Department for Infrastructure
An Roinn Bonneagair
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ARDS AND NORTH DOWN BOROUGH COUNCIL LOCAL TRANSPORT STUDY

Version 5

Contents

1.0 Introduction

1.1. Local Development Plans

1.1.1. The Department for Infrastructure (the Department) is working co-operatively with the Councils to produce a new family of Local Transport Plans (LTPs) integrated with the Local Development Plans (LPDs). These plans move through different stages, and increase in detail from an overall strategic direction, through to specific local policies and schemes. The integration of land-use and transport planning processes provides a unique opportunity to combine the shared regional and local ambitions which are set out in the draft Programme for Government (PfG) and also in the Councils' Community and LDPs.

1.1.2. This approach is in accordance with the stated aim of the Strategic Planning Policy Statement (SPPS) with regard to transportation "to secure improved integration with land-use planning". In addition, Section 3 of Part 2 of the Planning Act (Northern Ireland) 2011 refers to the "survey of the district" and the requirement for councils to keep under review matters which may be expected to affect the development of its district or the planning of that development, including "the communications, transport system and traffic of the district" (Section 3 (2) (d)).

1.1.3. This Ards and North Down Borough Council (ANDBC) Transport Study (LTS) has been prepared by the Department to supplement the overarching Belfast Metropolitan Transport Study (BMTS). Throughout the development of this study, the Department has shared the evidence used as it became available so that consideration of the emerging study could inform the ANDBC LDP – Draft Plan Strategy stage. Additional maps, tables and charts are provided in Annex 1 alongside this document.

1.2. Purpose of Transport Study

1.2.1. The purpose of this LTS is to set out an objective evidence-based assessment in relation to current and future transport issues, in the context of Council growth ambitions and future illustrative transport measures required to facilitate growth ambitions during the LDP period to 2032 in the ANDBC area. It will also ensure that the transport network and transport needs of the ANDBC area are taken into account when planning for future development. Whilst the transport elements are quite distinct in terms of the services they offer and benefits they bring, the key linkages with land-use planning will collectively help deliver on shared regional and local ambitions and outcomes.

1.2.2. These illustrative transport measures are developed in this LTS in line with the draft PfG, current government policies and with regard to the direction of the ANDBC Community Plan 'The Big Plan' and the LDP Preferred Options Paper (POP).

1.2.3. This LTS presents the range of illustrative measures for active travel[1], public transport and roads for the period up to 2032, in addition to the linkages with the Regional Strategic Transport Network Transport Plan (RSTNTP), which will look at how best to develop the key transport corridors and other main routes.

1.2.4. At this stage, consistent with the LDP Plan Strategy stage, the location of the illustrative transport measures are not described in detail. Rather, the detail and specific schemes will be added at LDP Local Plan Policies (LPP) stage, when land use zonings are identified. However, in this LTS illustrative measures are described in terms of strategic locations. The population of ANDBC is focused predominantly in the urban areas to the north of the Borough (80% of the population live in the top 20% of the Borough), and as such has particular needs for both land use planning and transportation infrastructure. The majority of key services and economic generators are located in the main urban centres of **Bangor**, **Newtownards**, **Holywood** and to a lesser extent **Comber** and **Donaghadee**, therefore these towns naturally provide the focus for many of the illustrative transport measures as improving access to these key services and economic generators will not only be beneficial to local residents but also to the rural communities that have to travel into the towns to access them. It is noted that the Council area also includes the largely rural area of the Ards Peninsula which provides specific challenges of connectivity and of accessibility to services.

1.3. Study Area

1.3.1. The Ards and North Down LTS is aligned to the ANDBC area, as shown in Figure 1, and includes illustrative transport measures for the five main towns (**Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**) as defined in the LDP POP. **Bangor** and **Newtownards** are recognised as the 'main towns'. The next largest settlements of **Holywood**, **Comber** and **Donaghadee** are smaller as summarised in Table 1.

[1] Active travel means making journeys by physically active means such as walking and cycling.

Figure 1 Ards & North Down Borough Council Area

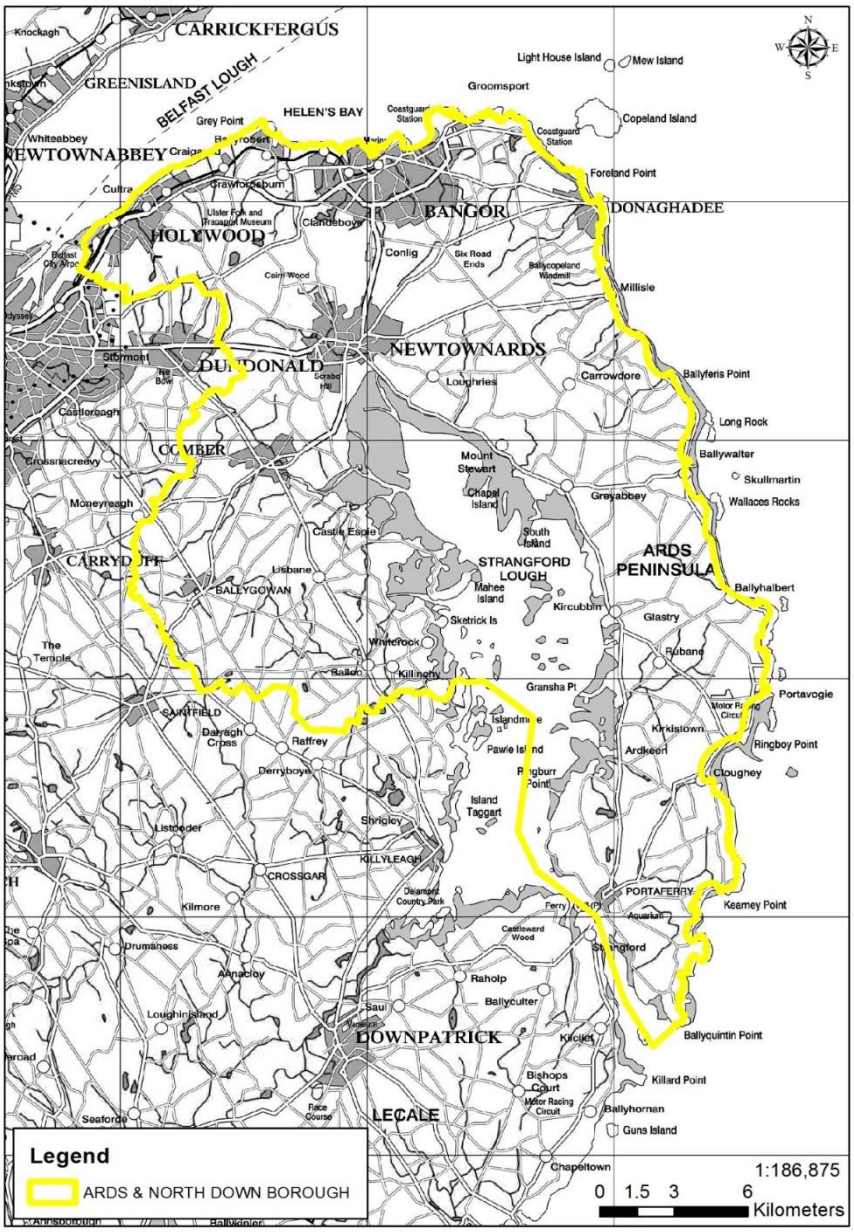


Table 1 Ards & North Down Borough Council Settlements and 2011 Population

SETTLEMENT	USUAL RESIDENTS 2011
Bangor	61,011
Newtownards	28,050
Holywood	11,257
Comber	9,071
Donaghadee	6,869
Ballygowan	2,942
Portaferry	2,511
Millisle	2,319
Portavogie	2,131
Ballywalter	2,027
Helen's Bay	1,385
Groomsport	1,214
Kircubbin	1,163
Cloughey	1,092
Ballyhalbert	1,040
Seahill	1,014
Carrowdore	960
Greyabbey	939
Crawfordsburn	581
Killinchy	539

1.3.2. The Council area is both urban and rural in character. Figure 2 summarises a number of the area's key demographic and transport- related characteristics and expresses these in terms of their percentage variation from Northern Ireland (NI) average. The full details are provided in Table 2.

1.3.3. ANDBC is a small council at 45,731 ha in area compared to the NI Average of 123,294 ha. Its population density is approximately 3.4 persons per hectare compared to the average Council value of 3.66 and a NI-wide density of 1.34. Around 74% of the population live in towns of 5,000 or more compared to the NI average of 58%. By comparison, 26% of the population live in rural areas which is significantly lower than the NI average of 42%. The small council area directly relates to a relatively low overall road length, which when combined with the population results in a road length per capita of 0.01km compared to the NI average of 0.02km. The average road speed is 74km/h compared to the NI average of 61km/h. 17% of households do not own a car compared to the NI average of 21%. Whilst the proportion of residents (74%) living within a 30 minute journey by rail or bus from a town centre is above the NI average (68%), all of the remaining 26% are located in the Ards Peninsula with its smaller settlements. The number of collisions in the Council area per 1,000 people is 33.8, compared to the NI average of 44.8.

Figure 2 Ards & North Down Borough Council Key Characteristics Compared to NI Average

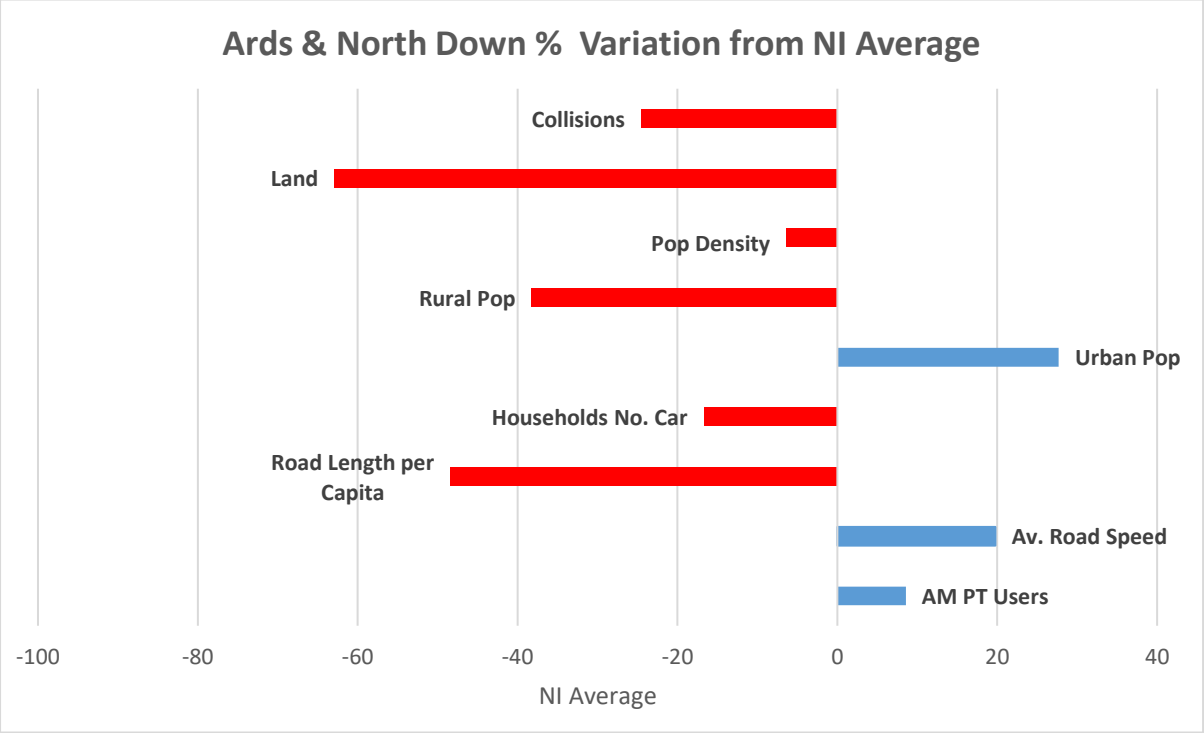


Table 2 Ards & North Down Borough Council Key Characteristics Compared to NI Average

	Council	NI Average	% Variation from Average
Pop 30 mins of Town AM PT (%)	74%	68%	9
Average Road speed (km per hr)	74.01	61.79	20
Road length per capita (km)	0.01	0.02	-48
Households No Car (%)	17.08	20.51	-17
Urban Population (%)	74.08	58.01	28
Rural Population (%)	25.92	41.99	-38
Pop Density	3.43	3.66	-6
Land in Hectares	45,731	123,294	-63
Fatal and Serious Collision Rate Per 100k	33.8	44.8	-25

1.4. Report Structure

1.4.1. The structure of this LTS is as follows:

- Chapter 2 provides the Policy Context that outlines the principal policies and strategies that have informed the preparation of this LTS;
- Chapter 3 outlines the Transport Evidence Baseline in the form of regional connectivity, accessibility and transport networks;
- Chapter 4 outlines population growth and development proposals;
- Chapter 5 outlines a summary of the transport issues and opportunities as developed from an interpretation of the Transport Evidence baseline;
- Chapter 6 presents the Transport Objectives which have been developed in light of the strategic policy context and local ANDBC issues and direction as set by the Community Plan and the LDP POP;
- Chapter 7 commences with a discussion of transport options and their merits before presenting the illustrative Transport Measures; and
- Chapter 8 summarises the conclusions of the LTS and the potential illustrative Transport Measures.

2.0 Policy Context

2.1. Transport Policy Context

2.1.1. The ANDBC LDP POP and accompanying Community Plan set out a wide range of objectives and outcomes which the Council and residents have agreed on through public consultation and expect to be achieved by 2032 for the benefit of the entire community.

2.1.2. Similarly, the draft PfG sets out the NI Executive's wider ambitions to address the major social, economic and environmental issues affecting all sections of society.

2.1.3. In addition to the PfG, there are a number of strategic planning and transport policies which set the context for this LTS, namely:

- The Regional Development Strategy 2035 – Building a Better Future (RDS);
- Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation (the New Approach);
- Northern Ireland Changing Gear – A Bicycle Strategy for Northern Ireland; and
- Exercise Explore Enjoy: A Strategic Plan for Greenways.

2.1.4. These strategic documents are NI wide and all Council areas are required to take account of their content and to plan accordingly. In particular the urban areas in ANDBC, most notably **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** have a key role to play in helping to deliver any urban-related objectives.

2.1.5. This study has been developed to support the achievement of the both the objectives set out in these documents and the objectives of the future ANDBC LDP Plan Strategy.

2.1.6. An overview of the content of these key strategic documents and their context is outlined below.

2.2. Planning Policy Context

Reform of local government & development planning

2.2.1. Reform of the Northern Ireland planning system came into operation on 1st April 2015. The unitary system where all planning powers rested with the Department of the Environment was replaced by a new two-tier systems model of delivery, with Local Government District Councils being made responsible for a number of planning functions including local plan-making, development management and planning enforcement.

2.2.2. Within this system central government (DfI) has responsibility for regional planning policy, the determination of regionally significant planning applications, called-in applications, and planning legislation. It also provides oversight, guidance for councils, audit, governance and

performance management functions. In addition to this DfI continues to be the competent authority for transport.

Strategic Planning Policy Statement for Northern Ireland – Planning for Sustainable Development (SPPS)

2.2.3. The SPPS was published in September 2015 and is a statement of the government's policy on important planning matters that should be addressed across Northern Ireland. It reflects expectations for delivery of the planning system.

2.2.4. The document consolidates the 20 separate Planning Policy Statements (PPSs) into one document, and sets out strategic subject planning policy for a wide range of planning matters. It sets out the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.

2.2.5. The SPPS identifies a number of regional strategic objectives for transportation and land-use planning as follows:

- promote sustainable patterns of development which reduce the need for motorised transport, encourages active travel, and facilitate travel by public transport in preference to the private car;
- ensure accessibility for all, with the needs of people with disabilities and others whose mobility is impaired given particular consideration;
- promote the provision of adequate facilities for cyclists in new development;
- promote parking policies that will assist in reducing reliance on the private car and help tackle growing congestion;
- protect routes required for new transport schemes including disused transport routes with potential for future reuse;
- restrict the number of new accesses and control the level of use of existing accesses onto Protected Routes; and
- promote road safety, in particular for pedestrians, cyclists and other vulnerable road users.

2.2.6. Transport accessibility is considered to be a key strand throughout the SPPS. The SPSS must be taken into account in the preparation of LDPs and in the determination of planning applications. The SPPS also recommends that councils undertake local transport studies to identify transportation and land use planning issues to be addressed through the delivery of LDPs. This is to have consideration of transport infrastructure (as related to development proposals / land use zoning) such as new transport schemes, walking, cycling and parking.

2.2.7. This approach is in accordance with the stated aim of the SPPS contained within the Regional Development Strategy 2035 (RDS 2035) with regard to transportation "to secure improved integration with land-use planning". In addition, Section 3 of Part 2 of the Planning Act (Northern Ireland) 2011 (the Act) refers to the "survey of the district" and the requirement from councils to keep under review matters which may be expected to affect the development of its

district or the planning of that development, including "the communications, transport system and traffic of the district" (Section 3 (2) (d)).

Local Development Plans

2.2.8. Part 2 of the Act places a statutory requirement on each council to prepare an LDP for its district. An LDP consists of two separate development plan documents, covering the council district:

- a Plan Strategy (PS) which will set out the council's vision, objectives and growth strategy for the area along with strategic policies; and
- a Local Policies Plan (LPP) which will set out the council's detailed policies in relation to the development and use of land in its district.

2.2.9. The PS is produced first with scrutiny at the independent examination stage. The LPP is prepared subsequently to be consistent with the PS. As an initial task, each council is also required to prepare and publish a Preferred Options Paper (POP) which sets out for consultation purposes:

- a series of options for dealing with the key issues in the plan;
- evidence to appraise the different issues and options; and
- the council's preferred options and its justification for selecting/recommending its preferred approach.

2.2.10. The BMTP councils have all completed this initial task by publishing their POPs. Each of the POPs include direct references to transport in the documents' objectives. The objective can be categorised as economic, social or environmental.

2.2.11. Common transport themes run through the five POPs including the promotion of sustainable transport including public transport and active travel as well as forms of management the city/town centre demand for private vehicles such as parking restraints. In addition, there is an acceptance within the documents that growth should be focused within the existing cities/towns where levels of sustainable transport infrastructure is generally higher.

2.2.12. In terms of sustainability, the growth aspirations across the BMTP area have the potential to produce a greater number of trips and careful mitigation will be needed to reduce the number undertaken by private car. The complementary investment in green transport and Active Travel would be critical in ensuring sustainable long-term development.

2.3. Draft Programme for Government 2016-2021[2]

2.3.1. The NI Executive's PfG framework focuses on improving wellbeing for all through tackling disadvantage and driving economic growth. The draft PfG is outcomes-based and is focused on impact at a whole population level, rather than a list of activities or inputs. The ambitions

[2] The last Executive provided policy direction as set out in the PfG 2016-2021, consequently, Departments are continuing to deliver public services in line with the policy direction in the draft PfG 2016-2021.

contained in the draft PfG will only be realised through sustained collaboration, across organisational and sectoral boundaries.

2.3.2. The PfG identifies key strategic outcomes, supported by a number of indicators; draft Delivery Plans have been developed for each of these, setting out the key actions to support delivery of PfG outcomes.

2.3.3. The Department's main contribution to the PfG is through:

- Outcome 11: We connect people and opportunities through our infrastructure; and
- Outcome 2: We live and work sustainably – protecting the environment.

2.3.4. The key focus of Outcome 11 is the importance of physical connectivity as a key enabler of economic growth and social cohesion. Outcome 2 has a focus on protecting the environment while supporting wider economic growth and social cohesion objectives. Under this framework the Department is directly responsible for delivery of two transport related PfG indicators:

- Indicator 23: Average journey time on key economic corridors; and
- Indicator 25: % of all journeys made by walking, cycling and public transport

2.3.5. The focus within the Delivery Plan for Indicators 23 and 25 is to ensure that investment in transport infrastructure supports economic and social progress while seeking to minimise the harmful effects on health and the environment generated by road traffic through congestion. Indicators 23 and 25 are strongly inter-dependent, for example, progress in increasing the uptake of active transport and public transport will help reduce pressure on the strategic road network, mitigate congestion and improve journey times on key corridors.

2.3.6. The variations in the rural / urban settlement balance across NI will provide different challenges and opportunities for Councils in delivering PfG outcomes. The Departments contribution to the successful delivery of PfG outcomes will also be highly reliant on the concerted and collaborative efforts of delivery partners working in partnership with the Department.

2.4. The Regional Development Strategy 2035 – Building a better Future

2.4.1. The RDS, published March 2012, is a long-term plan to deliver the spatial aspects of the PfG. The RDS recognises the need for balanced sub-regional growth and importance of key settlements as centres for growth and investment.

2.4.2. The RDS includes Regional Guidance (RG) to "deliver a balanced approach to transport infrastructure" (RG2) which will allow the region to remain competitive in the global market in a sustainable manner. The focus of this guidance is on managing the use of road and rail space and how we can use our network in a better, smarter way.

2.4.3. In particular, the RDS recognises the need to maximise the potential of the Regional Strategic Transport Network (RSTN) to enhance accessibility to towns; to help build an integrated regional economy; facilitate tourist travel including improving connections to key tourism sites; and reduces where possible, unsuitable traffic into towns.

2.4.4. The RDS contains a Spatial Framework and Strategic Planning Guidelines based on focusing development in principal cities, main hubs, hubs and clusters. It also prioritises the improvement of the main transport corridors that form the regional transportation network. The RDS identifies **Bangor** and **Holywood** as part of the BMUA and **Newtownards** as a main hub. It also states that **Newtownards** has the potential to cluster with the Belfast Metropolitan Urban Area.

2.5. Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation

2.5.1. The New Approach, published April 2012, sets out proposals for regional transportation beyond 2015. The New Approach was developed to complement the RDS.

2.5.2. The New Approach sets out three High Level Aims for transportation, each of which is supported by a number of Strategic Objectives – these are outlined below:

A. Support the Growth of the Economy
1: Improve connectivity within the region
2: Use road space and railways more efficiently
3: Better maintain transport infrastructure
4: Improve access in our towns and cities
5: Improve access in rural areas
6: Improve connections to key tourism sites

B. Enhance the quality of life for all
7: Improve Safety
8: Enhance Social Inclusion
9: Develop transport programmes focused on the user

C. Reduce the Environmental Impact of Transport
10: Reduce Greenhouse gas emissions from transport
11: Protect biodiversity
12: Reduce water, noise and air pollution

2.5.3. The New Approach sets out the Policy Prioritisation Framework which is an objective-led decision-making tool which allows for transport schemes/ programmes to be assessed by taking a broad view on how they contribute to specific policy objectives. The aim is to link strategic transportation interventions to the PfG, based on qualitative and quantitative evidence.

2.6. Northern Ireland Changing Gear – A Bicycle Strategy for Northern Ireland

2.6.1. Northern Ireland Changing Gear - A Bicycle Strategy for NI, published April 2015, outlines the ambition to transform cycling in Northern Ireland over a 25 year period. The strategy outlines the vision for cycling in Northern Ireland as:

> *"A community where people have the freedom and confidence to travel by bicycle for every day journeys"*

2.6.2. The document identifies a number of objectives which have been set to guide the delivery of the bicycle strategy. These are:

- *Making urban areas in Northern Ireland more accessible for people using the bicycle – improvements to cycling infrastructure will enable more people to access facilities in our urban centres by bicycle or by multi modal journeys.*

- *Improve opportunities for social interaction – 22% of households in Northern Ireland do not have access to a car/van. Improved cycling infrastructure enhances the travel opportunities for those who don't have access to a car/van. Perhaps more importantly, cycling is a social form of transport. It allows people to interact and engage with their surroundings, their community and their neighbours. This can help build a sense of community and contribute to personal well-being and social inclusion.*

- *Improvements in public health – increased levels of bicycle use have both direct (personal fitness) and indirect (improvements to air quality) benefits for public health.*

- *Increase safety for people using the bicycle – this includes reducing the proportion involved in collisions and increasing the 'feel safe' factor for people riding a bicycle.*

2.6.3. The Strategy outlines how a comprehensive network of bicycle facilities should be developed, including a focus on urban networks where detailed proposals for infrastructure should be outlined and delivered alongside specific behaviour change initiatives and campaigns. In the urban areas, radial routes (primary routes), quiet routes and greenways should be developed to form a comprehensive hierarchical network.

2.6.4. The Strategy outlines a 3 Pillar Approach, based around: Build (infrastructure, design, cycle parking and safety); Support (education and training, safety and security, legibility and mapping); and Promote (respect and understanding, marketing and flagship events and schemes).

2.6.5. The Bicycle Strategy is particularly relevant to the towns of **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**.

2.7. Exercise Explore Enjoy: A Strategic Plan for Greenways

2.7.1. In 2016 the Department published its greenways strategy entitled "Exercise Explore Enjoy: A Strategic Plan for Greenways". The document provides a vison for "A region where people have ready access to a safe traffic free environment for health, active travel and leisure".

2.7.2. The strategy sets out the plans for a network of greenways, connecting towns and cities to the villages and countryside from east to west and north to south across all eleven councils.

2.7.3. The document identifies 3 classifications of greenway routes that should be explored;

- Primary Greenway Network – to provide long distance connectivity;
- Secondary Greenway Network – to provide wider access to greenways; and,
- Community Paths – to provide doorstep opportunities to connect local communities to their local green space and neighbouring communities.

2.8. Local Development Plans

2.8.1. The extant Local Development Plans for the Ards and North Down Council Area are the:

- North Down and Ards Area Plan 1984-1995 (for the former North Down Council Area);
- Bangor Town Centre Plan 1995;
- Belfast Urban Area Plan 2001 (for that part of Knocknagoney which is now within Ards and North Down Borough area); and
- Ards and Down Area Plan 2015

2.8.2. All these plans were adopted prior to the publication of the RDS 2035, A New Approach and the SPPS. Furthermore with the exception of the Ards and Down Area Plan 2015 the extant local development plans were published before Planning Policy Statement 13 – Transportation and Land Use.

2.8.3. Therefore taking account of the age and policy base of these extant plans, their contribution towards the future integration of transportation and land-use planning is extremely limited. The Ards and Down Area Plan 2015 as a newer plan is the only exception.

2.9. The Ards and North Down Area Plan 2015

2.9.1. The Ards and North Down Area Plan 2015, adopted in 2009, covers the former Ards Borough Council Area. The Plan addressed transportation and land use integration at the time by seeking a reduction of demand for peak time travel among those factors which determine the spatial allocation of growth. The Plan, for example, focuses a high proportion of growth into towns, and particularly into the main towns which have the greatest potential for investment in employment. The Plan also gives high priority to maintaining compact urban areas and it

proposes the safeguarding of routes which could be important in the continual development of transport infrastructure. These routes will be reviewed as part of this part of the development of the Council's new LDP and the Departments forthcoming Transport Plans. This issue is addressed in more detail in Section 5.9.

2.9.2. Additionally the implementation of the variety of transportation measures proposed in the Plan and the encouragement and promotion given to the greater use of public transport, walking and cycling are intended to contribute to the change in travel culture.

2.10. Belfast Metropolitan Area Plan 2015

2.10.1. The Belfast Metropolitan Area Plan 2015 (BMAP) remains unadopted. The Draft Belfast Metropolitan Area Plan is therefore referred to here as the most relevant land use plan. The Draft BMAP was prepared in parallel with the (non-statutory) Belfast Metropolitan Transport Plan (BMTP) to ensure that as far as possible the plans are mutually supportive. In this respect the land use locations in the Plan were closely linked with the priorities and proposed transport investment in BMTP, outlined separately below.

2.10.2. In developing BMTP attention was paid to improving accessibility to key strategic sites and regeneration areas identified by the RDS and progressed by the draft Plan. In addition the Plan took into account the land use requirements of transportation infrastructure by identifying protection lines for planned transport schemes and abandoning protection for schemes which were no longer to be implemented.

2.10.3. The Draft Plan includes two Transport Policies:

- TRAN 1 – Parking Standards within Areas of Parking Restraint. These standards were expected to be varied only in appropriate circumstances and on the basis of empirical evidence.
- TRAN 2 – Publicly Owned Off-street Surface Car Parks within City and Town Centres. This effectively required parking supply levels to be maintained following the re-use of existing central car parks.

2.11. Belfast Metropolitan Transport Plan 2015

2.11.1. The Belfast Metropolitan Transport Plan 2015 (BMTP 2015) is non statutory and was prepared by the then Department for Regional Development as a technical supplement for the Draft BMAP and unadopted BMAP 2015. The BMTP 2015 includes a phased and costed implementation programme of transport schemes to 2015. The implementation of these proposals was subject to detailed economic appraisal, funding availability and statutory processes.

2.11.2. BMTP included schemes arranged along four modal themes:

- Walking and Cycling – such as walking corridors and cycle routes;

- Public Transport – such as bus and rail schemes;
- Highway – such as road schemes; and
- Management measures – such as parking controls or traffic management used to control traffic and influence travel demands and patterns.

2.11.3. Whilst many of the core objectives of the BMTP 2015 remain relevant, the wider strategic framework has changed with the publication of the RDS 2035 and a new RTS and therefore BMTP 2015 is considered outdated. Therefore schemes and transportation initiatives included in the BMTP 2015 will require further consideration as part of the development of the new Belfast Metropolitan Transport Plan which will accompany the Local Policies Plan.

2.12. Sub Regional Transportation Plan 2015

2.12.1. The Sub-Regional Transport Plan (SRTP) was launched by the Department on 11 June 2007. The SRTP deals with the transport needs of the whole of Northern Ireland with the exception of the Belfast Metropolitan Area and the Regional Strategic Transportation Network. It covers the former Ards Borough Council Area settlements of Comber and Newtownards.

2.12.2. The purpose of the SRTP is to study the needs of the designated areas in detail and to confirm a package of transport schemes, consistent with the general principles and indicative levels of spend in regional policy at the time.

2.12.3. As with the BMTP 2015, the SRTP is now considered outdated and any unimplemented schemes will require further consideration as part of the development of the new Belfast Metropolitan Transport Plan which will accompany the Council's Local Policies Plan.

2.13. Interim Belfast Metropolitan Transport Plan

2.13.1. The Interim Belfast Metropolitan Transport Plan set out a short term framework for the planning and delivery of transport infrastructure in and providing access to Belfast City Centre covering the period from 2017 to 2020. The framework was prepared by the Department in consultation with Belfast City Council with the aim of ensuring an integrated approach in the development of transport infrastructure and services supporting the regeneration of Belfast City Centre in line with wider strategic objectives as set out in the draft PfG and supported by the Belfast Agenda. In this context, the framework presented a 'refresh' of the policies and schemes set out in the BMTP.

2.13.2. The Framework aimed to ensure a joined-up approach between the Department as the transport authority and Belfast City Council as the planning authority in the development of Belfast City Centre. In particular it seeked to ensure clarity as to both the major transport priorities and the strategic focus of transport policy and investment.

2.13.3. While the Interim BMTP was concerned with developments and transport infrastructure within Belfast City Centre, in order to influence travel choices to the city centre, the framework also commented on the balance of commuter priorities on the major radial corridors which deliver commuters to and from the City Centre.

2.14. Ards and North Down Borough Council Context

POP

2.14.1. ANDBC published their Preferred Options Paper (POP) in March 2019. The Council proposed a vision, shared with the Community Plan:
"Ards and North Down is a vibrant, connected, healthy, safe and prosperous place to live".

2.14.2. The POP identifies three strategic objectives that clearly encompass the areas of economy, environment and social advancements:

- **Ensuring cohesive and safe communities and supporting healthy lifestyles** through new housing; improved access to services; and increased amount of places that encourage a healthy lifestyle;
- **Protecting and enhancing the environment** through flood risk management and sustainable drainage; encouraging alternative transport to the private car; safeguarding landscapes and the historic built environment; and by protecting and improving open space.
- **Promoting economic vitality** through providing land for a range of employment uses; supporting a vibrant rural community; regeneration of town centres; and by promoting tourism and protecting key tourist sites.

Within the POP these objectives are considered under the themes of **People / Social; Place / Environmental; Prosperity / Economic.**

Five overarching principles are outlined within the POP as aligned also with the Community Plan which are:

- Improving health and wellbeing;
- Creating and enhancing shared space;
- Supporting sustainable economic growth;
- Supporting good design and positive place making;
- Preserving and improving the built and natural environment.

2.14.3. The theme of Prosperity within the POP highlights the key topic of Transportation. Under the theme of Prosperity the provision of sustainable transport links provides the connectivity upon which our businesses, industries and tourism market depends. It also states that the LDP has an essential role in improving accessibility within the Borough and promoting more sustainable patterns of transport and travel. A key aim of the LDP will be to integrate transportation and land use in ways which enable people to carry out their everyday activities with less need to travel and with the maximum modal choice. The prosperity theme gives rise to a number of specific Preferred Options in relation to transportation:

- **Promotion of sustainable transport and active travel**
  - Introduce a policy requiring applicants to demonstrate how the promotion of sustainable transport and active travel has been considered in all new development proposals. Where appropriate, specific measures will be detailed for zoned sites in key site requirements.
- **Promotion of sustainable transport**
  - Identify sites suitable for Park and Ride / Park and Share facilities.
- **Reducing reliance on the private car**
  - Introduce areas of parking restraint in our town centres and other areas, where appropriate to local circumstances.
- **Protection of proposed routes for transport schemes**
  - Continue to protect proposed routes for future transport schemes as identified within the extant area plans.
- **Disused transport routes**
  - Identify and safeguard disused former transport routes for future use for transport or recreational, nature conservation or tourism related uses.

2.14.4. Other transport- related options are found within this and other strategic objective themes:

- **People / Social**
  - Improvement of health and wellbeing - by creation of places that encourage a healthy lifestyle by the provision of high-quality cultural and sporting facilities, informal leisure spaces and opportunity to walk, cycle or ride to common destinations.
- **Place / Environmental**
  - To improve accessibility and promote more sustainable patterns of transport and travel;
  - To identify and develop a network of green and blue infrastructure which affords opportunities for connectivity, active travel, recreation and tourism, with the associated benefits to health and wellbeing and biodiversity through the connections between areas of the natural environment.
- **Prosperity / Economic**
  - To ensure an adequate provision of accessible land for a range of employment uses which offers a choice of sites at a range of locations;
  - To protect strategically important transportation and public utilities infrastructure and, where possible, enhance connectivity.

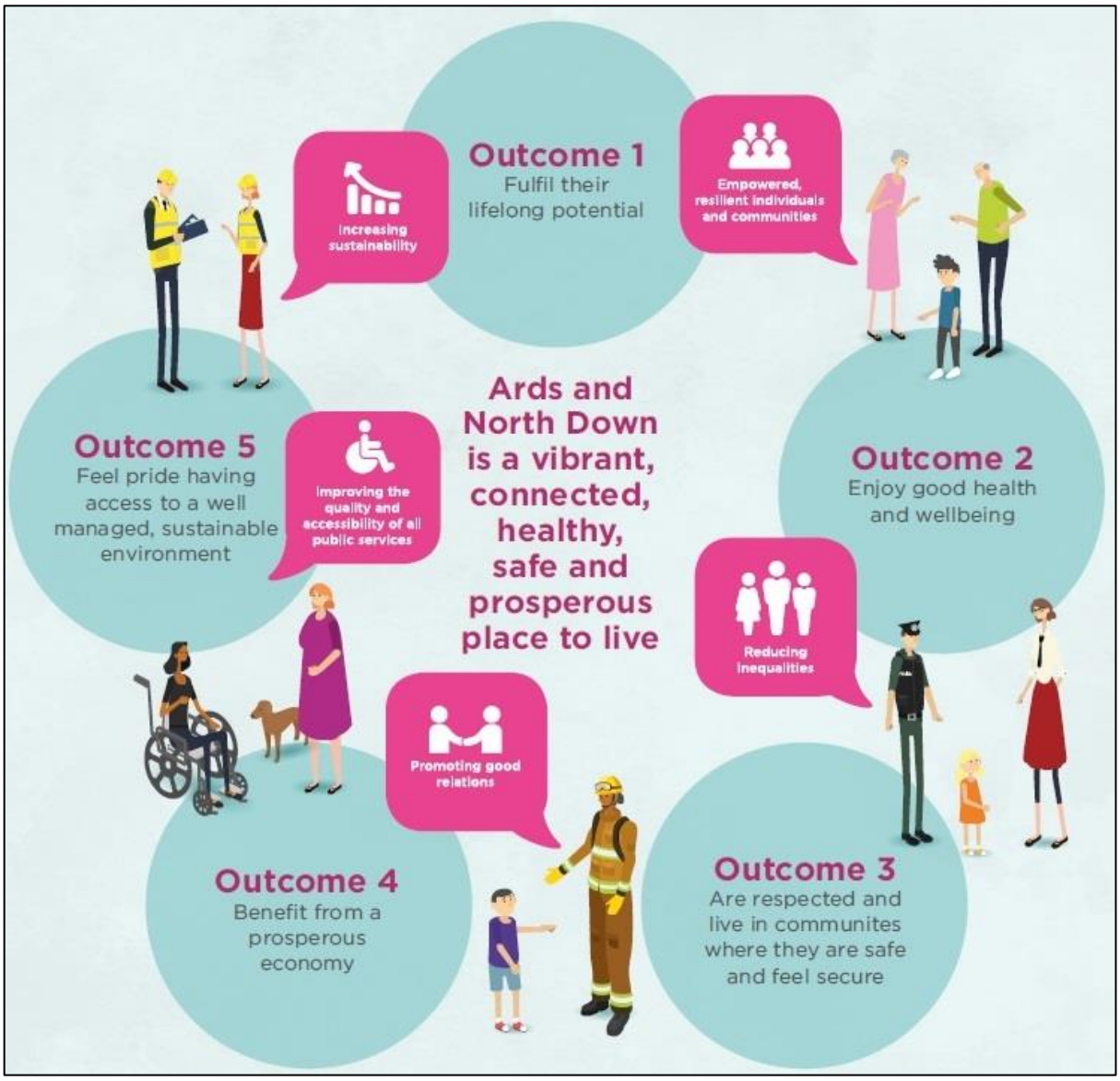
Community Plan

2.14.5. The ANDBC 2032 Community Plan is called 'The Big Plan for Ards and North Down and sets out the vision for the Council area to be "a vibrant, connected, healthy, safe and prosperous place to live".

