Department for Infrastructure
An Roinn Bonneagair
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MID ULSTER DISTRICT COUNCIL

LOCAL TRANSPORT STUDY

Version 2

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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 Plan 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 draft Mid Ulster District Council (MUDC) Transport Study (TS) has been prepared by the Department. 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 MUDCLDP – 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 TS 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 indicative transport measures required to facilitate growth ambitions during the LDP period to 2030 in the MUDC area. It will also ensure that the transport network and transport needs of the MUDC 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 the TS in line with the draft PfG, current government policies and with regard to the MUDC Community Plan, Planning Options Paper (POP) and Draft Plan Strategy.

1.2.3. This TS presents the range of illustrative measures for active travel[1], public transport and roads for the period up to 2030, 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 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 TS illustrative measures are described in terms of strategic locations. MUDC is **predominantly rural in character**, 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 **Cookstown, Dungannon** and **Magherafelt**, and therefore these towns provide the focus for many of the illustrative transport measures in this TS.

1.3. Study Area

1.3.1. The MUDC TS is aligned to the MUDC area, as shown in Figure 1, and includes illustrative transport measures for the three main towns **Cookstown, Dungannon** and **Magherafelt** as defined in the LDP – draft Plan Strategy. **Cookstown, Dungannon** and **Magherafelt** are comfortably the largest towns. The next largest settlements of **Coalisland, Maghera** and **Castledawson** are much smaller as summarised in Table 1.

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

Figure 1: Mid Ulster District Council District Council Area

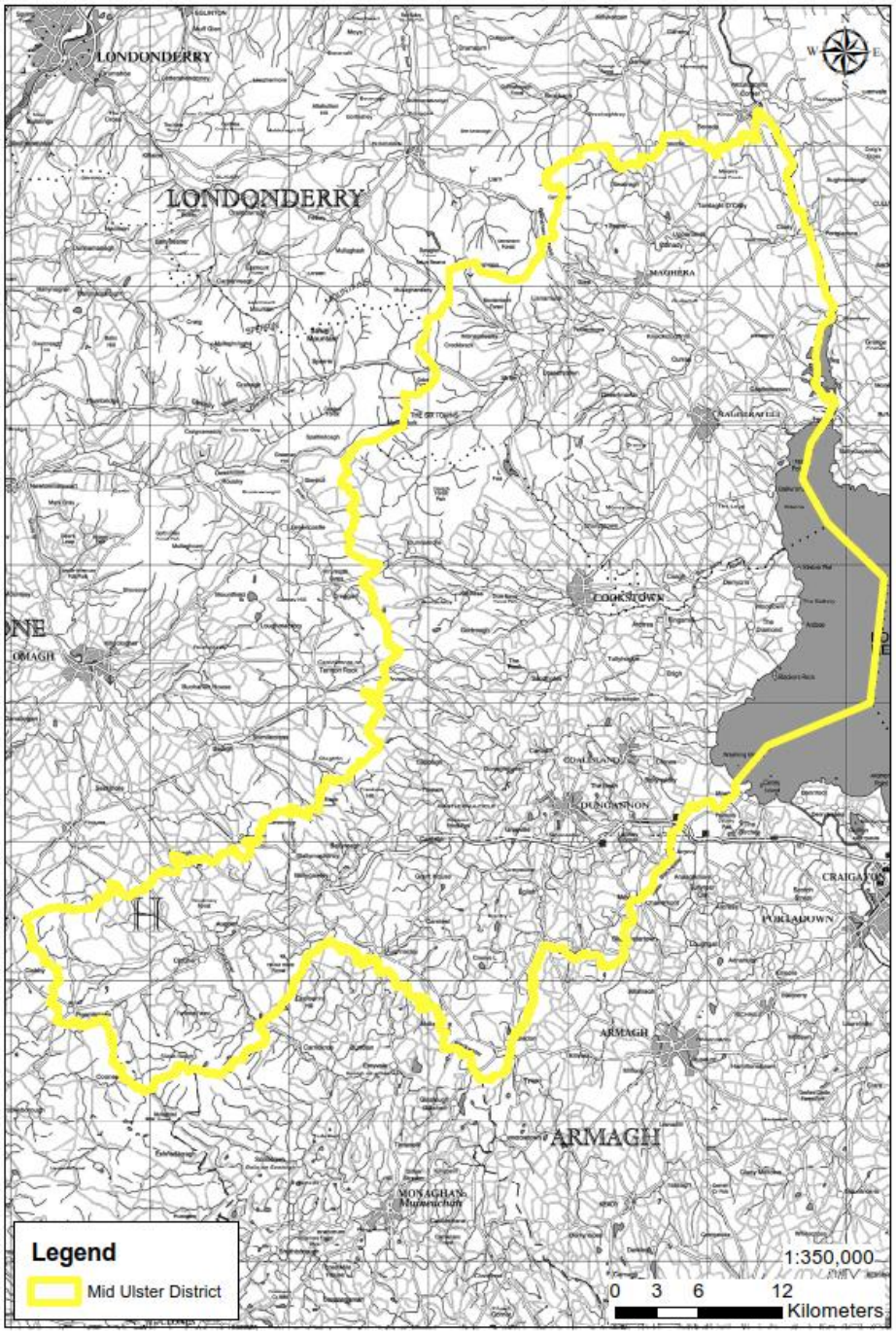


Table 1: Mid Ulster District Council Settlements and 2011 Population

SETTLEMENT	USUAL RESIDENTS 2011
Dungannon	14,340
Cookstown	11,599
Magherafelt	8,805
Coalisland	5,682
Maghera	4,220
Castledawson	2,289
Moneymore	1,897
Draperstown	1,777
Moy	1,598
Fivemiletown	1,243
Bellaghy	1,121
Aughnacloy	1,045
Tobermore	827
Pomeroy	788
Clogher	717
Ballygawley	711
Coagh	662
Stewartstown	650
Ballyronan	568
Upperlands	561
Newmills	558

1.3.2. The Council area is markedly 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 and the average excluding the almost exclusively urban Belfast City Council (BCC). The full details are provided in Table 2.

1.3.3. MUDC is a large council at **182,140 ha** in area compared to the NI council average of **123,294 ha**. Its population density is approximately **0.76 persons per hectare** compared to the average council value of **3.66 (or 1.54 when excluding BCC)**. Only **29.1%** of the population live in towns of 5,000 or more compared to the NI average of **58**% or just under 54% excluding BCC. The **large Council** area and low population density is related to the **high** road length per capita which is **0.03km** compared to the NI council average of **0.02km**. Average road speeds are **65km/hr**, this is higher than the NI average of **62km/hr**. Only **15%** of households do not own cars and only **43%** of the population are able to access a main town by public transport within 30 minutes compared to the NI-wide value of **68% (62% if BCC is excluded)**.

Figure 2: Mid Ulster District Council Key Characteristics Compared to NI Average

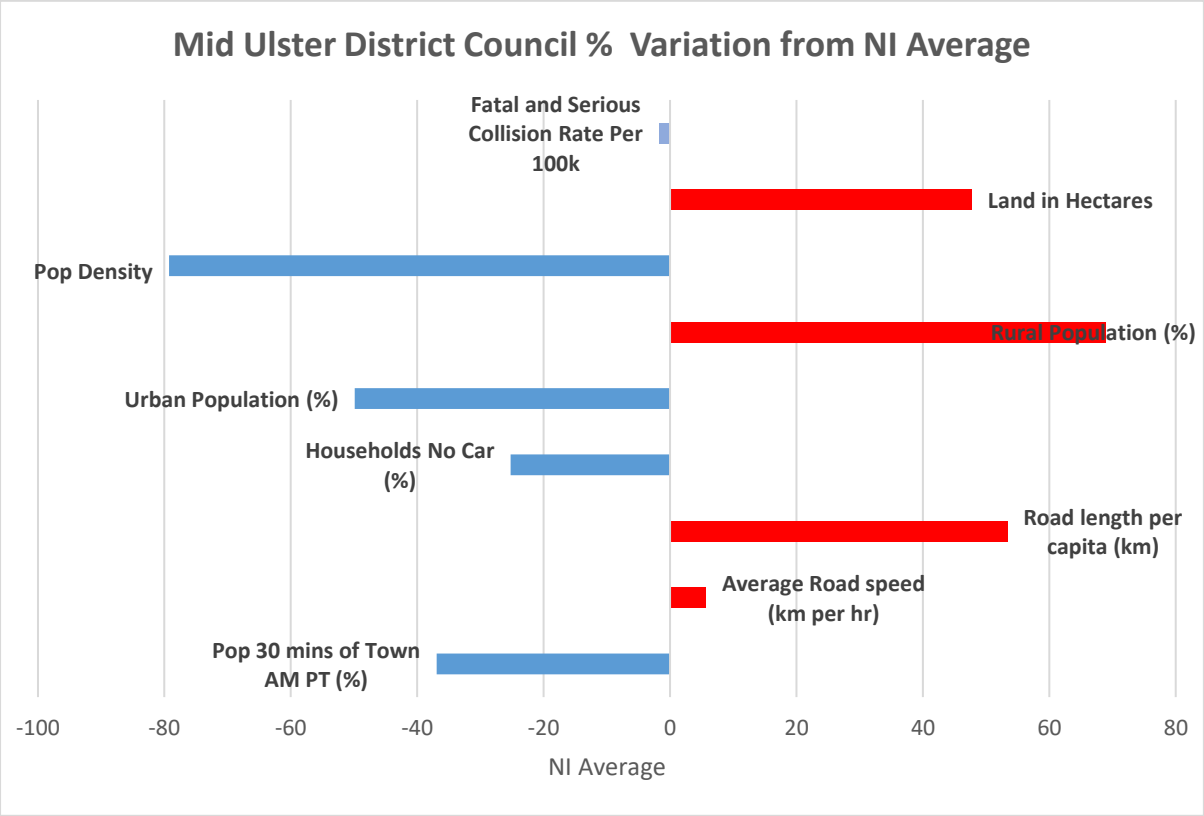


Table 2: Mid Ulster District Council Key Characteristics Compared to NI Average

	Council	NI Avg	NI Avg (exc Belfast)	% Variation from Avg	% Variation from Avg (exc Belfast)
Pop 30 mins of Town AM PT (%)	43	68	62	-37	-31
Average Road speed (km per hr)	65.30	61.79	65.00	6	0
Road length per capita (km)	0.03	0.02	0.019	53	42
Households No Car (%)	15.34	20.51	18.74	-25	-18
Urban Population (%)	29.08	58.01	53.90	-50	-46
Rural Population (%)	70.92	41.99	46.10	69	54
Pop Density	0.76	3.66	1.54	-79	-51
Land in Hectares	182,140	123,294	134,282	48	36
Fatal and Serious Collision Rate Per 100k	44.30	44.80	45.41	-1	-2

1.4. Report Structure

1.4.1. The structure of this TS is as follows:

- Chapter 2 provides the Policy Context that outlines the principal policies and strategies that have informed the preparation of this TS;
- 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 MUDC issues and direction as set by the Community Plan, and the LDP POP and draft Plan Strategy;
- Chapter 7 commences with a discussion of transport options and their merits before presenting the illustrative Transport Measures.
- Chapter 8 summarises the conclusions of the TS and the illustrative Transport Measures.

2.0 Policy Context

2.1. Transport Policy Context

2.1.1. The MUDC 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 2030, for the benefit of the entire community.

2.1.2. Similarly, the 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 TS, namely:

- The Regional Development Strategy (RDS) 2035 – Building a Better Future;
- 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 MUDC, most notably **Cookstown, Dungannon** and **Magherafelt** 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 MUDC LDP Plan Strategy.

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

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

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

[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.

2.2.2. 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.

2.2.3. 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.

2.2.4. 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 the 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

2.2.5. 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 generated by road traffic through congestion and pollution on the environment and on health. 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.

2.2.6. It is understood that variations in the rural / urban settlement balance across NI will provide different challenges and opportunities for Councils in delivering PfG outcomes and indicators. The Department's 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.

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

2.3.1. 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.

2.3.2. 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.

2.3.3. 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.

2.3.4. 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 strategic transportation network. The RDS identifies **Cookstown** and **Dungannon** as main hubs and **Magherafelt** as a local hub. It states that **Cookstown, Dungannon** and **Magherafelt** have potential to form a cluster. It recognises their position on the strategic road network connecting the hubs to Belfast, Londonderry and Enniskillen.

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

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

2.4.2. 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

2.4.3. 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.

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

2.5.1. 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"*

2.5.2. 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.*

2.5.3. 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.

2.5.4. 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).

2.5.5. The Bicycle Strategy is particularly relevant to the towns of **Cookstown, Dungannon** and **Magherafelt.**

2.6. Exercise Explore Enjoy: A Strategic Plan for Greenways

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

2.6.2. 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.

2.6.3. 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.

2.7. Sub Regional Transportation Plan 2015

2.7.1. The Sub-Regional Transport Plan 2015 (SRTP 2015) was launched by the Department on 11 June 2007. The SRTP 2015 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.

2.7.2. The purpose of the SRTP 2015 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.

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

2.8. Planning Policy Context

Reform of local government & development planning

2.8.1. Reform to the NI planning system came into operation in April 2015. The unitary system where all planning powers rested with the Department of the Environment[3] was replaced by a new two-tier system model of delivery, with Local Government Councils being made responsible for

[3] The Department of the Environment no longer exists. Functions and services delivered by the Department of the Environment have been transferred to new departments, including the Department for Infrastructure.

a number of planning functions including local plan-making, development management and planning enforcement.

2.8.2. Within this system, the Department has responsibility for regional planning policy, the determination of regionally significant planning applications and called-in applications, and planning legislation. It also provides oversight, guidance for councils, audit, governance and performance management functions. In addition the Department is the competent authority for devolved transport matters in NI.

Strategic Planning Policy Statement

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

2.8.4. The document consolidates the 20 separate Planning Policy Statements 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.

2.8.5. 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.

2.8.6. 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); new transport schemes; active travel; car parking etc.

Local Development Plan

2.8.7. Part 2 of the Planning Act (NI) 2011 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:

(i) a Plan Strategy which will set out the council's vision, objectives and growth strategy for the area along with strategic policies; and

(ii) a LPP which will set out the council's detailed policies in relation to the development and use of land in its district.

2.8.8. The Plan Strategy is produced first with scrutiny at the independent examination stage. The LPP is prepared subsequently to be consistent with the Plan Strategy.

2.8.9. As an initial task, each council is also required to prepare and publish a 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.

2.8.10. MUDC completed this initial task by publishing their POP in November 2016 and in February 2019 published its LDP draft Plan Strategy.

2.8.11. The MUDC Draft Plan Strategy has carried through the objectives from the POP unchanged. These objectives are grouped under three headings:

- Accommodating People and Creating Places (PP)
- Creating jobs and promoting prosperity (JP)
- Enhancing the environment and improving infrastructure (EI)

2.8.12. The objectives are listed below with a numbering system created for the TS using the headings. These objectives have been used in Section 6 to develop and confirm our transport objectives.

Accommodating People and Creating Places (PP)

PP1 - To build Cookstown, Dungannon and Magherafelt as economic and transportation hubs and as the main service centres for shops, leisure activities, public administrative and community services including health and education. These are the most populated places and the town centres are the most accessible locations for people to travel to including those without a car.

PP2 - To protect and consolidate the role of local towns and villages so that they act as local centres for shops and community services meeting the daily needs of their rural hinterlands.

PP3 - To provide for vital and vibrant rural communities whilst protecting the countryside in which they live by accommodating sustainable growth within the countryside proportionate to the extent of existing rural communities.

PP4 - To provide for 11,000 new homes by 2030 in a range of housing capable of meeting the needs of families, the elderly and disabled, and single people, at locations accessible to community services, leisure and recreational facilities, for those people with and without a car.

PP5 - To recognise the needs of both growing families and carers of the elderly and disabled by accommodating development which allows people to remain within their own communities and does not lead to significant harm to neighbours or the built and natural environment.

PP6 - To facilitate the development of new community facilities at locations accessible to the communities they serve, through a variety of modes of transportation in accordance with the community plan.

PP7 - To accommodate cultural differences in our communities whilst promoting “shared spaces” to bring people together with equality of opportunity.

Creating jobs and promoting prosperity (JP)

JP1 - To facilitate the creation of at least 8,500 new jobs by 2030 at a variety of locations where they are accessible to all members of the community, including those without a private car.

JP2 - To promote diversity in the range of jobs on offer recognising the importance of employment in the primary sector (agriculture forestry and mining), secondary sector (industry and manufacturing) and tertiary sector (administration, commerce, retailing, leisure and tourism).

JP3 - To recognise and accommodate entrepreneurship, innovation for large, medium and small firms by attracting new firms and accommodating expanding businesses.

JP4 - To recognise the importance of self-employment and home working, particularly in rural locations.

JP5 - To encourage energy efficiencies and promote use of renewable energy.

Enhancing the environment and improving infrastructure (EI)

EI1 - To reduce contributions and vulnerability to climate change and to reduce flood risk and the adverse consequences of flooding.

EI2 - To protect and enhance the natural and built environment as wise custodians of our landscape and to achieve biodiversity, quality design, enhanced leisure and economic opportunity and promote health and wellbeing.

EI3 - To accommodate investment in power, water and sewerage infrastructure, and waste management particularly in the interests of public health.

EI4 - To improve connectivity between and within settlements and their rural hinterland through accommodating investment in transportation to improve travel times, alleviate congestion and improve safety for both commercial and private vehicles as well as more sustainable modes of transport including buses, walking and cycling.

EI5 - To improve connectivity though telecommunications which both meets the needs of business and private households whilst reducing the need to travel.

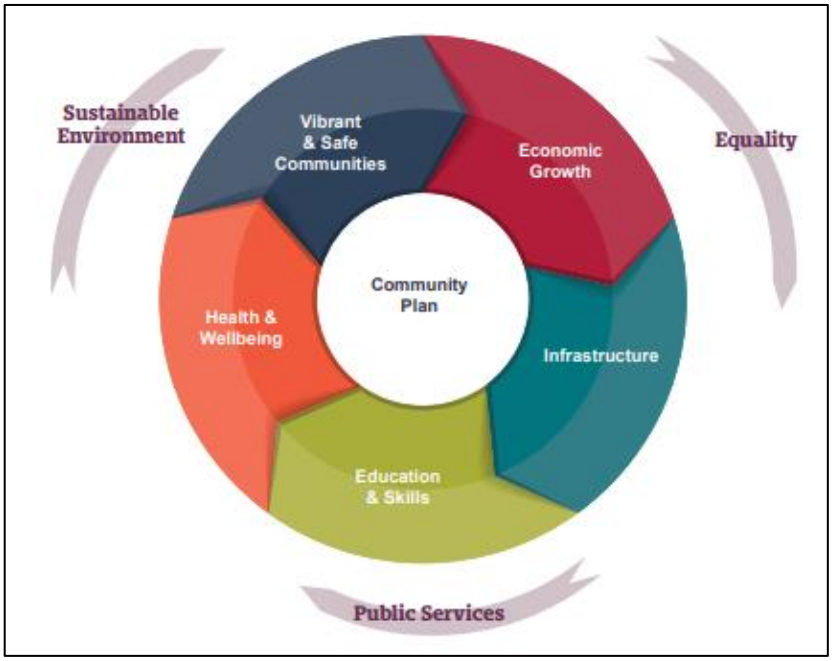
Community Plan

2.8.13. The MUDC 2030 Community Plan sets out the vision for "A welcoming place where our people are content, healthy and safe; educated and skilled; where our economy is thriving; our environment and heritage are sustained; and where our public services excel".

