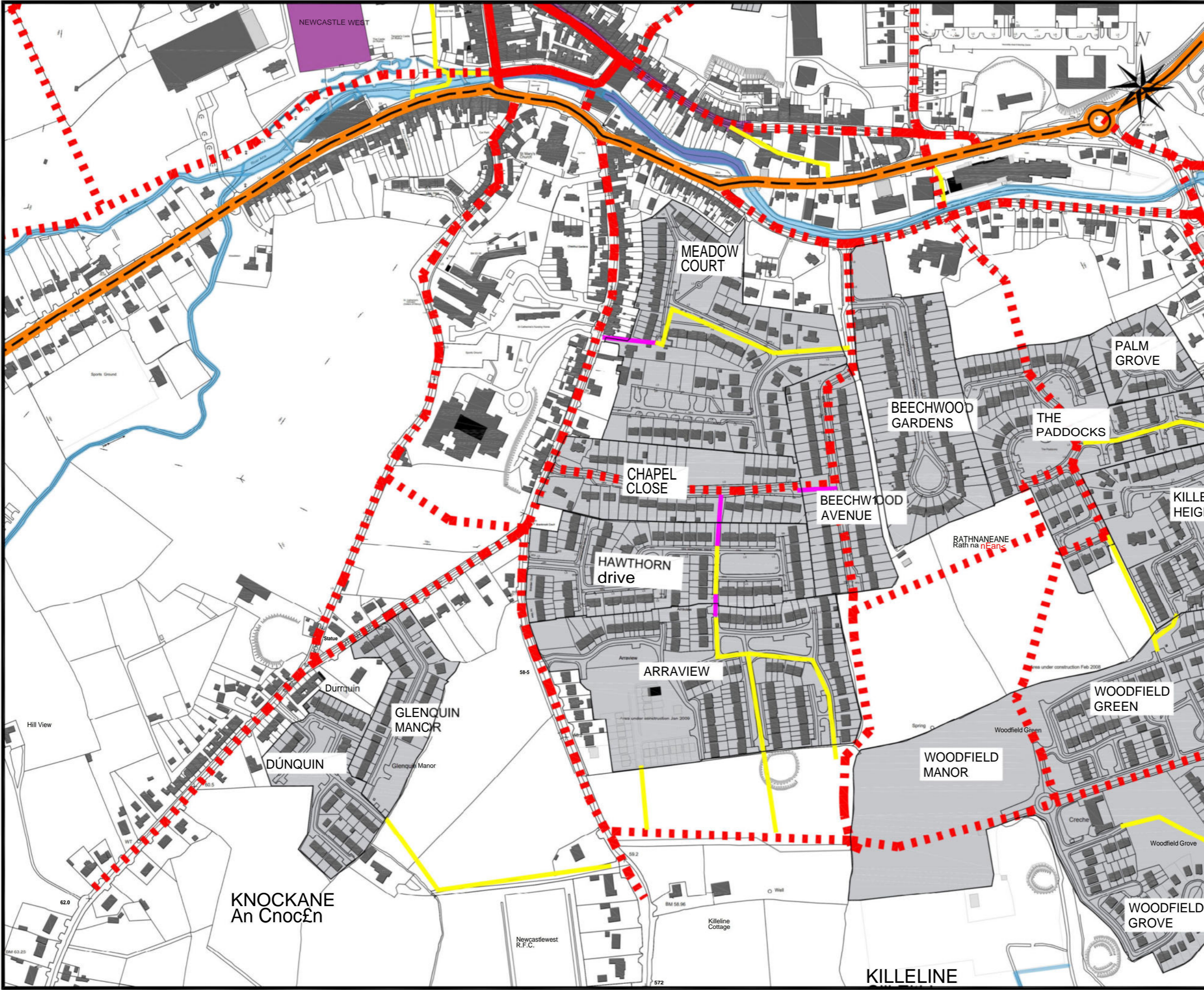
Drawing Status: **ABTA STUDY**
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
AREA BASED TRANSPORT ASSESSMENT
NEWCASTLE WEST, Co LIMERICK

Drawing Title:
POTENTIAL NEIGHBOURHOOD LINKAGES
SHEET 4 OF 6



Designed: DM	Drawn: DM	Checked: BM
Scale: 1:2000@A1, 1:4000@A3	Date: Dec. 2023	
Job No. 22152TM	Drawing No. NCW-MHL-AL-D04	Revision. _02



NOTES

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MAP LEGEND

- GREENWAY
- - - - - NEW CONNECTIVITY LINK
- POTENTIAL SUPPORTING ACTIVE TRAVEL CYCLE/ PEDESTRIAN NEIGHBOURHOOD LINKAGE
- - - - - BARRIER TO CONNECTIVITY
- POTENTIAL LINK/ THIRD PARTY LANDS
- EXISTING N21
- EXISTING RESIDENTIAL ESTATE
- IDENTIFIED OPPORTUNITY SITE

Rev.	By.	Date.	Description.