2.14.6. This overarching vision of the Big Plan outlines the Council's ambition to deliver five main outcomes, and they include, to enable residents to fulfil their potential, enjoy good health and wellbeing, be respected and feel safe and secure, benefit from a prosperous economy and to have access to a sustainable environment. These themes are fundamental in guiding the

emerging vision and strategic objectives of the LDP– Plan Strategy and the LTP. Figure 3 below provides an illustration of the ANDBC Community Planning Vision, Themes and Aims.

Figure 3 - ANDBC Community Planning Vision, Themes and Aims



3.0 Transport Evidence Baseline

3.1. Tables 1 and 2 and Figure 2 in Section 1 – Introduction, have provided a demographic and transport context for the ANDBC area. This section introduces a more detailed transport evidence baseline for the ANDBC area as presented in Annex 1.

3.2. The evidence is presented in Annex 1. The evidence has been gathered from a range of published sources including the 2011 Census, Translink public transport timetables, and Police Service of NI statistics, in addition to analytical analyses undertaken by the Department and fieldwork surveys on behalf of the Department. The evidence baseline focuses on the performance of the transport networks and features accessibility and modal choice.

3.3. The key public services and economic generators are centred on the largest towns of **Bangor**, **Newtownards** and **Holywood** and to a lesser extent **Comber** and **Donaghadee**. Therefore consideration of transport and access in and around the main towns are key to the performance of the area as a whole. The evidence is presented for a range of issues; for some cases across all of the Council area and for others, where appropriate, with a focus on the towns of **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**. Annex 1 answers the following questions:

- Regional connectivity from **Bangor, Newtownards, Holywood, Comber and Donaghadee** by road and public transport – what time is required to travel to the economic centres and travel gateways of NI?
- Accessibility within the area, to essential local services by public transport from across the Council area – to what degree do current rural bus services allow residents, including those in rural areas to reach essential services such as health?
- Urban walking and cycling infrastructure in **Bangor, Newtownards, Holywood, Comber and Donaghadee** – to what extent are there existing walking and cycling networks?
- Local urban bus services in **Bangor, Newtownards, Holywood, Comber and Donaghadee** – to what degree do they provide coverage for urban residents?
- Travel to work journeys – where do residents of ANDBC work?
- Modal choice for journeys to work and education across the Council area – how far do people travel to work and school / college and what mode of travel do they use?
- Road network speeds at peak and off-peak time periods – to what degree is the road network congested?

- Road collision history in **Bangor, Newtownards, Holywood, Comber and Donaghadee** – how many people are injured or killed on roads and streets in the towns and which modes are most vulnerable? And

- Parking provision in **Bangor, Newtownards, Holywood, Comber and Donaghadee** – how many parking spaces are there in the town centres, where are they located, what tariffs are in place and how they are designated?

3.4. Interpretation of the evidence and identification of transport issues and opportunities are described in the Section 5 – Transport Issues and Opportunities.

4.0 Growth and Development proposals

4.1. Growth in Population and Employment

4.1.1. The ANDBC POP references the 2016 Housing Growth Indicator, estimated by DfI, of 7100 new dwellings between 2012-2025. Projecting on a pro rata basis to 2030 results in a figure of 8190 dwellings. It is noted that the proposed allocation of housing will be set out at a later stage in the Plan process. Additional population, new houses and households will lead to increases in the demand for travel. This gives rise to the following transport challenges and opportunities:

- Addressing additional congestion which would be created by an increase in private cars. The urban road network is already congested at peak times whilst relatively few people choose to walk, cycle or use public transport.

- Additional demand for travel needs to be minimised through land-use planning and sustainable infrastructure provided to reduce growth in road traffic. In all cases the consideration of safety for all road users will be a primary concern. This links with the Councils ambition to bring forward health-enabling local policies and sustainable transport.

- Housing growth in the main towns is the most integrated land-use and transport planning solution. It offers the greatest opportunity to minimise congestion, social exclusion, air quality problems and increase walking and cycling. However, it is recognised that where there are committed housing sites which have planning permission or where development is ongoing, the ability to provide alternative modes of travel as part of any current development management process may be more difficult to achieve. The Council's LDP POP recognises that: *'there are a large number of committed housing sites on sites within settlement limits that are not zoned for housing within the Borough and account also has to be taken of the dwellings completed since 2015. It would therefore appear there is more than sufficient housing capacity land to meet the Council's housing need over the Plan period, even before an urban capacity study is undertaken or windfall calculated'.* Reflecting this the Councils preferred option in relation to housing allocation is to: '*Re-evaluate existing housing zonings and allocate additional housing land, if required, to ensure continued modest housing growth (using sequential approach in the SPPS).* This re-evaluation of existing housing zonings may provide opportunities for the better integration of sustainable transport and land-use.

- The LDP POP states that: '*Settlements in the rural area, especially in the Peninsula have been constrained in respect of even modest growth as a result of lack of provision of appropriate infrastructure and access to services. It may be appropriate to accommodate some modest growth across these tiers in the settlement hierarchy, supported by development contributions'.* Outside the five main towns, those settlements that have frequent and direct bus services to **Bangor, Newtownards, Holywood, Comber and Donaghadee** offer the best locations for sustainable transport opportunities, offering

people an alternative to the private car. Quantitative assessments can be undertaken using Accessibility Analyses. All other development criteria apart, these settlements could be the focus of most new housing outside the main 5 settlements (and taking into account the Housing Evaluation Framework, RDS).

- Houses in the countryside are unlikely to contribute to a meaningful shift towards alternative transport modes. However, where houses can be located within easy walking distance of existing bus routes, this may help minimise the potential for social exclusion.

4.1.2. The potential for increasing social inclusion is magnified by the predicted differential ageing effect and the growth in people living alone. The proportion of over 65's is expected to increase to over **25%** by 2030.

4.1.3. The Preferred Options Paper proposes that **7,500** new jobs may be required by 2030 in a variety of locations.

4.1.4. The transport impacts differ according to the type of employment and are generally as follows:

- Service industry, such as a business park, would generate a relatively high number of people movements and a primary concern should be its accessibility by public transport, walking and cycling.

- Manufacturing would require a balance concerning accessibility for employees and the traffic impacts of heavy goods vehicles carrying materials and finished goods to and from the site.

4.1.5. However, in both cases it should be noted that the location, and in particular its distance from residential areas will dictate whether accessibility by walking and cycling is practical and whether public transport becomes the primary consideration for employee accessibility. In all cases the consideration of safety for all road users will remain a primary concern.

5.0 Transport Issues and Opportunities

5.1. Introduction

5.1.1. This section provides an interpretation of the Evidence Baseline and proposes issues and opportunities for illustrative transport measures to be considered for inclusion in the LTS. All of the figures referred to in this section are contained in Annex 1.

5.1.2. The following are dealt with in turn:

- Regional connectivity from **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee** by road and public transport;
- Accessibility to essential local services by public transport from across the Council area
- Urban active travel infrastructure and bus services in **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**;
- Modal choice for journeys to work and education across the Council area;
- Road network speeds at peak and off-peak time periods;
- Road collision history in **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**
- Parking provision in **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**; and
- Legacy Road Alignments.

5.2. Regional connectivity

5.2.1. The towns of **Bangor, Newtownards, Holywood, Comber and Donaghadee** are currently reasonably well connected by road. Belfast, Newry and Larne can be accessed by the Strategic Road Network and generally these settlements can be reached within 60 minutes. However peak period congestion on the A2 Sydenham Bypass, M3 Lagan Bridge and A12 Westlink results in significantly increased journey times at these times. Regional off peak travel times increase slightly the further east the towns are located, as demonstrated in Figures 2a - e. Due to the peripheral location of the Peninsula, regional travel times are much extended. The Portaferry to Strangford ferry service provides an alternative means of regional connectivity particularly for those living in the southern parts of the peninsula.

5.2.2. Public transport travel times are dependent on the bus network coverage and timetable integration. **Bangor** and **Holywood** have train stations providing frequent services to Belfast. The Ulsterbus network is also important in providing accessibility to and from the key towns of **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee** to Belfast. The Ulsterbus network also provides fairly regular services to and from the key hubs to smaller towns and villages in ANDBC. No Goldline 'limited-stop' bus services currently provide accessibility from **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee** to Belfast or other transport gateways, however a limited stop Ulsterbus services exist between **Newtownards** and Belfast. The full public transport network including town services, inter-urban services, express services, private operators, and ferry services are included in public transport accessibility analysis demonstrated in Figures 3a-e and Figure 4.

5.2.3. From **Bangor** travel times to Belfast are within 1 hour and to Derry City are 2 – 2.5 hours, as shown in Figure 3a. Regional travel times from **Newtownards** are similar to **Bangor**, with Belfast accessible in 1 hour and Derry City within 2 – 2.5 hours, as shown in Figure 3b. In comparison, travel times from **Newtownards** within the Council area are generally 1 – 1.5 hours. Regional travel times from **Holywood** are shorter compared to the other key towns due to its more westerly location. Travel times to Belfast and Derry City are up to 30 minutes shorter, as shown in Figure 3c. Regional travel times from **Comber** to Belfast are 1 hour and Derry City within 2.5 – 3 hours, as shown in Figure 3d. Travel times from **Donaghadee** to other key towns are up to 30 minutes longer on account of its more easterly location, as shown in Figure 3e. Travel times from **Donaghadee** to Belfast are 1 – 1.5 hours and Derry City within 3.5 – 4.5 hours.

5.2.4. In **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**, and at strategic locations along the routes, park and ride facilities may have a role to play in encouraging use of public transport, particularly for journeys to Belfast. These facilities may be especially important for residents of smaller towns and villages and outlying rural areas.

5.3. Accessibility to essential local services

5.3.1. Figure 4 shows accessibility by public transport to health facilities (GP Surgeries and Acute Hospitals). The maps show that there is fair accessibility to health services in the morning peak period.

5.3.2. People living on the bus routes have travel times of up to 60 minutes. Accessibility is provided by bus services scheduled to provide access to work and education to **Bangor**, **Newtownards**. **Holywood**, **Comber** and **Donaghadee** town centres.

5.3.3. Rural bus services from towns/villages to the main towns of **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee** typically operate return trips every few hours throughout the day and therefore the timeframe for access may not always be convenient. The ferry service between Portaferry and Strangford also provides connectivity to local services in Newry, Mourne and Down District Council. Without improvements in services car dependency will likely continue. In addition, some rural catchment areas, in particular the southern portion of the Ards peninsula, have no access to bus services.

5.3.4. Any changes to the provision of local services could result in increases in journey time which may effectively put these services out of reach for residents outside the main towns, without access to private car. Also any reductions in rural bus services could have a direct detrimental impact on these residents. Additional residential development in rural areas not currently on a bus route will add to the number of people who have no practical access to essential local services except by private car.

5.3.5. It is important to note that the viability of rural bus networks is an NI-wide policy issue for the Department and other statutory transport providers and is the subject of separate current work. The findings and recommendations will be fed back to the TP and LDP processes.

5.4. Urban sustainable transport infrastructure in Bangor, Newtownards and Holywood

Bangor

5.4.1. Figure 5a shows details of the pedestrian infrastructure in **Bangor**. The length of radial road within the development limit in **Bangor** totals 31 km. A length totalling 4.2 km does not have footways. Whilst there is good provision of dropped kerbs at breakpoints, only a small length, 1.9 km, of footway exceeds 2.5 m in width.

5.4.2. Within **Bangor** town centre there are 107 crossing facilities for pedestrians and cyclists. The most common form of provision is at signal controlled traffic junctions. There are also 39 pedestrian refuges.

5.4.3. Figure 6a shows details of the cycling infrastructure in **Bangor**. There is 9.7 km of cycle network infrastructure in **Bangor** as follows:

- 2 km shared cycleway / pedestrian footway
- 1.9 km mandatory cycle lane
- 2.2 km advisory cycle lane
- 3.6 km off-road traffic free cycle route.

5.4.4. In total 19 cycle stands provide 86 bicycle spaces. There is also a limited cycle network in **Bangor** comprising predominantly (57%) mandatory cycle lane or traffic free cycle way. Therefore there are gaps in the provision of pedestrian and cycling infrastructure in **Bangor**.

5.4.5. Figure 7a shows details of the local bus network in **Bangor**[3]. **Bangor** has 7 town centre bus services that operate circular routes ranging from twice hourly to hourly headways on weekdays and Saturday, with some services operating twice hourly headways during the morning peak. The Ulsterbus 302D and 302E town centre services serve **Bangor** Hospital and the southern sector of the town between 9:00am and 7:00pm. Kilcooley and the south west sector are served by Ulsterbus service 302F between 6:30am and 6:00pm. Rathmore and the west sector are served by Ulsterbus service 302G between 8:00am and 5:30pm. Ashbury, Bexley and the south east sector are serviced by Ulsterbus services 302B and 302C between 6:00am and 7:00pm and 7:30am to 8:00pm respectively. Lastly, Towerview and the east sector are served by Ulsterbus service 302A between 6:30am and 6:30pm. These services provide accessibility to the town centre for residents who may live more than 2km from the centre and find walking or cycling impractical. In addition, the inter-urban Ulsterbus routes serve the urban areas in **Bangor** along their routes. It is likely that the services will be most attractive to people without a car and for those who have free concessionary fares. In addition children may find the Saturday services attractive.

[3] Note that the service considered as part of the local bus network are town services and do not include hub to hub services that in some cases can be used to make journeys within towns.

5.4.6. The town centre bus service in **Bangor** could be improved by:

- extending the hours of operation, especially to support the town centre evening economy; and
- increasing the number of town centre services to ensure full coverage of all residential areas in the town.

Newtownards

5.4.7. Figure 5b shows details of the pedestrian infrastructure in **Newtownards**. The length of radial road within the development limit in **Newtownards** totals 26.1 km. A length totalling 9.9 km provides footway exceeding 2.5m in width. Overall there is consistent provision of dropped kerbs at breakpoints, and only a small length of carriageway does not provide footway.

5.4.8. Within **Newtownards** town centre there are 59 crossing facilities for pedestrians and cyclists. The most common form of provision is at signal controlled traffic junctions, and there are also 12 pedestrian refuges.

5.4.9. Figure 6b shows details of the cycling infrastructure in **Newtownards**. There is 7 km of cycle network infrastructure in **Newtownards** which is provided as follows:

- 2.7 km shared cycleway / pedestrian footway
- 4.3 km advisory cycle lane

5.4.10. In total, 3 cycle stands provide a total of 24 cycle spaces and the length of cycle network is a small proportion (27%) of the pedestrian network and this is exclusively shared cycle way / pedestrian footway and advisory cycle lanes. Therefore there are gaps in the provision of pedestrian and cycling infrastructure in **Newtownards**.

5.4.11. Figure 7b shows details of the local bus network in **Newtownards**[4]. **Newtownards** has 5 town centre bus services that operate local routes at a range of headways. Stratheden Heights (Ulsterbus service 307a), Ringhaddy Avenue (Ulsterbus service 307b), Glen Estate (Ulsterbus service 307c) and West Winds Estate (Ulsterbus service 307d) generally operate at hourly headways during the weekday and Saturdays. Also the Scrabo Estate (Ulsterbus service 307e) operates 8 weekday and 6 Saturday services. The 5 routes serve the majority of the residential areas generally between 730am and 630pm on weekdays and Saturday. Many of the services appear to be operated in conjunction with school services. Several of the services are looped and hence may not be competitive with car travel. In addition, the inter-urban Ulsterbus routes serve the urban areas in **Newtownards** along their routes. As for **Bangor**, the services will be most attractive to people without a car and for those who have free concessionary fares.

5.4.12. The town centre bus services in **Newtownards** could be improved by:

[4] Note that the service considered as part of the local bus network are town services and do not include hub to hub services that in some cases can be used to make journeys within towns.

- extending its hours of operation, especially to support the town centre evening economy; and
- increasing the number of services to ensure full coverage of all residential areas in the town.

Holywood

5.4.13. Figure 5c shows details of the pedestrian infrastructure in **Holywood**. The length of radial road within the development limit in **Holywood** totals 8.8 km. A length totalling 2.4 km has no footway. Overall there is consistent provision of dropped kerbs at breakpoints, however only a small length of footway exceeds 2.5m in width.

5.4.14. Within **Holywood** town centre there are 19 crossing facilities for pedestrians and cyclists. The most common form of provision is at signal controlled traffic junctions.

5.4.15. No cycle network routes are provided in **Holywood**, however 8 cycle stands provide a total of 30 bicycle parking spaces in the town centre.

5.4.16. In **Holywood** there are significant gaps in sustainable transport infrastructure both in terms pedestrian and cycling infrastructure. No cycle network is provided and 27% of the pedestrian network does not provide a footway.

5.4.17. Within **Holywood**[5] no town centre bus services operate, however the provision of such services would be beneficial to residents with no car or from areas where walking and cycling are less attractive. The inter-urban Ulsterbus routes serve the urban areas in **Holywood** along their routes.

Comber

5.4.18. Figure 5d shows details of the pedestrian infrastructure in **Comber**. The length of radial road within the development limit in **Comber** totals 13.4 km. A length totalling 4.5 km has no footway. Generally there is consistent provision of dropped kerbs at breakpoints, however only a small length of footway exceeds 2.5m in width (2.3 km).

5.4.19. Within **Comber** town centre there are 18 crossing facilities for pedestrians and cyclists. The most common form of provision are pedestrian refuge islands. There are also 4 signalised pedestrian crossings.

5.4.20. Figure 6d shows details of the cycle network and infrastructure in **Comber**. In total, 8 cycle stands provide a total of 16 bicycle parking spaces in the town centre. There is also 3.7 km of cycle network infrastructure in **Comber** which is provided as follows:

[5] Note that while Holywood has no town services, there may be hub to hub services that in some cases can be used to make journeys with the town.

- **1.3** km shared cycleway / pedestrian footway
- **1.1** km traffic free cycle route
- **1.3** km non traffic free cycle route

In addition the **Comber** Greenway provides a 7 mile traffic free route to Belfast. The greenway starts on the edge of the settlement and terminates at the Queen Elizabeth Bridge in Belfast (with the traffic free section ending at Dee Street in East Belfast).

5.4.21. In **Comber** there are gaps in sustainable transport infrastructure both in terms pedestrian and cycling infrastructure including missing sections of footway.

5.4.22. Figure 7c shows details of the local bus network in **Comber**[6]. **Comber** has **1** town centre bus service that operates twice daily from **Killinchy Street** to **Bruce Avenue** via Dermott Avenue (Ulsterbus service **311**). No services operate during the weekend. The inter-urban Ulsterbus routes serve the urban areas in **Comber** along their routes. These service will be most attractive to people without a car and for those who have concessionary fares.

Donaghadee

5.4.23. Figure 5e shows details of the pedestrian infrastructure in **Donaghadee**. The length of radial road within the development limit in **Donaghadee** totals 13.8 km. A length totalling 2.8 km has no footway. There is generally consistent provision of dropped kerbs at breakpoints, with the exception of the southern radial route (Millisle Road). Also, only a small length of footway exceeds 2.5m in width.

5.4.24. Within **Donaghadee** town centre there are 12 crossing facilities for pedestrians and cyclists. The most common form of provision are pelican crossings, and there are also 3 puffin crossings.

5.4.25. Figure 6e shows details of the cycle network and infrastructure in **Donaghadee**. In total, 9 cycle stands provide a total of 18 bicycle parking spaces in the town centre. However there is no cycle network in **Donaghadee**.

5.4.26. In **Donaghadee** there are gaps in sustainable transport infrastructure both in terms pedestrian and cycling infrastructure including missing sections of footway, lack of dropped kerb provision at some locations and no cycle network provision.

5.4.27. Figure 7d shows details of the local bus network in **Donaghadee**[7]. **Donaghadee** has 1 town centre bus service that operates twice daily from Copelands Square to **Bangor** Buscentre via New Street, Bloomfield Shopping Centre and Bloomfield Surgery (Ulsterbus service 303a). No services operate during the weekend. Other inter-urban Ulsterbus routes serve the urban areas

[6] Note that the service considered as part of the local bus network are town services and do not include hub to hub services that in some cases can be used to make journeys within towns.
[7] Note that the service considered as part of the local bus network are town services and do not include hub to hub services that in some cases can be used to make journeys within towns.

in **Donaghadee** along their routes. The service will be most attractive to people without a car and for those who have concessionary fares.

5.5. Modal choice for journeys to work and education

Introduction

5.5.1. The 2011 census results for journey to work present a summary of movements between council areas. As reported at 2011, it is possible to inspect the results for the legacy Ards Borough Council and the North Down Borough Council areas separately[8], as shown in Figures 8a and 8b respectively. These show that:

- 34.9% of Ards residents and 40.3% of North Down residents worked within their own council area;
- 31.6% of Ards residents and 37% of North Down residents worked in the legacy Belfast City Council; and
- 10.7% of Ards residents and 6.1% of North Down residents worked in the legacy Castlereagh Borough Council area.

5.5.2. The 2011 census results also allow contrasts to be drawn between ANDBC and NI in terms of travel behaviour, differentiating between working adults and school children and students.

Results

5.5.3. Figure 9 shows that the use of sustainable modes in ANDBC are below the NI average for journeys to work, with only 13% walking, cycling or using public transport compared to 16% across NI. It is notable that for short journeys (less than 2km) 36% use active modes (walking and cycling) in ANDBC, and this is the same as the NI average, as shown in Figure 10.

5.5.4. The use of sustainable modes for journeys to education in ANDBC is less than the NI average, with 43% walking, cycling or using public transport compared to 52% across NI, as shown in Figure 11. For short journeys (less than 2km) 43% use active modes which is similar to the NI average of 44%. This differential is repeated for the next shortest journeys (2km to less than 5km) where 7% use active modes compared to 9% in NI, as shown in Figure 12.

5.5.5. Comparing journeys to education and work presents a stark contrast in terms of use of public transport. Public transport accounts for 25% of journeys to education, but only 6% to work. It is notable that 43% of shortest (less than 2km) education journeys are made by public transport whilst by far the greatest share is car passenger (50%).

Conclusions

[8] It is noted that a small portion of land in Knocknagoney now forms part of ANDBC

5.5.6. The 2011 census concludes that ANDBC area has low levels of active travel modes. In ANDBC 46% of journeys to work less than 2km are made by single occupancy cars. Therefore there appears to be considerable potential to increase the number of journeys made by active travel. This may require new improved infrastructure, picking up on the conclusions of the previous section and a continued emphasis on road safety for vulnerable road users. Land-use planning should therefore seek to encourage residential development within the existing urban area to reduce travel distances. Ideally residential development should be located in proximity to existing centres of employment and schools and convenient to existing radial routes and existing active travel infrastructure.

5.5.7. The 2011 census for ANDBC area also shows that public transport is popular for children and student journeys to education, presumably where it is provided on a statutory and subsidised basis to a small number of largely centralised locations. However, public transport usage is low for adult journeys to work which tend to be more widely distributed and where fares are generally not subsidised. Therefore there appears to be considerable potential for additional use of buses for journeys to work to town centre locations provided fares can be made attractive. Land-use planning should therefore seek to encourage employment development in town centres where practical.

5.6. Road network speeds

Introduction

5.6.1. An investigation of road network efficiency has been undertaken by inspection of estimates of actual vehicular speeds calculated from global positioning system data sourced by commercial telematics sources (INRIX). The data was collected between October 2013 and 2015 and is available for peak (7 – 9am and 4 – 7pm) and offpeak (9am – 4pm) periods.

Results

5.6.2. The offpeak speeds have been inspected for the road network which extends over the ANDBC area, as this is considered most appropriate for most inter-urban journeys including commercial traffic. Figure 13 shows that in general terms the A road network, consisting of the **A2, A21** and **A20** between the principal towns operates at speeds exceeding 50mph except where it passes through smaller settlements.

5.6.3. Peak period speeds have been considered in the urban areas of **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** as this will highlight congestion on journeys to and from work. Speeds in the urban area of **Bangor**, in Figure 14a, show a general pattern of decreasing speed toward the centre of the town. Speeds on the outer lengths of the main radials generally exceed 51 mph. In general terms, speeds decrease on the inner lengths and then drop further to 15mph or less at the principal junctions in the town centre.

5.6.4. Speeds in the urban area of **Newtownards**, in Figure 14b, show a general pattern of decreasing speed toward the centre of the town. Speeds on the outer lengths of the main radials generally

exceed 51 mph within the urban development limit until. Speeds on the inner lengths of the main radials decrease to 16 - 30mph, which reflects the speed restrictions in place. At the principal junctions throughout the town centre, speeds drop further to 15mph or less. Speeds on the western portion of the A20, which provides an alternative route through **Newtownards** by avoiding the town centre, typically exceed 51mph.

5.6.5. Speeds in the urban area of **Holywood** along the **A2 Holywood Road**, as shown in Figure 14c, generally exceed 51mph. Speeds drop to 31 - 50 mph on several occasions along the main radial which reflects the locations of the traffic signals.

5.6.6. Speeds in the urban area of **Comber**, in Figure 14d, show a general pattern of decreasing speed toward the centre of the town. Speeds on the eastern portion of the **Comber** bypass exceed 50mph and this reflects current speed restrictions that are in place. Speeds of up to 50mph are recorded on the other sections of the bypass, except on the approach to junctions which speeds drop to 30mph or less. Speeds on the inner lengths of the main radials decrease to 16 - 30mph, which reflects the speed restrictions in place. At the principal junctions throughout the town centre, speeds drop further to 20mph or less.

5.6.7. Speeds in the urban area of **Donaghadee**, as shown in Figure 14e, show a general pattern of decreasing speed toward the centre of the town, with the exception of the A2 Millisle Road where speeds vary. Speeds on the inner lengths of the main radials generally decrease to 30mph and at the principal junctions in the town centre speeds drop further to less than 30 mph.

Conclusions

5.6.8. In general terms traffic speeds are consistent with the road class and level of development. The principal inter-urban network roads have a recorded average speeds over 51mph except where they pass through settlements.

5.6.9. In the urban areas of **Bangor, Newtownards, Holywood, Comber and Donaghadee** speeds generally reduce in line with the urban speed restrictions. Traffic progression is controlled by the throughput of the principal junctions in the town centre which reduces peak speeds to less than 20mph. The **A20** in **Newtownards** provides traffic relief to the town centre and similarly the **A21** and **A22 Comber Bypass** provides traffic relief for the town centre of **Comber**.

5.7. Urban road collision history

Introduction

5.7.1. An investigation of road collision history has been undertaken of the urban areas of **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** using PSNI records dated between 2007 and 2016, with particular attention given to latest period 2012 - 2016. It is noted that road collision data is only available for the latest period (2012 – 2016) for **Comber** and **Donaghadee**. Consideration has been given to the type of road user, the severity of the casualties and the

location of the collision in seeking to draw general conclusions. The results are presented in Figures 15a-e for the five towns.

Results

5.7.2. The collision records show that pedestrians and cyclists are over-represented in the serious injured casualties and fatalities in the urban areas. In **Bangor** between 2012 and 2016, there were a total of **53** people seriously injured of which **27** were pedestrians and **6** were cyclists. Of the **2** fatalities in **Bangor**, both were pedestrians. The pattern is similar in **Newtownards**, where a total of **26** people were seriously injured of which **10** were pedestrians and **3** were cyclists. Of the **2** fatalities in **Newtownards**, **1** was a pedestrian. Similarly, in **Holywood,** a total of **7** people were seriously injured and **4** of which were pedestrians. In **Comber,** a total of **6** people were seriously injured, of which **1** was a pedestrian and **1** was a cyclist. In **Donaghadee** a total of **5** people were seriously injured, of which **2** were pedestrians and **2** were cyclists.

5.7.3. The locations of the collisions are almost equally distributed around the urban and rural road networks in **Bangor, Newtownards, Holywood, Comber** and **Donaghadee**. There is also a focus at the road junctions where conflicts between traffic flows and with crossing pedestrians and cyclists naturally occur.

Conclusions

5.7.4. Whilst there are relatively small numbers of journeys made by active travel in the urban areas of **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**, pedestrians and cyclists are often seriously injured in road collisions. The application of engineering, enforcement and education methods all have a role in minimising urban road casualties. In particular the message that there needs to be mutual respect between all road users is particularly important for the safety of pedestrians and cyclists.

5.8. Parking provision in Bangor, Newtownards, Holywood, Comber and Donaghadee

Introduction

5.8.1. An investigation of existing public car parking provision has been undertaken by surveying and recording the location of all on and off-street spaces in the town centres of **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee** in 2017 and 2019. Off-street parking occupancy surveys were also undertaken in 2017.

Results

5.8.2. The results for **Bangor** are presented in Figures 16a, 17a and 18a. The surveys show that the town centre of **Bangor** provides a total of 2,359 off-street parking spaces of which 950 are publicly owned and 1,409 are privately owned. Of the off-street spaces, 694 are free and 1,665 require payment. A total of 631 on-street parking spaces are provided in **Bangor**. All of the on-

street spaces are free, however 210 have day time restrictions (generally 1 hour no return in 1 hour) and 395 are unrestricted. The restricted on-street spaces are generally the most conveniently located for shopping and personal business purposes in the principal business streets. Unrestricted spaces would also likely be attractive for employees in the area. The free off-street parking spaces are generally located to the edge of the centre.

5.8.3. The results for **Newtownards** are presented in Figures 16b, 17b and 18b. The town centre of **Newtownards** has a total of 860 public parking spaces of which 530 are off-street and 330 are on-street. Of the off-street spaces, none are free and 530 require payment. The future operation of the privately operated car parks would need to be considered. All on-street spaces are free, however 264 have day time restrictions (1 hour no return in 1 hour) and 61 are unrestricted. The restricted on-street spaces are generally the most conveniently located to town centre services. Unrestricted spaces would also likely be attractive for employees in the area.

5.8.4. The results for **Holywood** are presented in Figures 16c, 17c and 18c. The surveys show that the town centre of **Holywood** provides a total of 294 off-street parking spaces of which 225 are publicly owned and 69 are privately owned. Of the off-street spaces, 39 are free and 255 require payment. A total of 143 on-street parking spaces are provided in **Holywood**. All of the on-street spaces are free, however 135 have day time restrictions (1 hour no return in 1 hour) and 6 are unrestricted. The restricted on-street spaces are generally the most conveniently located for shopping and personal business purposes in the principal business streets. Unrestricted spaces would also likely be attractive for employees in the area.

5.8.5. The results for **Comber** are presented in Figures 16d, 17d and 18d. The town centre of **Comber** has a total of 349 public parking spaces of which 288 are off-street and 61 are on-street. Of the off-street spaces, all 288 are free. The future operation of the privately operated car parks would need to be considered. All on-street spaces are free, and all 53 have day time restrictions (generally 1 hour no return in 1 hour).

5.8.6. The results for **Donaghadee** are presented in Figures 16e, 17e and 18e. The town centre of **Donaghadee** has a total of 205 public parking spaces of which 36 are off-street and 169 are on-street. All of the off-street spaces are free. All on-street spaces are free, however 53 have day time restrictions (1 hour no return in 1 hour) and 116 are unrestricted. The restricted on-street spaces are generally the most conveniently located to town centre services. Unrestricted spaces would also likely be attractive for employees in the area.

Conclusions

5.8.7. **Bangor** town centre is around 900m in length and 800m in breadth with publicly owned parking provision situated towards the periphery of the town centre boundary and generally located off the main radials roads. Therefore it may be reasonable to expect drivers to park in these spaces and to walk to their places of work or other long-stay purposes in the town centre. The operation of such a system could reduce traffic congestion in the town centre.

5.8.8. **Newtownards** town centre is around 400m in length and 1km in breadth. The publicly managed car parks are predominately located to the south east of the town centre and can be easily accessed by the southern and south eastern radial routes. Public parking arranged at the edge of town convenient to the key radial routes could reduce traffic congestion at the key junctions and encourage onward travel by walking.

5.8.9. The town centre of **Holywood** is relatively small, around 450m in length and breadth. The publicly owned parking facilities are distributed throughout the town centre and are within short walking distance of the goods, services and amenities on offer in the town.

5.8.10. **Comber** town centre is around 400m in length and 200m in breadth. The publicly managed car parks are located to the north and south of the town centre, and are within short walking distance of the goods, services and amenities on offer in the town centre.

5.8.11. The town centre of **Donaghadee** is also around 400m in length and 200m in breadth. The on street parking provision is situated within short walking distance of the goods, services and amenities on offer in the town.

5.9. Legacy Road Alignments and Other Protected Land

5.9.1. Legacy Road Alignments and other transport related schemes with associated protected lands exist in the extant LDP within the study area. They are regarded as undeveloped alignments/areas identified in previous LDPs that have been protected from development. While not all alignments/schemes will be retained in the future, they should remain protected until more detailed consideration is given to each alignment at the LDP LPP /LTP stage when zoning and scheme level detail will be provided.

5.9.2. In some cases these alignments may first appear out of line with current policy and some schemes will not progress in the form previously planned or not at all. However, these alignments will be retained until the LPP when they will be reviewed in conjunction with individual zoning considerations and consequently dropped or retained as they could have potential alternative uses such as for active travel routes.

5.9.3. The Legacy Road Alignments included in the previous Ards and North Down Area Plan are as follows:

- **Newtownards** - Talbot Street to North Road Upgrade.
- **Newtownards** - Bowtown Road to Portaferry Road Link.
- **Comber** - Ballygowan Road to Belfast Road Link

6.0 Transport Context and Objectives

6.1. Introduction

6.1.1. This chapter sets out the transport context and transport objectives which are used to guide the development and assessment of options in subsequent chapters.

6.1.2. The objectives presented in this LTS have had regard to the existing strategic policy context and the LDP POP for ANDBC. It is important to note that the subsequent LTP document will be subject to the relevant assessments and public consultation and hence the objectives and options in this LTS are without prejudice to that process. The LTP for the ANDBC area may also identify other options not included in this LTS.

6.2. Context

6.2.1. The New Approach recognised that while some car journeys are unavoidable, it is important that all Council areas, including ANDBC, are developed in a way which enables people to have options, other than driving, to access key services. Although challenging, this requires a rebalancing of transport provision in conjunction with the new LDP to ensure that all modes of transport play their part.

6.2.2. This rebalancing must recognise the need for long-term stability and maintenance of the network and hence must play to the natural strengths of each mode of transport. For example, in general, public transport must focus on travel to and from urban centres where there is a 'critical mass' of key services and travel demand. Similarly active travel must provide safe and attractive local connectivity options to challenge the presumption of car travel for short journeys. Roads standards should be in balance with the economic role of the traffic carried whilst care should be taken to ensure vehicles do not dominate town centres and hence reduce vital place-making opportunities.

6.3. Objectives

6.3.1. The Transport Objectives link to the objectives in the existing strategic and local policies for the Council area, in particular the LDP POP.

Draft Transport Study Objectives

Objective 1	
	Link to LDP POP
Enhance accessibility by road and public transport from the centres of Bangor, Newtownards, Holywood, Comber and Donaghadee to Belfast, Londonderry, gateways and hubs.	**Social** (vii) **Environmental** (v) **Economic** (i), (iii), (iv), (v), (vii)

6.3.2. One of the PfG high level indicators for transport is to improve travel times on key inter-urban economic corridors. The outworking of this will be to provide highway capacity improvements and attractive limited-stop bus services focused on inter-urban journeys made on the key economic corridors linking the gateways and hubs identified in the RDS.