2.8.14. The primary themes and outcomes which underpin this vision are economic growth, infrastructure, education and skills, health and well-being, and vibrant and safe communities. These themes are fundamental in guiding the emerging vision and strategic objectives of the LDP – Plan Strategy and the LTP.

2.8.15. Figure 3 provides an illustration of the MUDC Community Planning Vision, Themes and Aims.

Figure 3: MUDC Community Planning Vision, Themes and Aims



2.8.16. The MUDC 2030 Community Plan also sets out 15 outcomes which are used in Section 6 to develop and confirm our transport objectives. The outcomes are as follows:

1. We prosper in a stronger and more competitive economy.
2. We have more people working in a diverse economy.
3. Our towns and villages are vibrant and competitive.
4. We are better connected through appropriate infrastructure.
5. We will increasingly value our environment and enhance it for our children.
6. We will enjoy increased access to affordable quality housing.
7. Our people are better qualified and more skilled.
8. We will give our children and young people the best chance in life.
9. We are more entrepreneurial, innovative and creative.
10. We are better enabled to live longer healthier and more active lives.
11. We have better availability to the right health service, in the right place at the right time.
12. We care more for those most vulnerable and in need.
13. We are a safer community.
14. We have a greater value and respect for diversity.
15. We have fewer people living in poverty and fewer areas of disadvantage.

3.0 Transport Evidence Baseline

3.1. Introduction

3.1.1. Figures 1 and 2, and Table 2 in Section 1 – Introduction; provides a demographic and transport context for the MUDC area, noting in particular its predominantly rural character and high car dependency. This section introduces a more detailed transport evidence baseline for the MUDC area as presented in Annex 1.

3.1.2. 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.

3.1.3. Whilst the MUDC area has a marked rural character, the key public services and economic generators are centred on the largest towns of **Dungannon, Cookstown** and **Magherafel**t. Therefore 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 **Dungannon, Cookstown** and **Magherafelt**. Annex 1 answers the following questions:

- Regional connectivity from **Cookstown, Dungannon and Magherafelt** by road and public transport – what time is required to travel to the economic centres and 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, shops and banks?
- Urban walking and cycling infrastructure in **Cookstown, Dungannon** and **Magherafelt** – how well developed are the current networks?
- Local urban bus services in **Cookstown, Dungannon and Magherafelt** – to what degree do they provide coverage for urban residents?
- Travel to work journeys – where do residents of **MUDC** 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 **Cookstown, Dungannon** and **Magherafelt** – how many people are injured or killed on roads and streets in the towns and which modes are most vulnerable?

- Parking provision in **Cookstown, Dungannon** and **Magherafelt** – how many parking spaces are there in the town centres, where are they located, what tariffs are in place and how they are designated?

3.1.4. 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 **MUDC** POP foresees a population increase of **21,000** and **11,000** new houses required over the period 2015 – 2030. The proposed allocation of housing would locate at least **27%** of the new houses in the main towns, with the remainder allocated between the smaller towns, villages, small settlements and the countryside. Additional population, new houses and households will lead to increases in the demand for travel. This gives rise to the following transport issues:

- The MUDC POP outlines that in the plan period **Cookstown, Dungannon** and **Magherafelt** need a combined total of 3,000 new homes (27% of MUDC total), smaller settlements need 3,570 new homes (33% of MUDC total) with a remaining need for 4,380 new homes in the countryside (40% of MUDC total). Outside the three main towns, and particularly in the countryside, there are fewer public and active travel options. This will create challenges for the delivery of sustainable transport alternatives and reducing the dominance of private car in MUDC area. Housing growth in the main towns offers the most integrated land-use and transport planning solution. It offers the greatest opportunity to minimise congestion and social exclusion, reduce air quality problems and increase active travel.

- Outside the three main towns, the other towns that have frequent and direct bus services to **Cookstown, Dungannon** and **Magherafelt** or other hubs offer the best locations for sustainable transport opportunities, offering people an alternative to the private car. These should be the focus of most new housing (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 and reliance on private vehicles.

- Housing growth in combination with development patterns that reinforce the dominance of the car and will lead to additional congestion. The urban road network is already congested at peak times whilst relatively few people choose active travel or use public transport, when considered against the NI average. Additional demand for travel needs to be minimised through land-use planning and sustainable infrastructure. In all cases the consideration of safety for all road users will be a primary concern.

- In **Cookstown, Dungannon** and **Magherafelt** (and most of the smaller settlements) there is significant provision of existing zoned land and extant approvals that can provide the housing need to 2030. There is an opportunity to consider introducing new measures to promote sustainable transport options in existing zoned sites that do not have extant

planning approvals. However for extant approved schemes this may be more difficult to achieve.

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 22.5% by 2030 whilst over the same period single person households will increase to 29.4%.

4.1.3. The POP proposes **8,500** new jobs by 2030 in a variety of locations which are accessible to members of the community, including those without a private car. Providing access may be challenging for residents in isolated rural settlements and in the countryside that do not have private cars or strong public transport links.

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

- The Commercial, Business and Service Use class, 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 and active travel.

- 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 active travel 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 transport measures to be considered for inclusion in the TS. The Figures referred to in this section are all contained in Annex 1.

5.1.2. The following are dealt with in turn:

- Regional connectivity from **Cookstown, Dungannon** and **Magherafelt** 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 **Cookstown, Dungannon and Magherafelt;**
- 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 **Cookstown, Dungannon** and **Magherafelt;**
- Parking provision in **Cookstown, Dungannon** and **Magherafelt;** and
- Legacy Road Alignments.

5.2. Regional Connectivity – Road Transport

5.2.1. The towns of **Cookstown**, **Dungannon** and **Magherafelt** are currently relatively well connected by road to Belfast, Derry and the Gateways by the Key Transport Corridors. However, travel times are inevitably long on account of the towns' locations and the predominantly single carriageway roads. As shown in Figures 2a, 2b and 2c, travel times from **Cookstown**, **Dungannon** and **Magherafelt** are relatively similar.

5.2.2. The A29 road is part of the RSTN and is classified as a Link Corridor. The road connects **Dungannon**, **Cookstown** and **Magherafelt**, via the A31, to the M2/A6 and M1/A4 Key Transport Corridors providing regional access (see paragraph 5.2.4). Beyond **MUDC** the A29 extends northwards to Coleraine and southwards to Armagh and Newry via the A28 where it links with A1 providing access to the Republic of Ireland including Dublin and other settlements on the east coast. The TS has undertaken some preliminary analysis on the A29, especially with respect to the urban areas. The A29 is considered more fully in the RSTNTP.

5.2.3. The analyses consider in turn:

- Traffic volumes
- Traffic speeds across the A29
- Traffic speeds through **Cookstown** and **Dungannon**.

5.2.4. Other key transport routes within the **MUDC** area are outlined below. These will be covered in more detail in the RSTNTP and include:

- The M1/A4 South Western Corridor transecting east-west through the south of MUDC. This key transport corridor, as defined in the RSTN, links the central and southern parts of **MUDC** to Belfast and other key settlements within proximity of the route, including Craigavon, Lisburn and Enniskillen (and onwards to Sligo). Travelling from west to east the A4 transitions to the M1 at the Stangmore Roundabout, near **Dungannon**.

- The M2/A6 North Western Corridor transects northwest-southeast though the north of the **MUDC** area. This Key Transport Corridor, as defined in the RSTN, links the northern part of **MUDC** to Belfast and Derry (and onwards to Letterkenny).

- The A505, defined as a Trunk Road, in the RSTN links **Cookstown** to Omagh.

Traffic Volumes

5.2.5. Traffic volumes on the A29 through **MUDC** are substantial with approximately 8,000 vehicles per day (based on 2015 data availability) and a significant proportion of Goods Vehicles (8%) as shown below in Table 3. Traffic volumes close to the towns are generally highest arising from local journeys to and from work, education and shopping / social purposes.

Table 3: A29 Traffic Counter Daily Flows and % HGV for 2012 and 2015

			2015		2012	
DfI Counter No	**Section**	**Location**	**24hr AADT***	**% HGV**	**24hr AADT**	**% HGV**
309	Northern	Coleraine – Garvagh, South of B66	5,260	6.6	5,230	6.3
668	Central 1	Desertmartin Road, Near Moneymore, Co. Londonderry	6,480	-	6,170	11.4
630	Central 2	Dungannon Road, Cookstown	10,660	-	10,270	6.7
603	Central 3	Dungannon to Cookstown (North of Drumglass High School)	7,220	-	6,790	6.6
440	Southern	Armagh Road, Armagh	10,440	-	9,880	9.3
		Average	**8,012**	-	**7,668**	**8.06**
*Annual Average Daily Traffic						

(Source: DfI / DRD Traffic and Travel Information Report)

Traffic Speeds across A29

5.2.6. Figure 14d presents an overview map of the A29 showing the AM peak hour speeds. The colours show clearly that whilst speeds are generally in the range 40 – 60 mph in the rural sections, speeds through the urban extents of **Dungannon** and **Cookstown** are generally reduced to 10 – 30 mph. Shorter sections of reduced speeds are also present in the settlements of Moneymore, Desertmartin, Tobermore, Maghera and Swatragh.

5.2.7. Figure 14e compares the average end-to-end speed[4] on the 3 different sections of the A29 identified in Figure 14d, and displayed separately in more detail in Figure 14f, Figure 14g and Figure 14h:

- Northern – between the A6 (Maghera) and Coleraine;
- Central – between A6 and A4, through Moneymore, **Cookstown** and **Dungannon**; and
- Southern – between A4 and A1 (Newry), through Armagh and via the A28.

5.2.8. Speeds were inspected by direction of travel and found to be consistent. Speeds have been presented at three different times during weekdays:

- 6am – to represent likely maximum speeds with light traffic – essentially set by road standards
- 8am – to represent likely minimum speeds - congested morning peak speeds
- 5pm – to represent likely minimum speeds - congested evening peak speeds

5.2.9. Figure 14g shows that the Central section of the A29 has significant stretches of low traffic speeds. Figure 14e shows that the Central section to have slower average speeds than the Northern and Southern sections. This slower average speed presents without the effects of traffic levels, as demonstrated at 6am when traffic congestion is light, the speed for the central section is 38mph whilst the Northern and Southern sections are close to 45mph. The difference in speeds with traffic congestion effects shows that the Central section is again slowest but has comparable average speeds with the Southern section, whilst the Northern section suffers least from congestion and maintains the highest average speeds.

Traffic Speeds through Cookstown and Dungannon

5.2.10. As would be expected, the difference in speeds between sections is principally due to the extended urban sections through **Cookstown** and **Dungannon**. Figure 14i and Figure 14j present detailed maps of the towns and show:

- the slow speeds (congestion) focussed in the town centre streets; and
- the limited routing opportunities for traffic to avoid the town centre, especially in **Dungannon**.

5.2.11. Figure 14k presents details of the average traffic speeds on the A29 (sourced from Google) through the urban extents of **Cookstown** and **Dungannon** at different times of day. The figure shows that traffic congestion at peak times lowers average speeds from approximately 23mph to 14mph for **Cookstown** and from 24mph to 14mph for **Dungannon**. The increase in travel times at peak periods impacts on business efficiency, whilst the volume of traffic on the urban

[4] Sourced from Google journey planner.

network impacts on environmental and social quality, particularly in terms of air quality, community severance and potentially road safety.

Conclusions

5.2.12. The A29 road is almost exclusively single carriageway and, in part due to the mix of vehicle types, average speeds are not high. Traffic volumes, whilst considerable for a single carriageway road do not, on their own, suggest the requirement for dual carriageway. More significantly, there is substantial congestion in the town centres, especially at peak times. For through traffic in the larger towns of **Cookstown** and **Dungannon**, there are no practical alternatives to the A29.

5.3. Regional Connectivity – Public Transport

5.3.1. Public transport travel times are dependent on the bus network coverage and timetable integration. The Goldline 'limited-stop' bus network is important in providing attractive travel times but overall plays a limited role as its focus is primarily the **A29, A31, M1/A4** and **M2/A6** corridors and Belfast. As a consequence, unlike car travel times, the pattern of public transport travel times are unevenly distributed as they require interchanges and hence long journey times to reach locations to the east and west of the **A29** corridor by public transport. From **Cookstown**, journeys of up to 1 hour generally extend only within the Council area and travel times to Belfast are 1.5 – 2hrs hours and to Derry are 1 – 1.5hrs, as shown in Figure 3a. Regional travel times from **Dungannon** to Belfast are 1 – 1.5 hours and to Derry are 1.5 – 2hrs hours, as shown in Figure 3b. Regional travel times from **Magherafelt** are similar with travel to Belfast within 1 – 1.5 hours and Derry within 1.5 – 2hrs hours, as shown in Figure 3c.

5.3.2. Near to **Dungannon** and **Magherafelt**, and at strategic locations along the M1/A4 and A6 routes, park and ride facilities may have a role to play in encouraging use of Goldline services for longer journeys. These facilities may be especially important for residents of smaller towns and villages and outlying rural areas.

5.4. Accessibility to essential local services

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

5.4.2. At a glance, Figure 4 shows people living on the bus routes having travel times of up to 1 hour and 30 minutes. Accessibility is provided by bus services scheduled to provide access to work and education in Cookstown, Dungannon and Magherafelt town centres, and to a lesser degree, the smaller settlements.

5.4.3. In general, however, these services do not operate return trips other than mid-afternoon or the end of the working day and so time windows for this access may not be convenient. In addition, the catchment areas are effectively limited to the radial bus routes and large outlying tracts of the Council area have no access. Bus services and their frequency from towns/villages to the main Hubs of **Cookstown**, **Dungannon** and **Magherafelt** are limited. Without improvements in services car dependency will likely continue.

5.4.4. 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. Any additional residential development in rural areas not currently on a bus route will add directly to the number of people who have no access to essential local services, except by private car.

5.4.5. 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 LTP and LDP processes.

5.5. Urban sustainable transport infrastructure in Cookstown, Dungannon and Magherafelt

Cookstown

5.5.1. Figure 5a shows the current provision of pedestrian infrastructure in **Cookstown**. The length of radial road within the development limit in **Cookstown** totals **16.6**km. A length totalling **2.3**km do not have footways. Whilst there is reasonably consistent provision of dropped kerbs at breakpoints, only **6.5**km of footway exceeds **2.5**m in width.

5.5.2. Within **Cookstown** town centre there are **37** crossing facilities for pedestrians and cyclists. The most common form of provision is at signal controlled traffic junctions. There are also **13** pedestrian refuges.

5.5.3. Figure 6a shows details of the cycling infrastructure in **Cookstown**. In total, **5** cycle facilities provide **28** bicycle parking spaces. There is also **1.8**km of cycle network in **Cookstown** as follows:

- **1.5**km shared cycleway / pedestrian footway
- **0.3**km off-road traffic free cycle route.

5.5.4. There are gaps in the provision of sustainable transport infrastructure in **Cookstown** including missing footway sections. The length of the cycle network is small and this is predominantly (**83**%) shared cycle way / pedestrian footway.

5.5.5. Figure 7a shows details of the local bus network in **Cookstown**. **Cookstown** has 1 town centre bus service (Ulsterbus service 390) route which serves the north, east and southwest sectors of

the town between 09:30am and 10:30am. It is noticeable that the town centre service is effectively operated by a single bus, presumably when this is not required for school services. However, the service only operates once during the morning interpeak period and does not operate throughout the remainder of the day. There are also no weekend services. The service provides accessibility to the town centre for residents who may live up to 2km from the centre and find active travel impractical. In addition, the inter-urban Ulsterbus routes serve the urban areas in **Cookstown** along their routes. It is likely that these service will be most attractive to people without a car and for those who have free concessionary fares.

5.5.6. The town centre bus service in **Cookstown** could be improved by:

- extending the 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.

Dungannon

5.5.7. Figure 5b shows details of the pedestrian infrastructure in **Dungannon**. The length of radial road within the development limit in **Dungannon** totals **31.2**km. A length totalling **9.9**km does not have footways. Whilst there is generally consistent provision of dropped kerbs at breakpoints, only a small length of footway exceeds **2.5**m in width (**4.2**km).

5.5.8. Within **Dungannon** town centre there are **56** crossing facilities for pedestrians and cyclists. The most common form of provision is at signal controlled traffic junctions. There are also **16** pedestrian refuges.

5.5.9. Figure 6b shows details of the cycling infrastructure in **Dungannon**. There is **3.6**km of cycle network infrastructure in **Dungannon** which is provided as shared cycleway / pedestrian footway. There are **2** cycle facilities which provide a total of **18** bicycle parking spaces.

5.5.10. There are significant gaps in the provision of sustainable transport infrastructure in **Dungannon** including missing footway sections. The length of cycle network is a small and this is exclusively shared cycle way / pedestrian footway.

5.5.11. Figure 7b shows details of the local bus network in **Dungannon**. **Dungannon** has **3** town centre bus services that operate local routes at a range of headways ranging from approximately hourly from the bus station to the Square via the Pomeroy Road (Ulsterbus service 377c) to three services per day from the bus station to the Square via Moygashel (Ulsterbus service 377a). The **3** routes serve the majority of the residential areas, generally between 8:30am and 6:00pm on weekdays and Saturday. Several of the services are looped in nature and hence may not be competitive with car travel. In addition, the inter-urban Ulsterbus routes serve the urban areas in **Dungannon** along their routes. These services will be most attractive to people without a car and for those who have free concessionary fares.

5.5.12. The town centre bus service in **Dungannon** could be improved by:

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

Magherafelt

5.5.13. Figure 5c shows details of the pedestrian infrastructure in **Magherafelt**. The length of radial road within the development limit in **Magherafelt** totals **13.9**km. A length totalling **1.2**km do not have footways. Whilst there is consistent provision of dropped kerbs at breakpoints, a small proportion of footway exceeds **2.5**m in width.

5.5.14. Within **Magherafelt** town centre there are **25** crossing facilities for pedestrians and cyclists. The most common form of provision is pedestrian refuges. There are also **3** puffin crossings.

5.5.15. Figure 6c shows details of the cycling infrastructure in **Magherafelt**. There is **0.7**km of cycle network infrastructure in **Magherafelt** and this is exclusively shared cycleway / pedestrian footway.

5.5.16. There are significant gaps in the provision of sustainable transport infrastructure in **Magherafelt**, including missing footway sections. The length of the cycle network is small and there is no cycle parking provision in **Magherafelt**.