Drawing Status: ABTA STUDY
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
AREA BASED TRANSPORT ASSESSMENT
NEWCASTLE WEST, Co LIMERICK

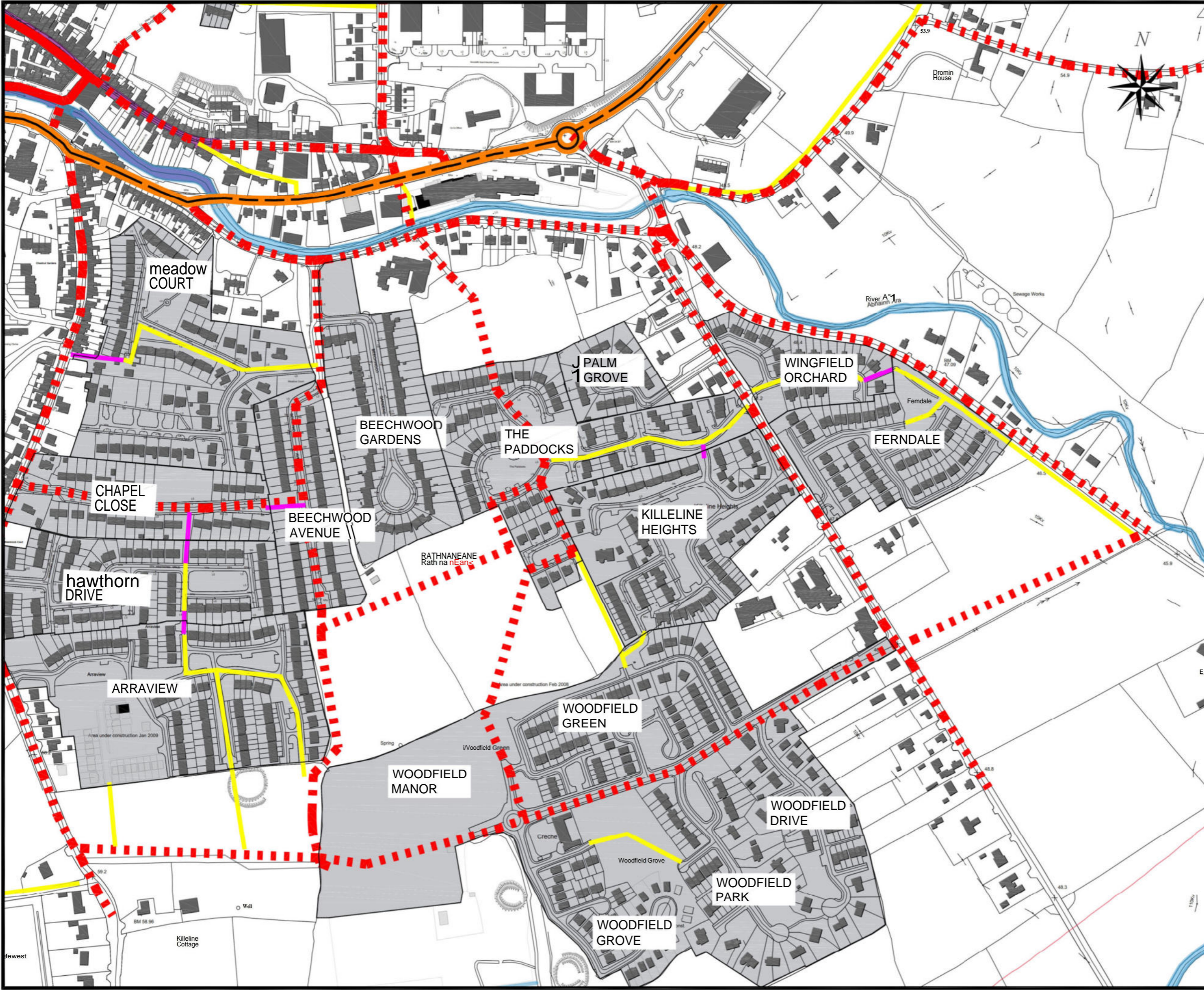
Drawing Title:
POTENTIAL NEIGHBOURHOOD LINKAGES
SHEET 5 OF 6



Designed: DM	Drawn: DM	Checked: BM
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Scale: 1:2000@A1, 1:4000@A3 **Date:** Dec. 2023

Job No. 22152TM	Drawing No. NCW-MHL-AL-D05	Revision. _02
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MAP LEGEND

- GREENWAY
- - - - - NEW CONNECTIVITY LINK
- POTENTIAL SUPPORTING ACTIVE TRAVEL CYCLE/ PEDESTRIAN NEIGHBOURHOOD LINKAGE
- - - - - BARRIER TO CONNECTIVITY
- POTENTIAL LINK/ THIRD PARTY LANDS
- EXISTING N21
- EXISTING RESIDENTIAL ESTATE
- IDENTIFIED OPPORTUNITY SITE

Rev.	By.	Date.	Description.

E.S. Drawing Status: **ABTA STUDY**
NOT CERTIFIED FOR CONSTRUCTION

Project Title:
AREA BASED TRANSPORT ASSESSMENT
NEWCASTLE WEST, Co LIMERICK

Drawing Title:
POTENTIAL NEIGHBOURHOOD LINKAGES
SHEET 6 OF 6



Designed: DM	Drawn: DM	Checked: BM
Scale: 1:2000 @A1, 1:4000 @A3	Date: Dec. 2023	
Job No. 22152TM	Drawing No. NCW-MHL-AL-D06	Revision. _02



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