Objective 2	
	Link to LDP POP
Ensure viable public transport accessibility to essential services for people living in Ards and North Down Borough Council Area.	**Social** (v), (vii) **Environmental** (v) **Economic** (i), (iii), (iv), (v), (vii)

6.3.3. It is important that everyone can access essential services such as work, education, health or food shops. Whilst private car may be the preferred mode of travel for those people who own one, it should be possible to access these services without a private car. However, standard bus services are not financially viable where there is not a 'critical mass' of passengers. The Transport Study and Plan will therefore seek to identify a range of possible innovative public transport options for the area that will be supported by the authorities, (including health and education). Those transport options, although not currently developed, may be deliverable within the lifetime of the plan, subject to NI-wide transport policy. This will take account of the location of current and future essential services.

Objective 3	
Ensure there are attractive and safe active travel networks (walking and cycling) linking all residential, employment, retail and leisure uses in the urban areas of Bangor, Newtownards, Holywood, Comber and Donaghadee.	**Link to LDP POP** **Social** (iv), (v), (vi), (vii), (viii) **Environmental** (ii), (v), (viii) **Economic** (i)

6.3.4. Creating higher density, mixed use places will require transport investment to be fully aligned with the growth strategy set out by ANDBC.

6.3.5. Although still in the development stages, by working closely with the Council it is intended that growth will focus on the urban centres of **Bangor, Newtownards, Holywood, Comber and Donaghadee**. This will effectively maximise the capacity of the existing urban bus and active travel networks and will facilitate the improvement of these networks.

6.3.6. It is considered that development should be located in areas which have good accessibility. This will enable residents to access facilities which are within walking and cycling distances and have the option to use bus services for longer journeys. In general the scale **of Bangor, Newtownards, Holywood, Comber and Donaghadee** are such that the full settlement development area is within a convenient walking and cycling distance, ranging for example from a) the largest settlement of Bangor covering approximately a distance of 5-6.5 kilometers across the outer limits and a maximum 60-80 minute walk or 18-24 minute cycle or approximately a distance of 3-4 kilometers and a maximum 35-50 minute walk or 11-15 minute cycle from the outer settlement limits to Bangor town centre, to b) the geographically smallest of the above listed settlements of Comber covering a distance of approximately 1.5 to 2.5km equating to a maximum of 19-31 minutes walking or a 6-9 minute cycle across the outer limits or approximately 1-1.5 kilometers of distance from the outer limits to the centre of Comber town with a maximum 12-19 minute walk or 4-6 minute cycle.

6.3.7. In finalising planning permission for all new development it will remain a requirement to ensure the provision of safe transport infrastructure for all users.

Objective 4	
Deliver high quality public realm in the centres of Bangor, Newtownards, Holywood, Comber and Donaghadee, with reduced vehicle dominance, to make the towns attractive places to live and work and to improve safety for active travel modes.	**Link to LDP POP** **Social** (i), (vi), (viii) **Environment** (v), (viii) **Economic** (i), (iii), (iv)

6.3.8. Indicator 25 of the PfG focuses on increasing the proportion of journeys made by walking, cycling and public transport. This will a require a change in modal demands in urban areas by reducing private car travel whilst providing safer infrastructure which will encourage and support an increase in active travel and public transport use. Journeys to and within the town centre, where there is critical mass of demand, offer the greatest potential for walking and cycling and public transport and can be influenced by a parking strategy. The transport infrastructure in town centres also merit special priority in terms of place-making.

Objective 5	
Enhance transport accessibility to Bangor, Newtownards, Holywood, Comber and Donaghadee to safeguard their viability.	**Link to LDP POP** **Social** (iv) **Environment** (v), (viii) **Economic** (i)

6.3.9. **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** town centres offer a broad range of services which meet the needs of their residents and the ANDBC area. By improving transport infrastructure and hence accessibility between and within our towns it is considered that the role of these town centres will be strengthened, supporting their development and vitality. Development in close proximity to town centres should be focussed on active travel networks and public transport, reducing the need for car use and contributing to the place making responsibilities placed on the council.

Objective 6	
Enhance safety for all modes of transport and reduce the number and severity of casualties.	**Link to LDP POP** **Social** (vii), (viii) **Environment** (viii)

6.3.10. By improving transport infrastructure and encouraging a greater awareness of road safety and other road users it is considered that the number and severity of collisions and casualties can be reduced.

Objective 7	
Ensure our transport systems are resilient to climate change and are well maintained.	**Link to LDP POP** **Environment** (iv), (viii) **Economic** (vii)

6.3.11. The PfG focuses on improving transport connections for people, goods and services whilst protecting our natural environment. This will require a shift to more sustainable modes of transport such as walking, cycling and public transport, particularly for longer journeys, and a reduction in private car usage. Reduced demand on the road network will improve journey times, reduce emissions, increase efficiency and improve the health of residents living in the Council area through increased levels of exercise.

6.4. Alignment with wider strategy aims and objectives

6.4.1. Table 3 shows how this LTS objectives align with key objectives from other policy documents, including:

- PfG;
- RDS;
- The New Approach;
- NI Changing Gear: Bicycle Strategy; and
- LDP POP.

Table 3. Alignment with wider strategy aims/objectives

TS Objective	PfG	RDS	New Approach	NI Bicycle Strategy	LDP Preferred Options Paper
Objective 1: Enhance accessibility by road and public transport from the centre of Bangor, Newtownards, Holywood, Comber and Donaghadee to Belfast, Londonderry, gateways and hubs.	Outcome 13 Indicator 23 Indicator 25	RG2	Objective 1 Objective 2 Objective 5 Objective 6 Objective 8 Objective 9 Objective 12	Objective 2	Principle 2 Principle 3 Principle 5
Objective 2: Ensure viable public transport accessibility to essential services for people living in the Ards and North Down Borough Council area	Outcome 13 Indicator 23 Indicator 25	RG2	Objective 1 Objective 5 Objective 8 Objective 9	Objective 2 Objective 3	Principle 2 Principle 3 Principle 4
Objective 3: Ensure there are attractive and safe active travel networks (walking and cycling) linking all residential, employment, retail and leisure uses in the	Outcome 2 Indicator 25		Objective 1 Objective 4	Objective 1 Objective 2	Principle 1 Principle 2

urban areas of Bangor, Newtownards, Holywood, Comber and Donaghadee.			Objective 6 Objective 7 Objective 8 Objective 9 Objective 10 Objective 11 Objective 12	Objective 3 Objective 4	Principle 4 Principle 5
Objective 4: Deliver high quality public realm in the centres of Bangor, Newtownards, Holywood, Comber and Donaghadee, with reduced vehicle dominance, to make the towns attractive places to live and work and improve safety for active modes.	Outcome 2 Indicator 25	RG2	Objective 2 Objective 6 Objective 7 Objective 8 Objective 9 Objective 10 Objective 11 Objective 12	Objective 1 Objective 2 Objective 3 Objective 4	Principle 1 Principle 2 Principle 4 Principle 5

Objective 5: Enhance transport accessibility to Bangor, Newtownards, Holywood, Comber and Donaghadee to safeguard their viability.	Outcome 13 Indicator 23 Indicator 25	RG2	Objective 1 Objective 2 Objective 4 Objective 6 Objective 10	Objective 1 Objective 2	Principle 2 Principle 3 Principle 4
Objective 6: Enhance safety for all modes of transport and reduce the number and severity of casualties.	Outcome 7 Indicator 23		Objective 7	Objective 4	Principle 1 Principle 2 Principle 4
Objective 7: Ensure our transport systems are resilient to climate change and are well maintained.	Outcome 2 Indicator 23 Indicator 25	RG2 RG9	Objective 2 Objective 3 Objective 10 Objective 11 Objective 12		Principle 5

7.0 Assembly of the Transport Study

7.1. Introduction

7.1.1. This section presents the assessment of transport options and conclusions of the LTS for ANDBC. The Conclusions have been reached by comparing of a number of different illustrative Transport Measures using a standard objectives-based approach. Alternative transport options are assessed against the objectives identified earlier in order to identify a recommended set of Transport Measures for consideration in the Transport Plan. The following sequence of processes are described in turn:

- General approach to assessment
- Development of options
- Assessment of options and selection of recommended Transport Measures
- Confirmation of Transport Measures Assessment against the objectives

7.1.2. The transport measures are illustrative only and will be subject to further consideration in the Transport Plan. The Transport Plan may also identify other transport measures taking account of the Local Development Plan LPP, stakeholder views and other evidence.

7.2. General approach to assessment

7.2.1. The previous sections have presented the context and provided a set of objectives for local transport development in ANDBC consistent with the Community Planning and LDP processes. These objectives are used to assess alternative options and identify potential illustrative Transport Measures that, along with other evidence sources, will help inform the development of the LTP.

7.2.2. This objectives-based approach is considered consistent with The New Approach and suited to the outcome-based approach being applied across policy making in NI, particularly as the objectives have been formulated to take account of the draft PfG Outcomes The approach is also preferred to a “problems-based” approach that might tend to simply replicate past strategies and measures and make the achievement of new objectives and outcomes particularly difficult.

7.3. Development of Options

7.3.1. The development of options is initiated by the consideration of the objectives:

- **Objective 1:** Enhance accessibility by road and public transport from the centres of **Bangor, Newtownards, Holywood, Comber and Donaghadee** to Belfast, Londonderry, gateways and hubs.
- **Objective 2:** Ensure financially viable and sustainable public transport accessibility to essential services for people living in the ANDBC Area.

- **Objective 3:** Ensure there are attractive and safe active travel networks (walking and cycling) linking all residential, employment, retail and leisure uses in the urban areas of **Bangor, Newtownards, Holywood, Comber and Donaghadee**.
- **Objective 4:** Deliver high quality public realm in the centres of **Bangor, Newtownards, Holywood, Comber and Donaghadee**, with reduced vehicle dominance, to make the towns attractive places to live and work and improve safety for active modes.
- **Objective 5:** Enhance transport accessibility to **Bangor, Newtownards, Holywood, Comber and Donaghadee** to safeguard their viability.
- **Objective 6:** Enhance safety for all modes of transport and reduce the number and severity of casualties.
- **Objective 7**: Ensure our transport systems are resilient to climate change and are well maintained.

7.3.2. **Objective 1 summarised as External Accessibility,** is specific in requiring improvements in both road and public transport. The potential options appear to be:

- Improved inter-urban roads
- Improved 'limited-stop' bus services to key hubs
- Maintained and improved rail connections
- Park and Ride and Park and Share also have complementary roles in improving local access or increasing vehicle occupancy respectively.

7.3.3. **Objective 2 summarised as Public Transport Accessibility,** essentially focuses on rural bus services and connections to essential services such as, for example, health, food, shops and banks. The potential options appear to be:

- Maintained and improved town centre bus services
- Maintained and improved Ulsterbus rural services
- Alternative Ulsterbus rural operations including integration with 'limited-stop' services
- Integrated public transport services including innovative transport models such as Demand Responsive Transport
- Maintained and improved rail services
- Land-use policy changes which focus residential development in towns
- New or improved public transport serving new developments funded by the developer
- Alternative models of delivery of essential services including mobile services and use of the internet

7.3.4. **Objective 3 summarised as Attractive and Safe Active Travel Networks,** essentially focuses on safe and attractive walking and cycling connections within **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**. The potential options appear to be:

- Provision of improved walking facilities in towns
- Provision of improved cycle parking provision in towns
- Identification and implementation of measures to address road user behaviour related to walking and cycling
- Maintained and improved network of attractive cycling routes in towns

- Focus on radial routes
- Local improvements which together provide longer routes

7.3.5. There are other options which relate to how this infrastructure is provided and at additional locations such as:

- For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developer
- Maintain and expand provision of greenways between settlements

7.3.6. **Objective 4 summarised as High Quality Public Realm in town centres,** generates a number of largely complementary transport options:

- Town Centre Parking Strategies that reduce circulating traffic searching for parking spaces
- Traffic management schemes that remove traffic routes through the town centre
- Priority to be given to pedestrians in moving to and around town centre streets
- Pedestrianisation of town centres

7.3.7. **Objective 5 summarised as Accessibility to Town Centres,** generates a number of quite different transport options:

- Public Transport improvements options and identified against Objective 2
- Improved walking and cycling options identified against Objective 3
- Town Centre Parking Strategies that provide for demand for long and short stay parking at locations that reduce town centre congestion
- Traffic management schemes that give priority to movements to the town centre
- Traffic management measures to reduce travel times to town centres by all sustainable modes

7.3.8. **Objective 6 summarised as Safety** and the options appear to be:

- Implement safety measures to reduce collisions
- Improved walking and cycling options identified against Objective 3
- Priority to be given to pedestrians in moving to and around town centre streets identified against Objective 4
- The provision of greenways between towns identified against Objective 3
- Traffic management schemes that give priority to pedestrian, cycling and public transport movements to the town centre identified against Objective 4

7.3.9. **Objective 7 summarised as Resilience, is quite specific.** The potential options appear to be:

- Ensure transport infrastructure is designed and provided to current 'best practice' standards regarding extreme weather events
- Ensure transport infrastructure is maintained to 'best practice' standards to maximise performance at all times and that whole life costs are minimised.

7.4. Assessment of options and selection of recommended Transport Measures

Objective 1: External Accessibility

7.4.1. The following options **are progressed** as feasible within the LTS time frame of 2032 and are consistent with the objectives.

- Maintained and improved rail connections
- Improved 'limited-stop' bus services to key towns
- Park & Ride and Park & Share also have complementary roles in improving local access or increasing vehicle occupancy respectively

7.4.2. The following option is unlikely to be feasible within the LTP timeframe or would not meet the objectives:

- Improved inter-urban roads - considered that further improvements of these roads does not facilitate travel by sustainable modes and does not align with the Strategy's objectives.

Objective 2: Public Transport Accessibility

7.4.3. It is proposed that these transport options are considered in the context of NI-wide policy issues for the Department and other statutory transport providers and would be the subject of separate work. It is the intention that the findings and recommendations will be fed back to the LTP and LDP processes as and when the next steps for the wider public transport network are identified and agreed. In outline, the proposal is to develop innovative integrated public transport services, using for example transport models such as Demand Responsive Transport.

7.4.4. It is also recommended however that the options for land-use policy to focus residential development in towns and to consider alternative models of delivery of essential services including mobile services and use of the internet are taken account of in the ANDBC LDP Plan Strategy and during the subsequent LPP stage.

Objective 3: Urban Active Travel Networks.

7.4.5. The following options **are progressed** as feasible within the LTS time frame of 2032 and are consistent with the objectives:

- Provision of improved walking facilities in towns
- Provision of improved cycle parking provision in towns
- Maintained and improved network of attractive radial cycling routes in towns and greenways between settlements
- For new developments, walking and cycling infrastructure both within the development and linking to existing or planned networks are provided by the developer

7.4.6. Radial routes in towns would reinforce the expectation for direct high quality cycle routes which can provide a realistic option for journeys to and through the town centre. The designation of routes also facilitates the proposal to seek developer contributions for infrastructure over and beyond the development site.

Objective 4 High Quality Public Realm in town centres

7.4.7. The following options **are progressed** as feasible within the LTS time frame of 2032 and are consistent with the objectives:

- Town Centre Parking Strategies that reduce circulating traffic searching for parking spaces
- Traffic management schemes that remove traffic routes through the town centre
- Priority to be given to pedestrians in moving to and around town centre streets

7.4.8. The following option is unlikely to be feasible within the LTP time period or would not meet the objectives:

- Pedestrianisation of town centres – this measure is considered out-moded and likely to fail by removing key servicing access and after hours' animation. The other options seek to deliver the positive points of pedestrianisation relating to reducing vehicle dominance.

Objective 5 Accessibility to Town Centres

7.4.9. The following options **are progressed** as feasible within the LTS time frame of 2032 and are consistent with the objectives:

- Public Transport improvements options and identified against Objective 2
- Improved walking and cycling options identified against Objective 3
- Town Centre Parking Strategies that provide for demand for long and short stay parking at locations that reduce town centre congestion
- Traffic management schemes that give priority to pedestrian, cycling and public transport movements to the town centre

7.4.10. The exception which is not progressed is outlined below with the associated rationale:

- New urban roads and traffic management to reduce travel times to town centres by all road-based modes – this would act directly against the Objective 4 High Quality Public Realm in town centres by promoting car use in town centres and against the schemes to give priority to pedestrian and cycling movements to the town centre.

7.4.11. However it is noted that there are likely to be instances when key development will require essential new urban road infrastructure simply to access and service the development and to facilitate active travel modes. In such instances the urban road infrastructure will be provided by the developer. Therefore the following option is progressed:

- New urban road links (and supporting sustainable transport infrastructure) to facilitate key development funded by developer.

Objective 6 Safety

7.4.12. The following options **are progressed** as feasible within the LTS time frame of 2032 and consistent with the objectives:

- Implement safety measures to reduce collisions
- Improved walking and cycling options identified against Objective 3
- Priority to be given to pedestrians in moving to and around town centre streets identified against Objective 4
- The provision of greenways between settlements as identified against Objective 3
- Traffic management schemes that give priority to pedestrian, cycling and public transport movements to the town centre identified against Objective 4

Objective 7 Resilience

7.4.13. Both of the options **are progressed** as feasible within the LTS time frame of 2032 and consistent with the objectives. It is proposed that the options can be combined as follows:

- Transport infrastructure to be designed, provided and maintained to 'best practice' standards to maximise performance at all times.

7.5. Confirmation of Transport Measures Assessment against the Objectives

7.5.1. This LTS for ANDBC is primarily focused on the urban centres of **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** where there are opportunities to deliver the most significant impact on the greatest number of residents and employees in conjunction with the LDP. However this LTS also includes two inter-urban measures (measures 1 and 3 listed in paragraph 7.5.1.2 below) that also link to the RSTNTP. This LTS is purposely composed of illustrative measures rather than schemes as this provides flexibility in the definition and design of schemes in order to integrate with land-use opportunities that arise in the LPP stage of the LDP, stakeholder views and other evidence.

7.5.2. This LTS is proposed as comprising the following 11 illustrative measures:

1. Improved 'limited-stop' bus services to key hubs
2. Maintained and improved town centre bus services
3. Maintained and improved rail services and connections
4. Integration of passenger transport services including innovative transport models such as Demand Responsive Transport
5. New urban road links and supporting sustainable transport infrastructure to facilitate key development funded by developers
6. Town Centre Parking Strategies including integrated management of long and short-stay spaces
7. Provision of improved walking facilities in towns
8. Provision of an improved network of attractive radial cycling routes in towns and greenways between settlements
9. Traffic management schemes in urban areas to re-balance modal hierarchy

10. Ensure that user behaviour regarding safe use of the transport network is monitored and addressed
11. Transport infrastructure to be designed, provided and maintained to 'best practice' standards to maximise performance at all times.

7.5.3. Each of the illustrative measures are confirmed against the transport objectives below. The table below summarises how each of the 11 measures support the 7 Transport Objectives. A double tick (√√) designates strong or direct support for the objective whilst a single tick (√) designates lesser or indirect support. Each measure is subsequently described separately below.

Illustrative Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6: Safety	7: Resilience
1: Improved 'limited-stop' bus services to key hubs	√√	√√			√√		
2: Maintained and improved town centre bus services	√√	√√			√√		
3: Maintained and improved rail services and connections	√√	√√			√		
4: Integration of passenger transport services including innovative transport models such as Demand Responsive Transport	√	√√			√		
5: New urban road links and supporting sustainable transport infrastructure to facilitate key development funded by developers		√	√√		√√	√	
6: Town Centre Parking Strategies including integrated management of long and short-stay spaces		√		√√	√√		

7: Provision of improved walking facilities in towns		√	√√	√	√√	√√	
8: Improvements to existing cycle network and provision of a new network of attractive radial cycling routes in towns and greenways between settlements			√√	√	√√	√√	
9: Traffic management schemes in urban areas to re-balance modal hierarchy		√	√√	√	√√	√	
10: Ensure that user behaviour regarding safe use of the transport network is monitored and addressed				√		√√	
11: Transport infrastructure to be designed, provided and maintained to 'best practice' standards to maximise performance at all times.							√√

1. Improved 'limited-stop' bus services to key hubs

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Improved 'limited-stop' bus services to key hubs	√√	√√			√√		

7.5.4. New 'limited-stop' bus services may be identified and prioritised on the Key Transport Corridors to improve external accessibility from the ANDBC area. These services will build upon the existing bus network and will be considered in the Regional Strategic Transport Plan, which is currently being prepared.

7.5.5. These 'limited-stop' bus services will improve external accessibility by reducing public transport journey times and increasing service frequency between key hubs.

7.5.6. These services will indirectly improve public transport accessibility from the wider rural area as this objective is primarily met by local Ulsterbus services.

7.5.7. These services will also directly improve accessibility to the town centres by reducing journey times from the catchment areas, potentially in combination with park and ride sites.

2. Maintained and improved town centre bus services

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Maintained and improved town centre bus services	√√	√√			√√		

7.5.8. A number of Ulsterbus town centre bus services currently operate in **Bangor, Newtownards, Comber** and **Donaghadee** town centres. At present no town centre bus services operate in **Holywood**. It is recommended that the services' hours of operation are extended to support the evening economies in **Bangor, Newtownards, Comber** and **Donaghadee**. Consideration should also be given to increasing the number of services to ensure full coverage of all residential areas in these towns.

7.5.9. These services will improve public transport accessibility and accessibility to the town centre for all residents living in the towns of **Bangor, Newtownards, Comber** and **Donaghadee**.

7.5.10. Within the timeframe of the BMTP, it is further recommended that the feasibility of providing town centre bus services in **Holywood** are investigated.

3. Maintained and improved rail services and connections

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6: Safety	7: Resilience
Maintained and improved rail services and connections	√√	√√			√		

7.5.11. The **Bangor** rail line is located within the ANDBC area and serves **Bangor**, Bangor West, **Holywood**, Carnalea, Helen's Bay, Seahill, Cultra and Marino stations. It is recommended that service enhancements to the **Bangor** line should be prioritised in order to enhance the current attractiveness of the line. This measure will also be considered as part of the RSTNTP and BMTP.

4. Integration of passenger transport services including innovative transport models such as Demand Responsive Transport

Measure	Objectives					
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6: Resilience and Safety
Integration of passenger transport services including innovative transport models such as Demand Responsive Transport	√	√√			√	

7.5.12. The integration of passenger transport services has the potential to increase the public transport opportunities for rural communities. These transport options will be considered in the context of NI-wide policy issues for the Department and transport providers.

7.5.13. Increased public transport opportunities for rural communities would have a direct and markedly positive impact on the public transport accessibility objective as residents living beyond the current Translink bus network would be able to use the new services, potentially on a door to door basis.

7.5.14. Increased public transport opportunities for rural communities would also have a positive impact on external accessibility as a proportion of rural residents who do not have the use of a car would now be able to travel by public transport to the local bus and rail stations and then interchange to inter-urban Ulsterbus and rail services.

7.5.15. Increased public transport opportunities for rural communities would also have a positive impact on accessibility to town centres as the new services, though carefully fitted to users travel needs, will invariably include a proportion of journeys to town centres where key services are centred.

5. New urban road links and supporting sustainable transport infrastructure to facilitate key development funded by developers

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6: Safety	7: Resilience
New urban road links and supporting sustainable transport infrastructure to facilitate key development funded by developers		√	√√		√√	√	

7.5.16. The LDP Local Policies Plan stage will, in all likelihood, generate new zonings or developments that will require new infrastructure to enable their delivery. In some cases new urban road links will be needed simply to provide direct access however walking cycling and public transport infrastructure and services are also likely to be needed. That infrastructure will need to be funded by the developer and planned and delivered in conjunction with the Council(s) and the Department.

7.5.17. The new infrastructure would impact directly on the objective to improve urban active travel networks.

7.5.18. The new infrastructure would improve accessibility to the town centres.

7.5.19. Where new public transport services are secured, these may improve public transport access to key town centre services.

6. Town Centre Parking Strategies including integrated management of long and short-stay spaces

Measure	Objectives						
	1: External Accessibility	2: Public Transport	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Town Centre Parking Strategies including integrated management of long and short-stay spaces		√		√√	√√		

7.5.20. Town Centre Parking Strategies will be required in **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** as stipulated in the SPPS. Parking strategies have a key role to play in improving how the urban transport networks operate as public parking locations represent the ultimate destination for many car journeys. The location of public parking and its designation as long or short-stay using payment controls will be identified in the LTP and LDP at the LPP stage.

7.5.21. In **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** parking strategies would have a direct impact on the potential to provide high quality public realm. By removing extraneous traffic which often dominates the town centres it will be possible to design and deliver public realm geared to increase social interaction and animation.

7.5.22. The parking strategies would have a direct impact on accessibility to the town centres. It will be important that the strategies improve turnover of parking spaces, and by reducing traffic searching for spaces, to improve travel times and safety by public transport and active travel.

7.5.23. The parking strategies would have an indirect impact on public transport accessibility as it is envisaged that the charges needed to increase the turnover of spaces may lead to public transport becoming a more attractive and financially viable option.

7. Provision of improved walking facilities in towns

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in town centres	5: Accessibility to Town Centres	6: Safety	7: Resilience
Provision of improved walking facilities in towns		√	√√	√	√√	√√	

7.5.24. The provision of improved walking facilities in **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** will likely be a central measure of the LTP. In these settlements the pedestrian networks could be improved and that local levels of walking are low. Whilst improvements to the walking facilities may require retro-fitting work and may impact on traffic capacity this measure has a role in delivering greater walking activity and supports a number of objectives. In addition, attractive local and town-centre routes must be an integral part of any LDP.

7.5.25. Improved walking facilities will have a direct impact on urban active travel networks. In particular in designing off-road walking routes consideration should be given to their potential as shared cycle facilities.

7.5.26. Improved walking facilities would have a direct impact on accessibility to the town centres. By making it easier to cross roads and generally making walking routes to the town centre more attractive, it will be more convenient for people without cars to travel to the town centre. Walking routes can provide convenient access to the town centre from residential areas within a range of up to 1 mile (assuming a travel time of 20 minutes; in general terms, this represents all residential areas within the development areas of **Newtownards, Holywood, Comber** and **Donaghadee** and the majority within the development areas of **Bangor**. In addition, should parking strategies displace long stay parking to the edge of town, the accessibility of the town centre for car users would be largely unaffected as the consequent longer walk access would be improved in quality.

7.5.27. Improved walking facilities would have an indirect impact on public transport accessibility as local town centre walk access is often the final component of a public transport journey.

7.5.28. Improved walking facilities would have an indirect impact on high quality public realm as they are often designed together in an integrated fashion.

8. Provision of a network of attractive radial cycling routes in towns and greenways between settlements

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Improvements to existing cycle network and provision of a new network of attractive radial cycling routes in towns and greenways between settlements			√√	√	√√	√√	

7.5.29. The provision of improved cycling facilities in **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** will likely be a central measure of the LTS. Only a small proportion of residential areas are currently served by cycling routes, and therefore there is an opportunity to expand cycling infrastructure in the council area. Whilst the provision of a network of radial cycling routes in **Bangor, Newtownards, Holywood, Comber** and **Donaghadee** may impact on traffic capacity, the measure has a role in delivering sustainable accessibility across the urban areas. The designation and identification of a network of routes must be an integral part of any LDP so that the network can be delivered in co-ordination with development proposals.

7.5.30. Attractive cycle routes would have a direct impact on urban active travel networks. In particular in designing off-road cycle routes consideration will be given to their potential as shared walking facilities. Cycle routes can provide convenient access to places of employment and education within a range of up to 5 km (assuming a travel time of 20 minutes) which would encompass the entire development area of the towns.

7.5.31. Improved cycle routes would have a direct impact on accessibility to the town centres. By making these attractive, it will be more convenient for people without cars (including children), to travel (independently) to the town centre.

7.5.32. Improved cycle routes would have an indirect impact on high quality public realm as they are often designed together in an integrated fashion as part of local routes or longer greenways. Care will be needed to ensure that the cycle route function and use does not discourage use by pedestrians, elderly people or other people with particular impairments.

9. Traffic management schemes in urban areas to re-balance modal hierarchy

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Traffic management schemes in urban areas to re-balance modal hierarchy		√	√√	√	√√	√	

7.5.33. The imposition of sustainable transport measures, such as those proposed in this LTS, will involve an impact on traffic capacity and on traffic flows. Consequently there will be a requirement for the Department to consider how road-space is designated and used by a range of modes (pedestrian, cyclist, bus, goods service vehicle and general traffic) and exactly what priority is given to each. Traffic management schemes can complement physical infrastructure schemes by amending regulations, signing and lining to achieve that priority and provide safer and more coherent networks.

7.5.34. Traffic management schemes would impact directly on the objective to improve and create continuous high quality urban active travel networks where traffic capacity has to be re-assigned using amended road markings, junction layouts or phasing of signal settings.

7.5.35. Traffic management schemes would be required to ensure that accessibility to the town centre is improved. Consideration will be given to re-balancing priority to pedestrians and public transport in town centre shopping streets whilst private car routes to designated parking locations as identified in the parking strategy should not be unduly inconvenienced.

7.5.36. Traffic management would also indirectly impact on public transport accessibility from the wider catchment as town centre bus priority could make a significant difference in the viability of routes at off-peak periods.

7.5.37. Traffic management would also indirectly impact on public realm as traffic engineers will likely need to engage in the co-design of schemes that require changes in local traffic designations or regulations to ensure their success.

10. Ensure that user behaviour regarding safe use of the transport network us monitored and addressed

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Implement road safety measures to reduce collisions				√		√√	

7.5.38. This measure focuses on the human aspects of road safety and complements the previous measure which is concerned with the physical infrastructure. The measure is especially relevant in ANDBC where its high road collision and casualty record likely follow general trends with single vehicle collisions and driver behaviour.

7.5.39. The consideration of user behaviour is also particularly important for objectives relating to walking, cycling and greenway networks and of public realm schemes which may involve relatively innovative design features requiring supporting public information.

7.5.40. This measure is however effectively cross-cutting and, it could be argued, has positive impacts on each of the other objectives.

11. Transport infrastructure to be designed, provided and maintained to 'best practice' standards to maximise performance at all times.

Measure	Objectives						
	1: External Accessibility	2: Public Transport Accessibility	3: Urban Active Travel Networks	4: High Quality Public Realm in	5: Accessibility to Town Centres	6: Safety	7: Resilience
Transport infrastructure to be designed, provided and maintained to 'best practice' standards to maximise performance at all times.							√√

7.5.41. The provision of transport infrastructure designed, provided and maintained to 'best practice' standards to maximise performance at all times relates directly to the objective of resilience and safety.

7.5.42. This measure whilst effectively cross-cutting has no direct bearing impact on any of the other objectives.

7.5.43. It may be worth noting however, that despite 'best practice' in extreme conditions such as road collisions or traffic signals failures or flooding, road infrastructure, especially urban, can reach capacity leading to grid-lock. Similar grid-lock would never occur on active travel networks. Resilience to system failures, such as traffic signal failures, can be increased by providing 'back-up' systems whilst overall urban travel resilience can be increased by ensuring that realistic active travel options are provided.

8.0 Conclusion – the Transport Study

8.1. This Transport Study for ANDBC is confirmed as the following 11 illustrative measures:

8.1.1. **1: Improved 'limited-stop' bus services to key hubs**
New 'limited-stop' bus services may be identified and prioritised on the Key Transport Corridors to and from **Bangor**, **Newtownards**, **Holywood**, **Comber** and **Donaghadee**. These services will build upon the existing bus network and will be considered in the Regional Strategic Transport Plan, which is currently being prepared.

8.1.2. **2: Maintained and improved town centre bus services**
Extending the operational hours and service frequency of town centre bus services in **Bangor, Newtownards, Holywood, Comber and Donaghadee** are required to maintain the current level of service provision, support the evening economies and ensure full coverage of all residential areas in the towns. The feasibility of operating town centre bus services in **Holywood** should also be investigated within the timeframe of the LTP.

8.1.3. **3: Maintained and improved rail services and connections**
It is recommended that service enhancements to the Bangor line should be prioritised in order to enhance the current attractiveness of the line. This measure will also be considered as part of the RSTNTP and BMTP.

8.1.4. **4: Integration of passenger transport services including innovative transport models such as Demand Responsive Transport**
The viability of this measure would be considered in the context of NI-wide policy issues for the Department and transport providers and would be the subject of separate work.

8.1.5. **5: New urban road links and supporting sustainable transport infrastructure to facilitate key development funded by developers**
The LDP LPP stage will likely generate new zonings or developments that will require new infrastructure to enable their delivery. In some cases new urban road links will be needed simply to provide direct access however walking cycling and public transport infrastructure and services are also likely to be needed. That infrastructure will need to be funded by the developer and planned and delivered in conjunction with Council(s) and the Department.

8.1.6. **6: Town Centre Parking Strategies including integrated management of long and short-stay spaces**
Town Centre Parking Strategies will be required in **Bangor, Newtownards, Holywood, Comber and Donaghadee**. The location of public parking and its designation as long or short-stay using payment controls will be identified in the LTP and outlined in the LDP at the LPP stage. The strategies should remove extraneous traffic which dominates the town centres and improve the turnover of parking spaces.

8.1.7. **7: Provision of improved walking facilities in towns**

The provision of improved walking facilities in **Bangor, Newtownards, Holywood, Comber and Donaghadee** will likely be a central measure of the LTP. The current pedestrian networks could be improved, and local levels of walking are low. However improvements to walking facilities may require retro-fitting work and may impact on traffic capacity.

8.1.8. **8: Provision of a network of attractive radial cycling routes in towns and greenways between settlements**

The provision of improved cycling facilities in **Bangor, Newtownards, Holywood, Comber and Donaghadee** will likely be a central measure of the LTP. The current cycle networks could be improved and serve only a small proportion of the residential areas. The provision of a network of radial cycling routes in **Bangor, Newtownards, Holywood, Comber and Donaghadee** may impact on traffic capacity. The designation and identification of a network of routes would allow its delivery in co-ordination with development proposals.

8.1.9. **9: Traffic management schemes in urban areas to re-balance modal hierarchy**

Consideration of how road-space is designated and used by a range of modes (pedestrian, cyclist, bus, goods service vehicle and general traffic) in **Bangor, Newtownards, Holywood, Comber and Donaghadee**. Traffic management schemes can complement physical infrastructure schemes by amending regulations, signing and lining to achieve appropriate priority and provide safer and more coherent networks.

8.1.10. **10: Ensure that user behaviour regarding safe use of the transport network is monitored and addressed.**

Road safety depends heavily on drivers, pedestrians and cyclists understanding how they should use the infrastructure and the risks of inattention and excessive speed etc. This is especially important for any new pedestrian and cycling facilities and for rural roads.

8.1.11. **11: Transport infrastructure to be designed, provided and maintained to 'best practice' standards to maximise performance at all times.**

Resilience to system failures, such as traffic signal failures, can be increased by providing 'back-up' systems whilst overall urban travel resilience can be increased by ensuring that realistic active travel options are provided.