5.5.17. Figure 7c shows details of the local bus network in **Magherafelt**. **Magherafelt** has **2** town centre bus services that generally operate at hourly headways through the weekday and Saturday. Ulsterbus service 389a serves the Mid Ulster Hospital, the west and southeast of the town between 9:30am and 5:30pm. Ulsterbus service 398b serves Castledawson Park & Ride (P&R) between 6:30am and 6:00pm. In particular, the services provide accessibility to the town centre for residents who may live up to **2**km from the centre and find active travel impractical. In addition, the inter-urban Ulsterbus routes serve the urban areas in **Magherafelt** 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.

5.5.18. The town centre bus service in **Magherafelt** could be improved by:

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

5.6. Modal choice for journeys to work and education

Introduction

5.6.1. 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 **Cookstown**, **Dungannon** and **Magherafelt** Council areas separately, as shown in Figures 8a – 8c respectively. These show that a high proportion of employed residents in **Cookstown** (**53**%), **Dungannon** (**62**%) and **Magherafelt** (**52**%) work within their own legacy Council area. However there are some differences with a higher proportion of **Magherafelt** residents (**9.1**%) working in the legacy Belfast City Council area compared to **Cookstown** and **Dungannon** residents (**4.7**% and **5.5**% respectively).

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

Results

5.6.3. Figure 9 shows that the use of sustainable modes in **MUDC** are below the NI average for journeys to work with only **8**% walking, cycling or using public transport compared to **15**% across NI. It is notable that for short journeys (less than 2km) **30**% use walking and cycling compared to the NI average of **37**%, as shown in Figure 10.

5.6.4. In **MUDC** the use of sustainable modes for journeys to education is below the NI average with **44**% active travel or using public transport compared to 46% across NI. This may be explained in part by the area's rural character having a higher proportion of longer journeys. However, as for work journeys it is notable that for short journeys (less than 2km) **29**% use active modes compared to the NI average of **37**%. As for journeys to work (2km to less than 5km), only **3**% use active modes compared to **9**% in NI, as shown in Figure 10.

5.6.5. Comparing journeys to education and work presents a stark contrast in terms of use of public transport, see Figures 11 and 12. Public transport accounts for **34**% of journeys to education, but only **2**% to work. It is notable that **10**% of shortest (less than 2km) education journeys are made by public transport whilst by far the greatest share is car passenger (**57**%).

Conclusions

5.6.6. **MUDC** has low levels of active travel compared to NI averages and these even apply when comparisons are limited to short journeys. In **MUDC 53**% 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 and / or 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.

5.6.7. The 2011 census for the legacy councils in the **MUDC** area also shows that public transport is popular for children and students' 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 is almost unused 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.

5.7. Road network speeds

Introduction

5.7.1. A consideration of the A29 has been presented at section 5.2 Regional Connectivity. This section considers the network in full.

5.7.2. 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 off-peak (9am – 4pm) periods.

Results

5.7.3. The off-peak speeds have been inspected for the road network which extends over the **MUDC** 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 **A6, A29, A31** and **A505** between the principal towns generally operates at speeds exceeding 51mph except where it passes through villages.

5.7.4. Peak period speeds have been considered in the urban areas of **Cookstown**, **Dungannon** and **Magherafelt**, as this will highlight congestion on journeys to and from work. Speeds in the urban area of **Cookstown**, in Figure 14a, show a general pattern of decreasing speed toward the centre of the town. Speeds on the outer length of the north eastern radial route exceeds 51mph relating approximately to the national speed limit restriction. In general terms, speeds drop to 31mph or less on the inner lengths relating approximately to the 30mph speed restricted area and drops further to 20mph or less at the principal junctions in the town centre.

5.7.5. Speeds in the urban area of **Dungannon**, 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 31mph. In general terms, the 30mph speed restricted area is reached where speeds drop to less than 30mph. At the principal junctions in the town centre, speeds drop further to 20mph and less. On the south eastern approaches to the town centre, speeds below 30mph are noted on a number of sections.

5.7.6. Speeds in the urban area of **Magherafelt**, in Figure 14c, show a general pattern of decreasing speed toward the centre of the town. Speeds on the outer lengths of the main radials generally exceed 31 mph, in general terms, the 30mph speed restricted area is reached where speeds drop to less than 30mph. At the principal junction in the town centre, speeds drop further to less than 15mph. Speeds above 51mph are noted on a section of the Moneymore Road within the development limit, which reflects the 50mph speed restriction in place along this section of the road. Speeds on the A31 **Magherafelt** Bypass, which provides an alternative route to the east of the town centre, generally exceed 40mph.

Conclusions

5.7.7. In general terms traffic speeds are consistent with the road class and level of development. On the principal network roads are generally single-carriageways (**A29, A31, A505**). Recorded average speeds on the inter-urban sections of these roads generally exceed 51mph except where they pass through villages.

5.7.8. In the urban areas of **Cookstown**, **Dungannon** and **Magherafelt** speeds reduce in line with the urban restrictions of 30mph. Traffic progression is controlled by the throughput of the principal junctions in the town centre which reduces peak speeds to less than 30mph. As concluded in Section 5.2, there are no practical routing alternatives to the **A29** for through traffic in **Cookstown** and **Dungannon**. The **A31 Magherafelt Bypass** in **Magherafelt** provides traffic relief to the town centre.

5.8. Road Collision History

Introduction

5.8.1. Table 2, earlier (on Page 7), has identified that casualty rates per head of population in Mid Ulster are not significantly different from NI average rates. Northern Ireland casualties are presented in Figure 15d providing a breakdown of the total number of casualties by severity of injury and further broken down by urban/rural locations. It shows that while there are more total casualties in the urban areas, the numbers of seriously injured causalities and fatalities in the rural areas are higher than those in the urban areas.

5.8.2. The collision records presented in Figure 15e relates to Mid Ulster Borough Council for 2012-2016. In addition, while these follow the NI wide trend for higher numbers of seriously injured causalities and fatalities in rural areas, Mid Ulster figures are particularly high with 94% of fatalities and 86% of serious injuries occurring in rural areas. However it is also notable that unlike motor vehicle users, which comprise the clear majority of casualties, a substantial proportion of pedestrian and cyclist casualties occur in the urban areas.

5.8.3. Table 15e also displays that a total of 679 casualties occurred in the urban areas. Our detailed investigation of road collisions in the urban areas of **Cookstown**, **Dungannon** and **Magherafelt** using PSNI records dated between 2012 – 2016 account for 611 (or 90%) of this total. 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 – c for the three towns.

Results for Cookstown, Dungannon and Magherafelt

5.8.4. In **Cookstown** between 2012 and 2016, there were a total of 14 people seriously injured of which 10 were pedestrians. The 1 **Cookstown** fatality was a pedestrian. The pattern is similar in **Dungannon**, where a total of 15 people were seriously injured of which 8 were pedestrians and 3 were cyclists. There were no fatalities in **Dungannon** during this period. In **Magherafelt** a total of 9 people were seriously injured of which 3 were pedestrians and 1 was a cyclist. The 1 **Magherafelt** fatality was a pedestrian.

Conclusions

5.8.5. The Council's casualty rate per head of population is similar to the NI average. However the high proportion of residents living in rural areas and their use of the extensive rural road network leads to particular road safety issues. Whilst the detailed consideration of rural collisions and casualties in the area is beyond the scope of this Transport Study, it is expected that the conclusions in the Rural Road Analysis[5] would apply to Mid Ulster. Amongst the publication's most striking conclusions regarding killed and seriously injured persons are:

- the top three causation factors are "inattention or attention diverted", "excessive speed having regard to conditions" and "wrong course / position"; and
- 16-24 year olds (29%) and males (65%) are over represented.

5.8.6. It is also notable that unlike motor vehicle users, which comprise the clear majority of total casualties, a substantial proportion of pedestrian and cyclist casualties occur in the urban areas. This issue has been investigated in more detail by inspecting statistics for the three main towns.

[5] Northern Ireland Rural Road Analysis, 2012-2016 available at https://www.infrastructure-ni.gov.uk/publications/northern-ireland-rural-road-analysis-2012-2016 as of 7th August 2018

5.8.7. Whilst there are relatively small numbers of journeys made by active travel in the urban areas of **Cookstown**, **Dungannon** and **Magherafelt**, pedestrians and cyclists are often seriously injured in road collisions. By contrast, collisions in the urban areas involving vehicles only tend to result in slight casualties to driver or passengers. 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.

5.9. Parking provision in Cookstown, Dungannon and Magherafelt

Introduction

5.9.1. 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 **Cookstown**, **Dungannon** and **Magherafelt**. At a later date surveys will be undertaken of occupancy.

Results

5.9.2. The results for **Cookstown** are presented in Figures 16a, 17a and 18a. The surveys show that the town centre of **Cookstown** provides a total of 2,531 public parking spaces of which 1,812 are off-street and 719 are on-street. Of the off-street spaces, 1,799 are free and 13 require payment. A number of the free car parks are privately operated, often by supermarkets, options for any change in future operation should be carefully considered. All of the on-street spaces are free, however 212 have day time restrictions (generally 1 hour no return in 2 hours) and 507 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.

5.9.3. The results for **Dungannon** are presented in Figures 16b, 17b and 18b. The town centre of **Dungannon** has a total of 1,084 public parking spaces of which 495 are off-street and 589 are on-street. Of the off-street spaces, 212 are free and 283 require payment. All of the on-street spaces are free, however 290 have day time restrictions (generally 1 hour no return in 2 hours) and 299 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.

5.9.4. The results for **Magherafelt** are presented in Figures 16c, 17c and 18c. The surveys show that the town centre of **Magherafelt** provides a total of 1,455 public parking spaces of which 1,253 are off-street and 202 are on-street. Of the off-street spaces, 1,065 are free and 188 require payment. A number of the free car parks are privately operated, often by supermarkets, options for any change in future operation should be carefully considered. All of the on-street spaces

are free, however 113 have day time restrictions (generally 1 hour no return in 2 hours) and 89 are unrestricted. The restricted on-street spaces in **Magherafelt** are generally the most conveniently located to town centre services. Unrestricted spaces would also likely be attractive for employees in the area.

Conclusions

5.9.5. In **Cookstown** traffic is encouraged to circulate searching for the most convenient free on-street parking. Almost all off-street car parking in **Cookstown** is free and this does not encourage high space turnover in the town centre. The town centre is around 600m in length and 800m in breadth, therefore it is not unreasonable to expect drivers to walk from edge of town to their places of work or other long-stay purposes. 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.

5.9.6. **Dungannon** town centre is around 800m in length and breadth, therefore it is not unreasonable to expect drivers to walk from edge of town to their places of work or other long-stay purposes. Publicly owned parking provision is generally situated to the east and west of the town centre and are within short walking distance of the goods, services and amenities on offer in the town.

5.9.7. **Magherafelt** town centre is around 400m in length and 700m in breadth, therefore it is not unreasonable to expect drivers to walk from edge of town to their places of work or other long-stay purposes. The publicly managed car parks are generally evenly distributed throughout the tow centre and can be easily accessed from the radial routes. 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.

5.10. Legacy Road Alignments and Other Protected Land

5.10.1. Legacy Road Alignments and other transport related schemes with associated protected lands exist in the extant LDPs 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.

5.10.2. 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.

5.10.3. The Legacy Road Alignments included in the previous area plans for **Cookstown**, **Dungannon** and **Magherafelt** are as follows;

- The **Cookstown** bypass (consisting of Sandholes Link Road and **Cookstown** Eastern Distributor);
- A29 Moneymore Bypass;
- Northern Slip Road associated with second Park & Ride Site outside Maghera; and,
- New Link Road between the A6 and Aughrim Road at Creagh.

5.10.4. The **Dungannon** Area Plan 2010 also noted "The Department for Regional Development is committed to the provision of a new distributor road, which will provide relief to **Dungannon** town centre from through traffic and improve journey times on the A29 route." The alignment of this road was not confirmed.

6.0 Transport Objectives

6.1. Introduction

6.1.1. This chapter sets out the transport context and indicative objectives for the **MUDC** area taking account of local circumstances.

6.1.2. The objectives presented in this TS have had regard to the existing strategic policy context and the draft local policies contained in the draft Plan Strategy for MUDC as derived through the Community Plan and the Planning Options Paper. It is important to note that the development of the LTP will be subject to the relevant assessments and public consultation and the objectives and options in this TS are without prejudice to that process. The LTP for the MUDC area may also identify other options not included in this TS.

6.2. Context

6.2.1. The New Approach recognised that while some car journeys are unavoidable, it is important that the all council areas, including **MUDC**, 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. Transport Objectives and Linkage to Draft Plan Strategy

6.3.1. As noted in Section 2.7, the MUDC Draft Plan Strategy has carried through the objectives from the POP unchanged. These objectives are grouped under three headings and those most relevant to transport have been identified as follows:

PP1 - To build **Cookstown, Dungannon and Magherafelt** as economic and transportation hubs and as the main service centres for shops, leisure activities, public administrative and community services including health and education. These are the most populated places and the town centres are the most accessible locations for people to travel to including those without a car.

PP2 - To protect and consolidate the role of **local towns and villages** so that they act as local centres for shops and community services meeting the daily needs of their rural hinterlands.

PP3 - To provide for vital and **vibrant rural communities** whilst protecting the countryside in which they live by accommodating sustainable growth within the countryside proportionate to the extent of existing rural communities.

PP6 - To facilitate the development of new **community facilities** at locations accessible to the communities they serve, through a variety of modes of transportation in accordance with the community plan.

JP1 - To facilitate the creation of at least 8,500 **new jobs by 2030 at a variety of locations** where they are accessible to all members of the community, including those without a private car.

EI1 - To reduce contributions and **vulnerability to climate change** and to reduce flood risk and the adverse consequences of flooding.

EI2 - To protect and enhance the **natural and built environment** as wise custodians of our landscape and to achieve biodiversity, quality design, enhanced leisure and economic opportunity and promote health and wellbeing.

EI4 - To improve **connectivity between and within settlements and their rural hinterland** through accommodating investment in transportation to improve travel times, alleviate **congestion and improve safety** for both commercial and private vehicles as well as more **sustainable modes of transport including buses, walking and cycling**.

6.3.2. The Transport Objectives are listed below. The tables highlight the link to the objectives in the draft LDP Plan Strategy, whilst additional explanation is provided in the accompanying text.

Objective 1	
Enhance accessibility by road and public transport from the centres of Cookstown, Dungannon and Magherafelt to Belfast, Londonderry, gateways and hubs.	**Link to Draft LDP - Plan Strategy**
	PP1, EI4

6.3.3. 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	
Ensure viable public transport accessibility to essential services for people living in the Mid Ulster District Council area.	**Link to Draft LDP - Plan Strategy** PP1, PP2, PP3, PP6, EI4

6.3.4. 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, which 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 connecting all residential, employment, retail and leisure uses in the urban areas of Cookstown, Dungannon and Magherafelt.	**Link to Draft LDP - Plan Strategy** PP1, PP6, JP1, EI4

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

6.3.6. Although still in the development stages, by working closely with the Council it is intended that growth will primarily focus on the large urban centres of **Cookstown, Dungannon** and **Magherafelt**. This will effectively maximise the capacity of the existing urban bus and active travel networks and will facilitate the improvement of these networks.

6.3.7. It is considered that development should be located in areas which have good accessibility. This will enable residents to access facilities which are within active travel distances and have the option to use bus services for longer journeys. In general the scale of **Cookstown, Dungannon** and **Magherafelt** are such that the full development area is within a convenient cycling distance (approximately 3 miles or 20 minutes). Similarly almost all residential areas within the

development limits are within walking range of the centre of the town (approximately 1 mile or 20 minutes).

6.3.8. 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 Cookstown, Dungannon and Magherafelt with reduced vehicle dominance, to make the towns attractive places to live and work and to improve safety for active travel modes.	**Link to Draft LDP - Plan Strategy** PP1, EI2, EI4

6.3.9. 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 active travel and public transport and can be influenced by parking strategy. The transport infrastructure in town centres also merit special priority in terms of place-making.

Objective 5	
Enhance transport accessibility to Cookstown, Dungannon and Magherafelt to safeguard their viability.	**Link to Draft LDP - Plan Strategy** **PP1, EI4**

6.3.10. **Cookstown, Dungannon and Magherafelt** town centres offer a broad range of services which meet the needs of the residents of **Cookstown, Dungannon and Magherafelt** and **MUDC** 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 Draft LDP - Plan Strategy**
	EI4

6.3.11. 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 Draft LDP - Plan Strategy**
	EI1

6.3.12. This objective is over-arching in nature. Any new infrastructure should be designed and constructed to the latest standards and future-proofed taking account of the particular flood risks applying in Mid Ulster. Also taking account of the rural nature of the area and the high dependence on car the infrastructure should be as safe as possible whilst users made aware of the risks. Maintenance needs to be considered fully, taking account of the flood risks and the remoteness of some locations.

6.4. Alignment with wider strategy aims and objectives

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

- PfG;
- RDS;
- The New Approach;
- NI Changing Gear: Cycling Strategy and
- MUDC Community Plan Outcomes (see Section 2.7 for number reference).

Table 3. Alignment with wider strategy aims / objectives and Council Policies

TS Objective	PfG	RDS	New Approach	NI Changing Gear	MUDC Community Plan
Objective 1: Enhance accessibility by road and public transport from the centre of Cookstown, Dungannon and Magherafelt 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	Outcome 1 Outcome 2 Outcome 3 Outcome 4
Objective 2: Ensure viable public transport accessibility to essential services for people living in the Mid Ulster District Council area.	Outcome 13 Indicator 23 Indicator 25	RG2	Objective 1 Objective 5 Objective 8 Objective 9	Objective 2 Objective 3	Outcome 1 Outcome 2 Outcome 3 Outcome 4 Outcome 10

Objective 3: Ensure there are attractive and safe active travel networks connecting all residential, employment, retail and leisure uses in the urban areas of Cookstown, Dungannon and Magherafelt.	Outcome 2 Indicator 25		Objective 1 Objective 4 Objective 6 Objective 7 Objective 8 Objective 9 Objective 10 Objective 11 Objective 12	Objective 1 Objective 2 Objective 3 Objective 4	Outcome 1 Outcome 2 Outcome 3 Outcome 4 Outcome 5 Outcome 10
Objective 4: Deliver high quality public realm in the centres of Cookstown, Dungannon and Magherafelt, with reduced vehicle dominance, to make the towns attractive places to live and work and to improve safety for active travel modes.	Outcome 2 Indicator 25	RG2	Objective 2 Objective 6 Objective 7 Objective 8 Objective 9 Objective 10 Objective 11	Objective 1 Objective 2 Objective 3 Objective 4	Outcome 1 Outcome 2 Outcome 3 Outcome 5 Outcome 10 Outcome 13

			Objective 12		
Objective 5: Enhance transport accessibility to Cookstown, Dungannon and Magherafelt 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	Outcome 1 Outcome 2 Outcome 3 Outcome 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	Outcome 4 Outcome 13
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		Outcome 1 Outcome 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 draft TS for MUDC. 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. 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; and
- Confirmation of Transport Measures Assessment against the objectives.