ANNEX 1 – Transport Evidence Base

Contents:

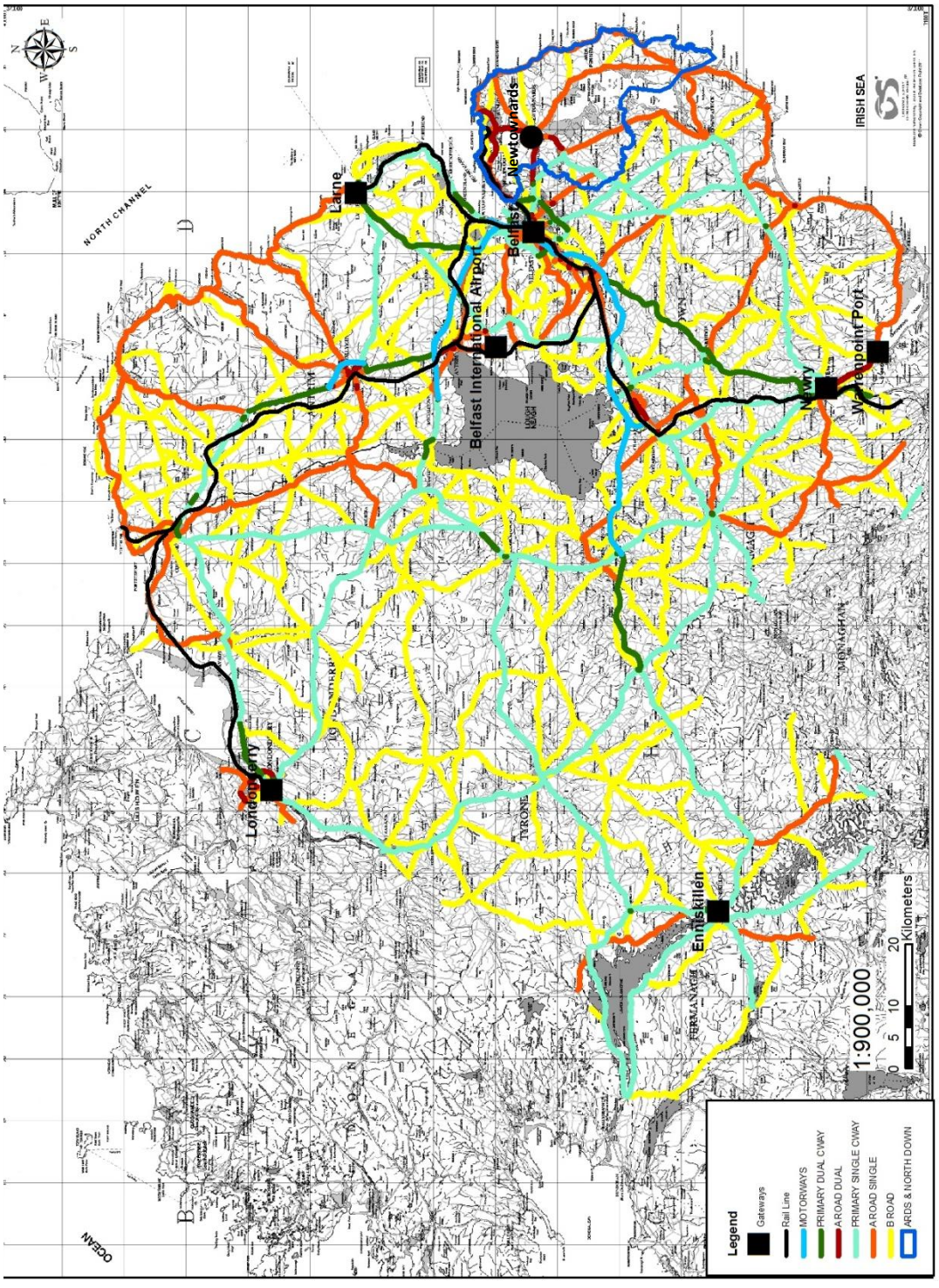
Travel to work destinations

Modal choice for journeys to work and education across the Council area

Road network speeds at peak and off-peak time periods

Road collision history in Ards and North Down

Parking provision in Ards and North Down

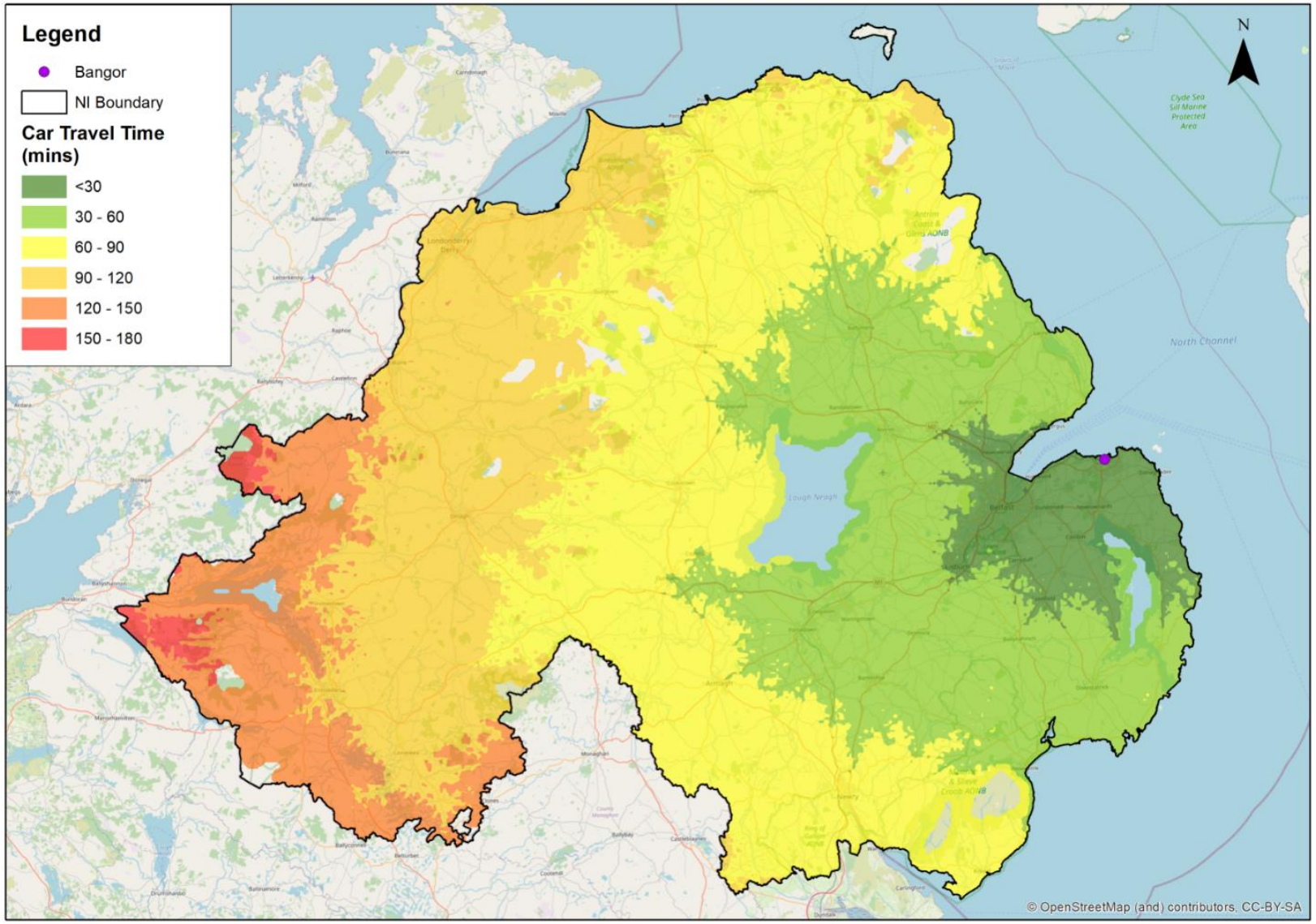


Introduction

Figure 1 – OSNI Map of NI Road and Rail Transport Network

Regional connectivity from Bangor, Newtownards and Holywood by road and public transport

Figure 2a – Travel Time by Car from Bangor at AM Peak Speed



Regional connectivity from Bangor, Newtownards, Holywood, Comber and Donaghadee by road and public transport

NOTES

Figure 2a shows the travel times by car from Bangor to locations every 200m throughout Northern Ireland and the bordering areas.

The travel times are presented in 30 minute time bands varying from green to yellow to orange to red. The darkest shade of green represents a travel time of less than 30 minutes, by comparison the darkest shade of orange represents a travel time range between 120 – 150 minutes (i.e. 2 – 2.5 hours). Travel times lasting between 150 – 180 minutes (i.e. 2.5 – 3 hours) represent the smallest proportion of car travel times.

The same travel time bands have been used for the car and public transport accessibility maps to enable direct comparison between the maps. However the travel time maps by car have fewer time bands the maximum journey time to destinations accessible by private car is less than the maximum journey time to destinations accessible by public transport.

Average recorded AM peak road speed data acquired from INRIX has been used in the maps to determine the travel time along each road link; traffic and congestion has also been accounted for.

Some of the destinations are not located on the road and therefore the analysis allows for a walking interchange from the nearest point on the road network. The maximum interchange is 800m at a walking pace of 4.8km/hr which equals a 10 minute walk. If an area is not covered by the stated time bands, it is not within 800m of the road network.

Figure 2b – Travel Time by Car from Newtownards at AM Peak Speed

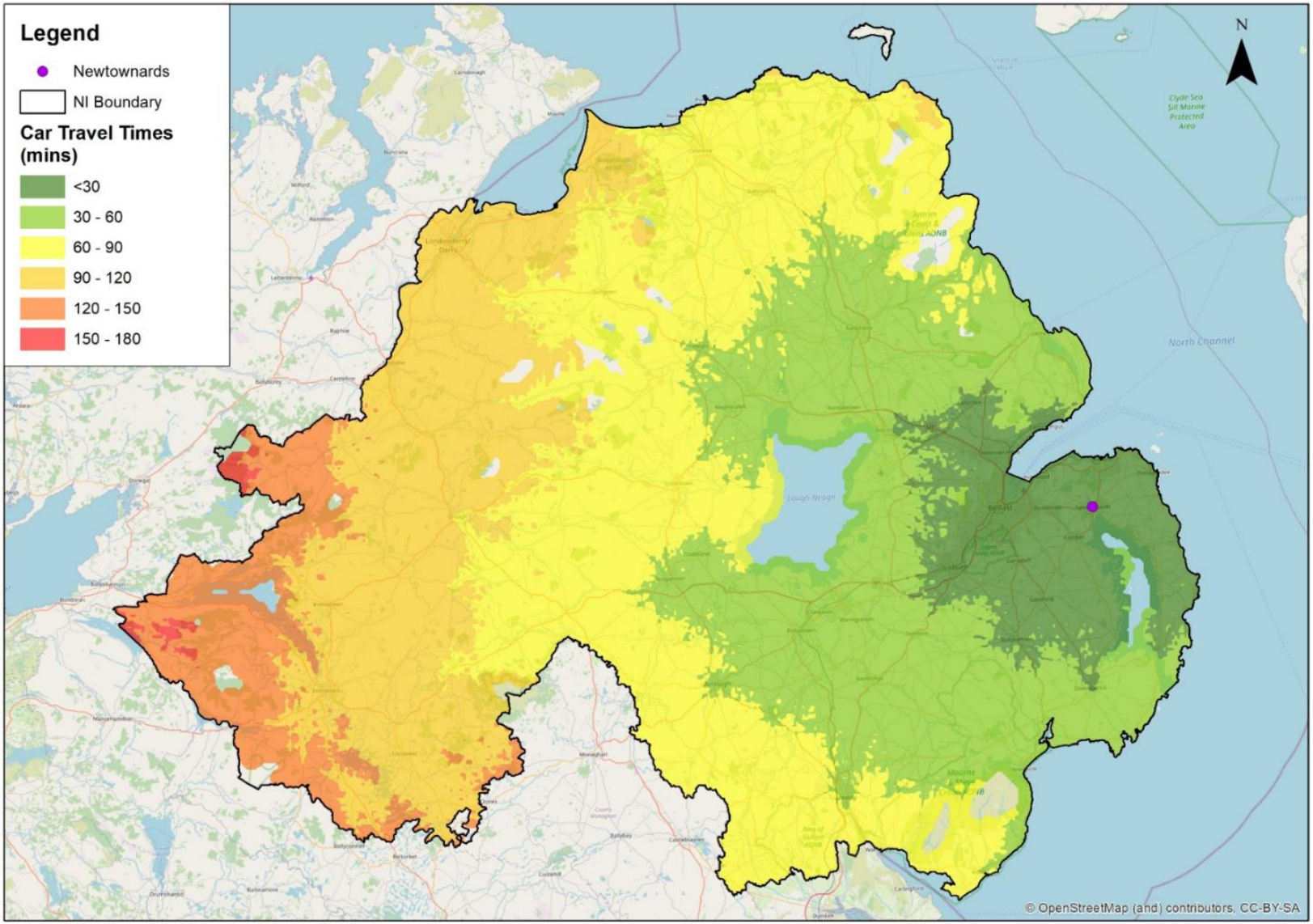


Figure 2c – Travel Time by Car from Holywood at AM Peak Speed

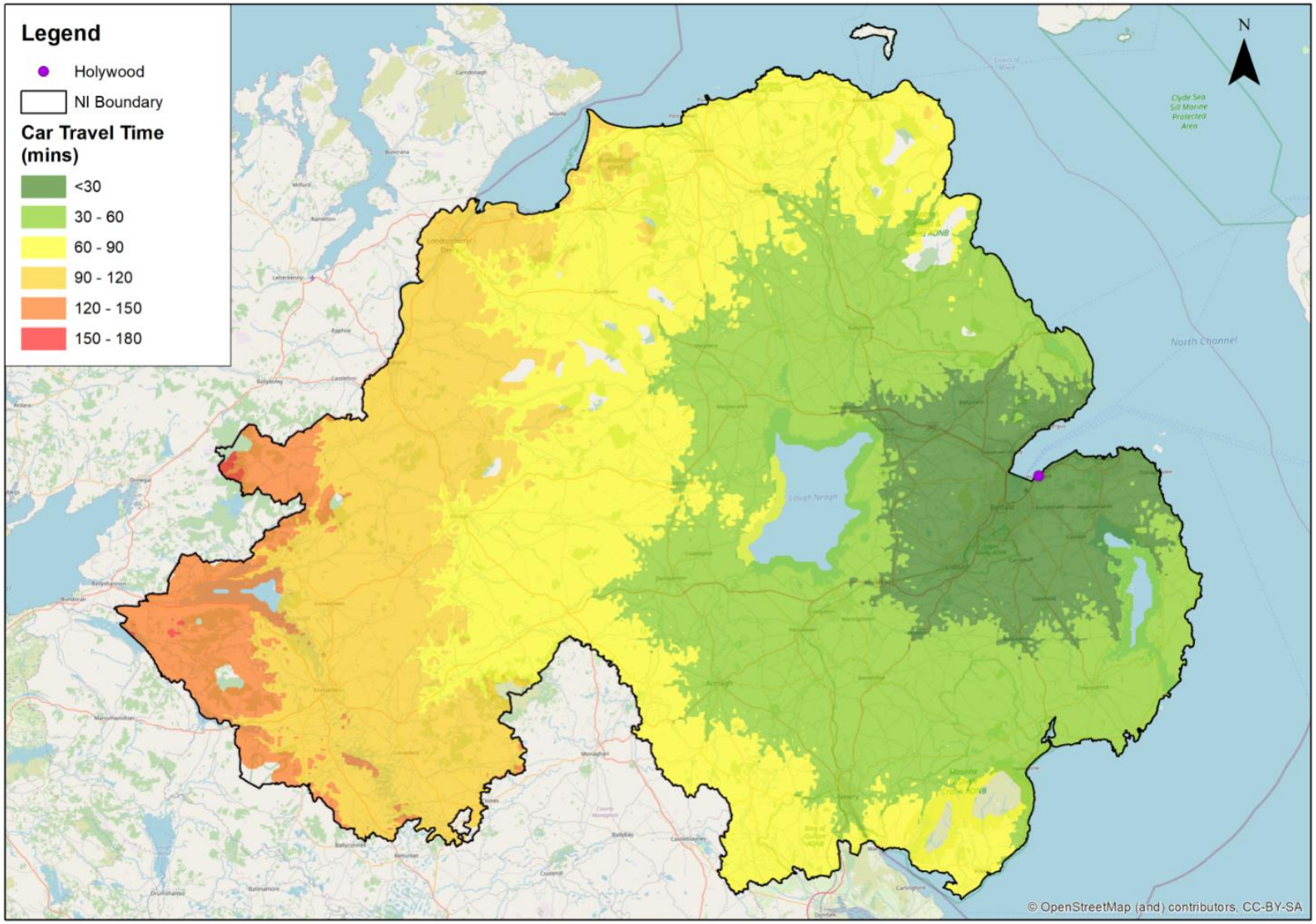


Figure 2d – Travel Time by Car from Comber at AM Peak Speed

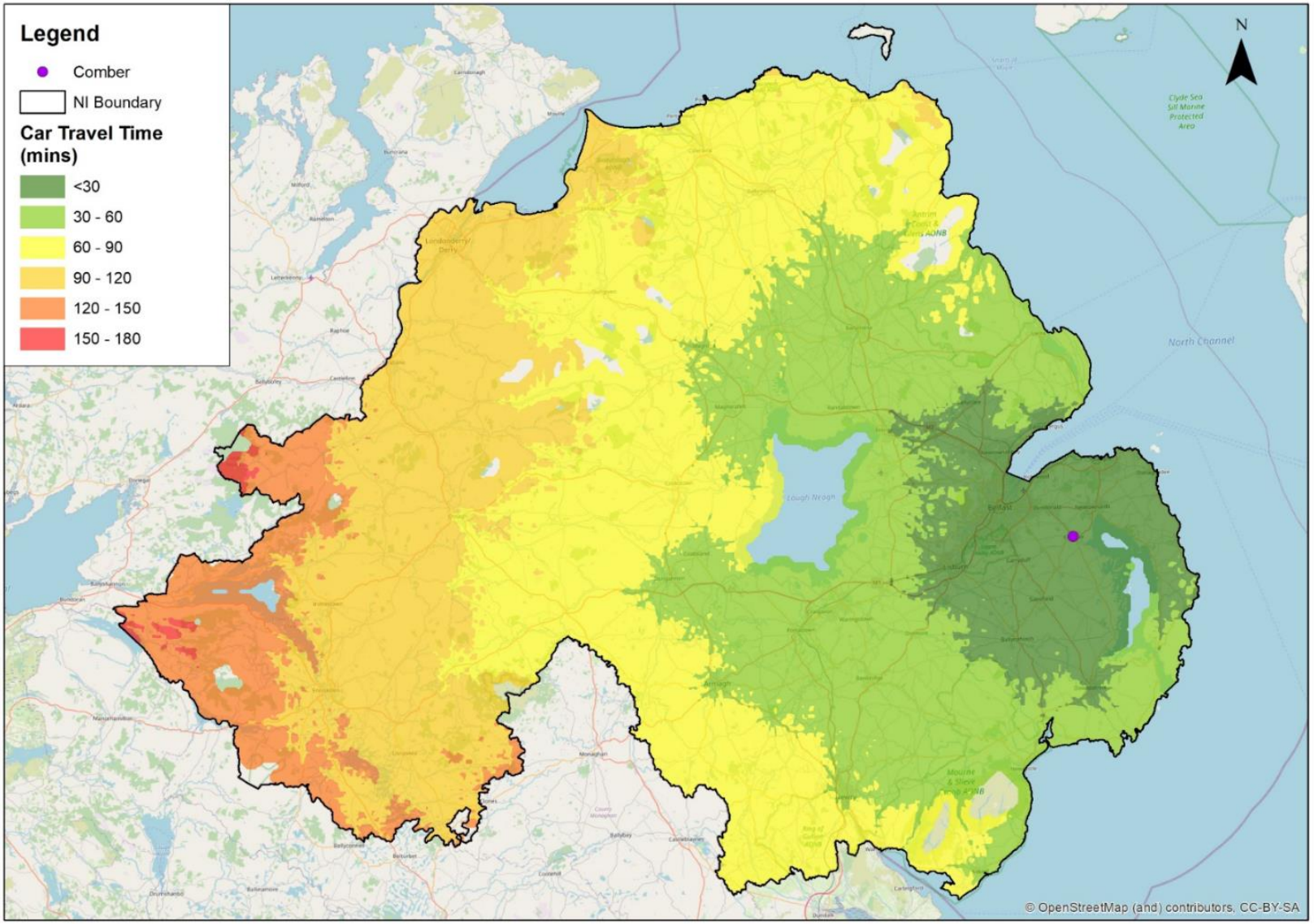


Figure 2e – Travel Time by Car from Donaghadee at AM Peak Speed

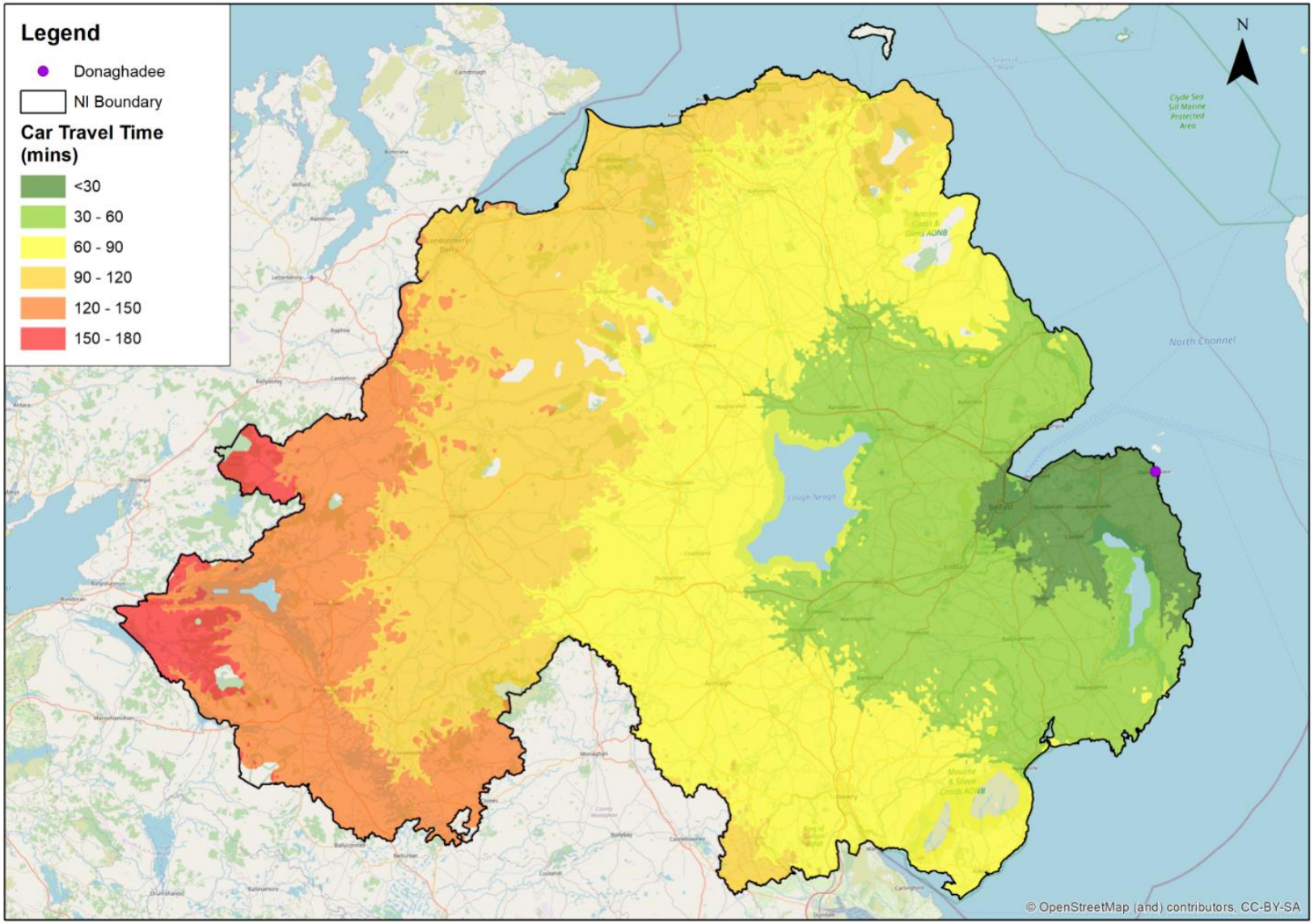
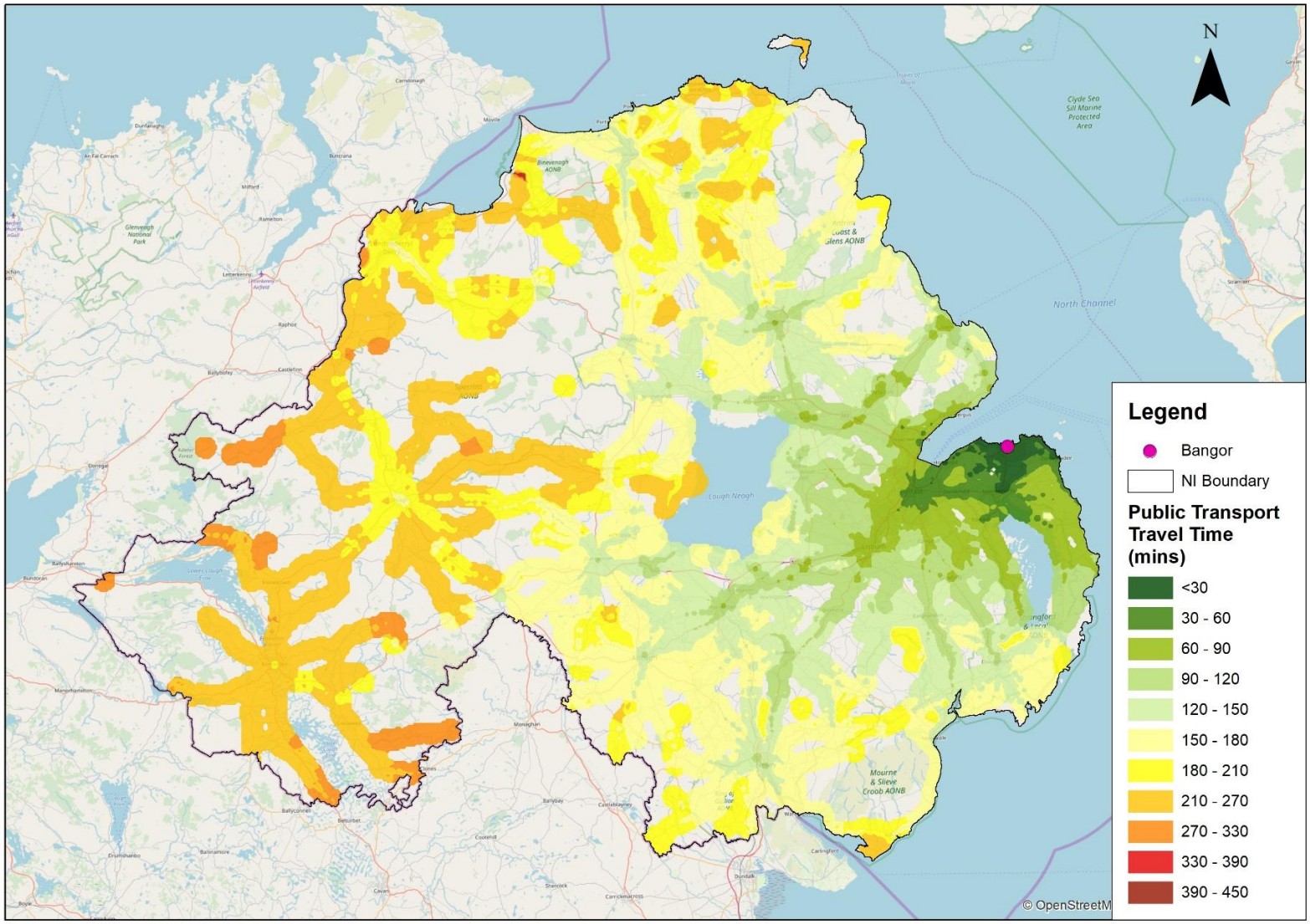


Figure 3a – Travel Time by Public Transport from Bangor from 7:00am



Regional connectivity from Bangor, Newtownards, Holywood, Comber and Donaghadee by road and public transport

NOTES

Figure 3 shows the travel times by public transport from Bangor to destinations every 200m throughout Northern Ireland and bordering areas. Actual journey start times are dependent on the availability of public transport services in the vicinity of Bangor town centre however the earliest permitted start time is 07:00.

The public transport travel times are shown in 30 minute and 60 minute time bands in various shades of green, yellow, orange and red. The darkest shade of green represents a travel time less than 30 minutes, by comparison the lightest shade of green represents a travel time lasting between 120 and 150 minutes (i.e. 2 – 2.5 hours). Travel times between 150 and 180 (i.e. 2.5 - 3 hours) are represented by the lightest shade of yellow whereas the darker shade of orange indicates a travel time of 270 – 330 minutes (4.5 – 5.5 hours). The darkest shade of red only accounts for a small proportion of public transport journey times and indicates travel times between 390 and 450 minutes (i.e. 6.5 – 7 hours).

To enable direct comparison, the same time bands for accessibility maps by car and public transport have been used. However the travel time maps by car have fewer time bands the maximum journey time to destinations accessible by private car is less than the maximum journey time to destinations accessible by public transport.

Public transport timetable information for buses, railways and ferries were utilised in the analysis to determine journey times. It should be noted that the bus service data includes Translink, Bus Eireann and Private Operators.

Some of the destinations are not located on the public transport network and therefore the analysis allows for a walking interchange from the nearest point on the road network. The maximum interchange is 800m at a walking pace of 4.8km/hr which equals a 10 minute walk.

Interchange between public transport services is also included in the analysis; multiple interchanges are allowed. For example travel times may include the time taken to walk to a bus stop and board a service to a bus or rail station, transfer time to another service and conclude with a 800m walk to a destination. The maximum allowed interchange distance is 400m at a walking pace of 4.8km/hr which equals a 5 minute walk. Also a 5 minute interchange penalty is added so that an individual must carry out the interchange 5 minutes prior to the next service's departure time; this is to account for ticketing and boarding.

Figure 3b – Travel Time by Public Transport from Newtownards from 7:00am

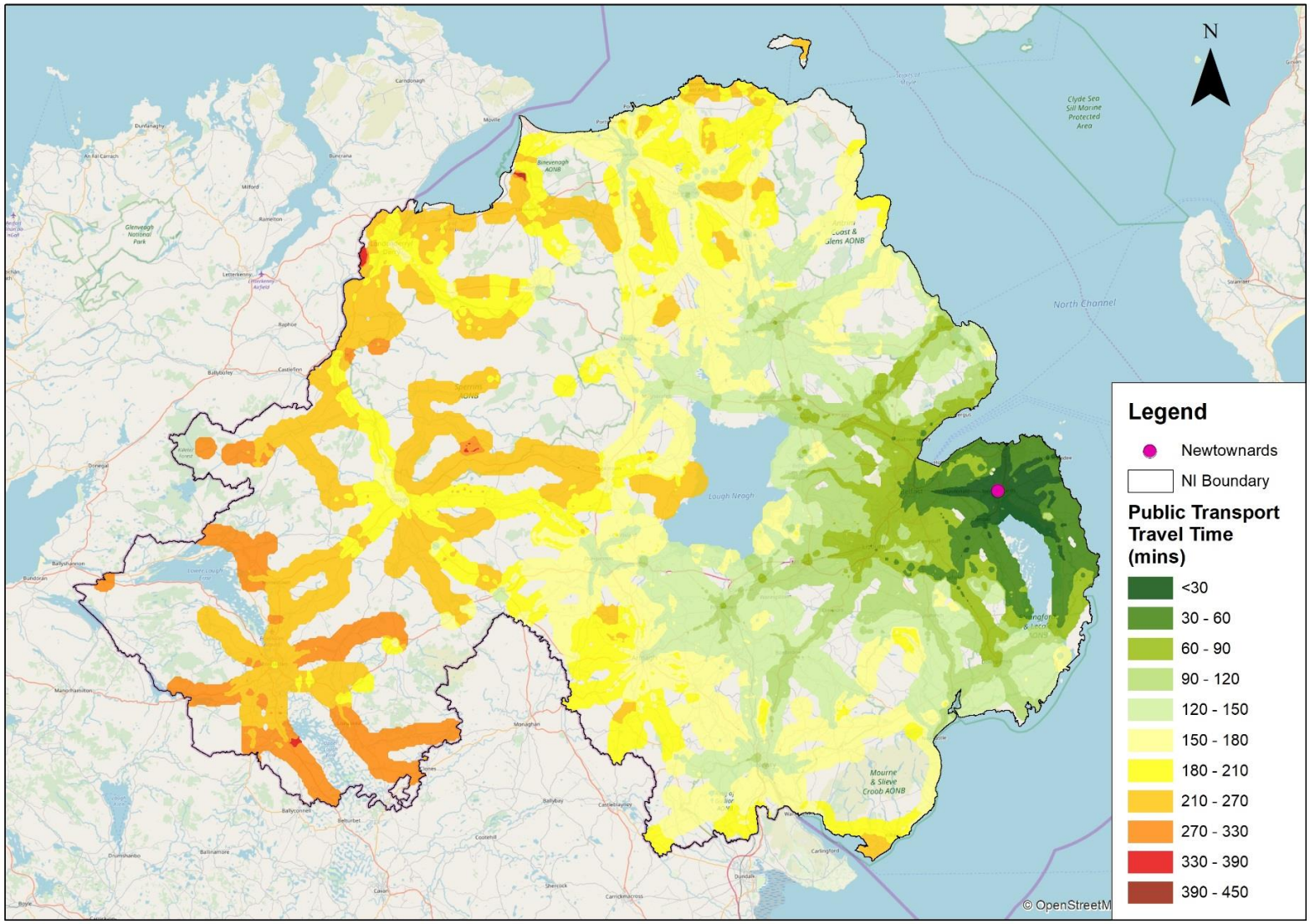


Figure 3c – Travel Time by Public Transport from Holywood from 7:00am

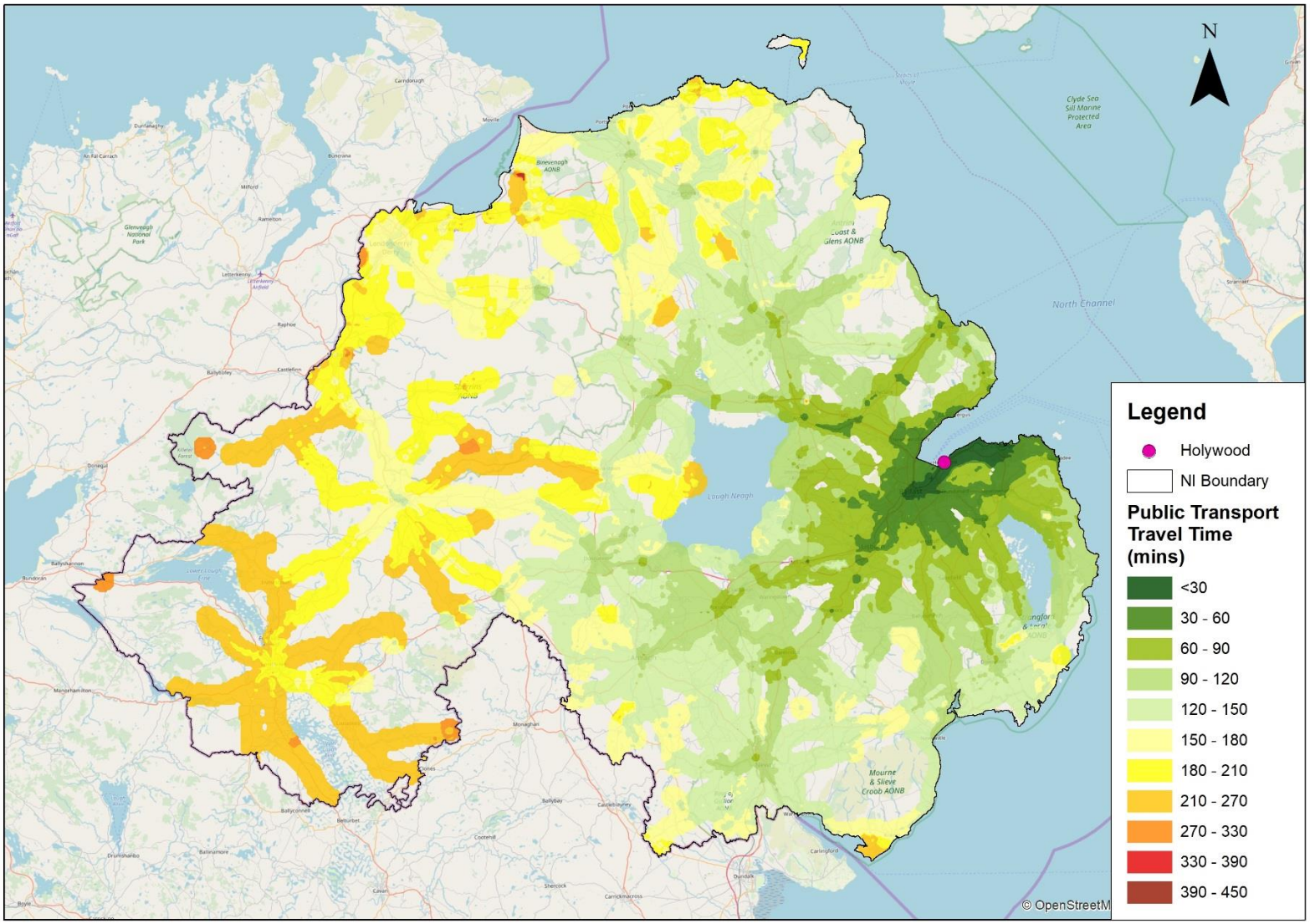


Figure 3d – Travel Time by Public Transport from Comber from 7:00am

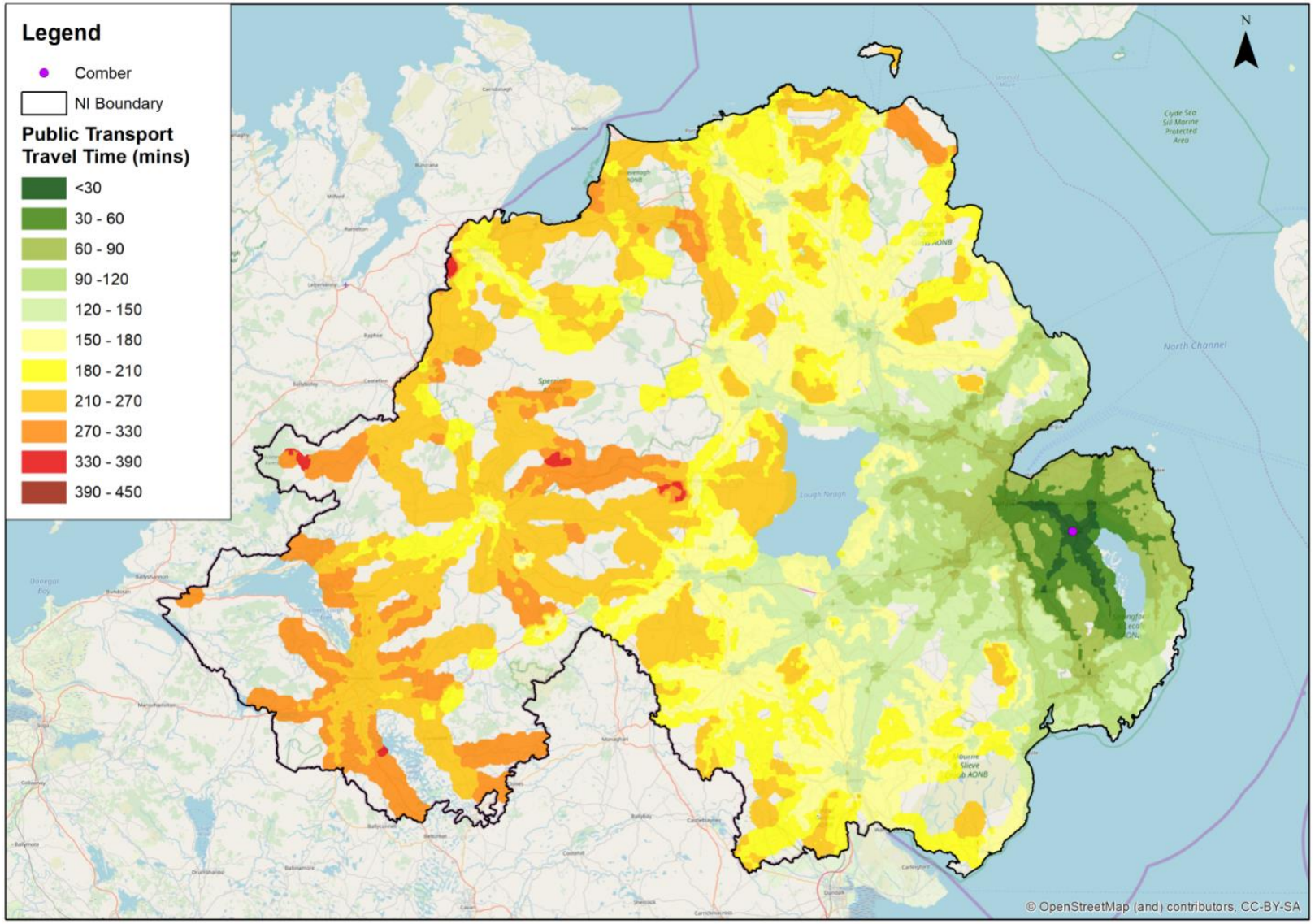
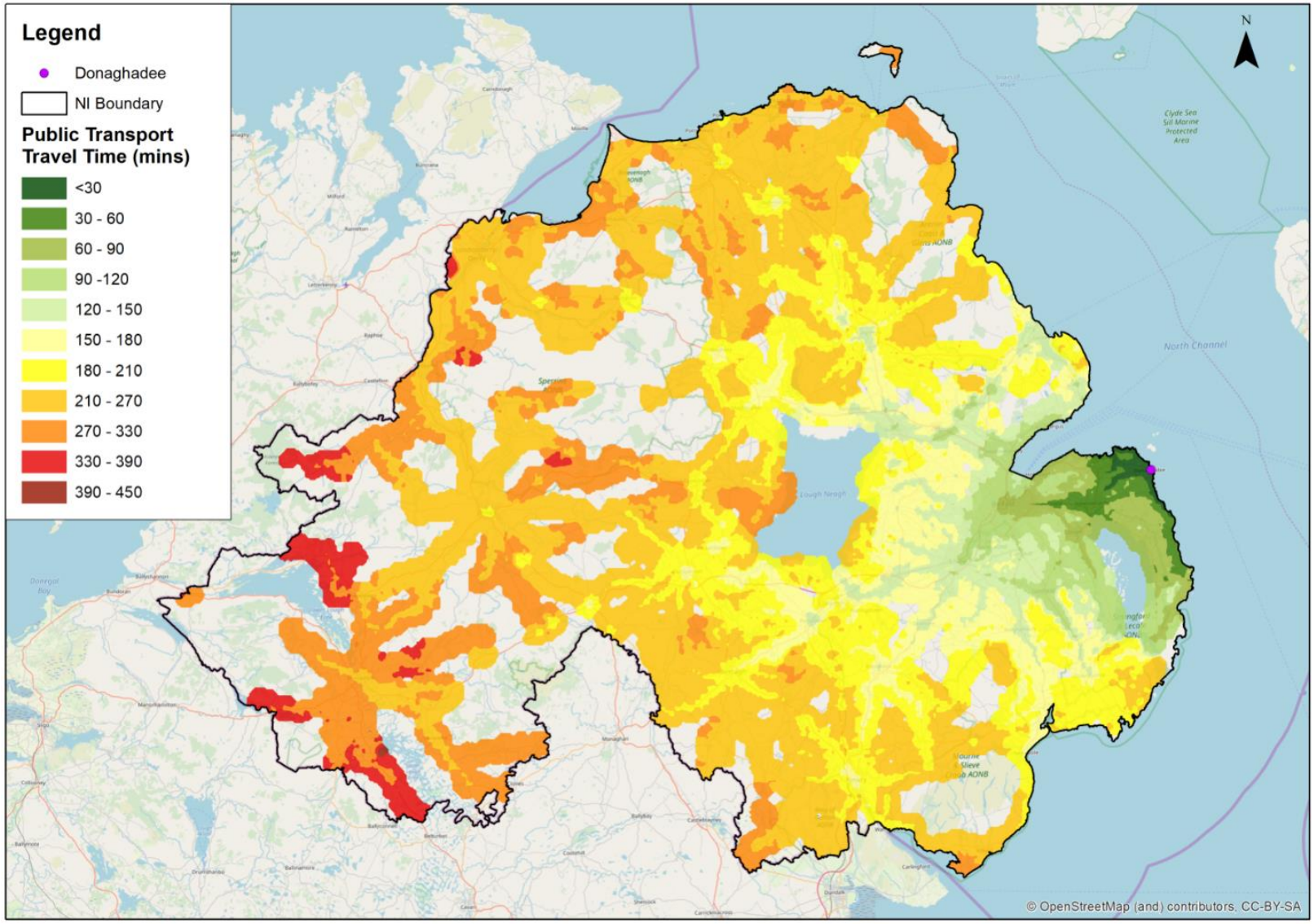
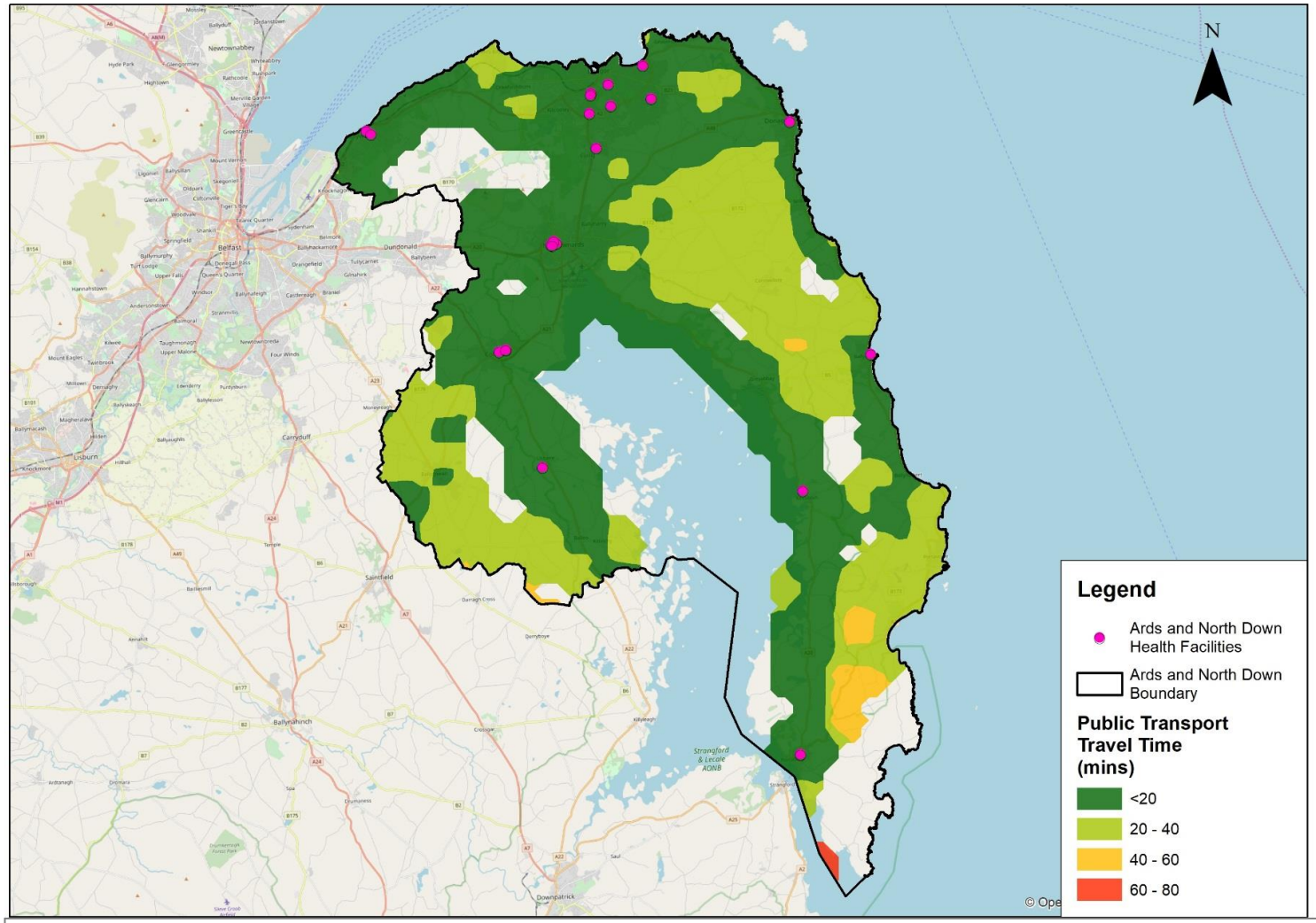


Figure 3e – Travel Time by Public Transport from Donaghadee from 7:00am



Accessibility to essential local services by public transport from across the Council area

Figure 4 – Public Transport Travel Times (AM Peak) to Health Facility



Analysis is based on an NI wide health facility dataset for GP surgeries and hospitals. Nearest facilities may therefore be beyond the council boundary.

Accessibility to essential local services by public transport from across the Council area

Figure 4 shows the travel times by public transport from locations every 200m to the nearest health facility throughout Ards and North Down Borough Council area. Actual journey start times are dependent upon the availability of public transport services in the vicinity of the starting location however the earliest permitted start time is 07:00.

The travel times are presented in 20 minute time bands in varying shades of green through to red. Travel times less than 20 minutes are indicated by the darkest shade of green and the darkest shade of red represents 60-80 minutes (i.e. 1 hour and 1 hour and 30 minutes).

It should be noted that the bus service data includes Translink, Bus Eireann and Private Operators.

Some of the destinations are not located on the public transport network and therefore the analysis allows for a walking interchange from the nearest point on the road network. The maximum interchange is 800m at a walking pace of 4.8km/hr which equals a 10 minute walk.

Interchange between public transport services is also included in the analysis; multiple interchanges are allowed. For example travel times may include the time taken to walk to a bus stop and board a service to a bus or rail station, transfer time to another service and conclude with a 800m walk to a destination. The maximum allowed interchange distance is 400m at a walking pace of 4.8km/hr which equals a 5 minute walk. Also a 5 minute interchange penalty is added so that an individual must carry out the interchange 5 minutes prior to the next service's departure time; this is to account for ticketing and boarding.

Urban walking and cycling infrastructure and bus services in Bangor, Newtownards and Holywood

Figure 5a – Pedestrian Infrastructure in Bangor – Key Radial Footways by Width and Type

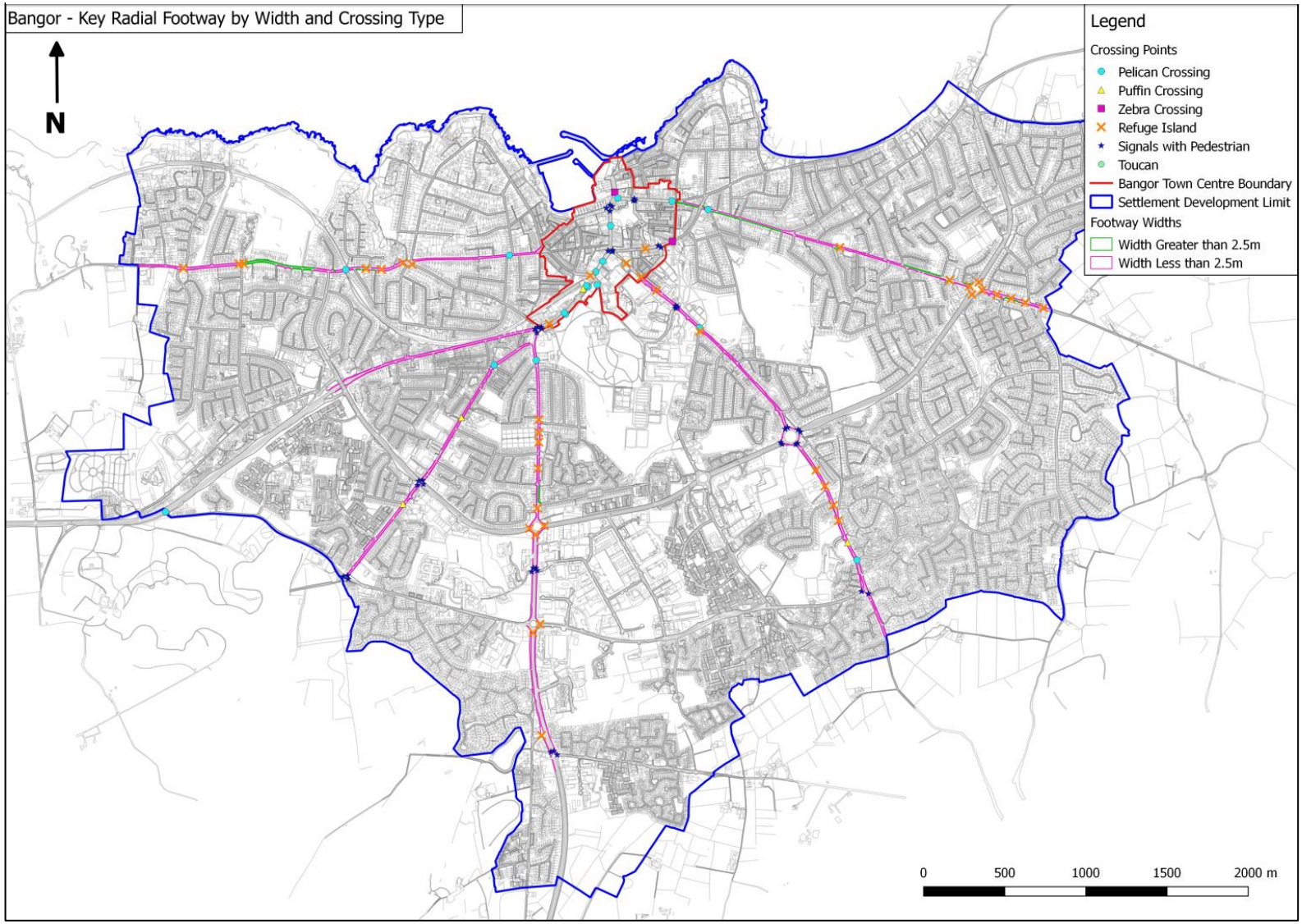


Figure 5b – Pedestrian Infrastructure in Newtownards – Key Radial Footways by Width and Type

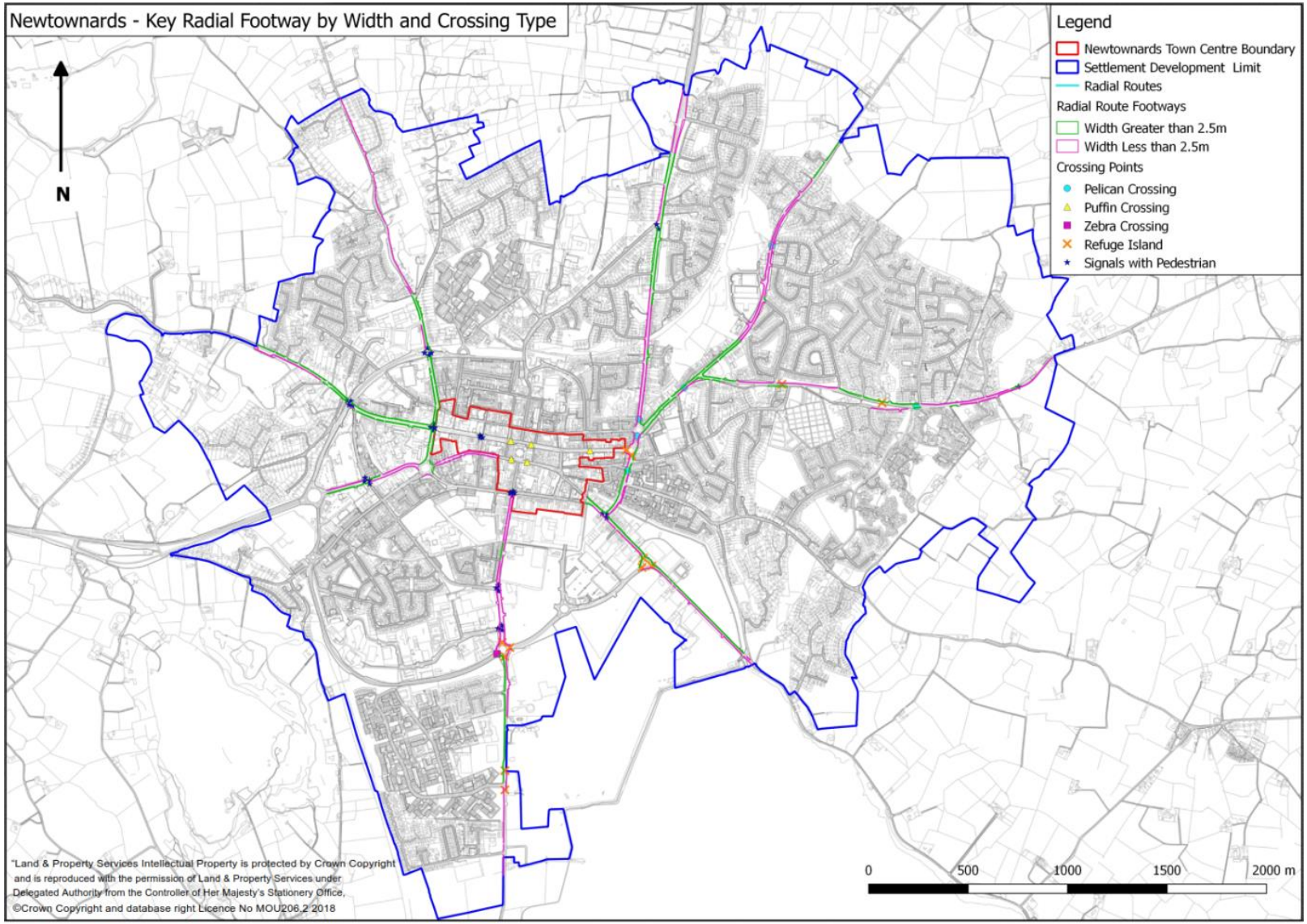


Figure 5c – Pedestrian Infrastructure in Holywood – Key Radial Footways by Width and Type

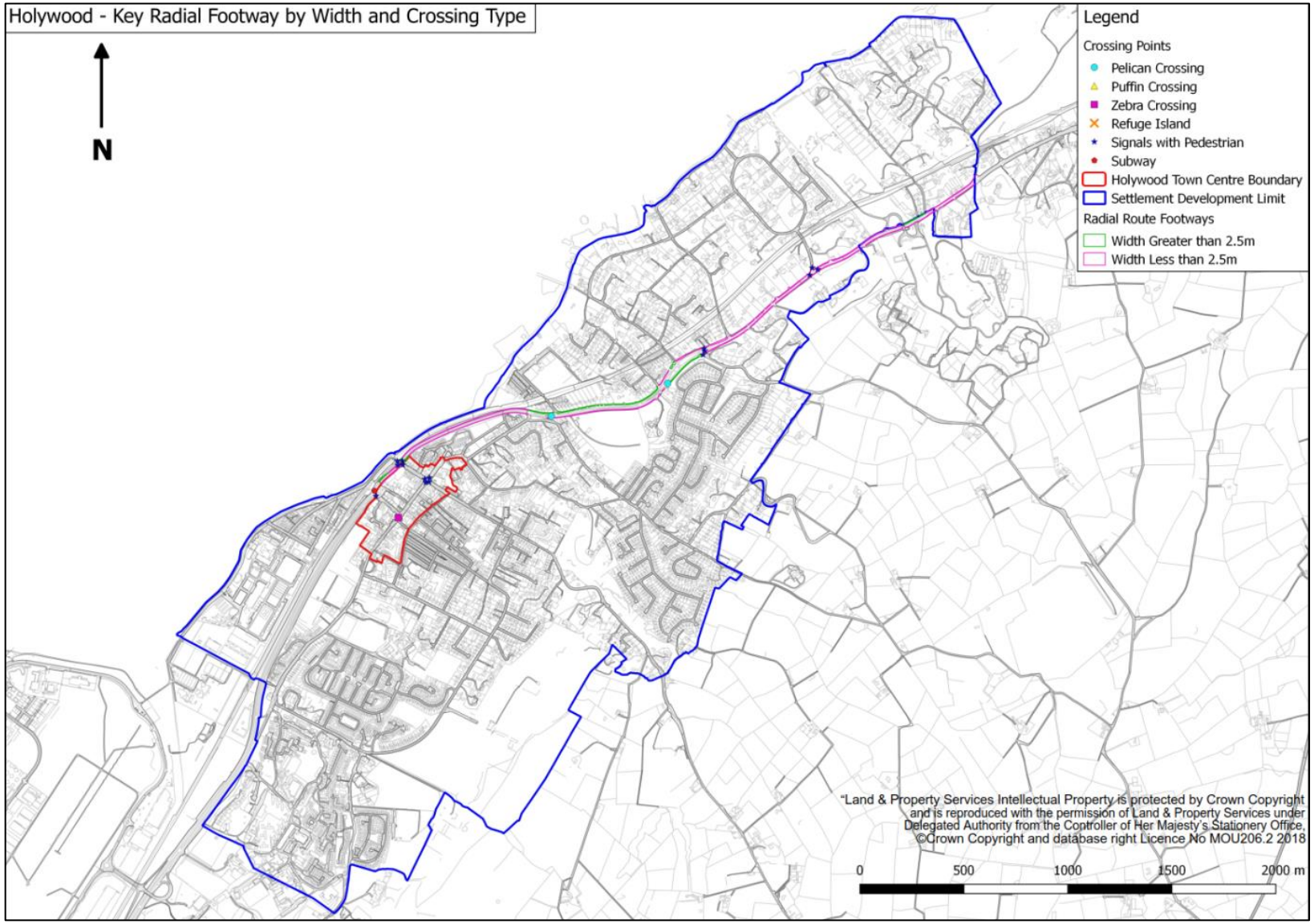


Figure 5d – Pedestrian Infrastructure in Comber – Key Radial Footways by Width and Type

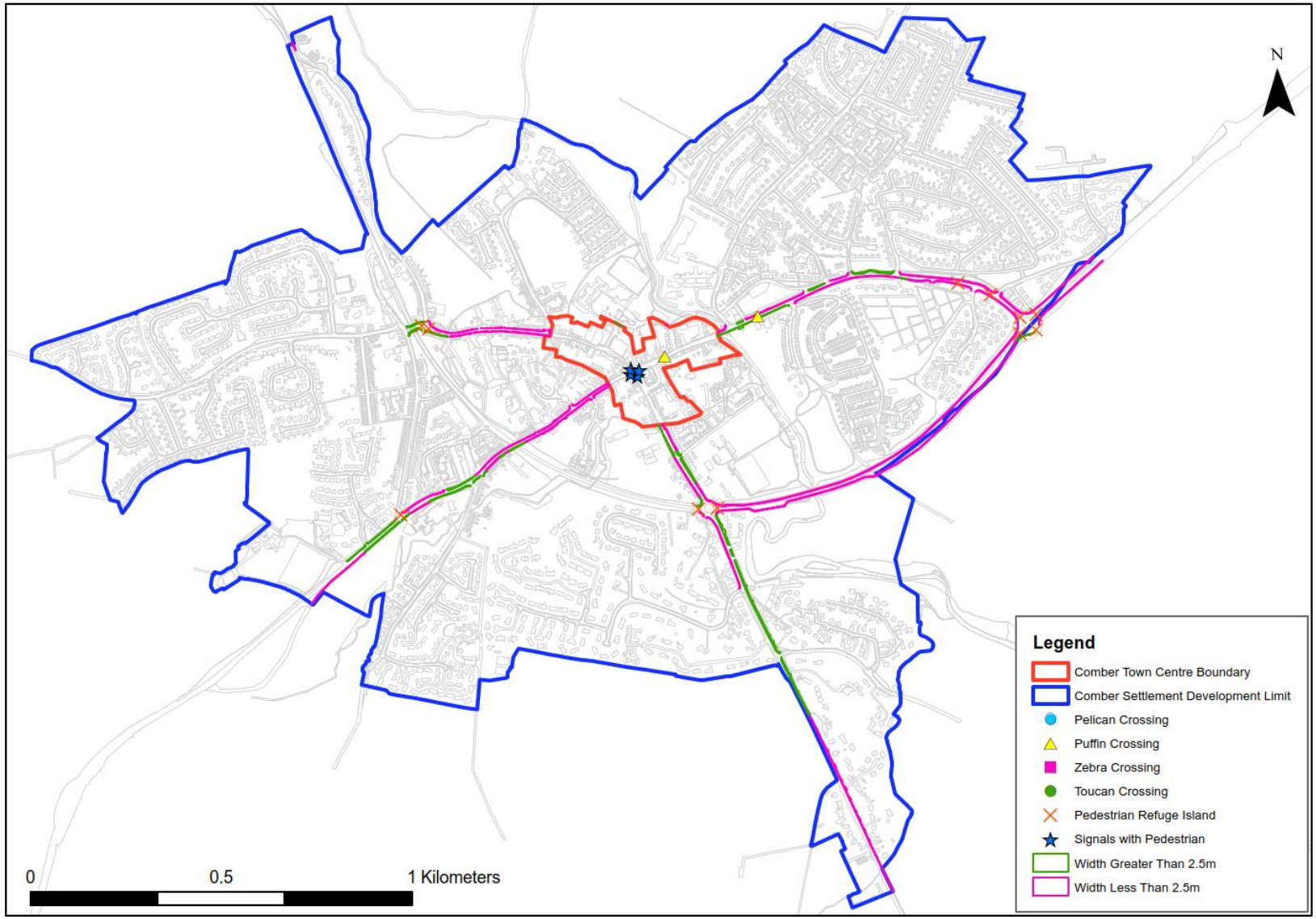


Figure 5e – Pedestrian Infrastructure in Donaghadee– Key Radial Footways by Width and Type