7.1.2. The measures are illustrative only and will be subject to further consideration in the Transport Plan. The Transport Plan may also identify other 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 MUDC consistent with the Community Planning and LDP processes. These objectives are used to assess alternative options and identify 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 **Cookstown, Dungannon and Magherafelt** to Belfast, Derry, gateways and hubs.
- **Objective 2**: Ensure viable public transport accessibility to essential services for people living in the MUDC area.

- **Objective 3:** Ensure there are attractive and safe active travel networks connecting all residential, employment, retail and leisure uses in the urban areas of **Cookstown, Dungannon and Magherafelt.**
- **Objective 4:** Deliver high quality public realm in the centres of **Cookstown, Dungannon and Magherafelt**, with reduced vehicle dominance, to make the towns attractive places to live and work and to improve safety for active travel modes.
- **Objective 5:** Enhance transport accessibility to **Cookstown, Dungannon and Magherafelt** 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 and in identifying the precise locations which focus improvements on the Key Transport Corridors (KTC). The only potential options appear to be:

- Improved inter-urban roads on KTC and link corridors
- Improved 'limited-stop' bus services to key hubs
- New rail line extension to **Dungannon**
- Park & Ride and Park & 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 or improved Ulsterbus rural services
- Alternative Ulsterbus rural operations including integration with 'limited-stop' services
- Integrated public transport services including innovative transport models such as 'ride-share'
- Land-use policy changes which focus residential development in towns
- New or improved public transport serving new developments funded by the developers
- 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,** focuses on safe and attractive active travel connections within Dungannon, Cookstown and Magherafelt. The potential options appear to be:

- Provision of improved walking facilities in towns
- Provision of improved cycle parking provision in towns
- Provision of a network of attractive cycling routes in towns
    - Focus on radial routes
    - Local improvements which together provide longer routes

- Identification and implementation of measures to address road user behaviour related to active travellers.

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 developers
- Improvements to existing greenway and the provision of new greenways between towns

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

- Potential bypasses of **Cookstown** an**d Dungannon** town centres to reduce vehicle flows through the town centres
- 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:

- Potential bypasses of **Cookstown** and **Dungannon** town centres to reduce travel times to town centres by bus-based modes
- Traffic management measures to reduce travel times to town centres by all sustainable modes
- Public Transport improvements options and identified against Objective 2
- Improved active travel 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

7.3.8. **Objective 6 summarised as Safety.** The potential options appear to be:

- Implement road safety measures to reduce collisions
- Improved active travel options identified against Objective 3
- Priority to be given to pedestrians in moving to and around town centre streets
- Improvements to existing greenway and provision of new greenways between towns
- Traffic management schemes that remove traffic routes through the town centre

7.3.9. **Objective 7 summarised as Resilience, is quite specific.** The only 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 TS time frame of 2030 and consistent with the objectives.

- Improved inter-urban roads on KTC and link corridors
- Improved 'limited-stop' bus services to key hubs
- 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 TS timeframe or would not meet the objectives:

- New rail line extension to **Dungannon** – could not be delivered within 2030 timeframe and would be uneconomic compared to proposed improved 'limited-stop' bus services. However, as the rail network makes up part of the RSTN, further consideration may be given in the RSTNTP.

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 'ride-share'

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 MUDC LDP LPP stage.

Objective 3: Urban Active Travel Networks.

7.4.5. It is proposed that in general all of the options are progressed as feasible within the TS time frame of 2030 as follows:

- Provision of improved walking facilities in towns
- Provision of improved cycle parking provision in towns

- Provision of a network of attractive cycling routes in towns
- Improvements to existing greenway network and provision of a new greenway network between towns
- For new developments, walk and cycle infrastructure both within the development and linking to existing or planned networks are provided by the developers

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. It is proposed that, with one exception, all of the options are progressed as feasible within the TS time frame of 2030 as follows:

- Potential bypasses of **Cookstown** and **Dungannon** town centres to reduce vehicle flows and congestion in the town centre and to improve safety for pedestrians and cyclists
- 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.

7.4.9. Objective 5 Accessibility to Town Centres

7.4.10. It is proposed that all of the options are progressed as feasible within the TS time frame of 2030 as follows:

- New bypasses of **Cookstown** and **Dungannon** town centres to reduce travel times to the town centre by all sustainable modes
- Traffic management measures to reduce travel times to town centres by all sustainable modes
- Public Transport improvements options and identified against Objective 2
- Improved active travel 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

7.4.11. 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 developers. Therefore the following option is progressed:

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

Objective 6 Safety

7.4.12. All options are progressed as feasible within the TS time frame of 2030 and consistent with the objectives as follows:

- Implement road safety measures to reduce collisions
- Improved active travel options identified against Objective 3
- Priority to be given to pedestrians in moving to and around town centre streets identified against Objective 4
- Improvements to existing greenway and the provision of new 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

Objective 7 Resilience.

7.4.13. Both options are progressed as feasible within the TS time frame of 2030 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 TS for MUDC is primarily focused on the principal urban centres of Cookstown, Dungannon and Magherafelt 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 TS also includes two inter-urban measures that also link to the RSTNTP. This TS is purposely composed of 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 LDP LPP stage of the LDP.

7.5.2. This TS recommends the following 11 illustrative measures:

1. Improved inter-urban roads on KTC including the A29 link corridor.
2. Improved 'limited-stop' bus services to key hubs

3. Integration of passenger transport services including innovative transport models such as 'ride-share'
4. New orbital urban roads to bypass **Cookstown** and **Dungannon** town centres
5. New urban road links and supporting sustainable transport infrastructure to facilitate key development funded by developers
6. Town Centre Parking Strategies that provide for demand for long and short stay parking at locations that reduce town centre congestion
7. Provision of improved walking facilities in towns
8. Provision of a network of attractive radial cycling routes in towns and greenways between towns
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 operational performance and safety at all times.

7.5.3. Each of the illustrative measures are confirmed against the transport objectives below. The table 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 illustrative 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 inter-urban roads on KTC	√√	√√			√√	√	
2: Improved 'limited-stop' bus services to key hubs	√√	√			√√		
3: Integration of passenger transport services including innovative transport models such as 'ride-share'	√	√√			√		
4: New orbital urban roads to bypass **Cookstown** and **Dungannon** town centre	√√	√		√	√	√	
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		√		√√	√√		

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
7: Provision of improved walking facilities in towns		√	√√	√	√√	√√	
8: Provision of a network of attractive radial cycling routes in towns and greenways between towns			√√	√	√√	√√	
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 inter-urban roads

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 inter-urban roads	√√	√√			√√	√	

7.5.4. New inter-urban road schemes may be identified and prioritised on the Key Transport Corridors to improve external accessibility from the MUDC area. These schemes will be assessed as part of the RSTNTP that is currently being prepared, and may include bypasses on the A29 link corridor.

7.5.5. These roads would improve external accessibility by reducing journey times or improving journey time reliability. This will impact on bus travel in addition to private car and goods travel.

7.5.6. Improvements to these roads would also directly improve accessibility to the town centres by reducing journey times from the catchment areas.

2. 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	√√	√			√√		

7.5.7. New 'limited-stop' bus services are expected to be identified and prioritised on the Key Transport Corridors to improve external accessibility from the **MUDC** area. These services will build upon the existing Goldline route network to be listed in the RSTNTP which is currently being prepared. The bus services will capitalise on continued road improvements and new park and ride schemes.

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

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

7.5.10. 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.

3. Integration of passenger transport services including innovative transport models such as 'ride-share'

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 'ride-share'	√	√√			√	

7.5.11. 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.

7.5.12. 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.

7.5.13. 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 stations and then interchange to Goldline services.

7.5.14. 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.

4. New orbital urban roads to bypass Cookstown and Dungannon town centres

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 orbital urban roads to bypass Cookstown and Dungannon town centres	√√	√		√	√	√	

7.5.15. The road networks of **Cookstown** and **Dungannon** do not contain orbital routes to avoid through traffic travelling through the town centres. The potential routes and their design will be explored as part of the LTP and the LDP LPP stage.

7.5.16. The proposed **Cookstown** and **Dungannon** bypass would make a direct contribution to improving external accessibility by improving travel times on the A29 route and onwards towards Belfast, Derry and Coleraine in the north and Armagh/Newry in the south.

7.5.17. Bypasses would make an indirect impact to providing high quality public realm by removing through traffic from the town centres of **Cookstown** and **Dungannon**.

7.5.18. Similarly bypasses would make an indirect impact to improving accessibility to the town centres by reducing traffic levels on radial roads and hence reducing congestion in **Cookstown** and **Dungannon** town centres.

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		√	√√		√√	√	

7.5.19. The LDP LPP 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 to provide direct access however active travel and public transport infrastructure and services are also likely to be needed. That infrastructure will need to be funded by the developers and planned and delivered in conjunction with the Council(s) and the Department.

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

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

7.5.22. 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		√		√√	√√		

7.5.23. Town Centre Parking Strategies will be required in **Cookstown, Dungannon** and **Magherafelt** 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 strategy at the LDP LPP stage.

7.5.24. In **Cookstown, Dungannon** and **Magherafelt** 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.

7.5.25. 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.

7.5.26. 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		√	√√	√	√√	√√	

7.5.27. The provision of improved walking facilities in **Cookstown, Dungannon** and **Magherafelt** will likely be a central measure of the LTP. In these settlements the pedestrian networks are incomplete and that local levels of walking are low and fall below NI averages. 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.

7.5.28. 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.

7.5.29. 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); this represents the majority of residential areas within the development area of the towns with few exceptions. 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.

7.5.30. 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.

7.5.31. 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 towns

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
Provision of a network of attractive radial cycling routes in towns and greenways between towns			√√	√	√√	√√	

7.5.32. The provision of improved cycling facilities in **Cookstown, Dungannon** and **Magherafelt** will likely be a central measure of the LTP. The cycle networks in these settlements are far from complete and serve only a small proportion of the residential areas. Whilst the provision of a network of radial cycling routes in **Cookstown, Dungannon** and **Magherafelt** 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.

7.5.33. 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 3 miles (assuming a travel time of 20 minutes) which would encompass the entire development area of the towns.

7.5.34. 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.

7.5.35. 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		√	√√	√	√√	√	

7.5.36. The imposition of sustainable transport measures, such as those proposed in this TS, 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.

7.5.37. 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.

7.5.38. 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.

7.5.39. 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.

7.5.40. 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 is 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
Ensure that user behaviour regarding safe use of the transport network is monitored and addressed.				√		√√	

7.5.41. 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 **MUDC** where its rural character and high road collision and casualty record likely follow general rural trends with single vehicle collisions and driver behaviour.

7.5.42. The consideration of user behaviour is also particularly important for objectives relating to active travel networks and of public realm schemes which may involve relatively innovative design features requiring supporting public information.

7.5.43. 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 operational performance and safety 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 operational performance and safety at all times.			√	√		√√	√√

7.5.44. 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.

7.5.45. This measure is effectively cross-cutting and has no direct bearing impact on any of the other objectives.

7.5.46. 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 draft TS for **MUDC** is confirmed as the following 11 illustrative measures:

8.1.1. **Improved inter-urban roads on KTC and link corridors**
New inter-urban road schemes may be identified and prioritised on the Key Transport Corridors. These schemes may include the **Cookstown** and **Dungannon** bypasses and other schemes to be listed in the RSTNTP which is currently being prepared.

8.1.2. **Improved 'limited-stop' bus services to key hubs**
New 'limited-stop' bus services are expected to be identified and prioritised on the Key Transport Corridors to and from **Cookstown, Dungannon** and **Magherafelt**. These services will build upon the existing Goldline route network to be listed in the RSTNTP which is currently being prepared. The bus services will capitalise on continued road improvements.

8.1.3. **Integration of passenger transport services including innovative transport models such as 'ride-share'**
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.

8.1.4. **New orbital urban roads to bypass Cookstown and Dungannon town centres**
The road networks of **Cookstown** and **Dungannon** currently do not provide orbital routes to avoid through traffic travelling through the town centres. The precise routes and their design will be explored as part of the LTP and the LDP LPP stage.

8.1.5. **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 active travel and public transport infrastructure and services are also likely to be needed. That infrastructure will need to be funded by the developers and planned and delivered in conjunction with Council(s) and the Department.

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

8.1.7. **Provision of improved walking facilities in towns**
The provision of improved walking facilities in **Cookstown, Dungannon** and **Magherafelt** will likely be a central measure of the LTP. The current pedestrian networks are incomplete and local levels of walking are low and fall below NI averages. Improvements to the walking facilities may require retro-fitting work and may impact on traffic capacity.

8.1.8. **Provision of a network of attractive radial cycling routes in towns and greenways between towns**
The provision of improved cycling facilities in **Cookstown, Dungannon** and **Magherafelt** will likely be a central measure of the LTP. The current cycle networks are far from complete and serve only a small proportion of the residential areas. The provision of a network of radial cycling routes in **Cookstown, Dungannon** and **Magherafelt** 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. **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 **Cookstown, Dungannon** and **Magherafelt**. 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. **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. **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.

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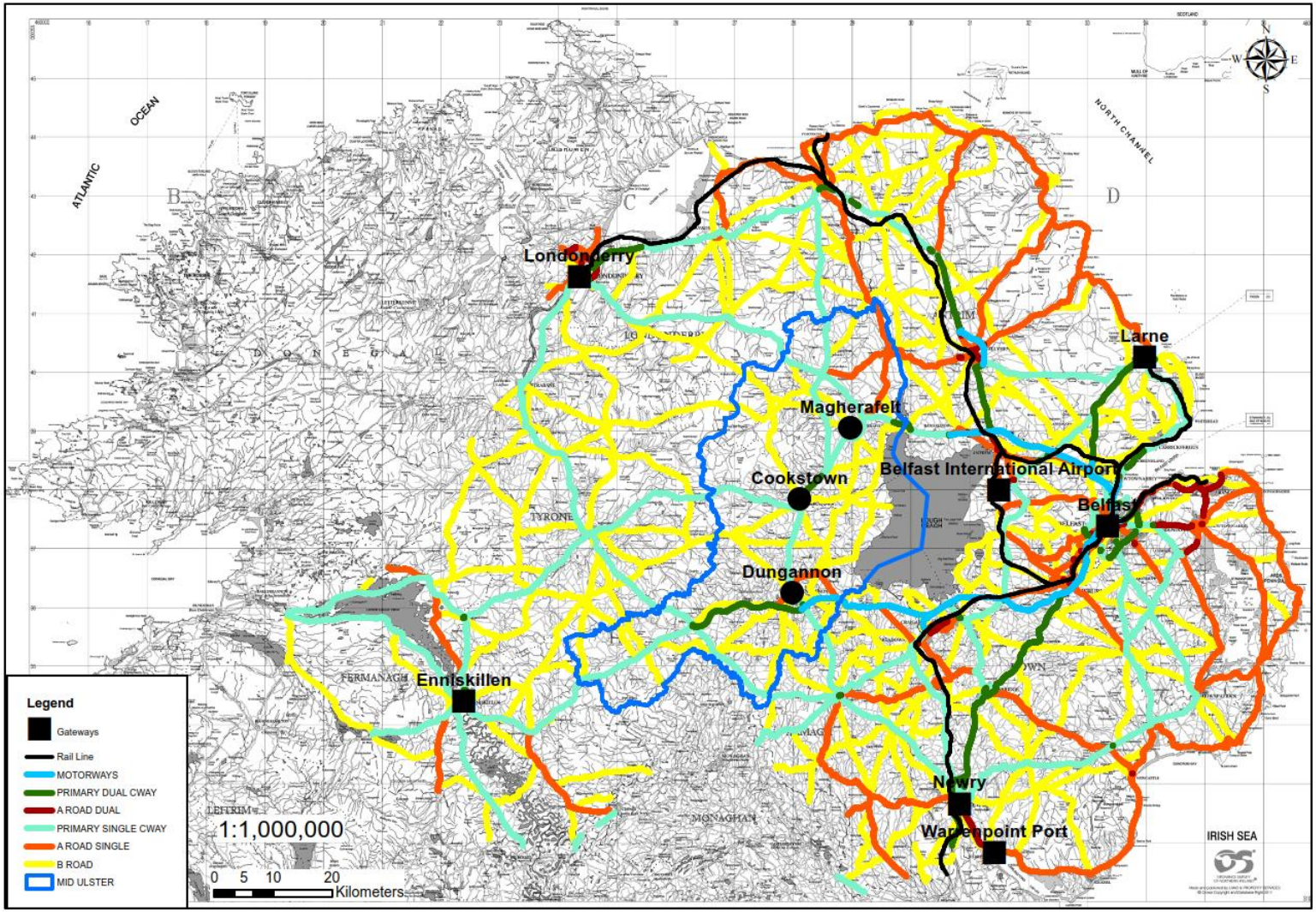
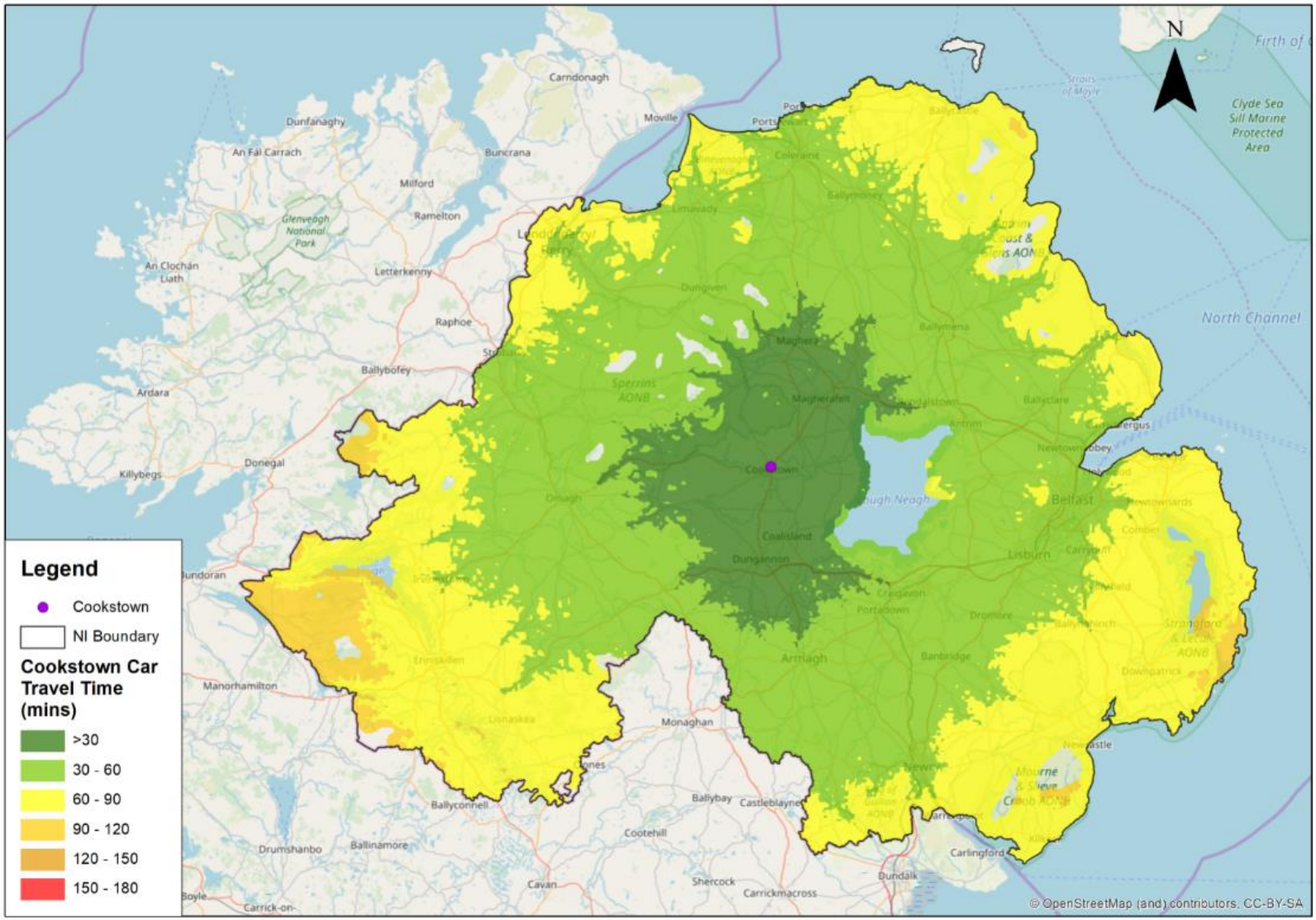
Introduction