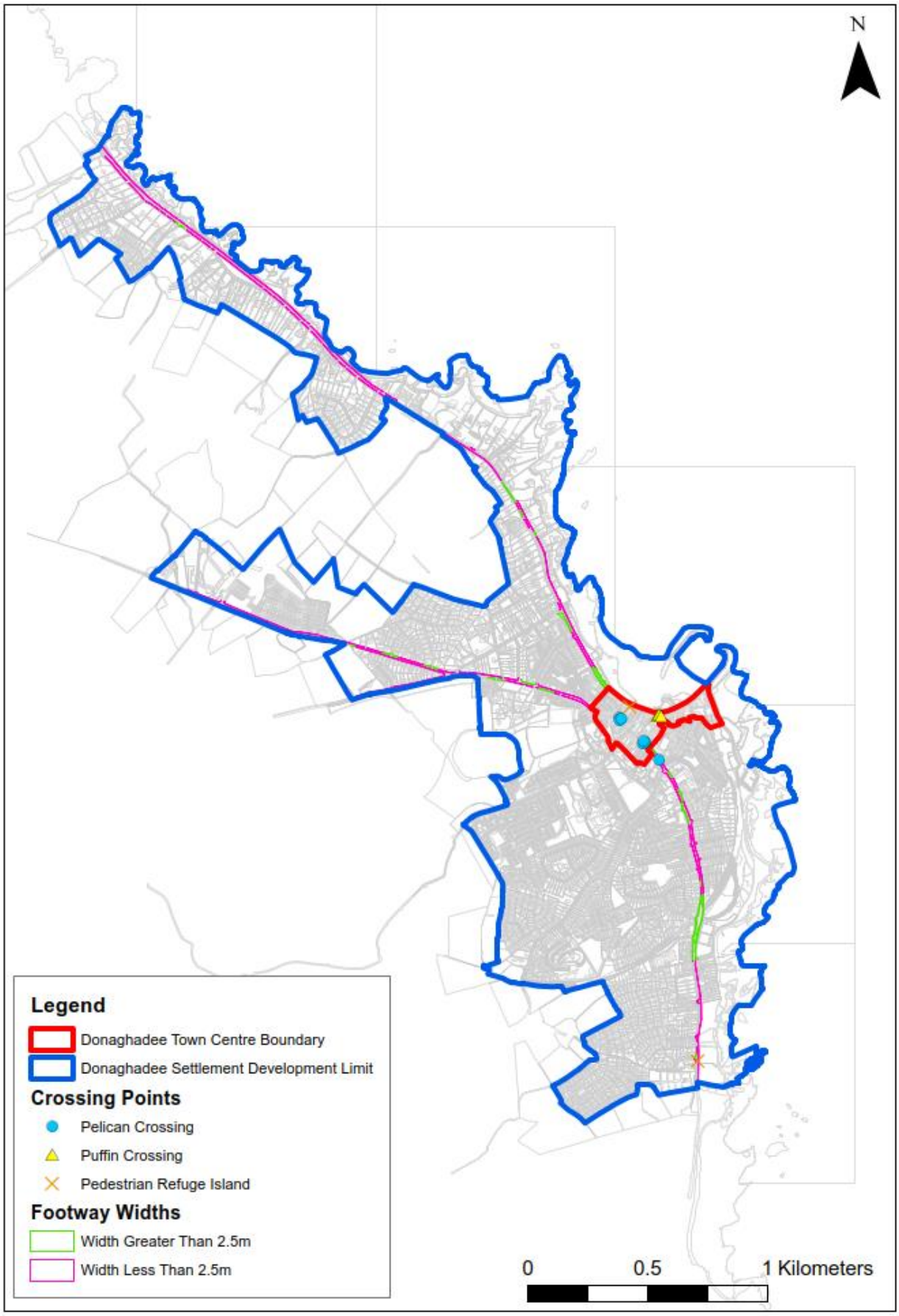


Figure 6a – Cycling Infrastructure in Bangor

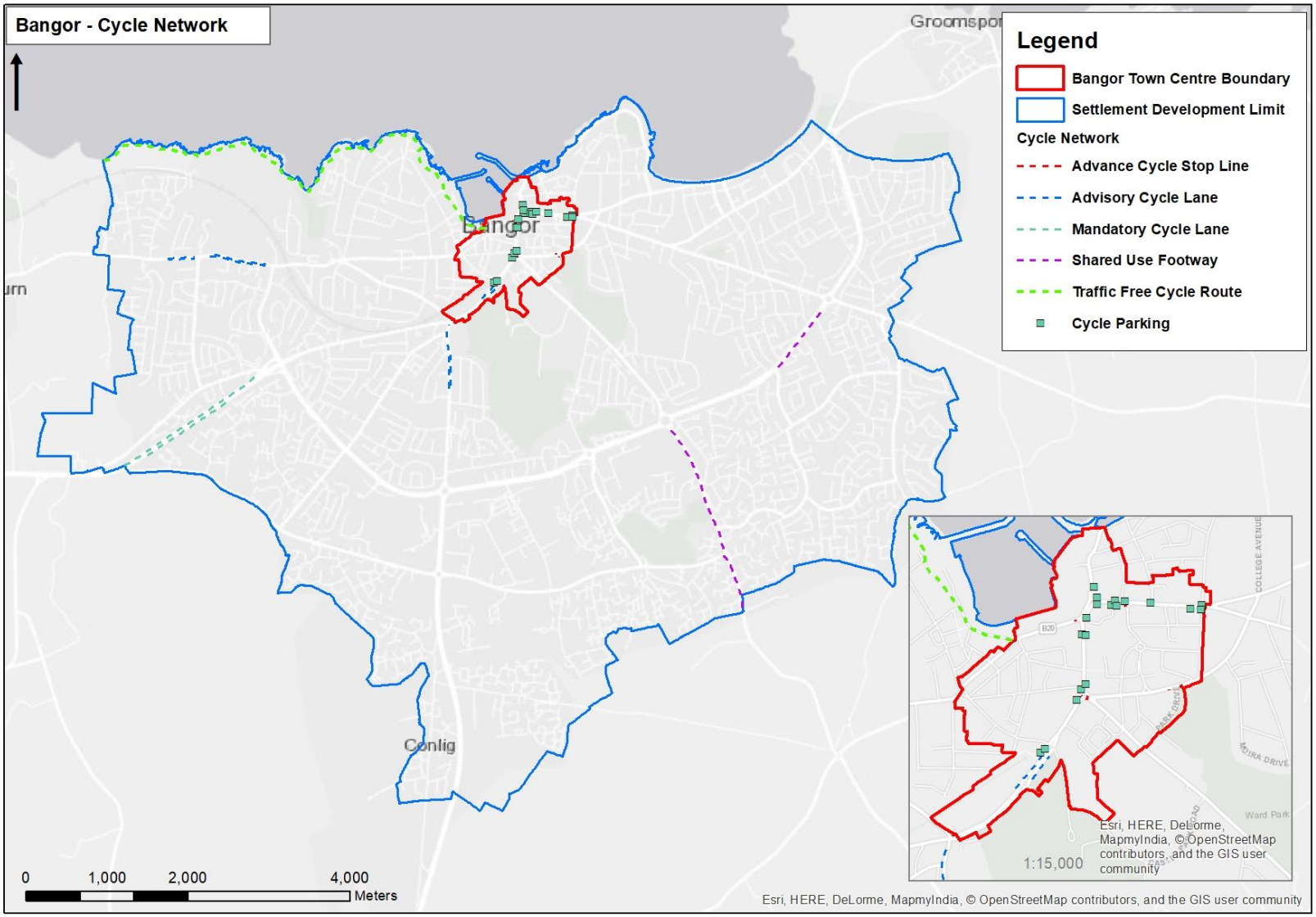


Figure 6b – Cycling Infrastructure in Newtownards

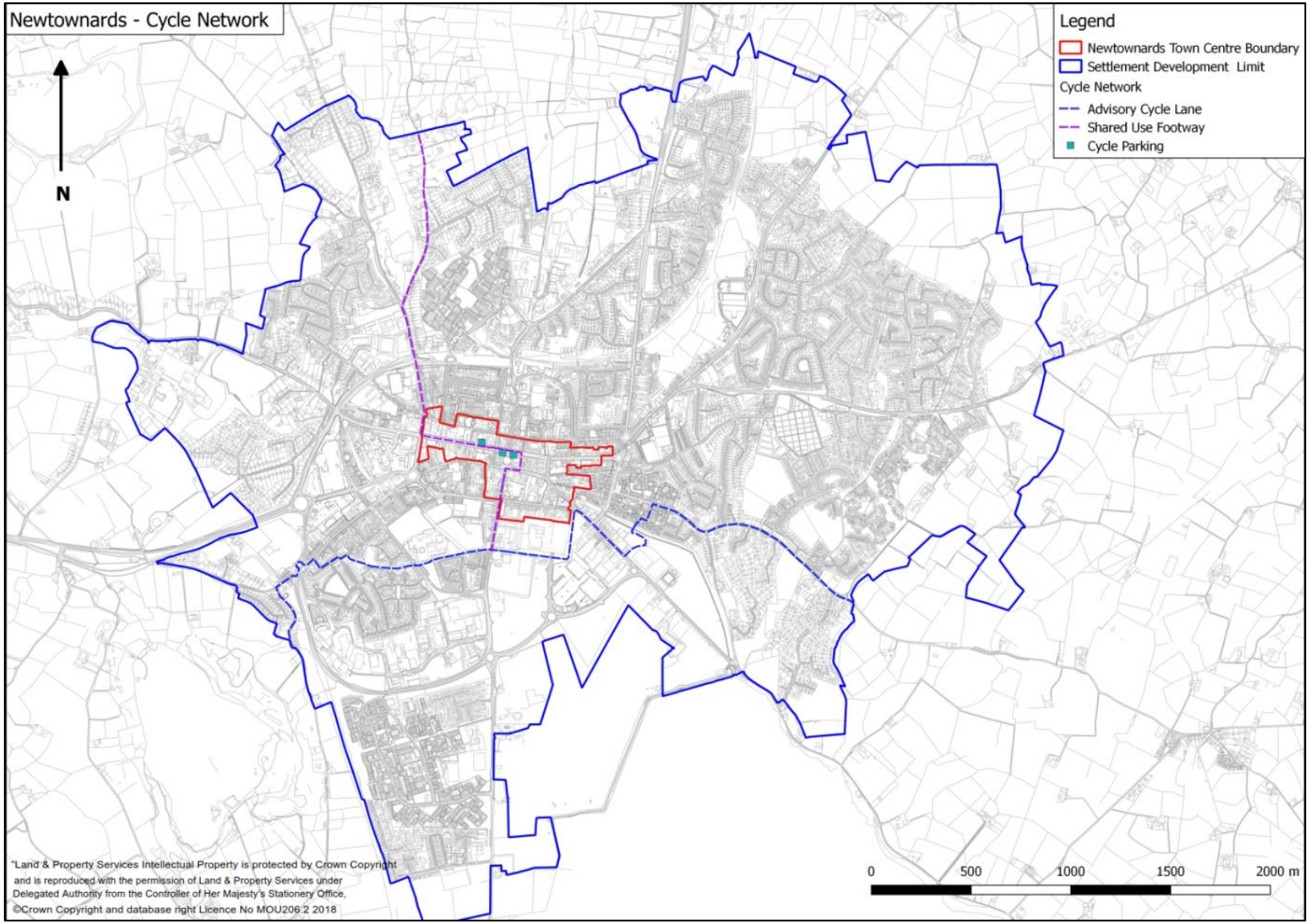


Figure 6c – Cycling Infrastructure in Holywood

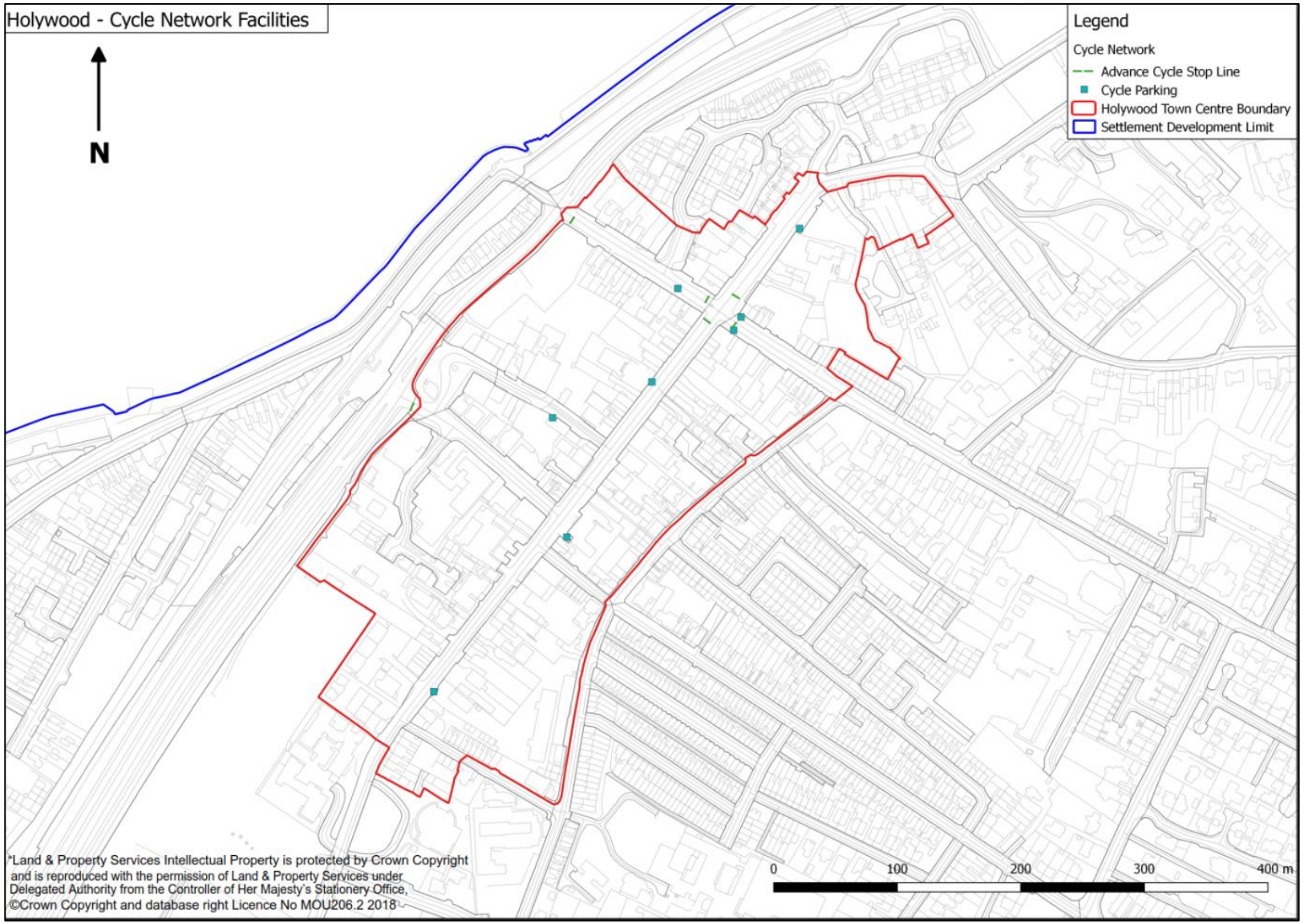


Figure 6d – Cycling Infrastructure in Comber

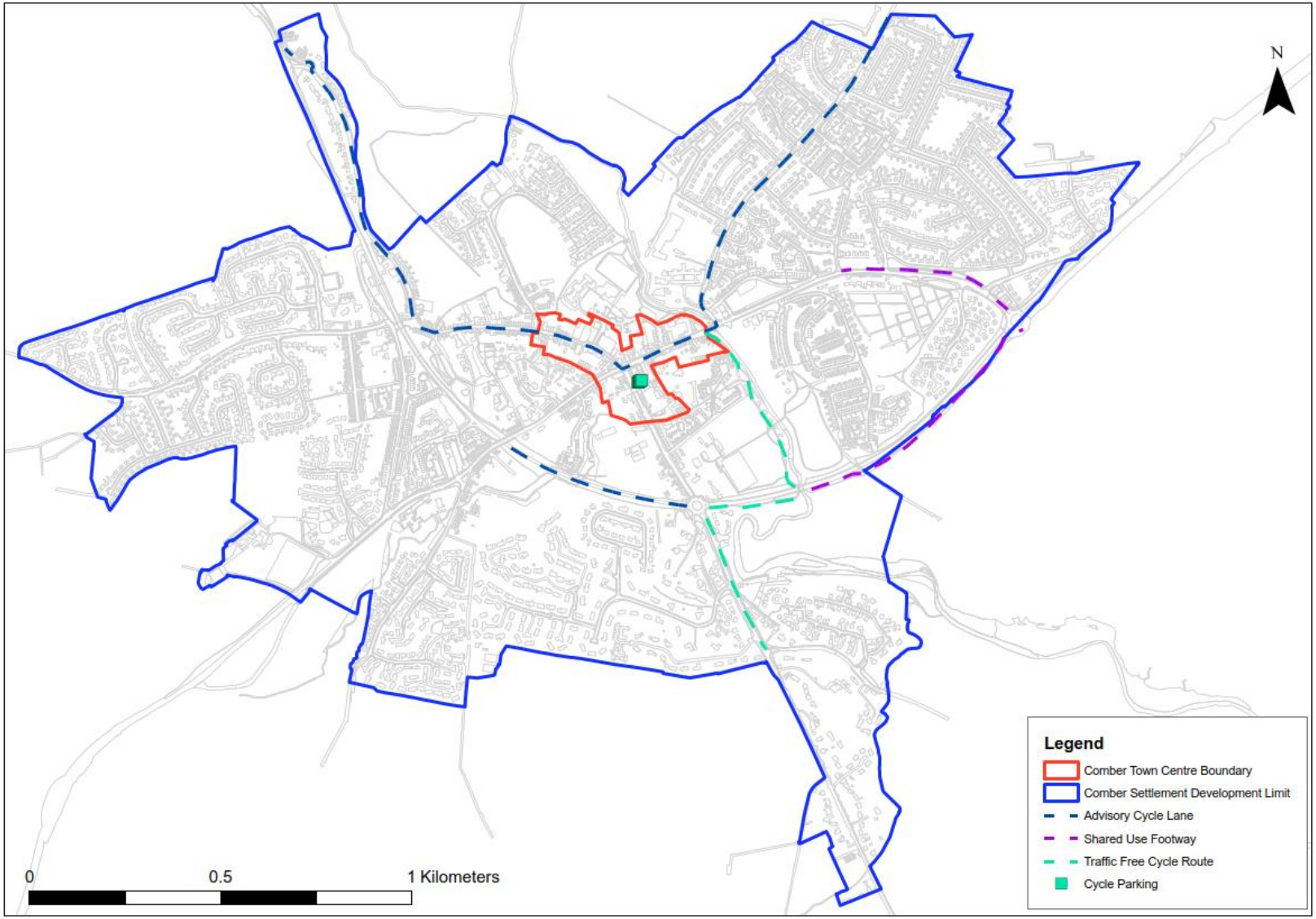


Figure 6e – Cycling Infrastructure in Donaghadee

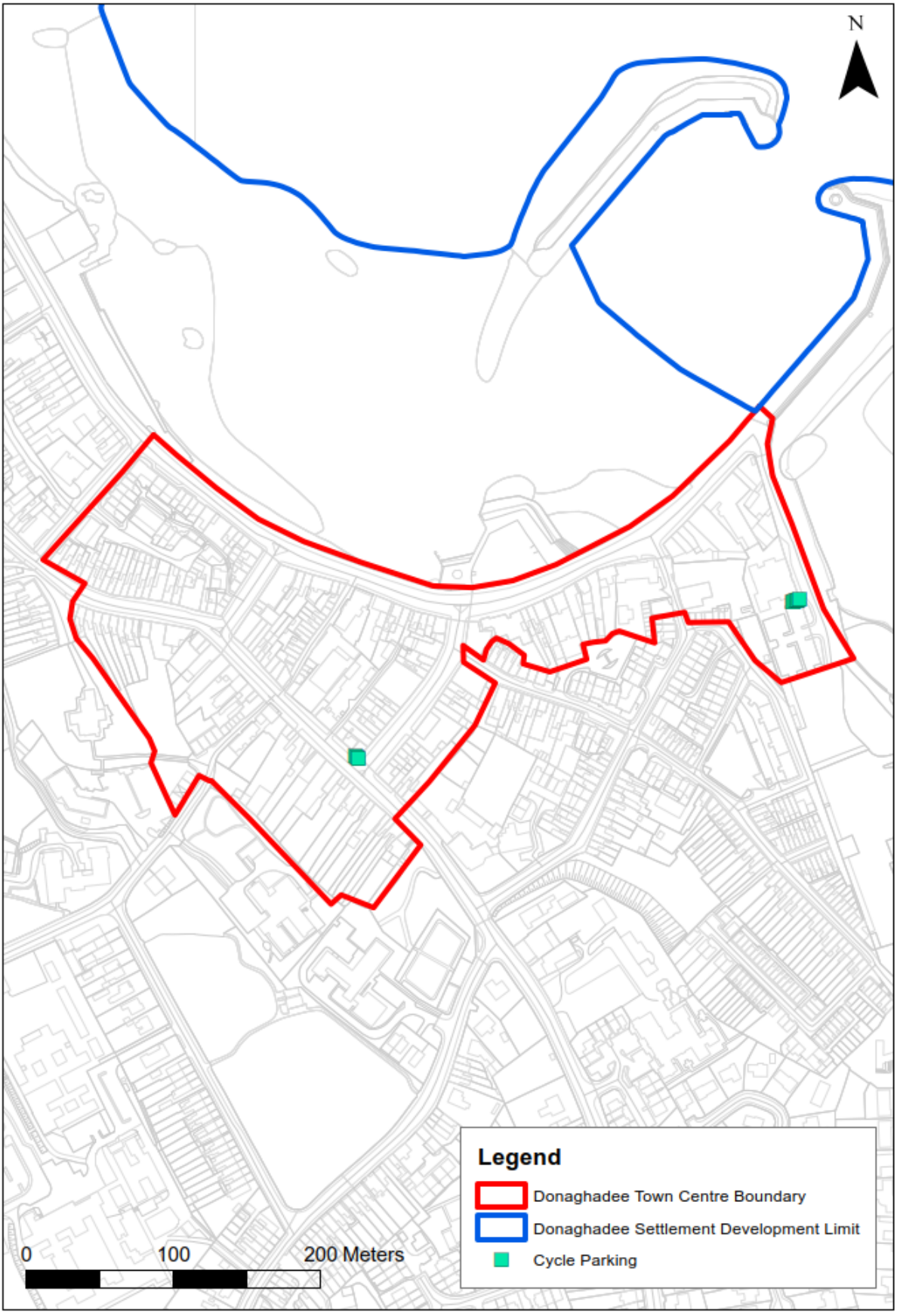


Figure 7a – Bus Service Routes in Bangor

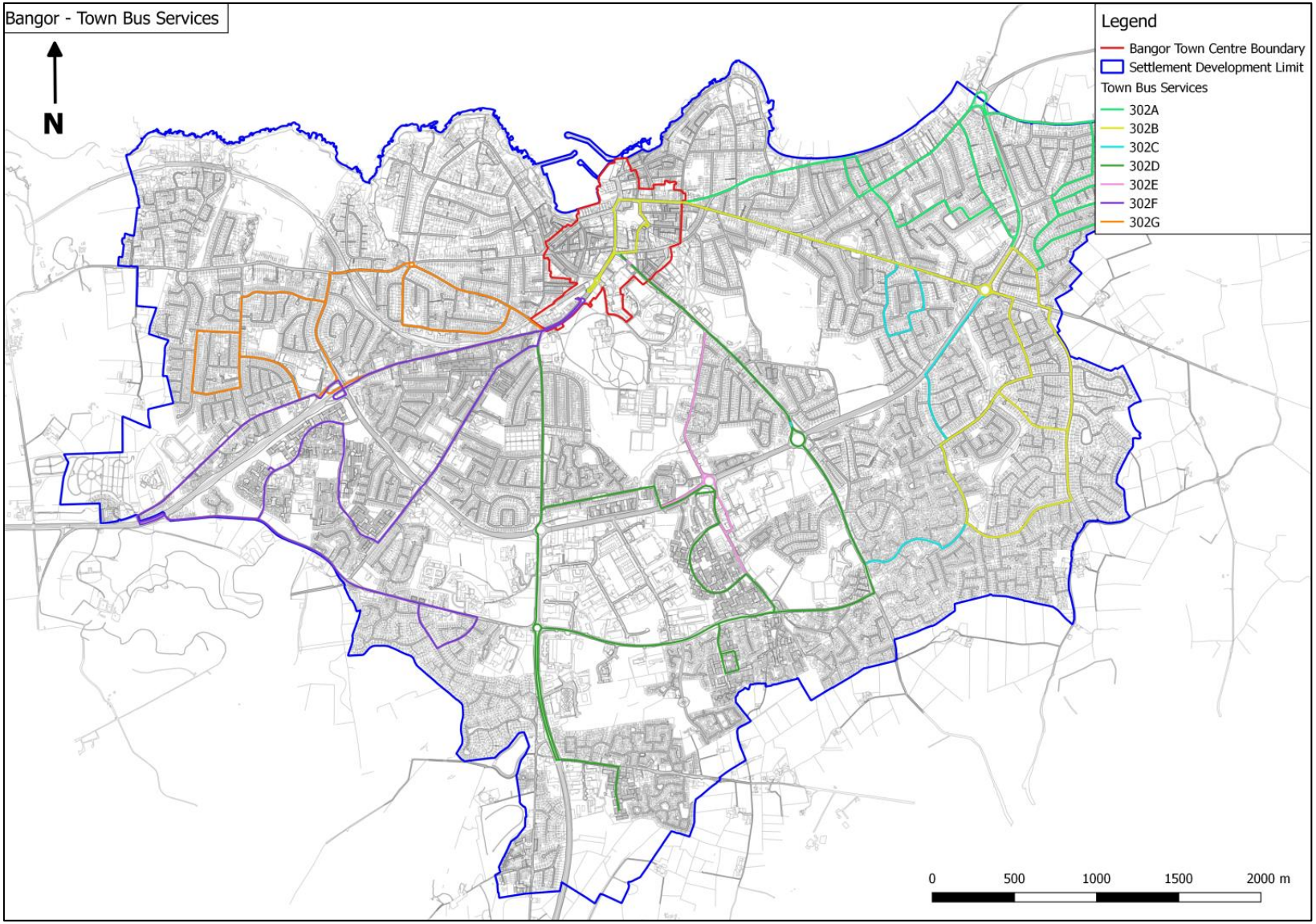


Figure 7b – Bus Service Routes in Newtownards

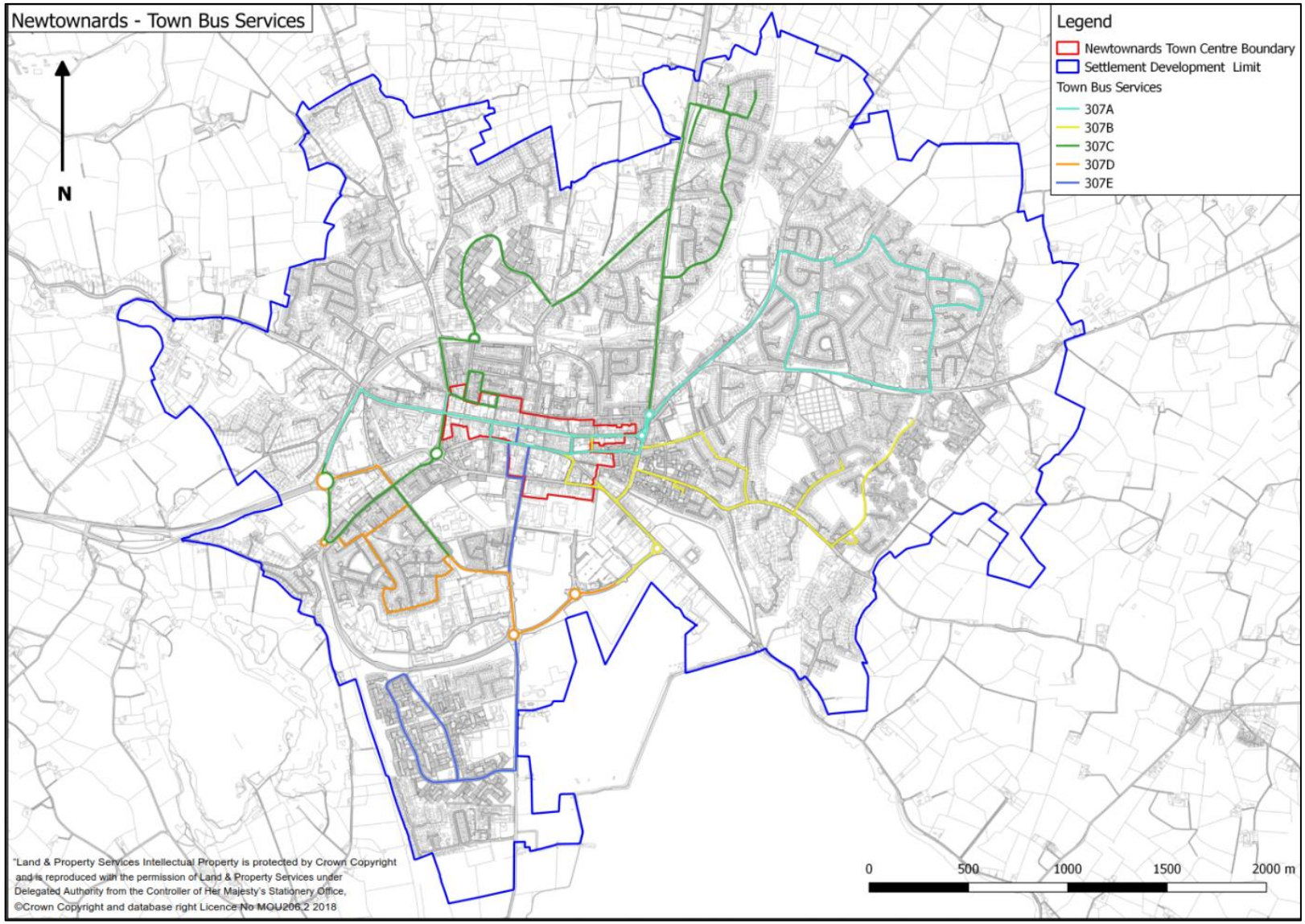


Figure 7c – Bus Service Routes in Comber

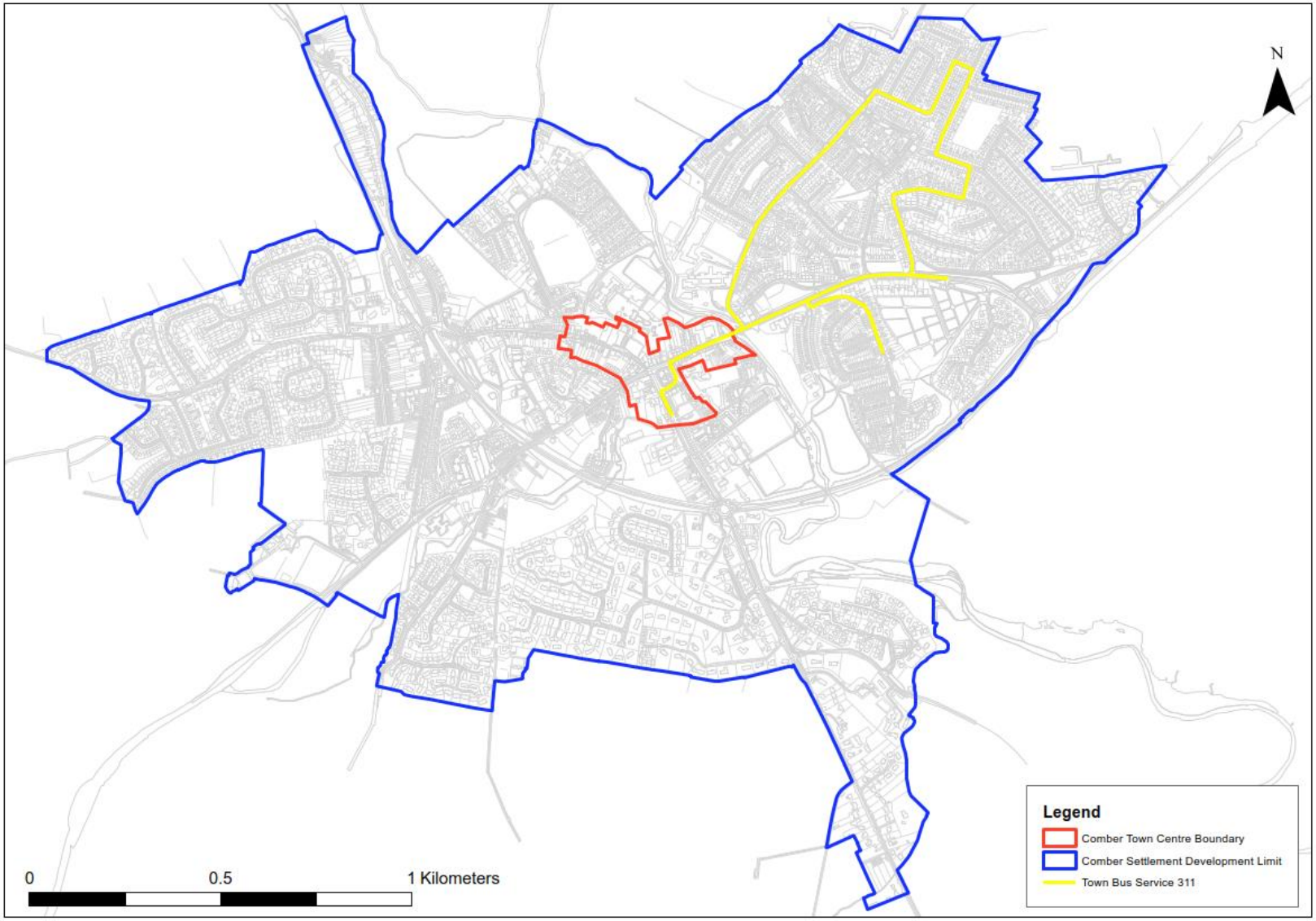
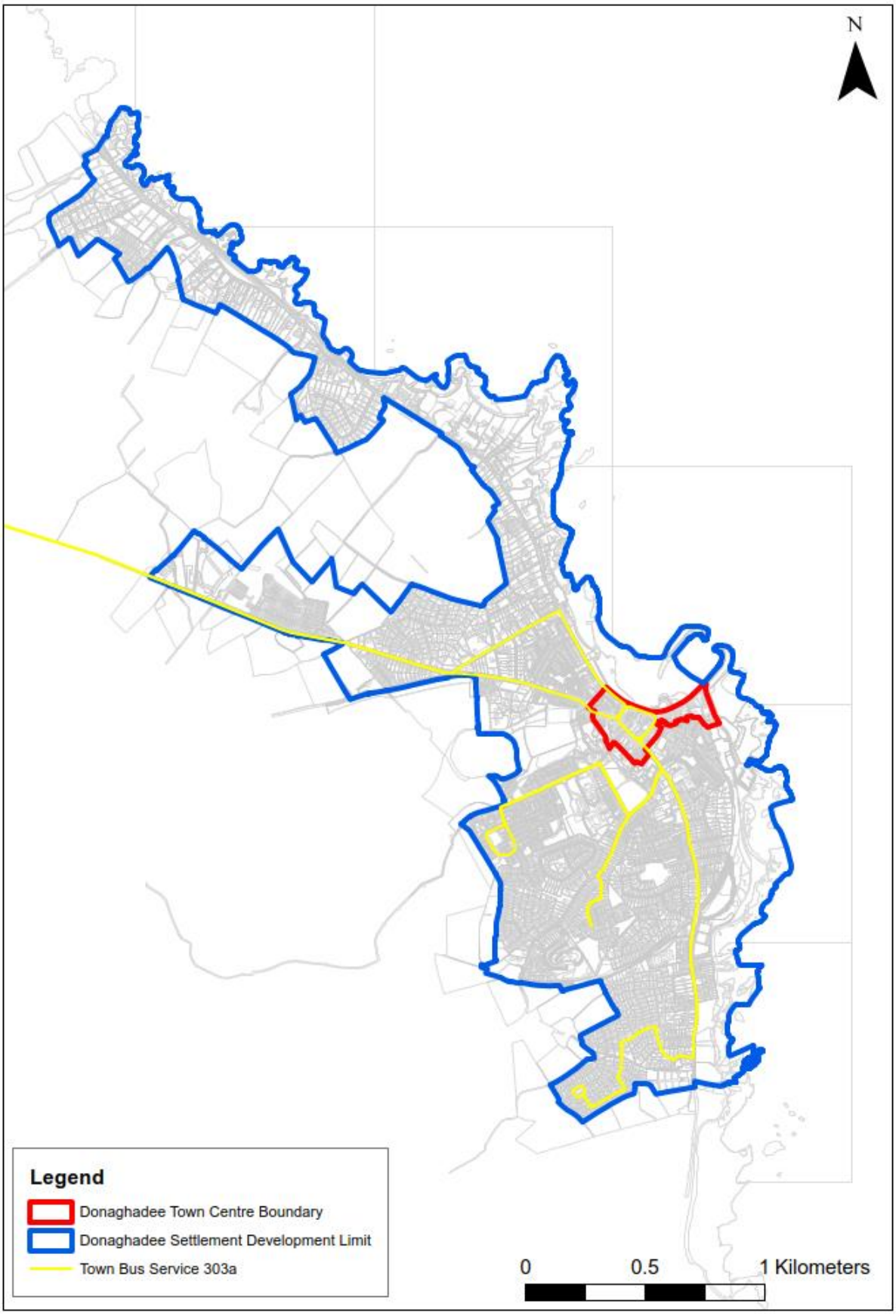


Figure 7d – Bus Service Routes in Donaghadee



Travel to work destinations

Figure 8a – Percentage of Travel to Work Journeys from North Down to other LGDs in 2011

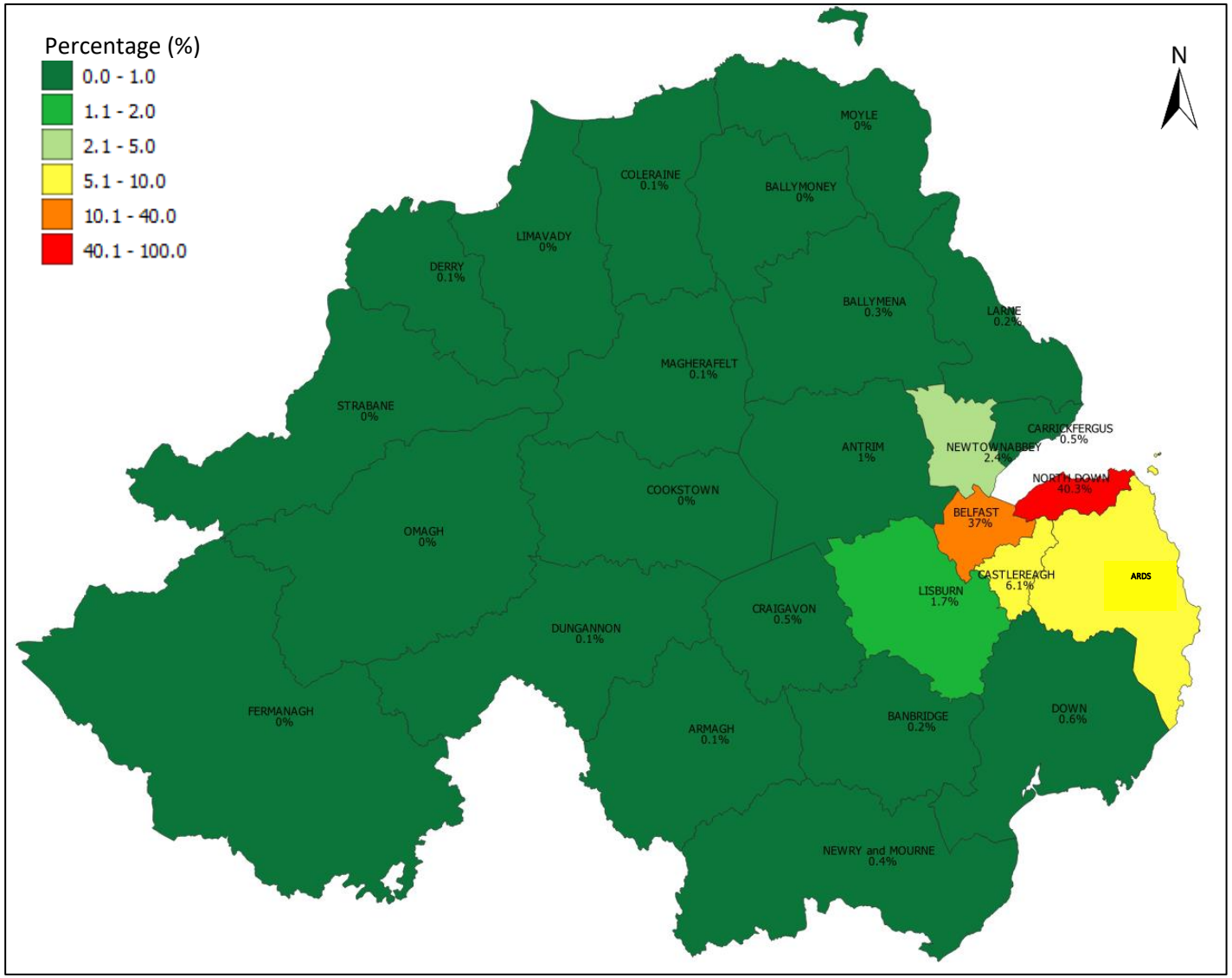
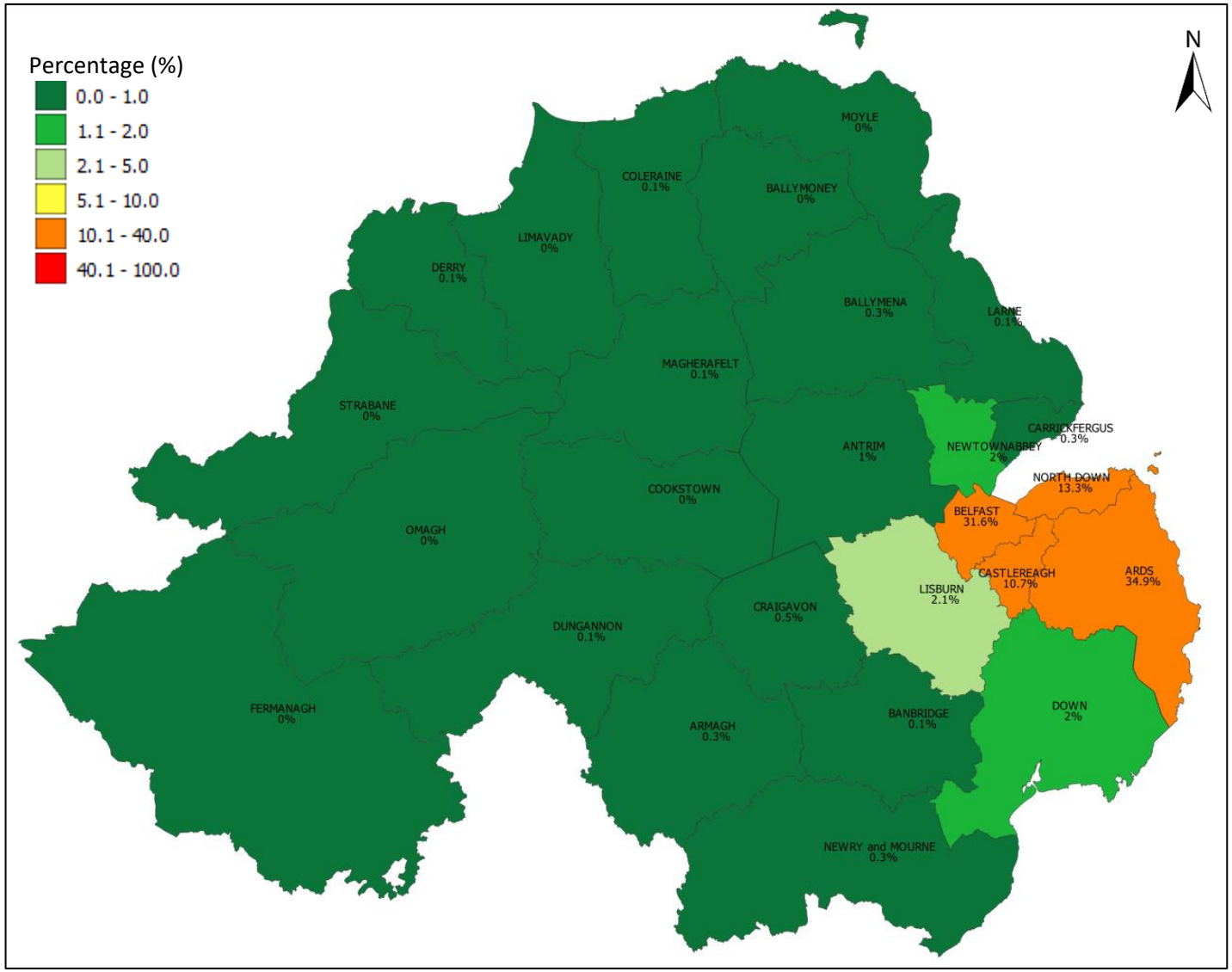


Figure 8b - Percentage of Travel to Work Journeys from Ards to other LGDs in 2011