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



Regional connectivity from Cookstown, Dungannon and Magherafelt by road and public transport

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



Regional connectivity from Cookstown, Dungannon and Magherafelt by road and public transport

NOTES

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

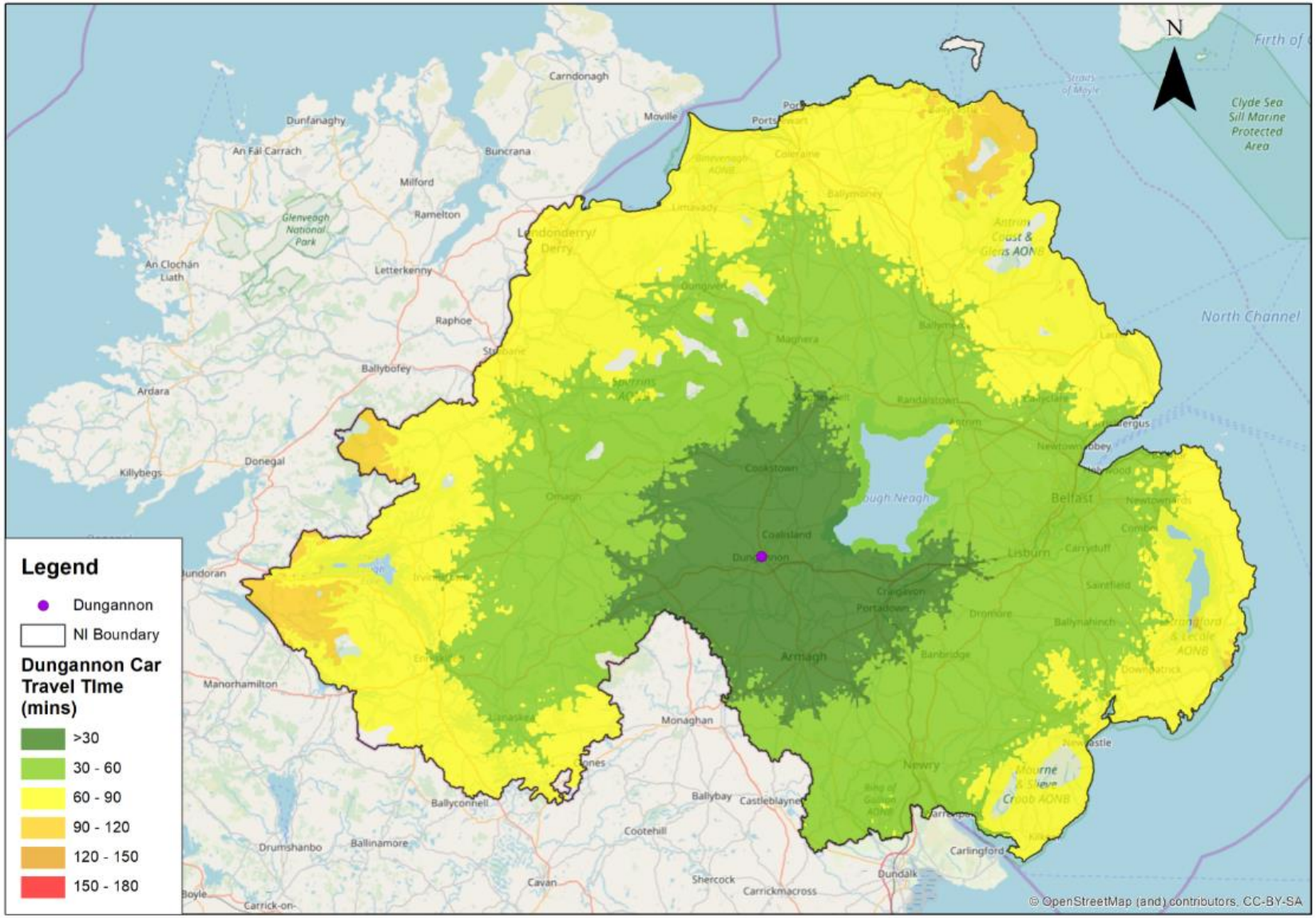
The travel times are presented in 30 minute time bands varying from green to yellow to orange to red. The darkest shade of green represents a travel time of less than 30 minutes, by comparison the darkest shade of orange represents a travel time range between 120 – 150 minutes (i.e. 2 – 2.5 hours). Travel 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 Dungannon at AM Peak Speed



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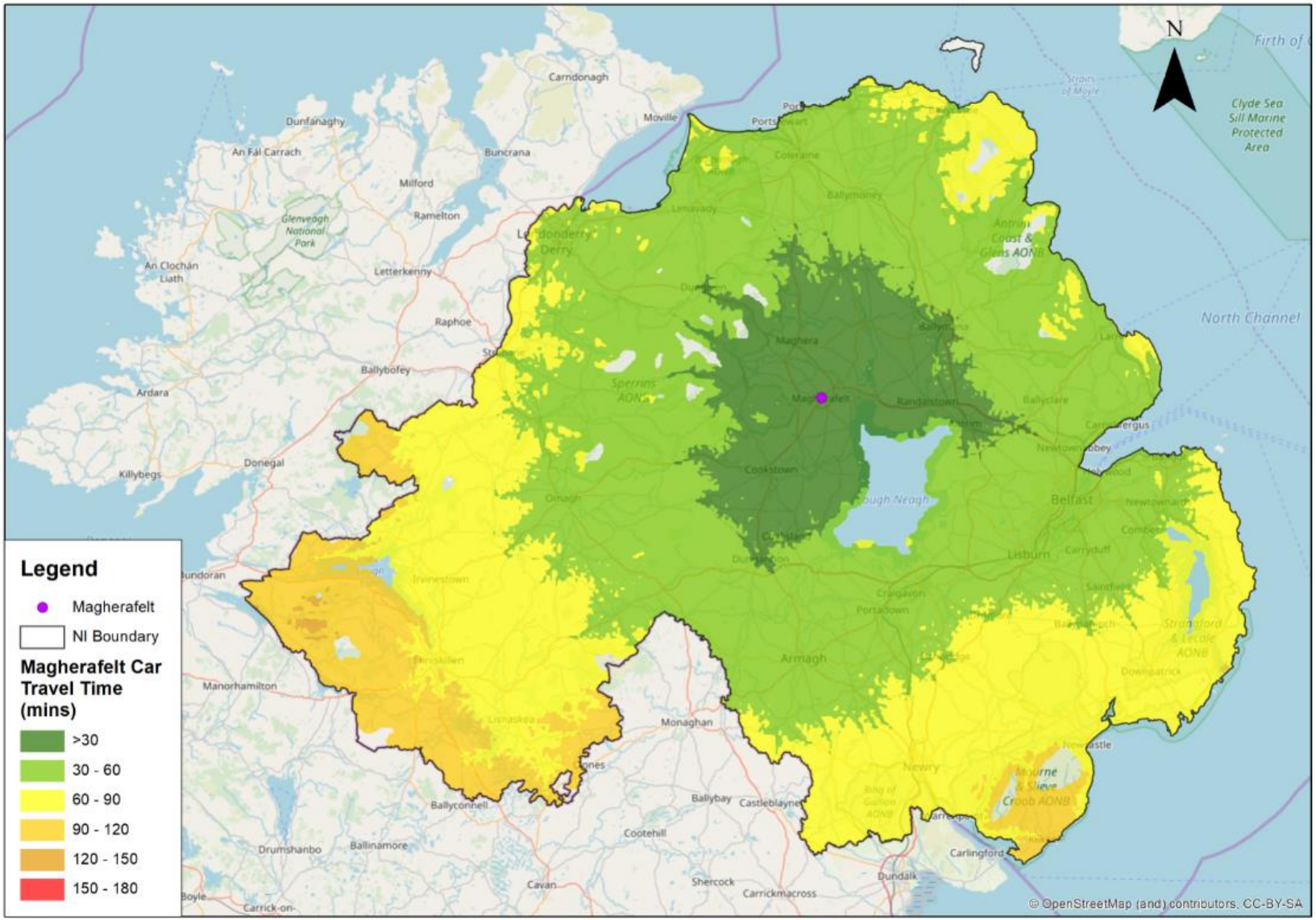
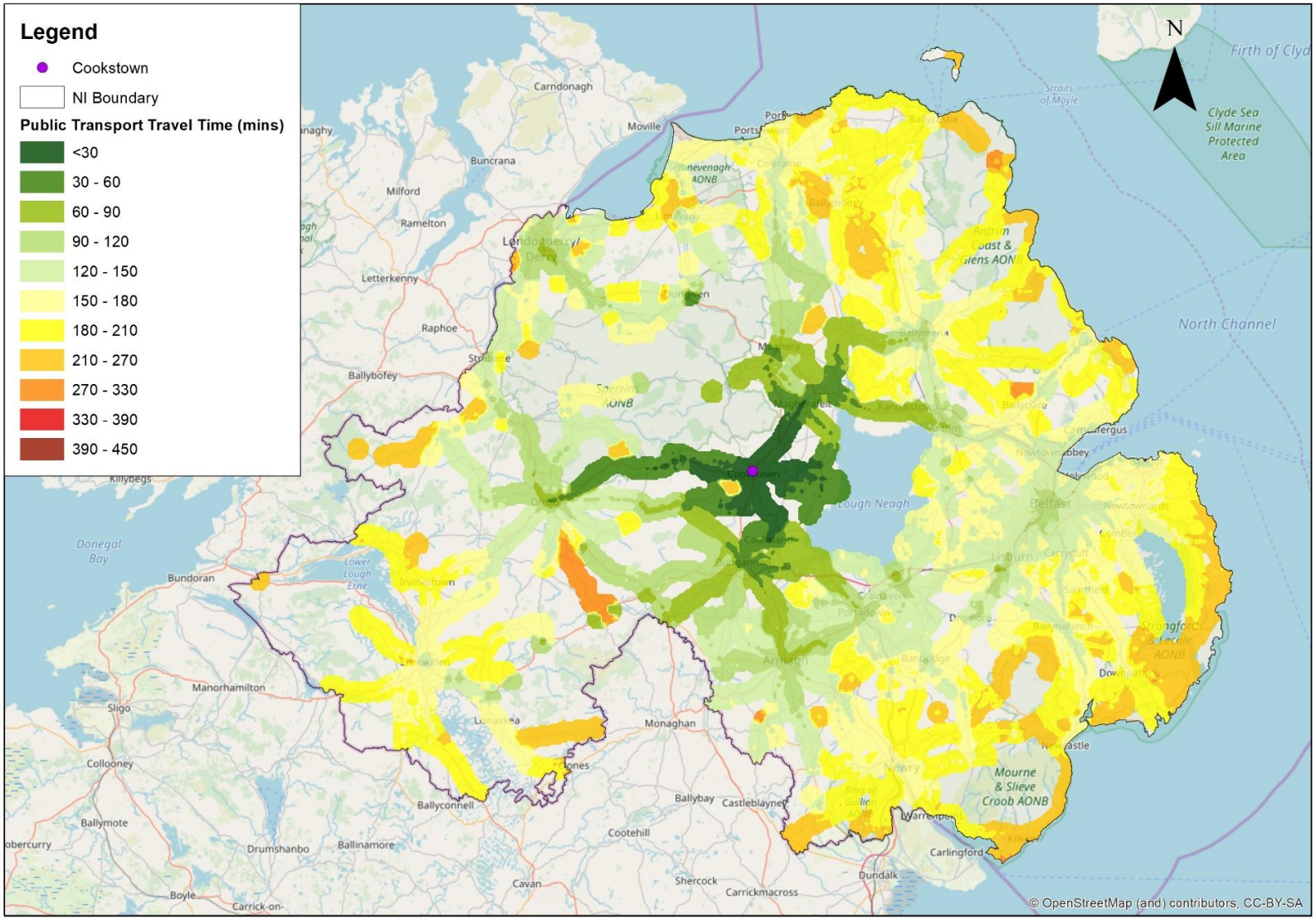


Figure 3a – Travel Time by Public Transport from Cookstown from 7:00am



Regional connectivity from Cookstown, Dungannon and Magherafelt by road and public transport

NOTES

Figure 3 shows the travel times by public transport from Cookstown 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 Cookstown 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 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 Dungannon from 7:00am

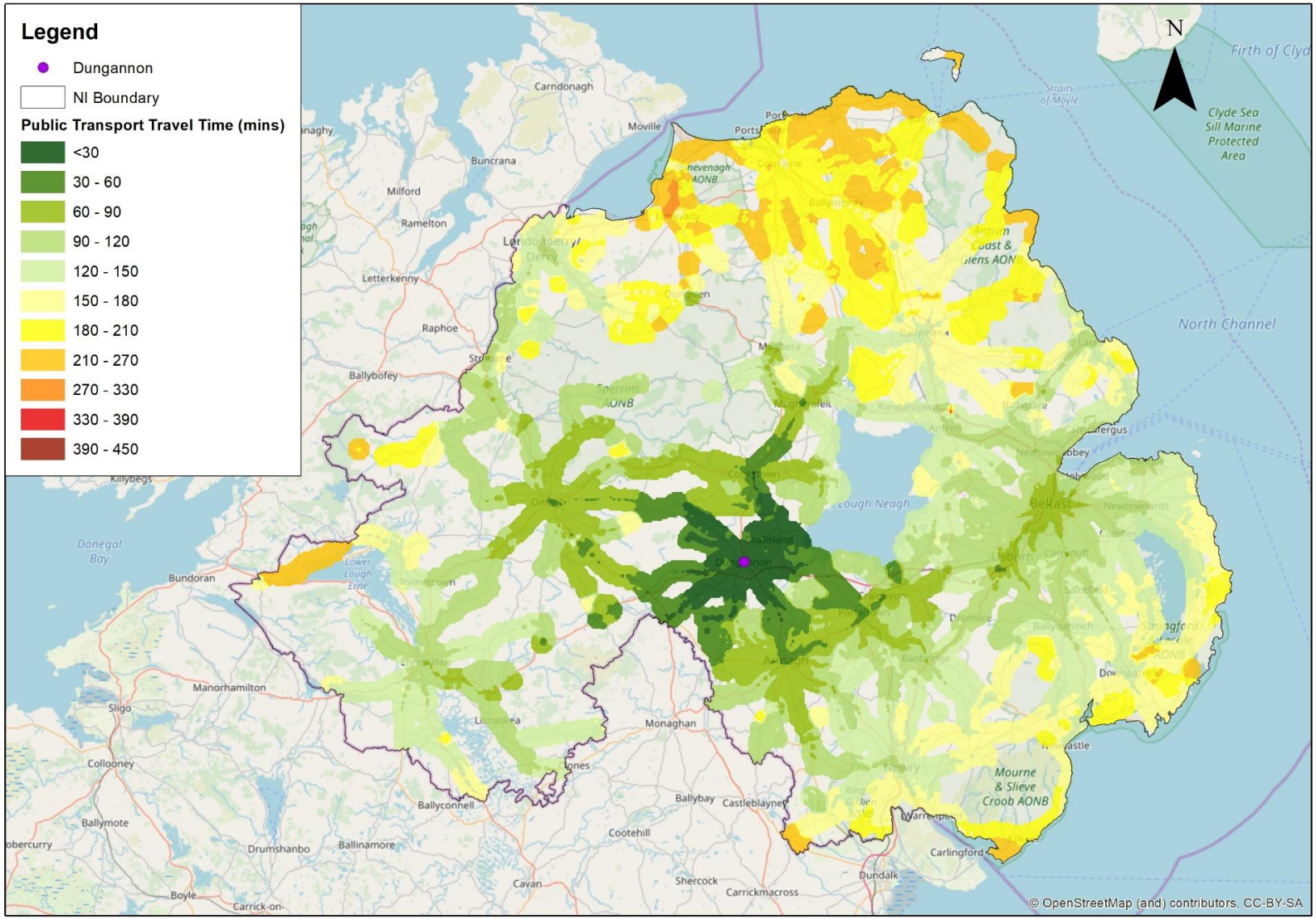
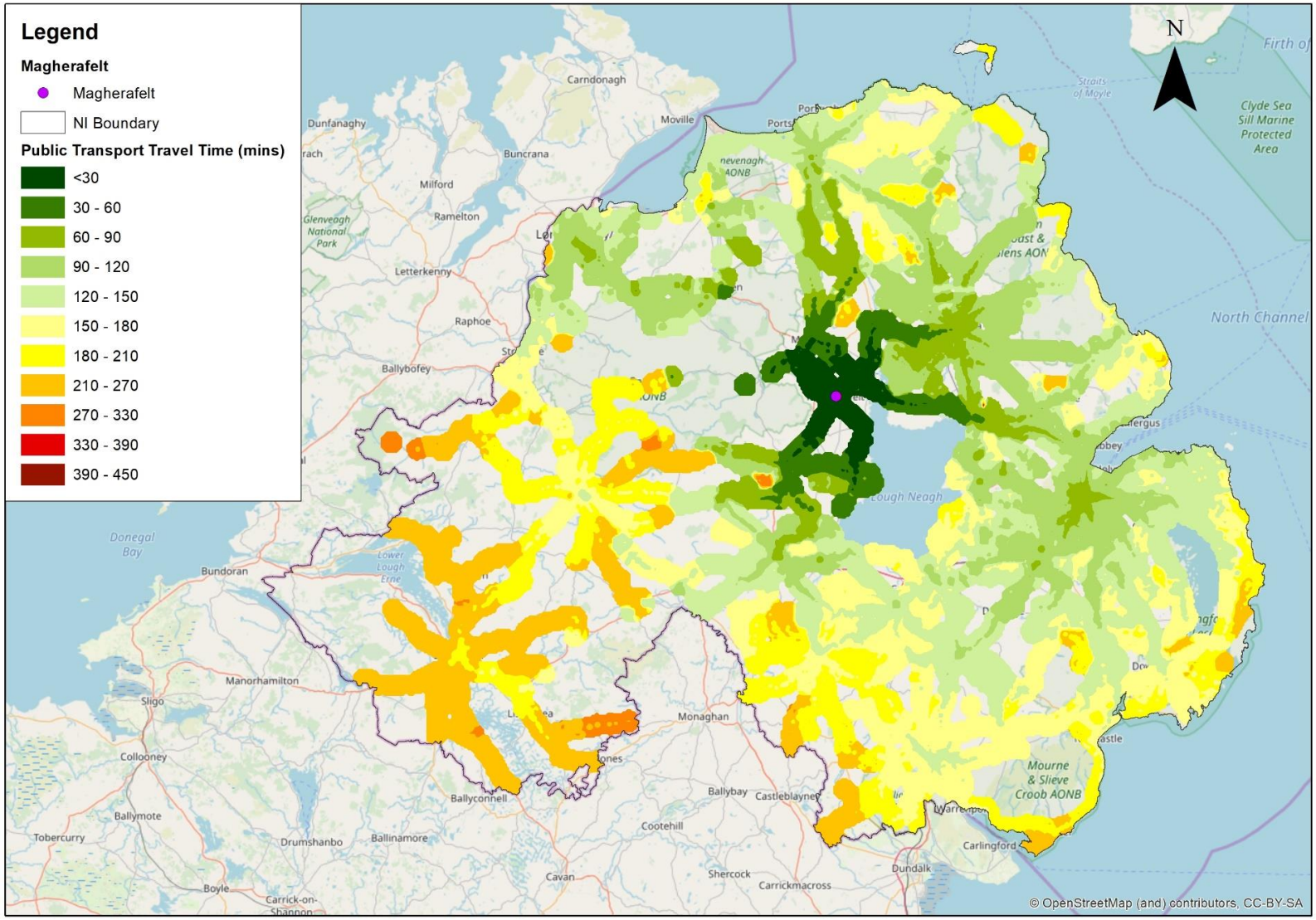
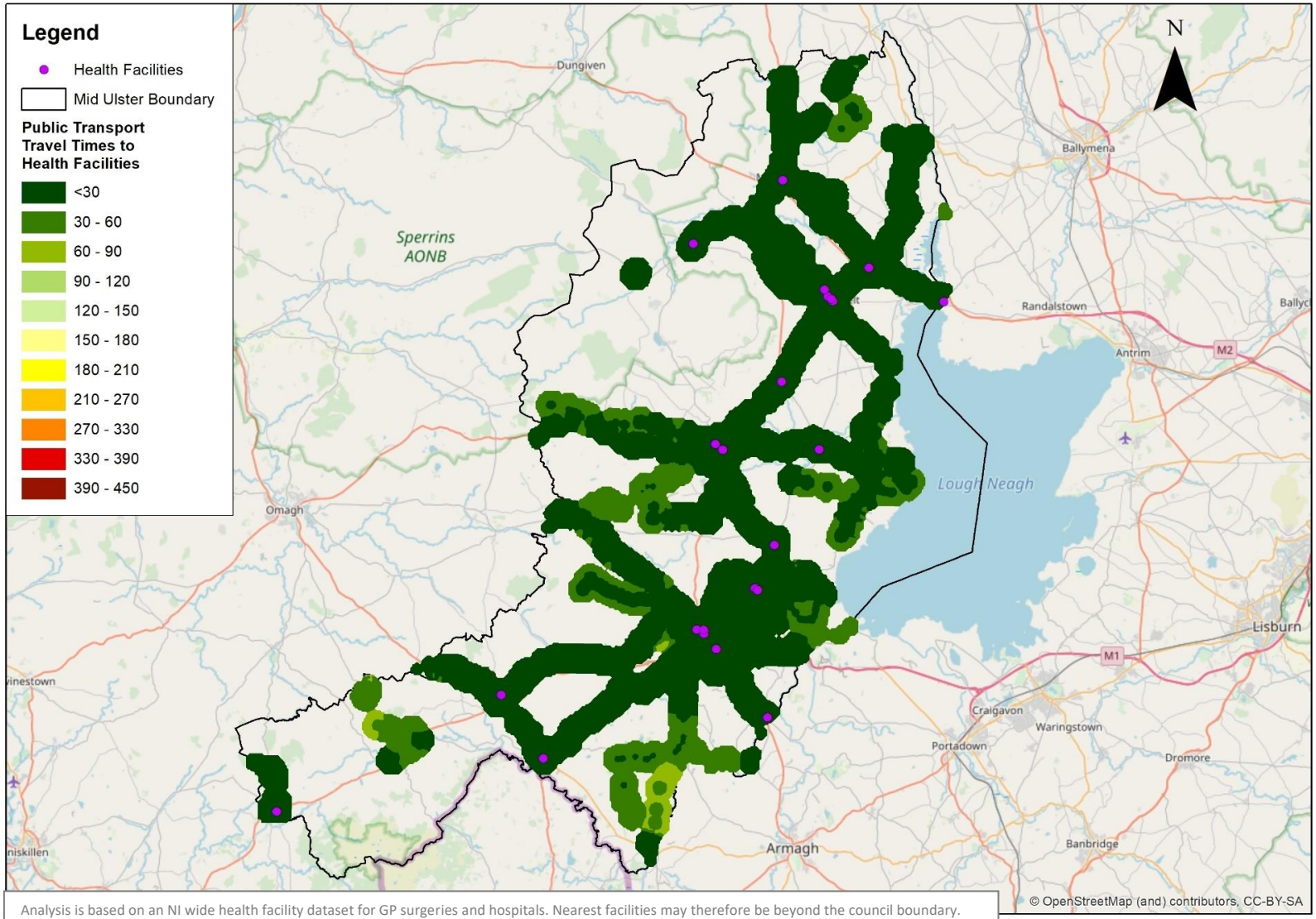


Figure 3c – Travel Time by Public Transport from Magherafelt from 7:00am



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 Mid Ulster District 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 30 minute time bands in varying shades of green and red. Travel times less than 30 minutes are indicated by the darkest shade of green and the darkest shade of red represents 390-450 minutes (i.e. 6 hours and 30 minutes and 7 hours 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 Cookstown, Dungannon and Magherafelt

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

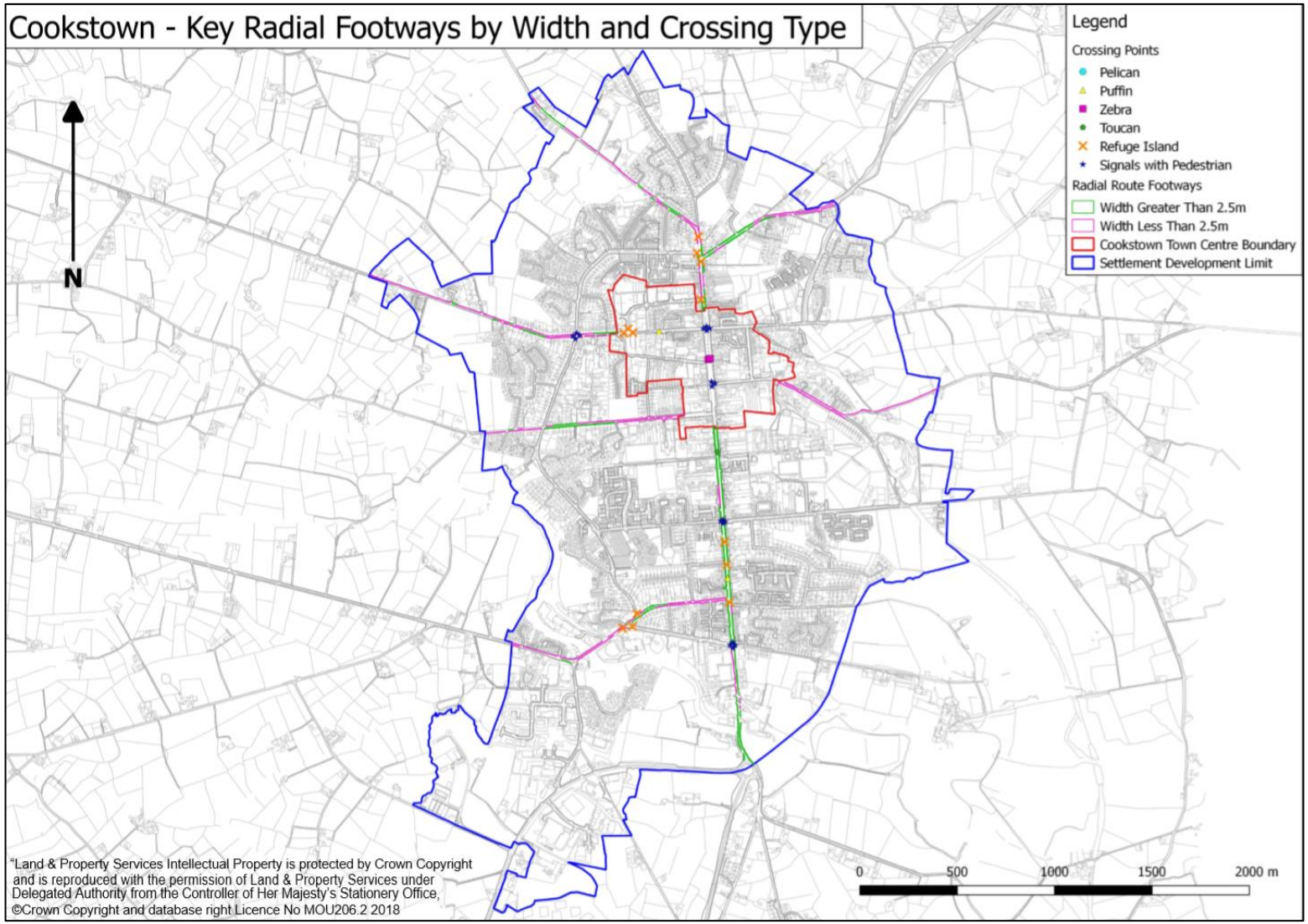


Figure 5b – Pedestrian Infrastructure in Dungannon – Key Radial Footways by Width and Type

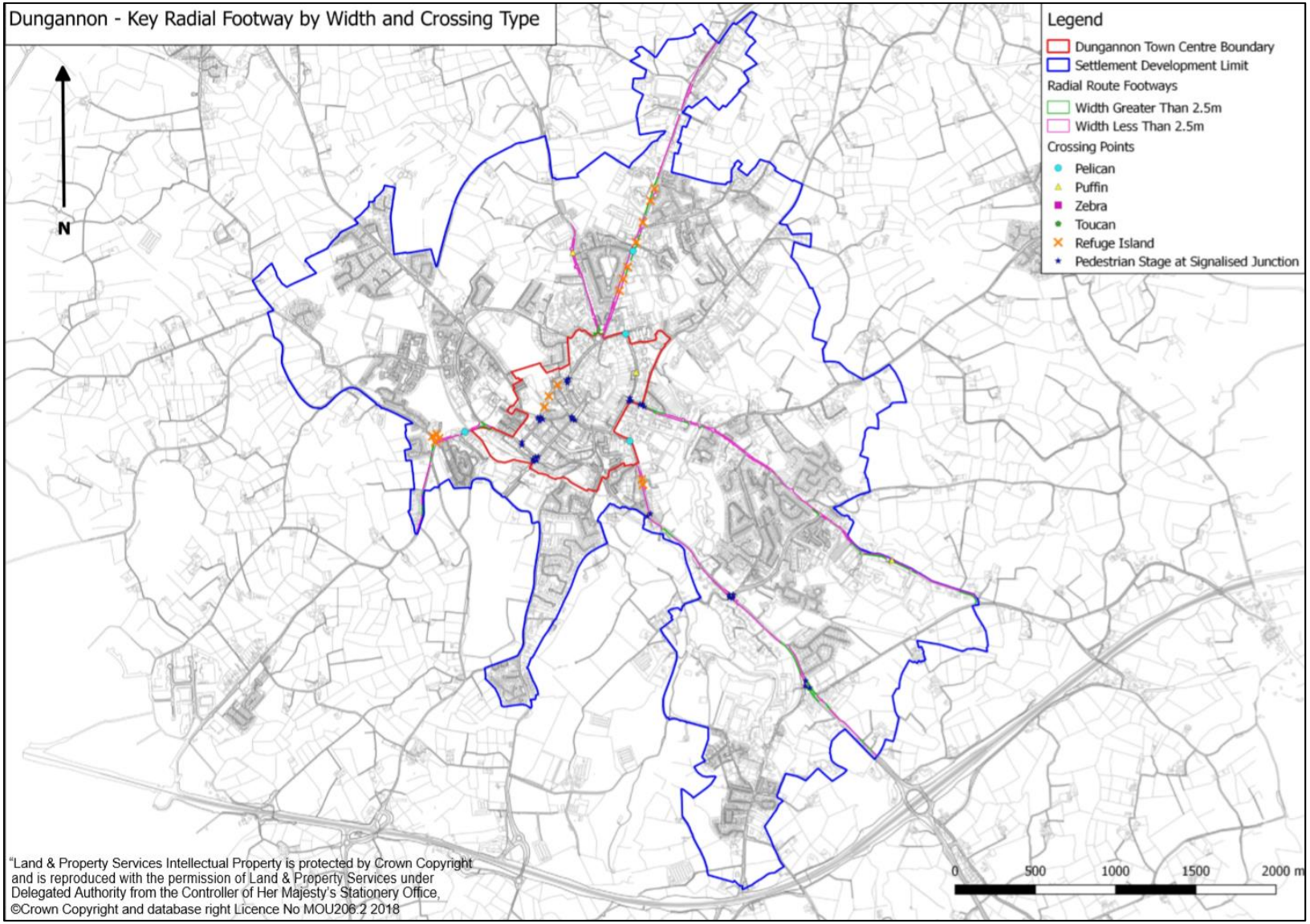


Figure 5c – Pedestrian Infrastructure in Magherafelt– Key Radial Footways by Width and Type