Modal choice for journeys to work and education across the Council area

Figure 9 – Modal Choice for Journey to Work in Ards and North Down

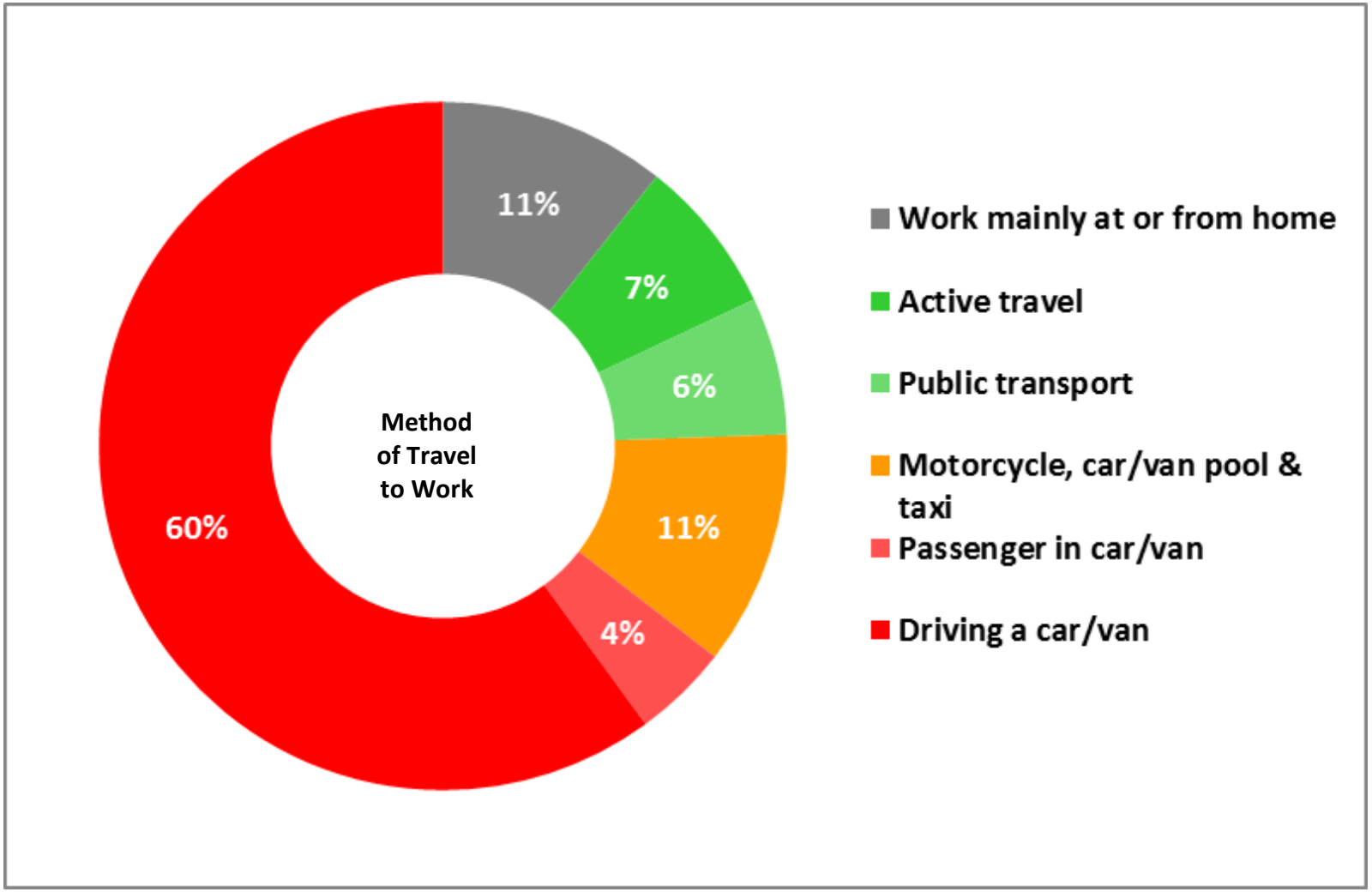


Figure 10 – Modal Choice for Journey to Work by distance in Ards and North Down

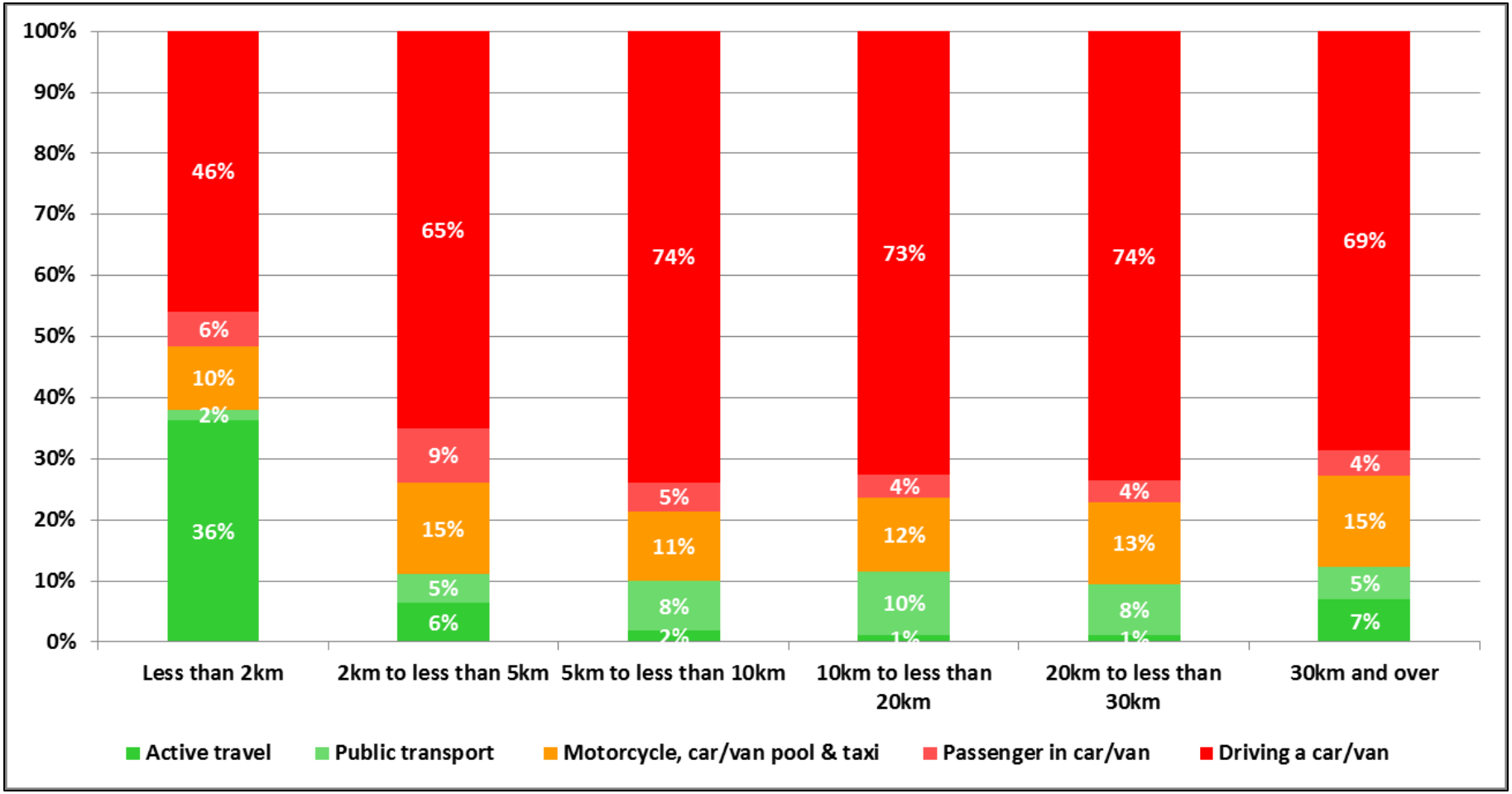


Figure 11 – Modal Choice for Journey to Education in Ards and North Down

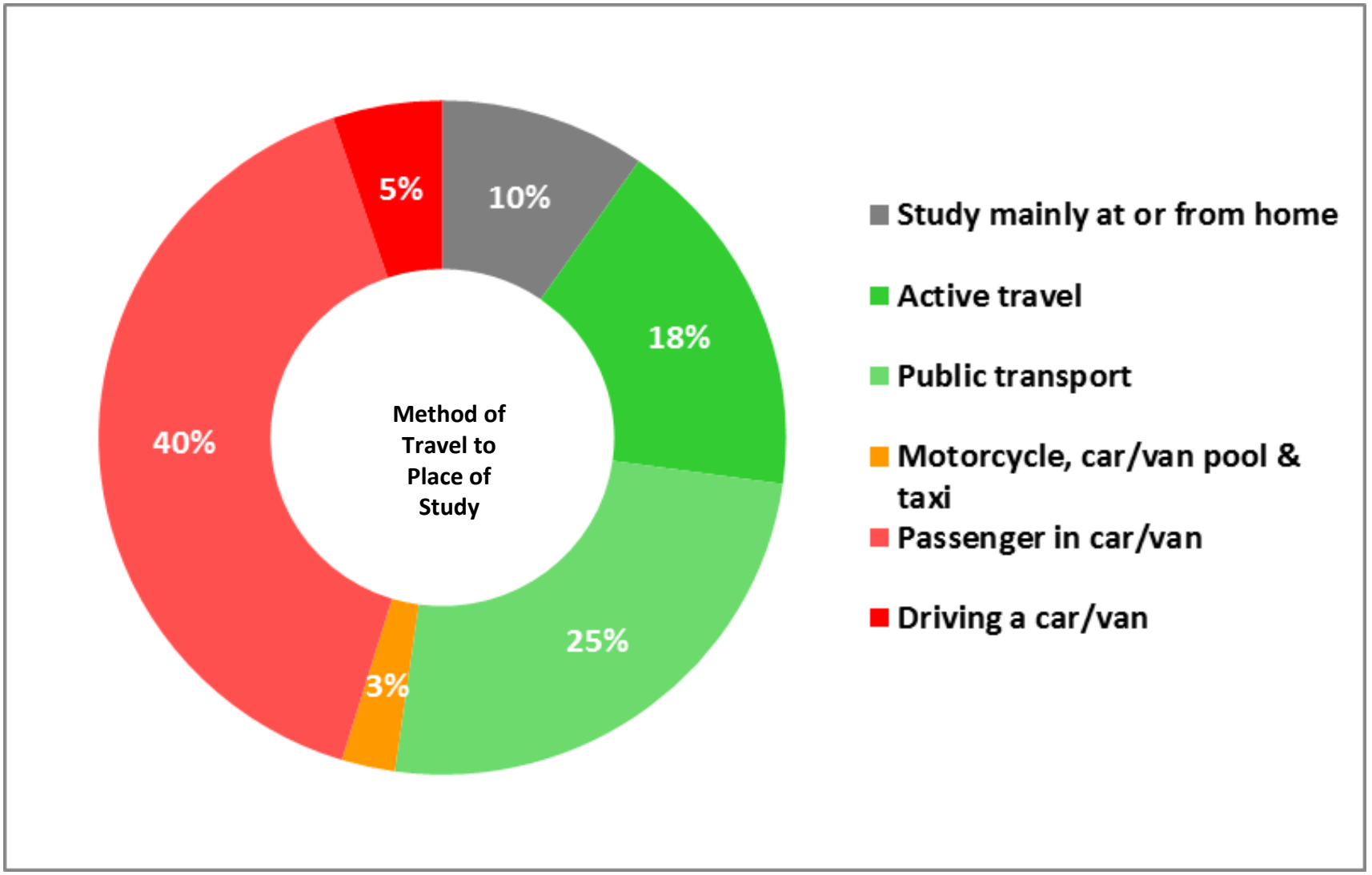
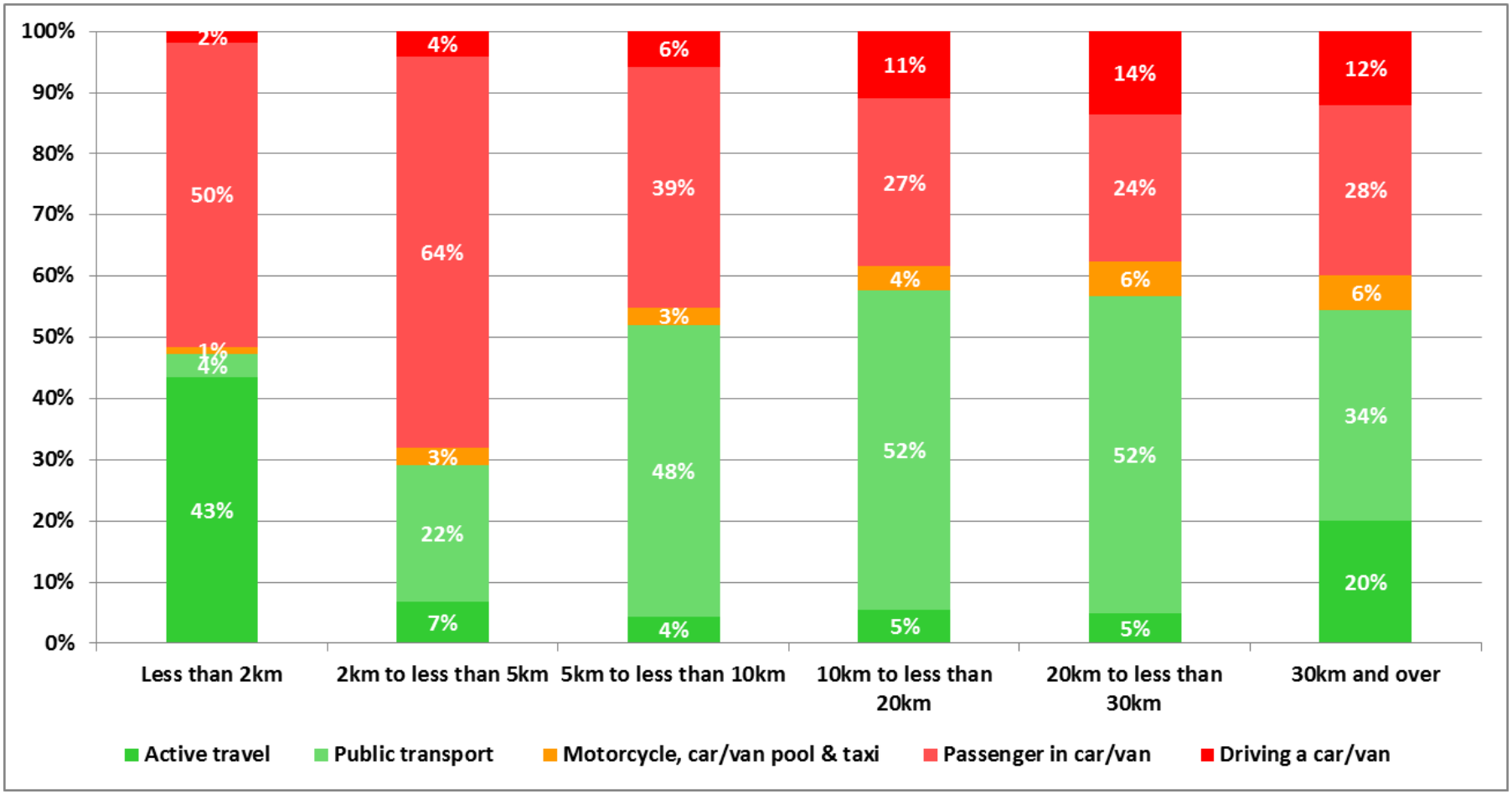


Figure 12 – Modal Choice for Journey to Education in Ards and North Down



Road network speeds at peak and off peak time periods

Figure 13 – Average Off Peak Speeds (mph) in Ards and North Down

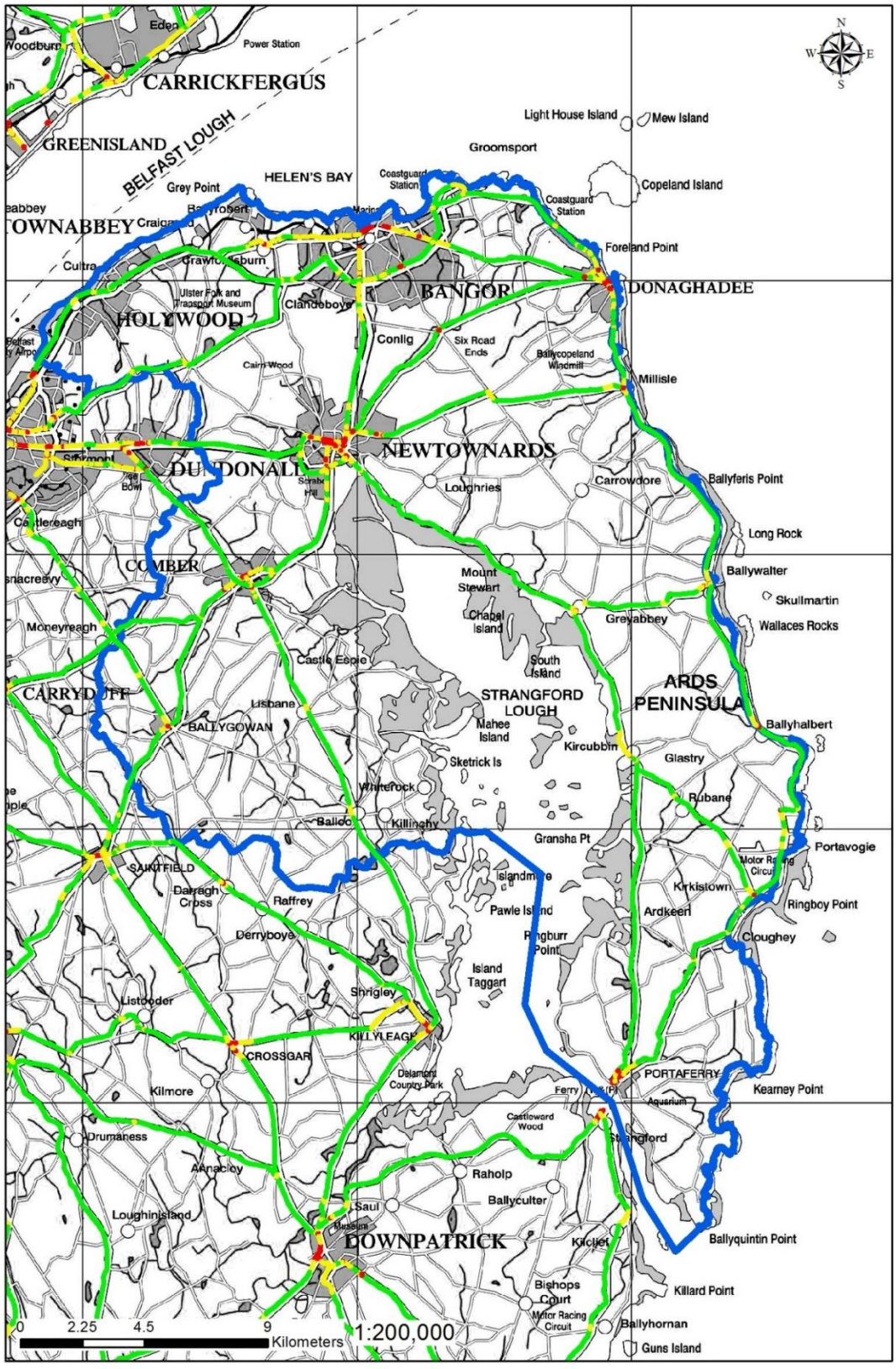
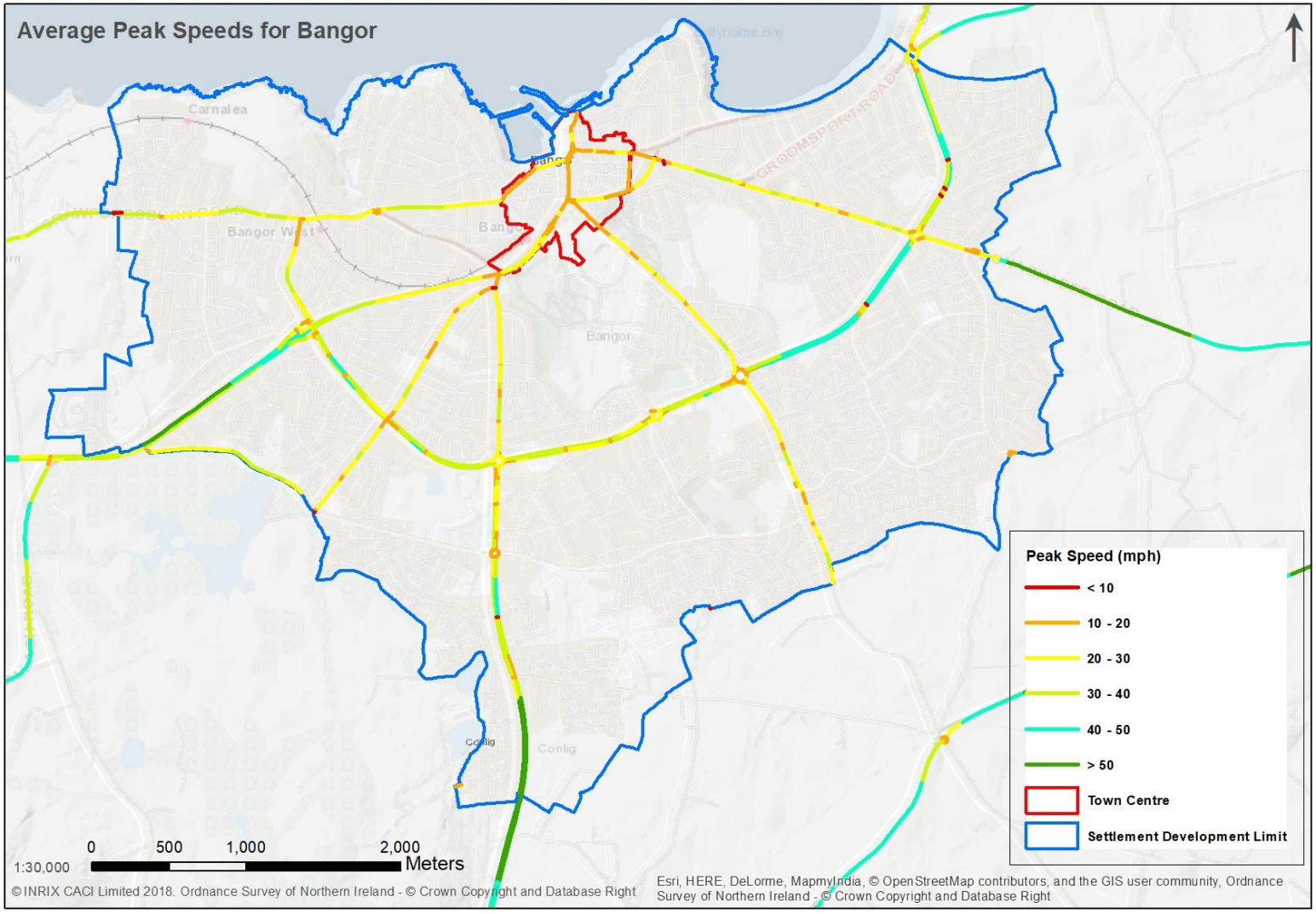
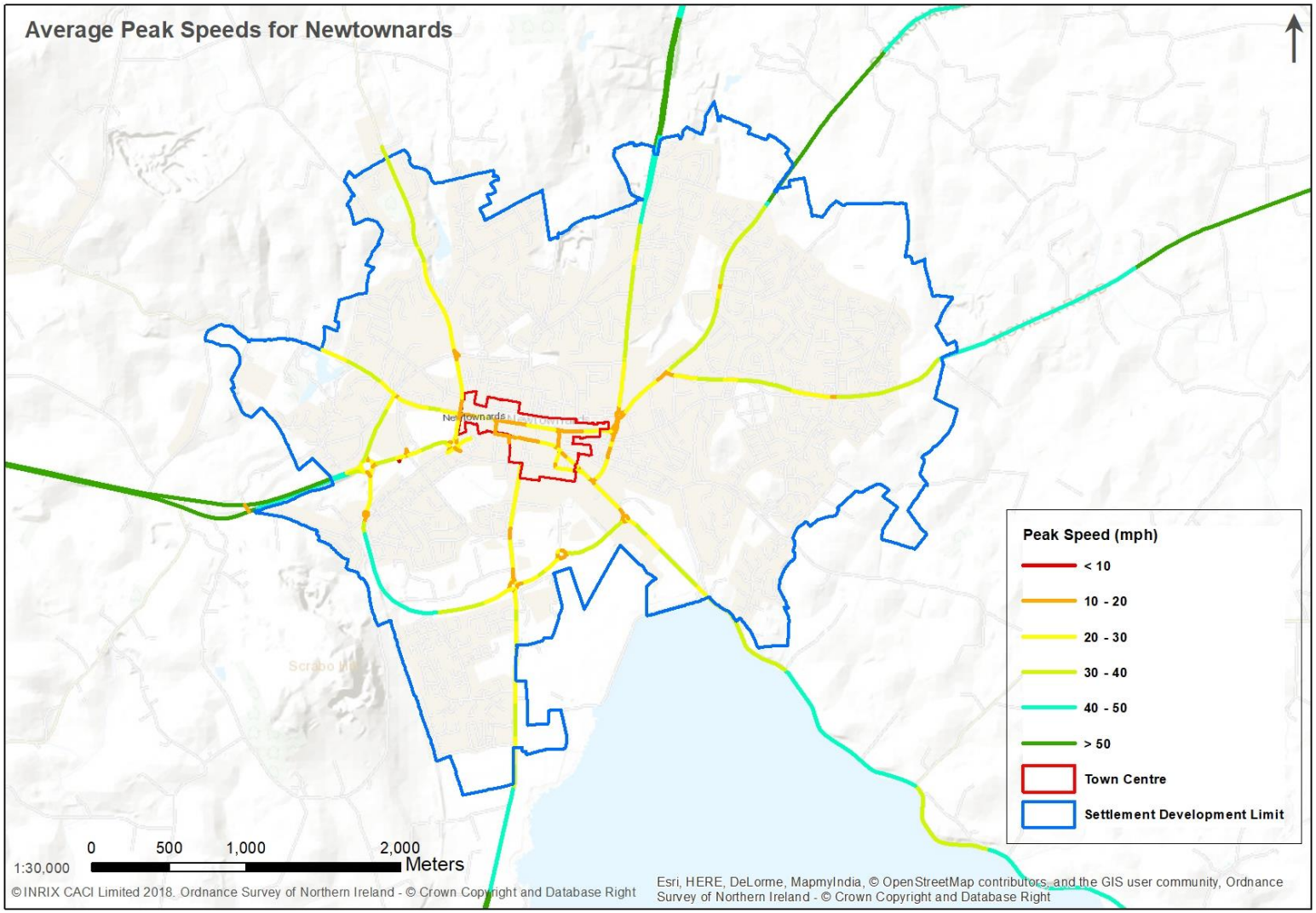


Figure 14a – Average Peak Speeds (mph) for road in Bangor



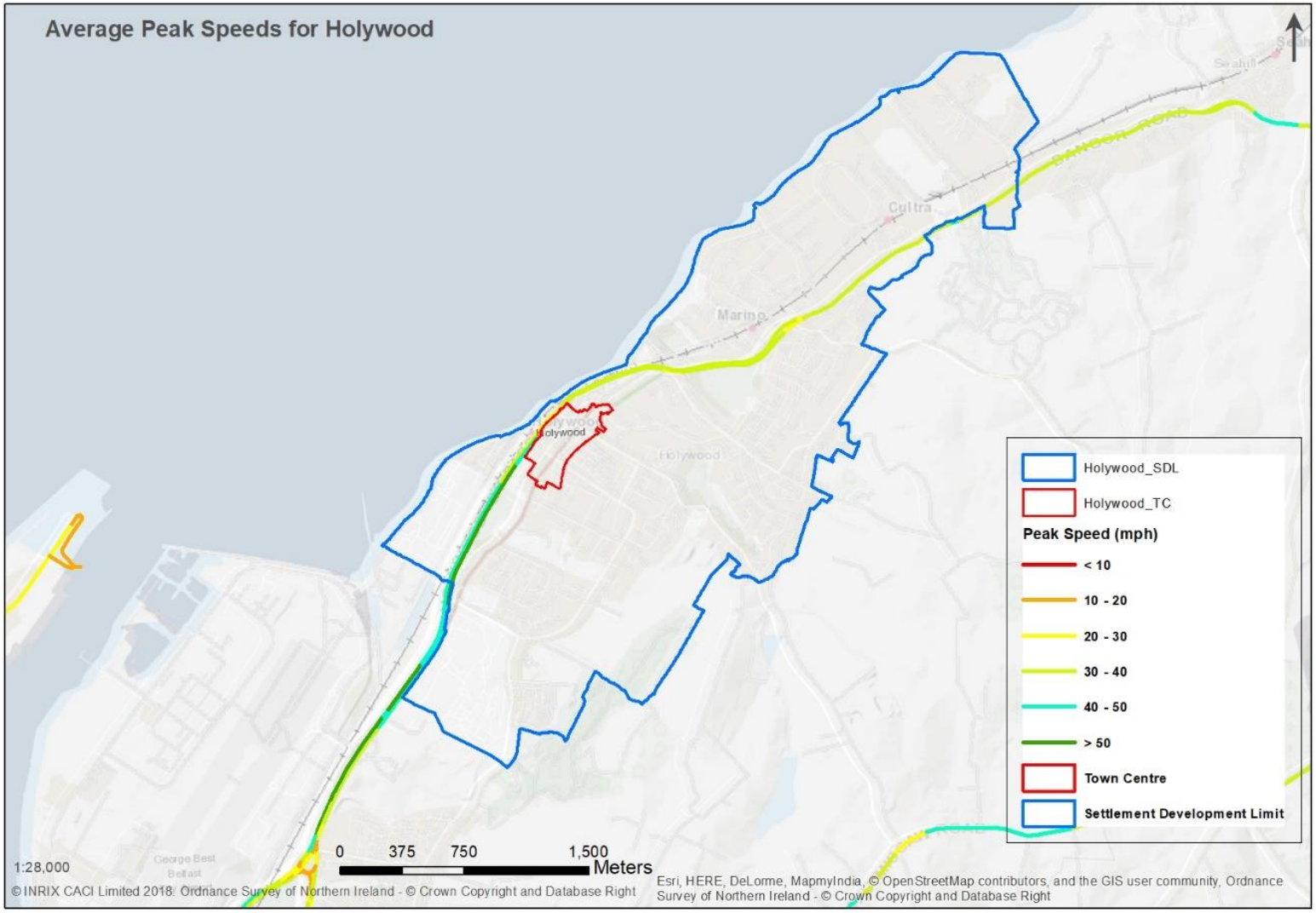
Routes displayed are Motorways (where applicable), A Roads, B Roads, and Radial Routes.

Figure 14b – Average Peak Speeds (mph) for road in Newtownards



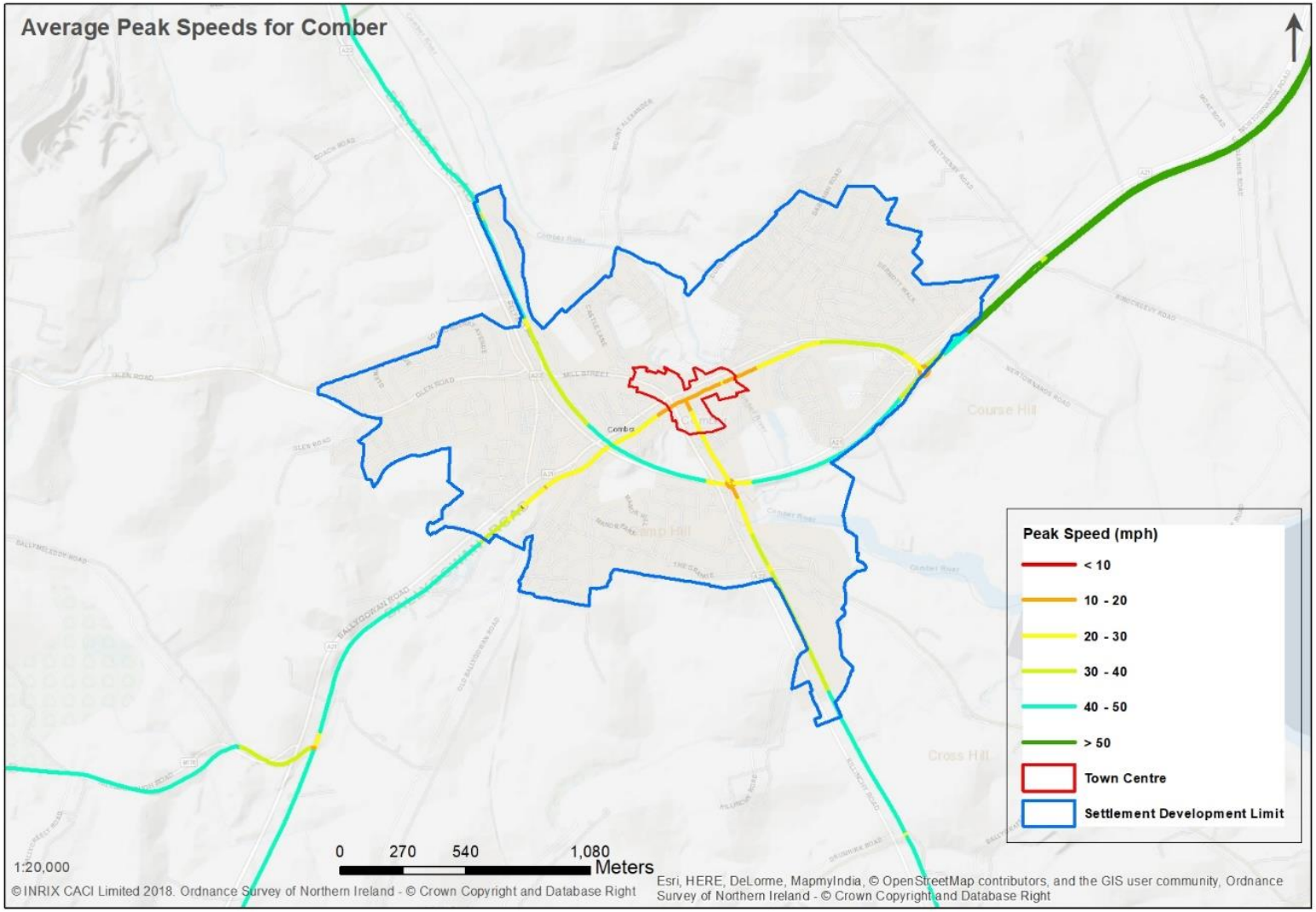
Routes displayed are Motorways (where applicable), A Roads, B Roads, and Radial Routes.

Figure 14c – Average Peak Speeds (mph) for road in Holywood



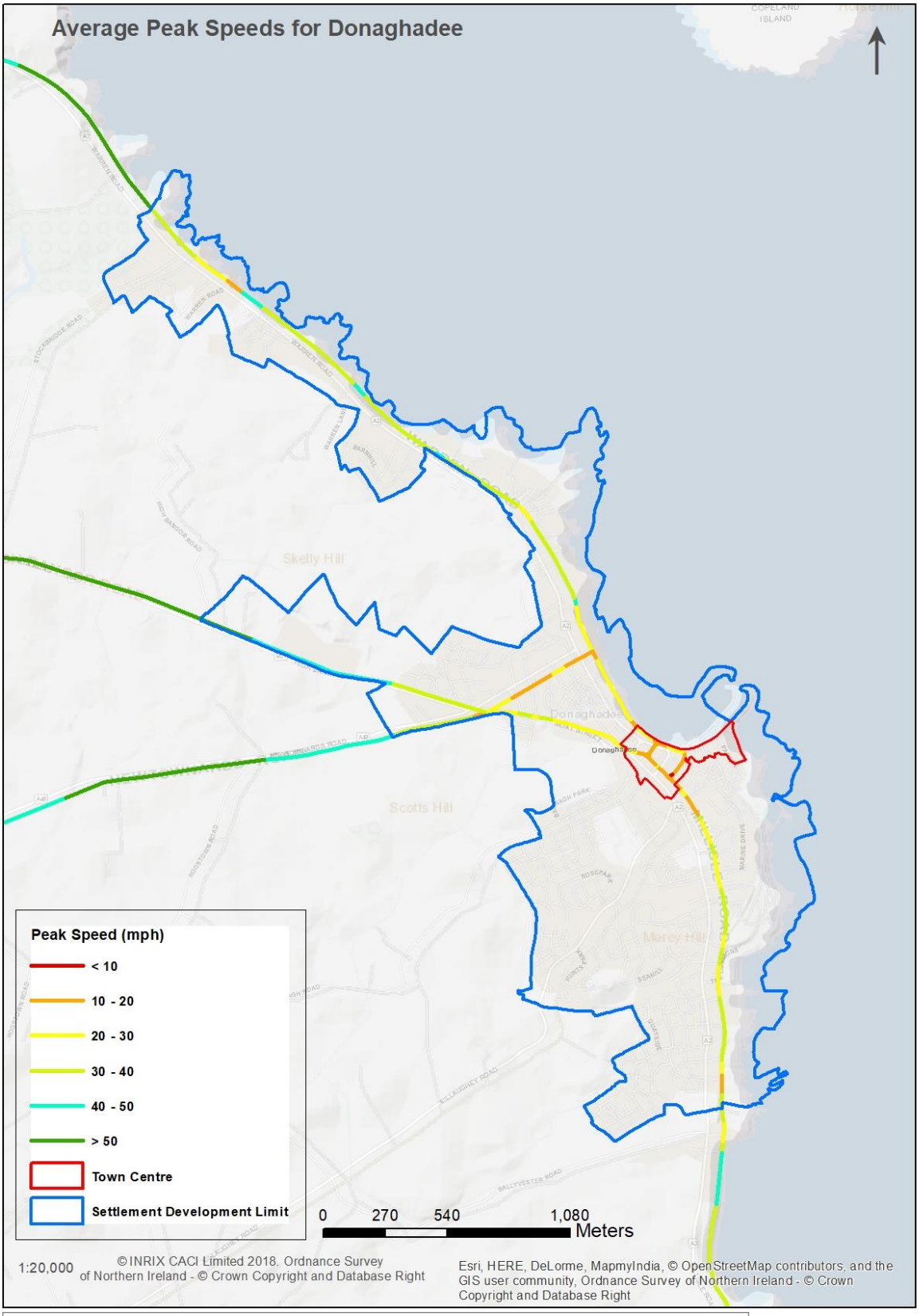
Routes displayed are Motorways (where applicable), A Roads, B Roads, and Radial Routes.