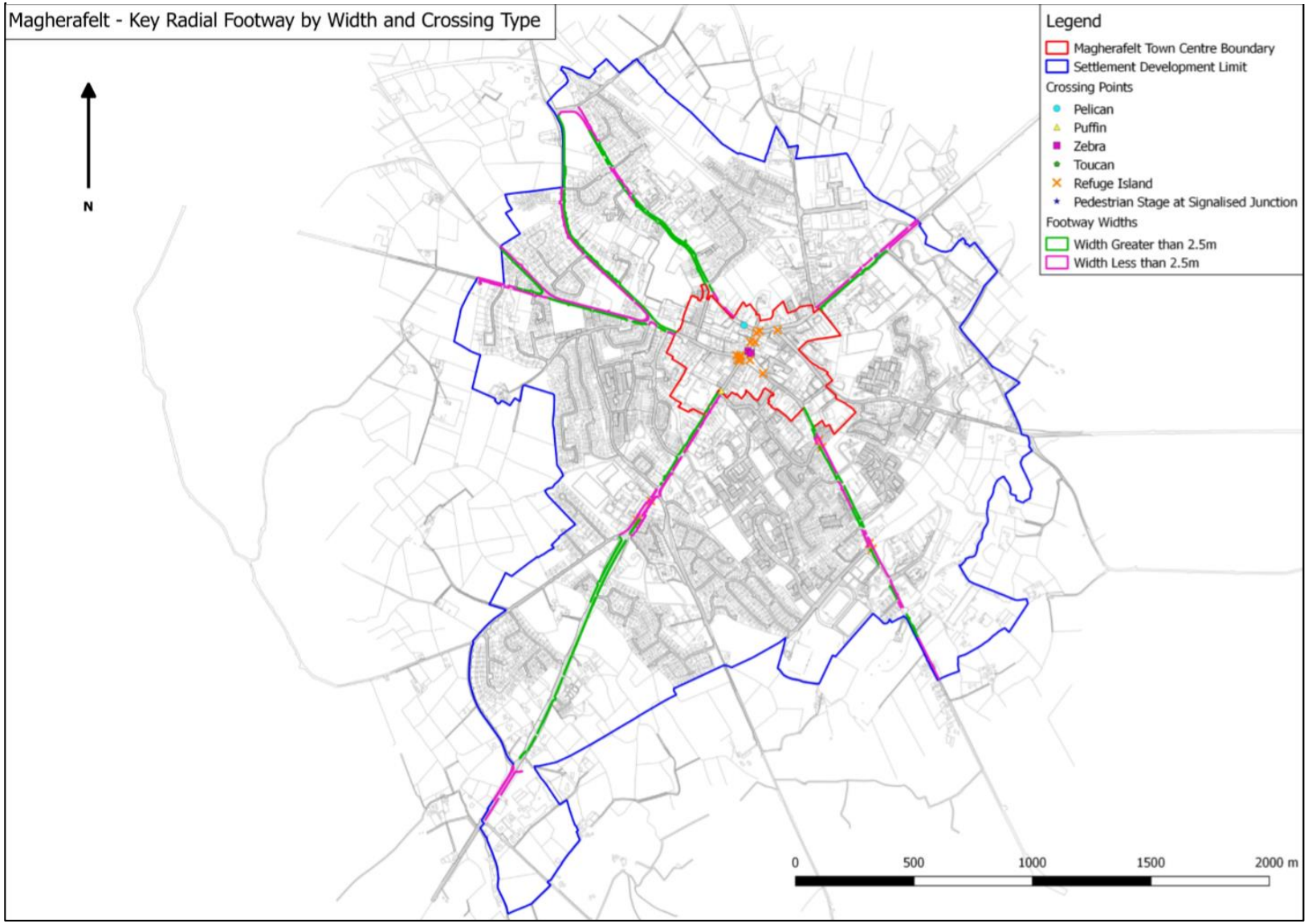


Figure 6a – Cycling Infrastructure in Cookstown

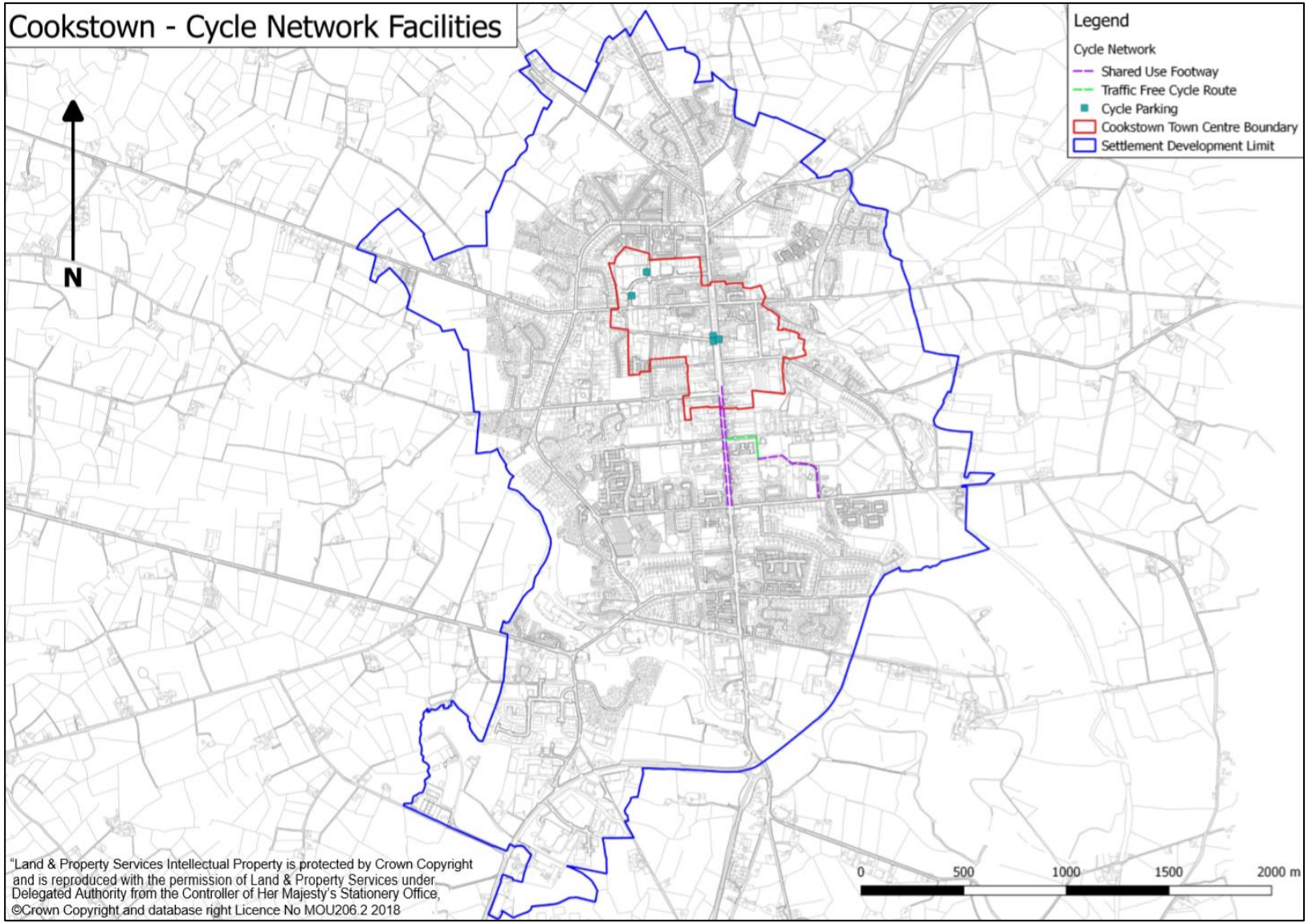


Figure 6b – Cycling Infrastructure in Dungannon

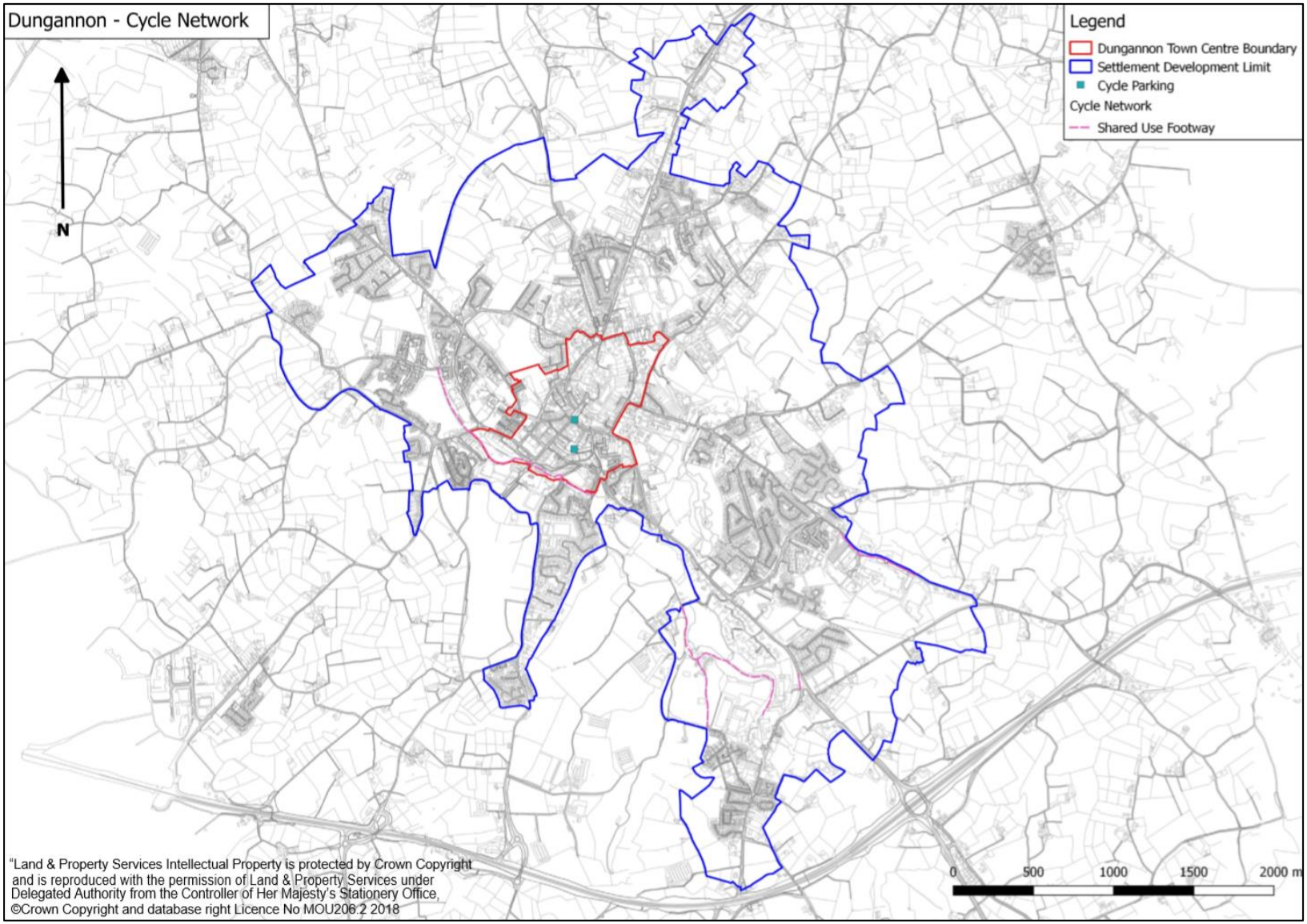


Figure 6c – Cycling Infrastructure in Magherafelt

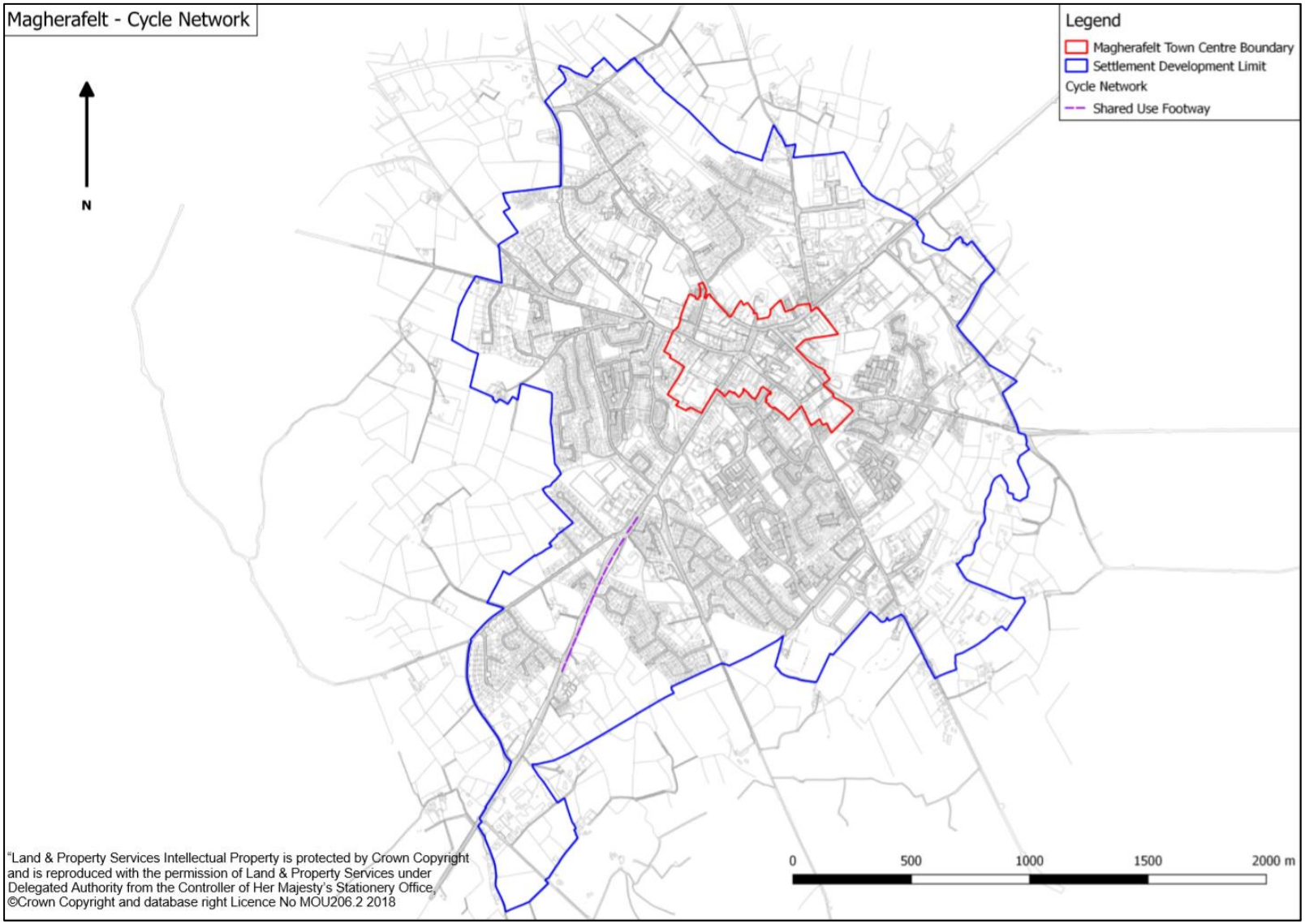


Figure 7a – Bus Service Routes in Cookstown

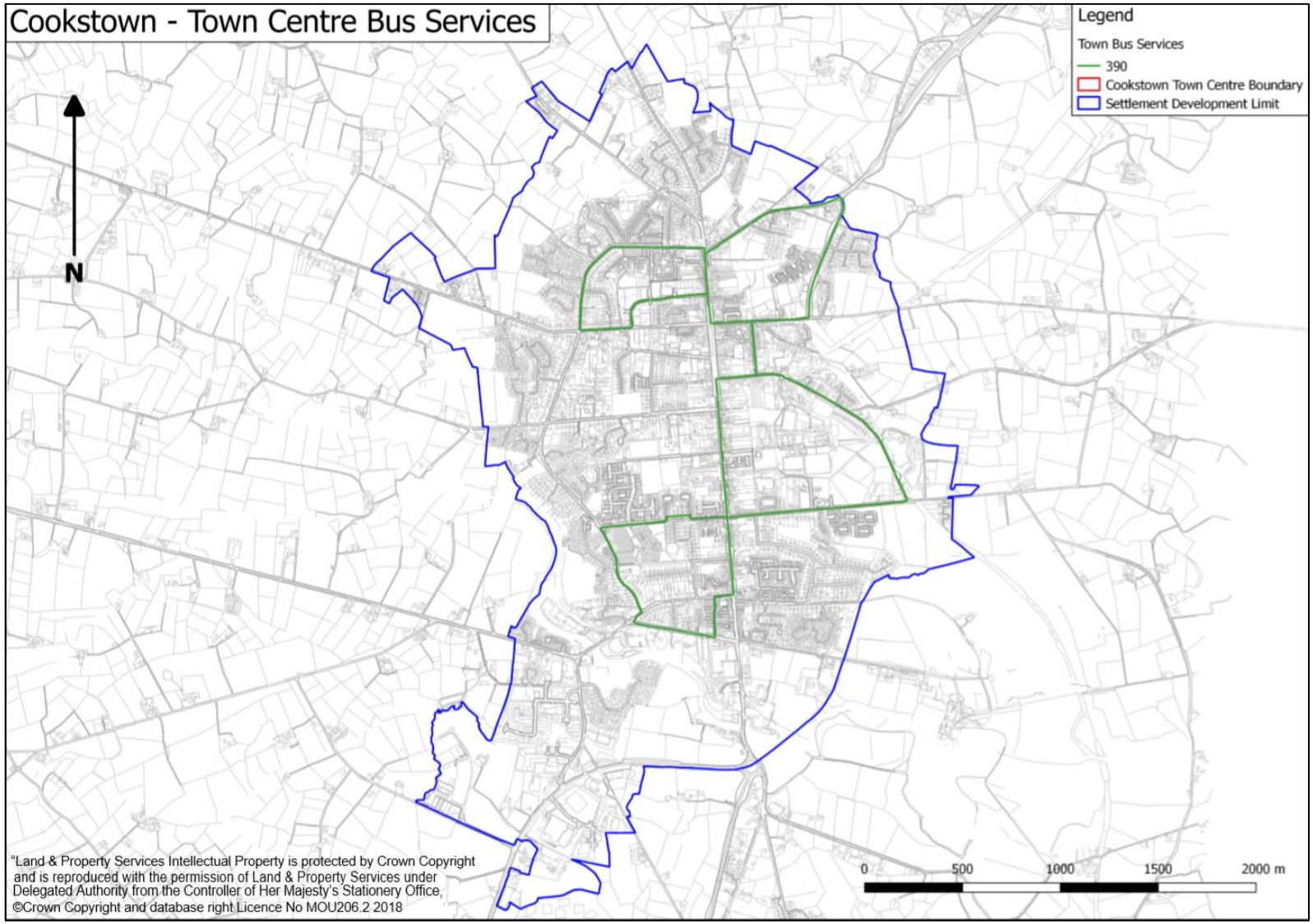


Figure 7b – Bus Service Routes in Dungannon

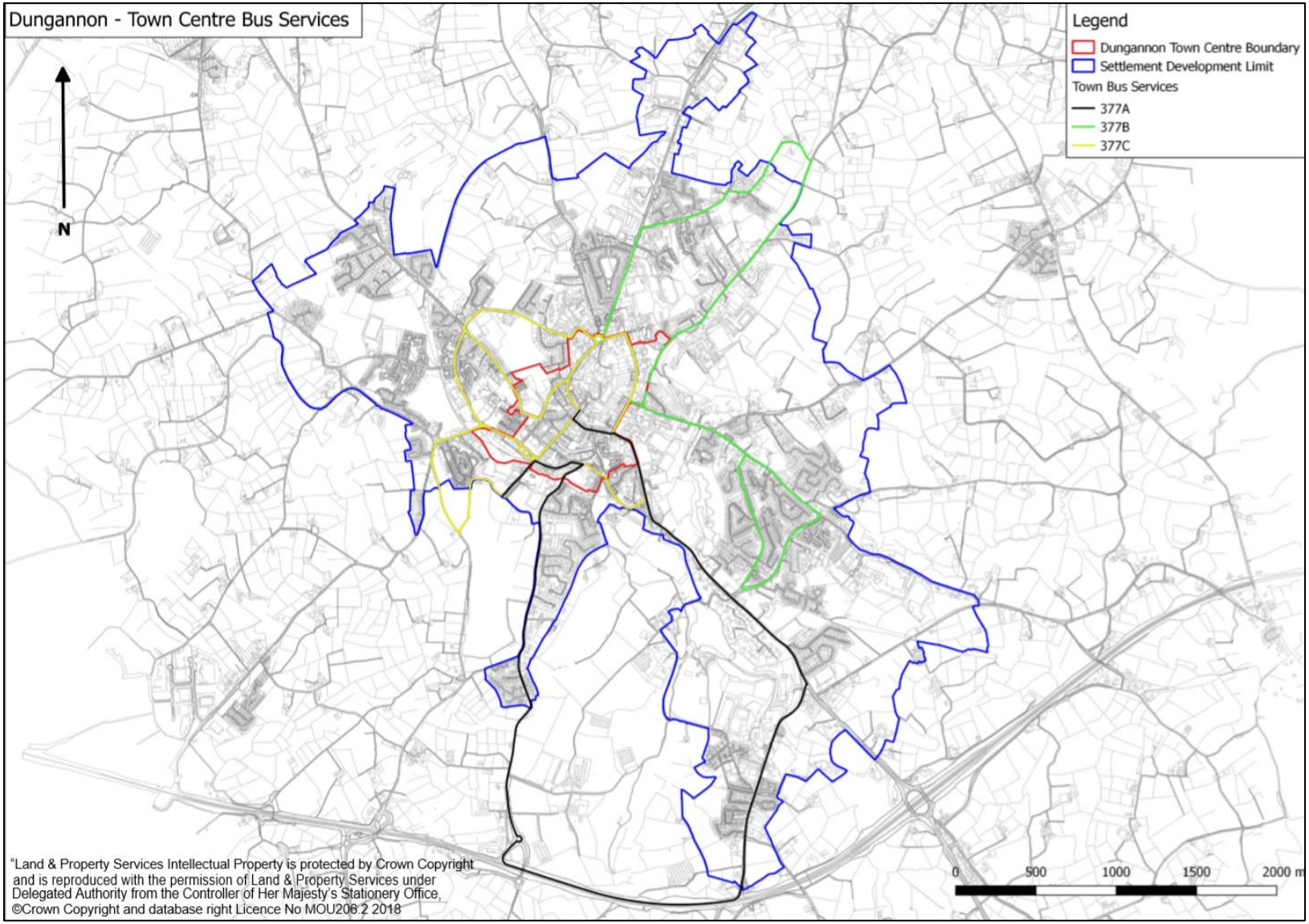
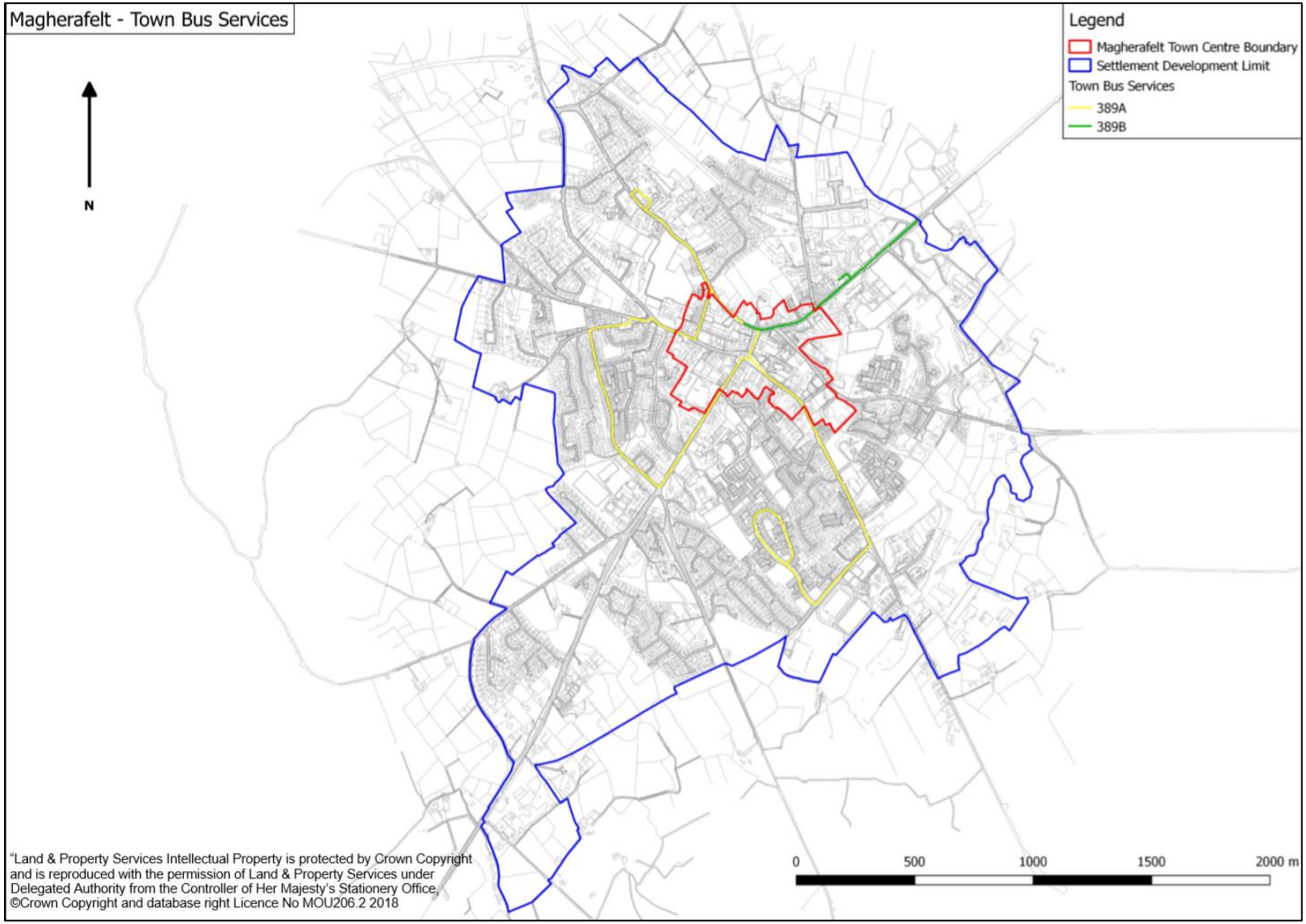