Figure 14d – Average Peak Speeds (mph) for road in Comber



Routes displayed are Motorways (where applicable), A Roads, B Roads, and Radial Routes.

Figure 14e – Average Peak Speeds (mph) for road in Donaghadee



Routes displayed are Motorways (where applicable), A Roads, B Roads, and Radial Routes.

Road collision history in Ards and North Down

Figure 15a – Number of Road Traffic Casualties by Severity and Road User Type in Bangor, 2007-2016

	2007-2011				2012-2016				2007-2016 (combined)			
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries	All casualties	Fatalities	Serious injuries	Slight injuries	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	1,029	0	64	965	865	2	53	810	1,894	2	117	1,775
Pedestrians	100	0	27	73	106	2	27	77	206	2	54	150
Motor Vehicle Users (inc passengers)	832	0	28	804	671	0	13	658	1,503	0	41	1,462
Motorcyclists (inc pillion passengers)	55	0	7	48	42	0	7	35	97	0	14	83
Pedal Cyclists	41	0	2	39	43	0	6	37	84	0	8	76
Other Road Users	1	0	0	1	3	0	0	3	4	0	0	4

Casualties in Bangor 2012-2016 - Modal Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	865	2	53	810
Pedestrians	12.3%	100.0%	50.9%	9.5%
Motor Vehicle Users (inc passengers)	77.6%	0.0%	24.5%	81.2%
Motorcyclists (inc pillion passengers)	4.9%	0.0%	13.2%	4.3%
Pedal Cyclists	5.0%	0.0%	11.3%	4.6%
Other Road Users	0.3%	0.0%	0.0%	0.4%

Casualties in Bangor 2012-2016 - Severity Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	865	0.2%	6.1%	93.6%
Pedestrians	106	1.9%	25.5%	72.6%
Motor Vehicle Users (inc passengers)	671	0.0%	1.9%	98.1%
Motorcyclists (inc pillion passengers)	42	0.0%	16.7%	83.3%
Pedal Cyclists	43	0.0%	14.0%	86.0%
Other Road Users	3	0.0%	0.0%	100.0%

Figure 15b – Number of Road Traffic Casualties by Severity and Road User Type in Newtownards, 2007-2016

	2007-2011			
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	625	2	40	583
Pedestrians	60	2	11	47
Motor Vehicle Users (inc passengers)	511	0	17	494
Motorcyclists (inc pillion passengers)	35	0	10	25
Pedal Cyclists	19	0	2	17
Other Road Users	0	0	0	0

2012-2016			
All casualties	Fatalities	Serious injuries	Slight injuries
629	2	26	601
73	1	10	62
508	0	9	499
26	1	4	21
22	0	3	19
0	0	0	0

2007-2016 (combined)			
All casualties	Fatalities	Serious injuries	Slight injuries
1,254	4	66	1,184
133	3	21	109
1,019	0	26	993
61	1	14	46
41	0	5	36
0	0	0	0

Casualties in Newtownards 2012-2016 - Modal Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	629	2	26	601
Pedestrians	11.6%	50.0%	38.5%	10.3%
Motor Vehicle Users (inc passengers)	80.8%	0.0%	34.6%	83.0%
Motorcyclists (inc pillion passengers)	4.1%	50.0%	15.4%	3.5%
Pedal Cyclists	3.5%	0.0%	11.5%	3.2%
Other Road Users	0.0%	0.0%	0.0%	0.0%

Casualties in Newtownards 2012-2016 - Severity Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	629	0.3%	4.1%	95.5%
Pedestrians	73	1.4%	13.7%	84.9%
Motor Vehicle Users (inc passengers)	508	0.0%	1.8%	98.2%
Motorcyclists (inc pillion passengers)	26	3.8%	15.4%	80.8%
Pedal Cyclists	22	0.0%	13.6%	86.4%
Other Road Users	0	0.0%	0.0%	0.0%

Figure 15c – Number of Road Traffic Casualties by Severity and Road User Type in Holywood, 2007-2016

	2007-2011				2012-2016				2007-2016 (combined)			
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries	All casualties	Fatalities	Serious injuries	Slight injuries	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	166	0	20	146	171	0	7	164	337	0	27	310
Pedestrians	10	0	3	7	16	0	4	12	26	0	7	19
Motor Vehicle Users (inc passengers)	140	0	11	129	140	0	3	137	280	0	14	266
Motorcyclists (inc pillion passengers)	9	0	2	7	4	0	0	4	13	0	2	11
Pedal Cyclists	7	0	4	3	11	0	0	11	18	0	4	14
Other Road Users	0	0	0	0	0	0	0	0	0	0	0	0

Casualties in Holywood 2012-2016 - Modal Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	171	0	7	164
Pedestrians	9.4%	0.0%	57.1%	7.3%
Motor Vehicle Users (inc passengers)	81.9%	0.0%	42.9%	83.5%
Motorcyclists (inc pillion passengers)	2.3%	0.0%	0.0%	2.4%
Pedal Cyclists	6.4%	0.0%	0.0%	6.7%
Other Road Users	0.0%	0.0%	0.0%	0.0%

Casualties in Holywood 2012-2016 - Severity Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	171	0.0%	4.1%	95.9%
Pedestrians	16	0.0%	25.0%	75.0%
Motor Vehicle Users (inc passengers)	140	0.0%	2.1%	97.9%
Motorcyclists (inc pillion passengers)	4	0.0%	0.0%	100.0%
Pedal Cyclists	11	0.0%	0.0%	100.0%
Other Road Users	0	0.0%	0.0%	0.0%

Figure 15d – Number of Road Traffic Casualties by Severity and Road User Type in Comber, 2012-2016

	2012-2016			
Road User Type	**All casualties**	**Fatalities**	**Serious injuries**	**Slight injuries**
All Road Users	94	0	6	88
Pedestrians	7	0	1	6
Motor Vehicle Users (inc passengers)	75	0	3	72
Motorcyclists (inc pillion passengers)	7	0	1	6
Pedal Cyclists	5	0	1	4
Other Road Users	0	0	0	0

Casualties in Comber 2012-2016 - Modal Split (%)				
Road User Type	**All casualties**	**Fatalities**	**Serious injuries**	**Slight injuries**
All Road Users	94	0	6	88
Pedestrians	7%	0%	17%	7%
Motor Vehicle Users (inc passengers)	80%	0%	50%	82%
Motorcyclists (inc pillion passengers)	7%	0%	17%	7%
Pedal Cyclists	5%	0%	17%	5%
Other Road Users	0%	0%	0%	0%

Casualties in Comber 2012-2016 - Severity Split (%)				
Road User Type	**All casualties**	**Fatalities**	**Serious injuries**	**Slight injuries**
All Road Users	94	0%	6%	94%
Pedestrians	7	0%	14%	86%
Motor Vehicle Users (inc passengers)	75	0%	4%	96%
Motorcyclists (inc pillion passengers)	7	0%	14%	86%
Pedal Cyclists	5	0%	20%	80%
Other Road Users	0	0%	0%	0%

Figure 15e – Number of Road Traffic Casualties by Severity and Road User Type in Donaghadee, 2012-2016

	2012-2016			
Road User Type	**All casualties**	**Fatalities**	**Serious injuries**	**Slight injuries**
All Road Users	50	0	5	45
Pedestrians	11	0	2	9
Motor Vehicle Users (inc passengers)	36	0	1	35
Motorcyclists (inc pillion passengers)	0	0	0	0
Pedal Cyclists	3	0	2	1
Other Road Users	0	0	0	0

Casualties in Donaghadee 2012-2016 - Modal Split (%)				
Road User Type	**All casualties**	**Fatalities**	**Serious injuries**	**Slight injuries**
All Road Users	50	0	5	45
Pedestrians	22%	0%	40%	20%
Motor Vehicle Users (inc passengers)	72%	0%	20%	78%
Motorcyclists (inc pillion passengers)	0%	0%	0%	0%
Pedal Cyclists	6%	0%	40%	2%
Other Road Users	0%	0%	0%	0%

Casualties in Donaghadee 2012-2016 - Severity Split (%)				
Road User Type	**All casualties**	**Fatalities**	**Serious injuries**	**Slight injuries**
All Road Users	50	0%	10%	90%
Pedestrians	11	0%	18%	82%
Motor Vehicle Users (inc passengers)	36	0%	3%	97%
Motorcyclists (inc pillion passengers)	0	0%	0%	0%
Pedal Cyclists	3	0%	67%	33%
Other Road Users	0	0%	0%	0%

Parking Provision in Ards and North Down

Figure 16a – Parking Provision Locations in Bangor

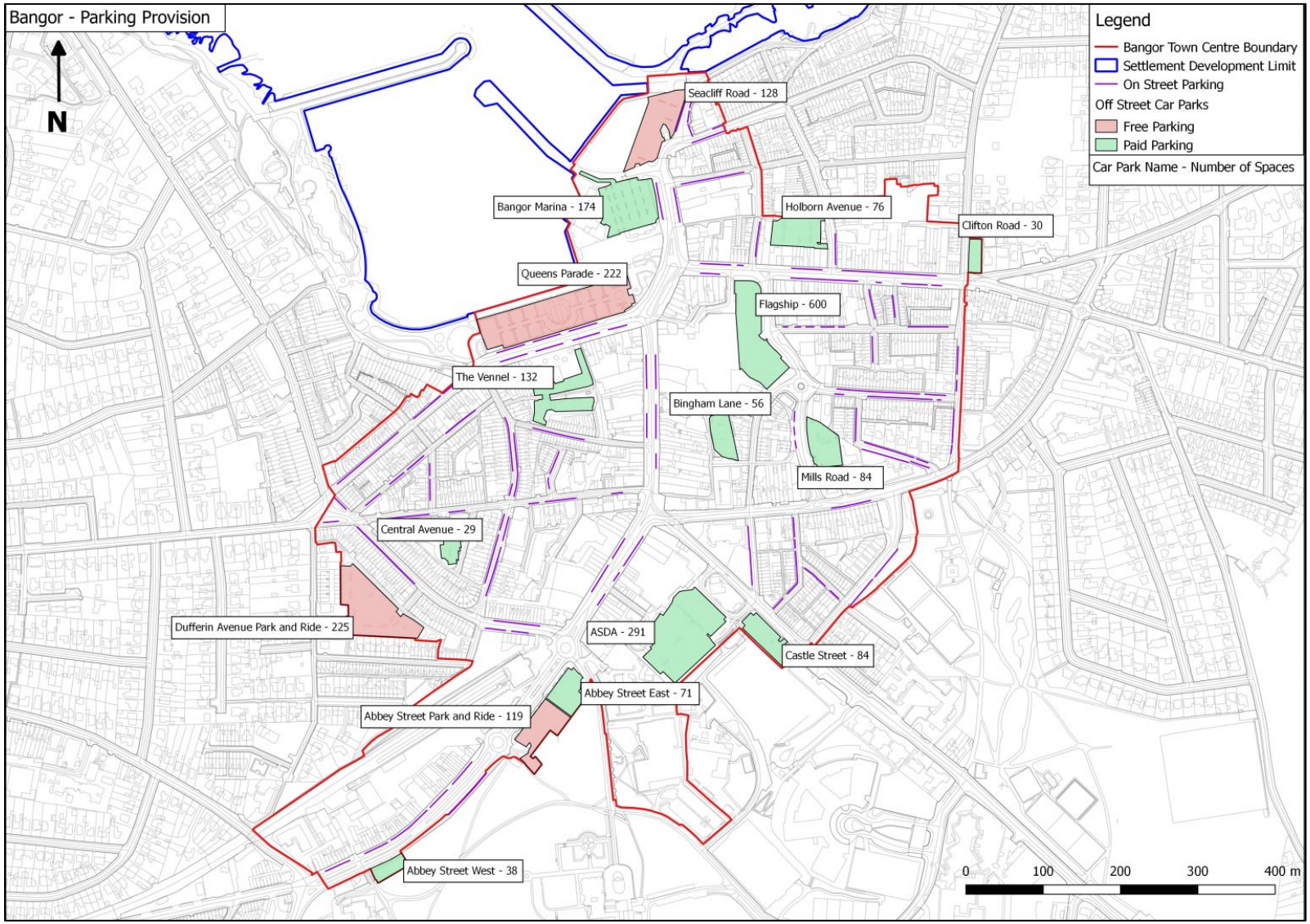


Figure 16b – Parking Provision Locations in Newtownards

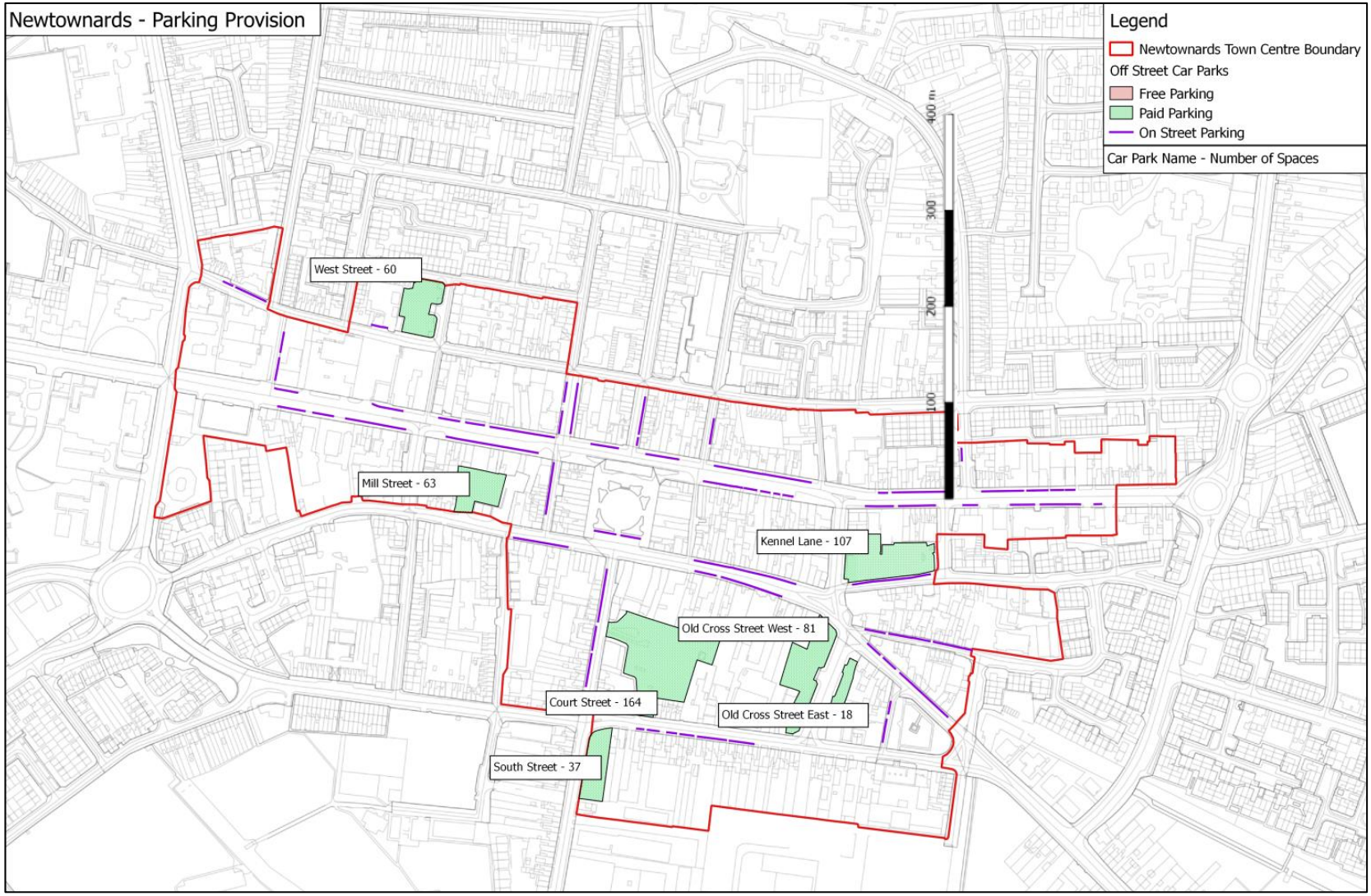


Figure 16c – Parking Provision Locations in Holywood

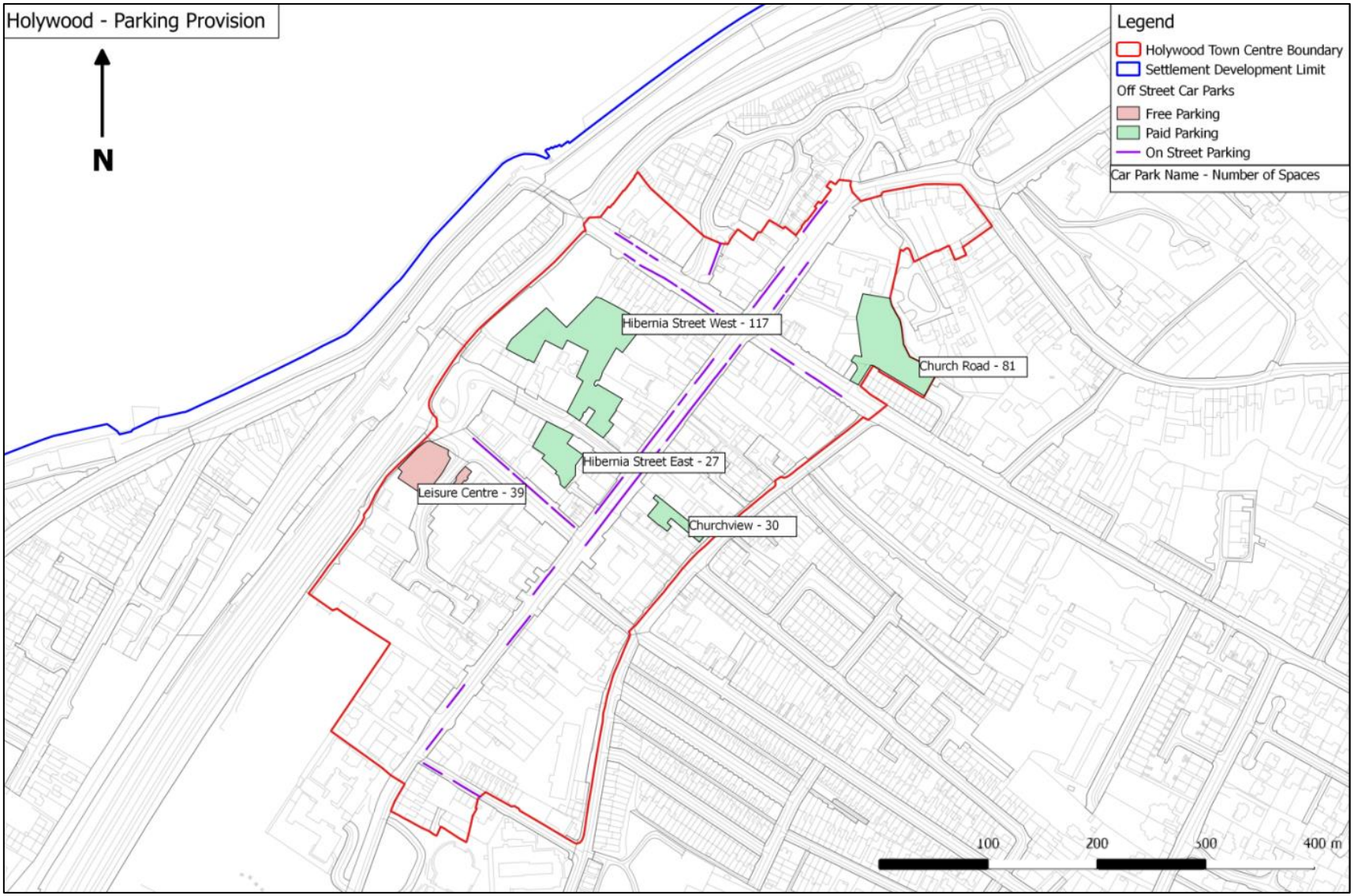


Figure 16d – Parking Provision Locations in Comber

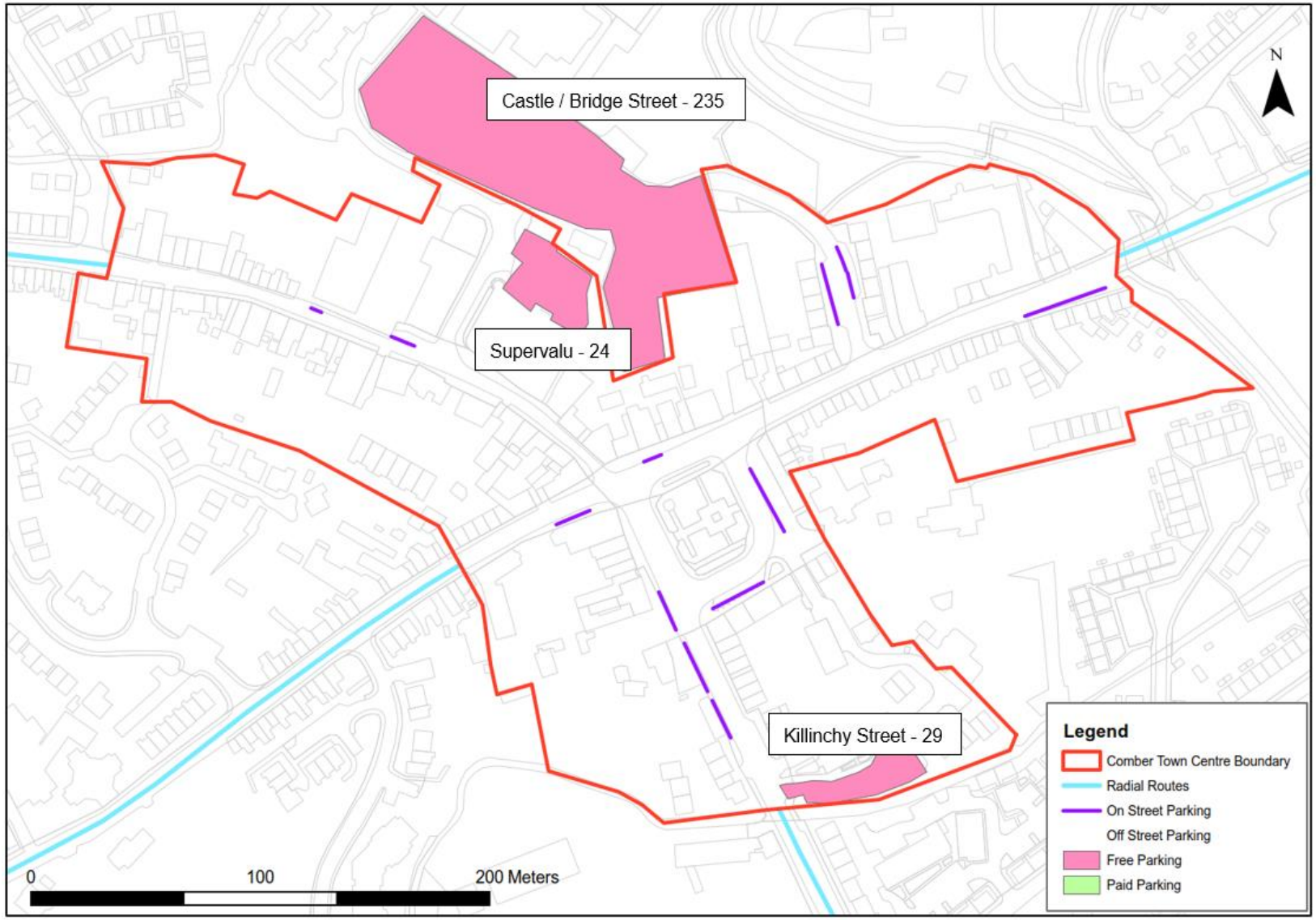


Figure 16e – Parking Provision Locations in Donaghadee

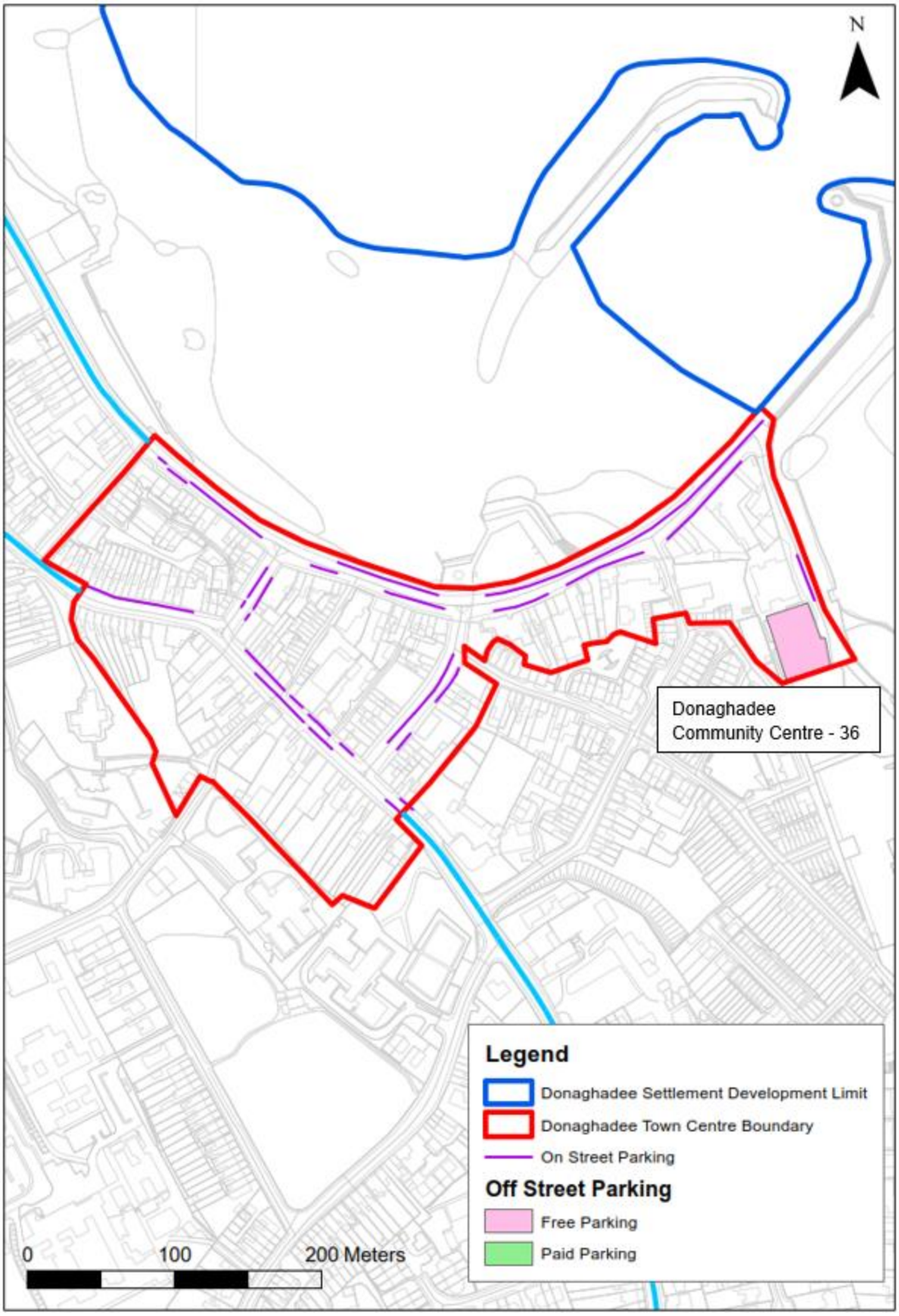


Figure 17a - Off-street Parking Provision by Spaces and Type in Bangor

Off Street Parking – Bangor									
Ref	**Site Name**	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**	**Weekend Parking Occupancy**
A1_CP_01	Abbey Street East	Paid	3	Council	71	3	87%	66%	90%
A1_CP_02	Abbey Street West	Paid	1	Council	38	0	55%	55%	39%
A1_CP_03	Bingham Lane	Paid	3	Council	56	2	85%	73%	97%
A1_CP_04	Castle Street	Paid	2	Council	84	4	79%	32%	46%
A1_CP_05	Central Avenue	Paid	1	Council	29	0	10%	10%	10%
A1_CP_06	Clifton Road	Paid	2	Council	30	0	50%	50%	50%
A1_CP_07	Holborn Avenue	Paid	3	Council	76	8	58%	39%	44%
A1_CP_08	Mills Road	Paid	2	Council	84	2	66%	49%	24%
A1_CP_09	The Vennel	Paid	3	Council	132	2	32%	35%	59%
A1_CP_11	Seacliff Rd	Free	N/A	Council	128	6	-	-	-
A1_CP_12	Bangor Marina	Paid	4	Private	174	2	-	-	-
A1_CP_13	Queens Parade	Free	N/A	Council	222	4	91%	85%	91%
A1_CP_14	Flagship Multistorey	Paid	4	Private	600	18	6%	5%	4%
A1_CP_15	Dufferin Avenue	Free	N/A	Private	225	13	94%	92%	29%
A1_CP_16	Abbey St Park and Ride	Free	N/A	Private	119	8	98%	94%	10%
A1_CP_17	ASDA	Paid	5	Private	291	17	52%	45%	74%
				Total	**2359**	**89**			

This table has been augmented with parking occupancy data collected by AECOM throughout October and November 2017. The AM and PM weekday data was surveyed between 10:00-12:00 and 13:30-15:00 respectively. The weekend data was recorded on a Saturday around midday.

Figure 17b – Off-street Parking Provision by Spaces and Type in Newtownards

Off Street Parking – Newtownards									
Ref	Site Name	Free/Paid	Tariff Reference	Ownership	Total Number of Spaces	Includes Number of Disabled Spaces	Weekday AM Parking Occupancy	Weekday PM Parking Occupancy	Weekend Parking Occupancy
D5_CP_01	Kennel Lane	Paid	2	Council	107	5	65%	60%	100%
D5_CP_02	Mill Street	Paid	2	Council	63	0	63%	64%	100%
D5_CP_03	Old Cross Street West	Paid	2	Council	81	4	74%	74%	100%
D5_CP_04	Old Cross Street East	Paid	2	Council	18	0	78%	50%	94%
D5_CP_05	South Street	Paid	2	Council	37	2	57%	29%	95%
D5_CP_06	Court Street	Paid	15	Council	164	10	79%	61%	96%
D5_CP_07	West Street	Paid	14	Council	60	2	85%	53%	85%
				Total	**530**	**23**			

This table has been augmented with parking occupancy data collected by AECOM throughout October and November 2017. The AM and PM weekday data was surveyed between 10:00-12:00 and 13:30-15:00 respectively. The weekend data was recorded on a Saturday around midday.

Figure 17c – Off-street Parking Provision by Spaces and Type in Holywood

Off Street Parking – Holywood									
Ref	**Site Name**	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**	**Weekend Parking Occupancy**
D6_CP_05	Church Road	Paid	15	Council	81	4	88%	80%	94%
D6_CP_04	Hibernia Street West	Paid	2	Council	117	2	90%	81%	38%
D6_CP_02	Hibernia Street East	Paid	3	Council	27	2	100%	81%	78%
D6_CP_01	Leisure Centre	Free	N/A	Private	39	3	-	-	-
D6_CP_03	Churchview	Paid	2	Private	30	0	-	-	-
				Total	**294**	**11**			

This table has been augmented with parking occupancy data collected by AECOM throughout October and November 2017. The AM and PM weekday data was surveyed between 10:00-12:00 and 13:30-15:00 respectively. The weekend data was recorded on a Saturday around midday.

Figure 17d – Off-street Parking Provision by Spaces and Type in Comber

Off Street Parking - Comber								
Ref	**Site Name**	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**
C1_CP_01	Killinchy Street	Free	N/A	Council	29	1	2	7
C1_CP_02	SuperValu	Free	N/A	Private	24	2	-	-
C1_CP_03	Castle / Bridge Street*	Free	N/A	Council	235	7	236	190
				Total	**288**	**10**		

**Castle / Bridge Street included given that the car park adjoins the town centre boundary*

This table has been augmented with parking occupancy data collected by AECOM throughout October and November 2017. The AM and PM weekday data was surveyed between 10:00-12:00 and 13:30-15:00 respectively.

Figure 17e – Off-street Parking Provision by Spaces and Type in Donaghadee

Off Street Parking - Donaghadee								
Ref	**Site Name**	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**
D1_CP_01	Donaghadee Community Centre	Free	N/A	Council	36	3	2	7
				Total	**36**	**3**		

This table has been augmented with parking occupancy data collected by AECOM throughout October and November 2017. The AM and PM weekday data was surveyed between 10:00-12:00 and 13:30-15:00 respectively.

Figure 18a – On-street Parking Provision in Bangor

On-street car parking - Bangor		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Disabled Persons Parking	24	3.8%
Electric Vehicles	2	0.3%
Limited Waiting 8:00am-6:30pm Monday-Saturday 1 hour no return within 1 hour	31	4.9%
Limited Waiting 8m-6pm Monday-Saturday 1 hour no return within 1 hour	176	27.9%
Loading Only 8am-6pm Monday-Saturday	3	0.5%
Unrestricted Kerb	395	62.6%
Total	**631**	**100%**

Figure 18b – On-street Parking Provision in Newtownards

On-street car parking - Newtownards		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Disabled Persons Parking	5	1.5%
Disabled - Limited waiting 8:00am-6:30pm Monday-Saturday 1 hour no return within 1 hour	9	2.7%
Limited waiting 8:30am-6:00pmMonday-Saturday 1 hour no return within 1 hour	28	8.5%
Limited waiting 8:00am-6:30pm Monday-Saturday 1 hour no return within 1 hour	227	68.8%
Unrestricted Kerb	61	18.5%
Total	**330**	100%

Figure 18c – On-street Parking Provision in Holywood

On-street car parking - Holywood		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Disabled Badge Persons Parking	2	1.4%
Limited Waiting 8:30am-6:30pm Mon-Sat 1 hour no return within 1 hour	54	37.8%
Limited Waiting 8am-6:30pm Mon-Sat 1 hour no return within 1 hour	63	44.1%
Limited Waiting 8am-6pm Mon-Sat 1 hour no return within 1 hour	18	12.6%
Unrestricted Kerb	6	4.2%
Total	**143**	**100%**

Figure 18d – On-street Parking Provision in Comber

On-street car parking - Bangor		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Disabled Badge Holders Only Monday-Saturday 8am-6:30pm 3 hours max. stay no return within 1 hour	1	2%
Limited Waiting 8:30am-6pm Monday-Saturday 1 hour no return within 1 hour	47	77%
Limited Waiting 8:30am-6:30pm Monday-Saturday 1 hour no return within 2 hours	8	13%
Loading Only	1	2%
No waiting 8am-6pm	3	5%
No waiting 8:30am-6:30pm	1	2%
Total	**61**	**100%**

Figure 18e – On-street Parking Provision in Donaghadee

On-street car parking - Donaghadee		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Unrestricted Kerb	112	66%
Unrestricted disabled persons bay	4	2%
Disabled persons bay limited waiting 8am-6:30pm Monday-Saturday Max 1 hour no return within 1 hour	2	1%
Limited Waiting 8am-6pm Monday-Saturday 1 hour no return within 1 hour	50	30%
Loading Only	1	1%
Total	**169**	**100%**