Figure 7c – Bus Service Routes in Magherafelt



Travel to work destinations

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

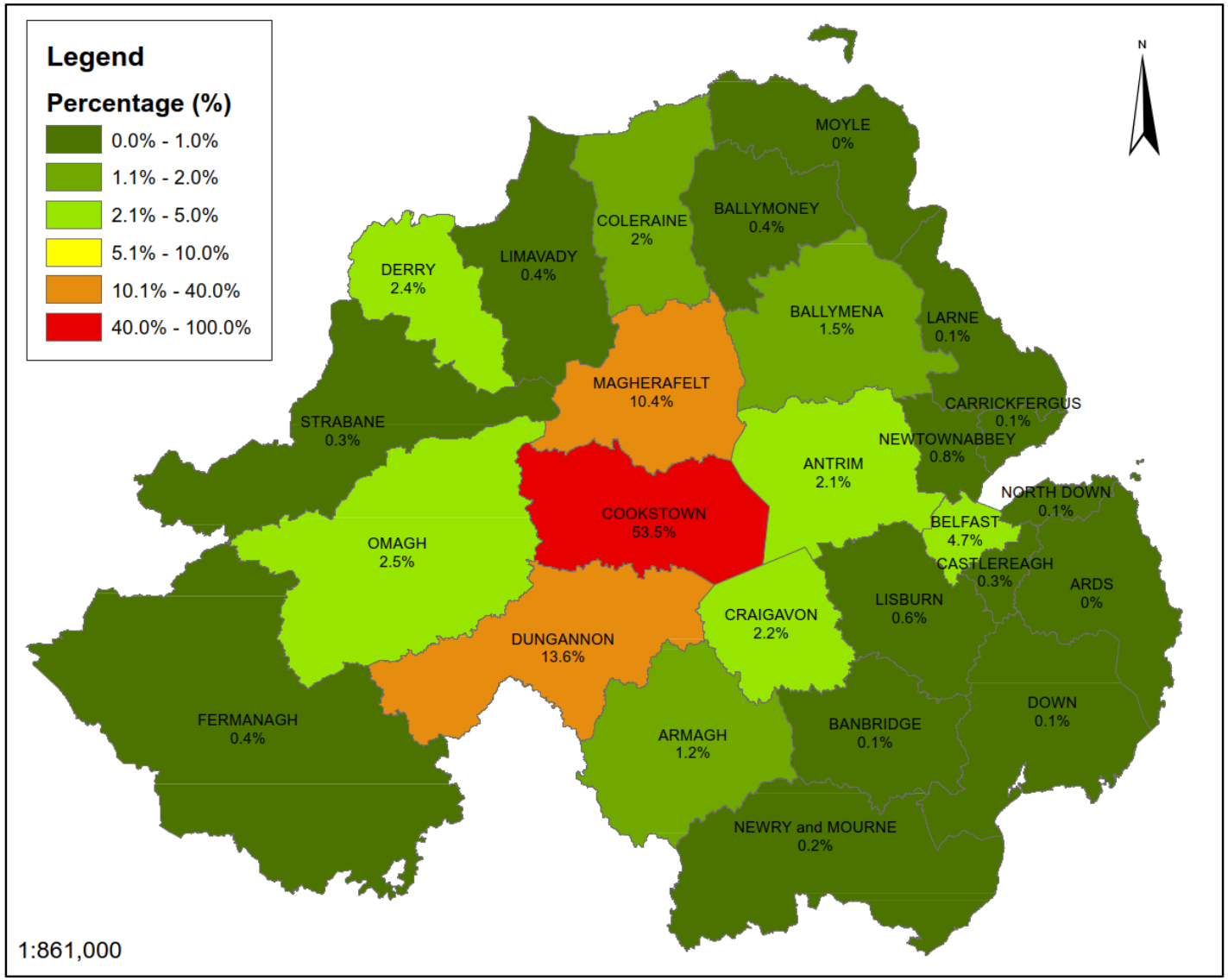


Figure 8b - Percentage of Travel to Work Journeys from Dungannon to other LGDs in 2011

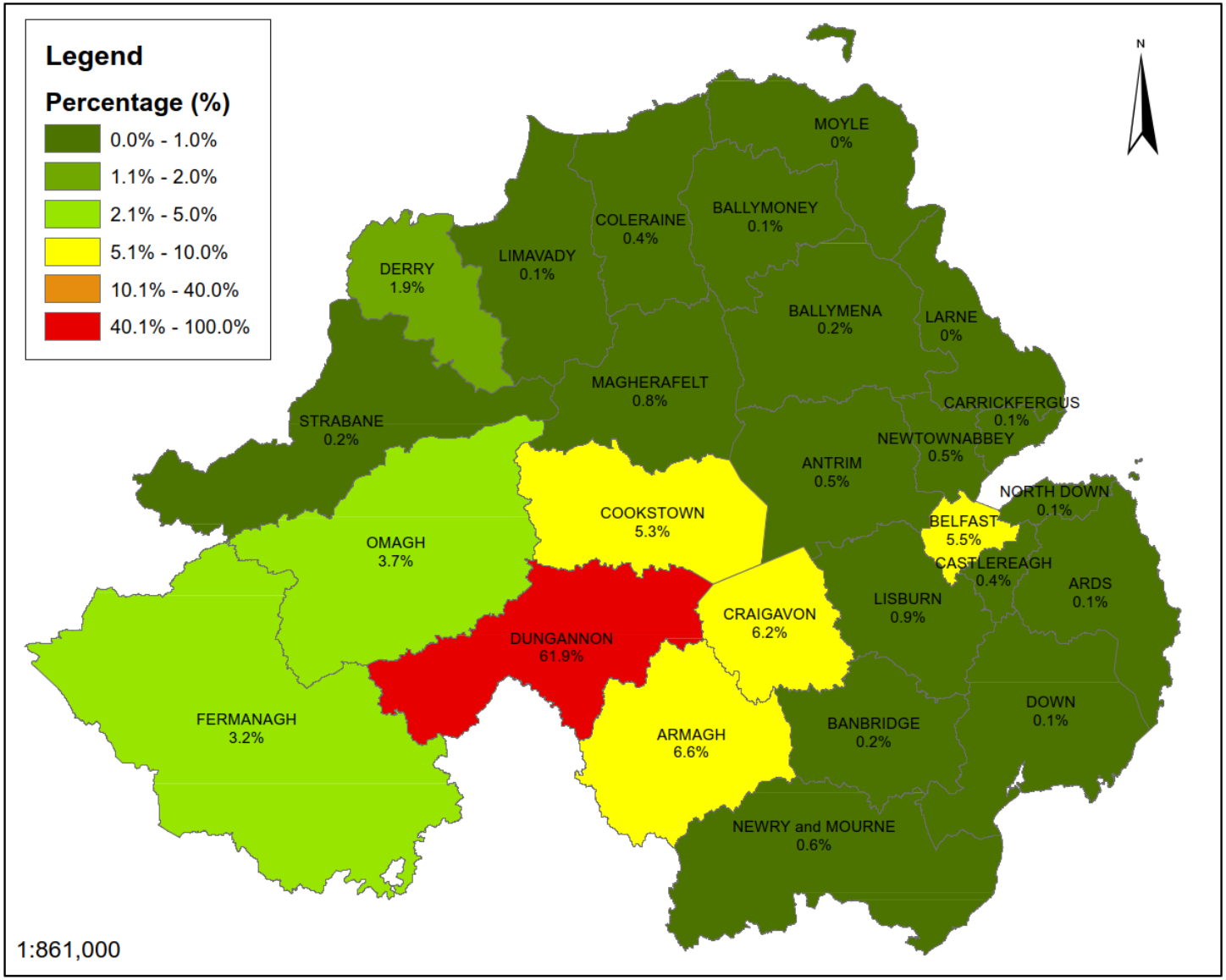
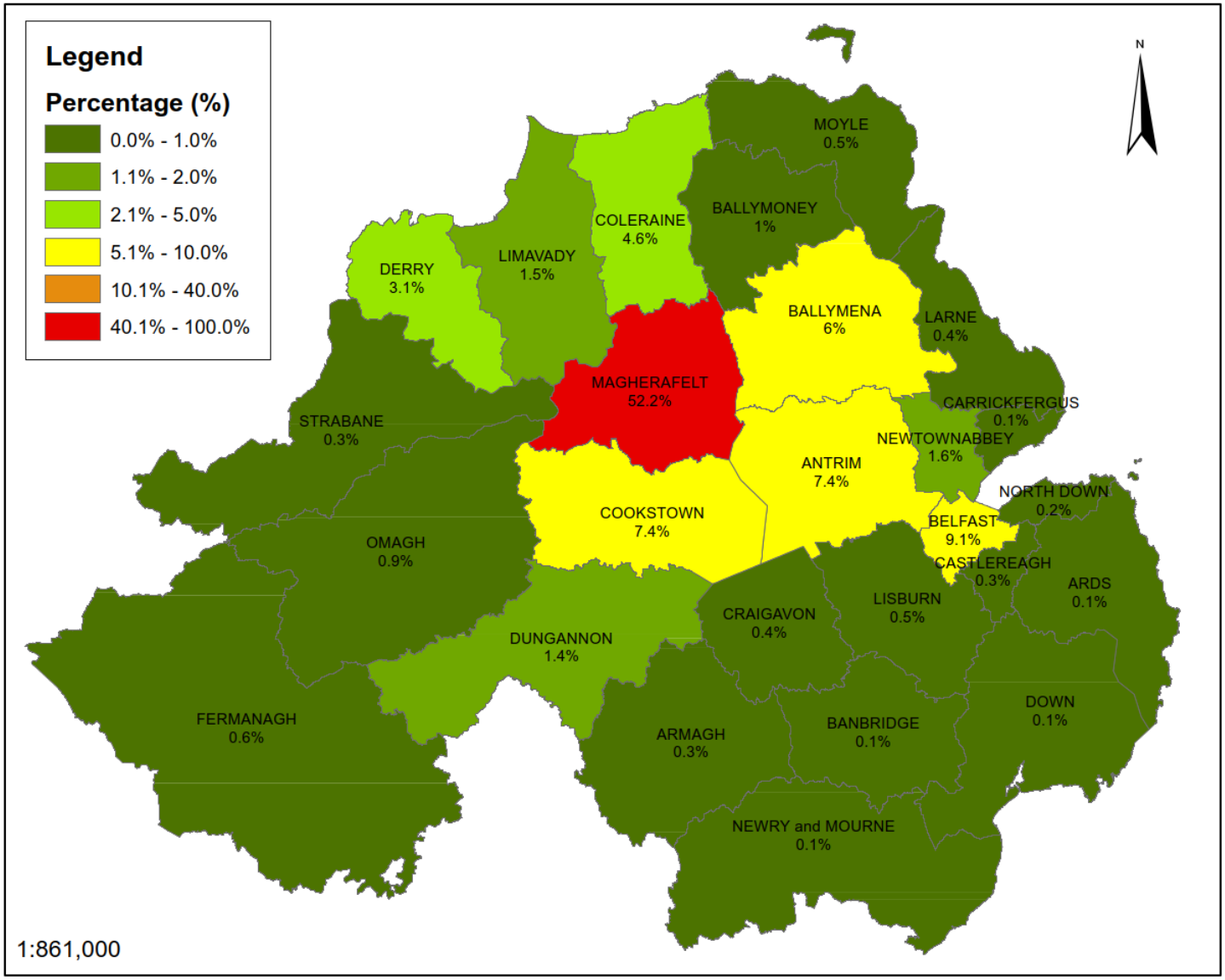


Figure 8c - Percentage of Travel to Work Journeys from Magherafelt to other LGDs in 2011



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

Figure 9 – Modal Choice for Journey to Work in Mid Ulster

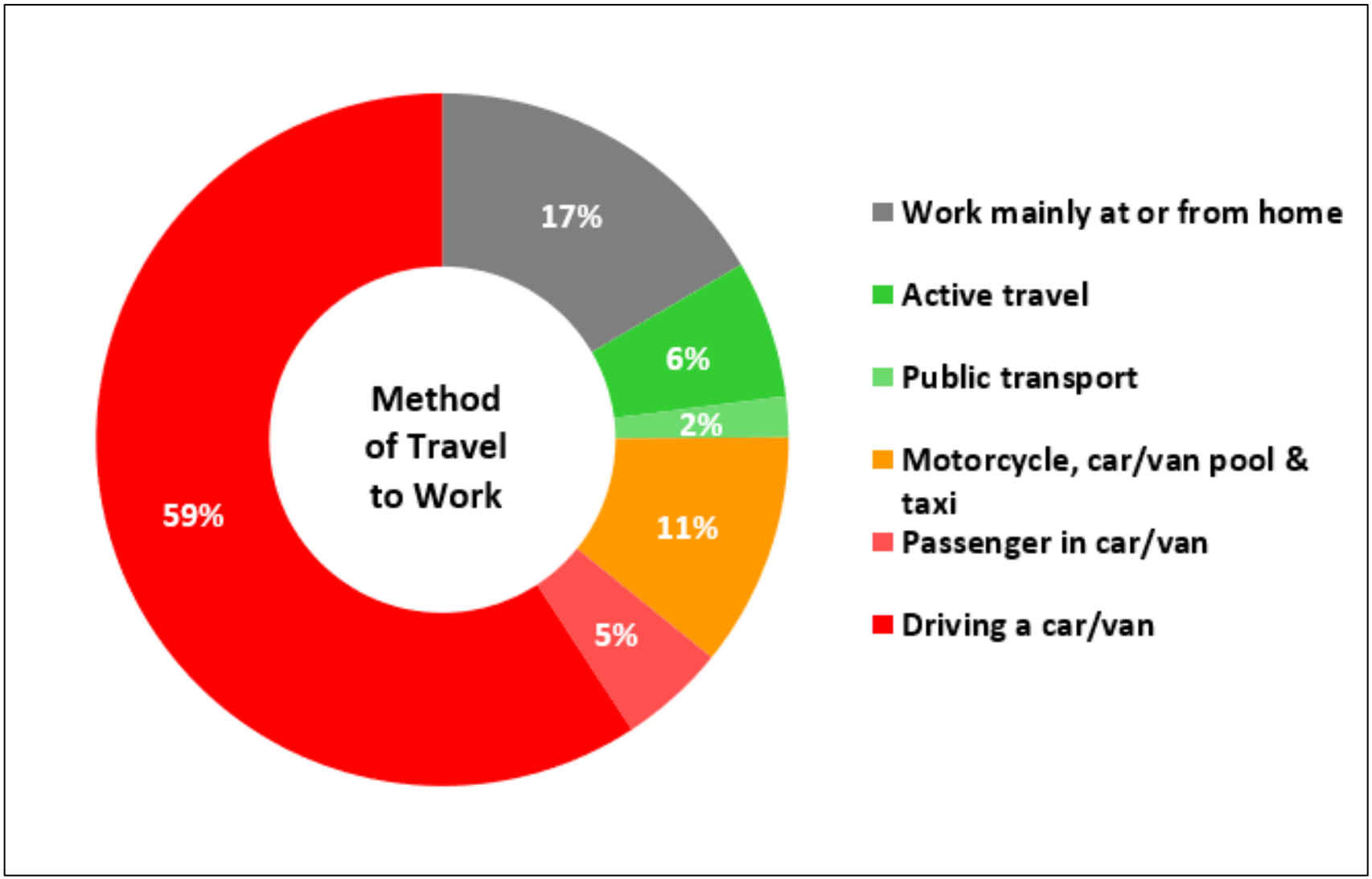


Figure 10 – Modal Choice for Journey to Work by distance in Mid Ulster

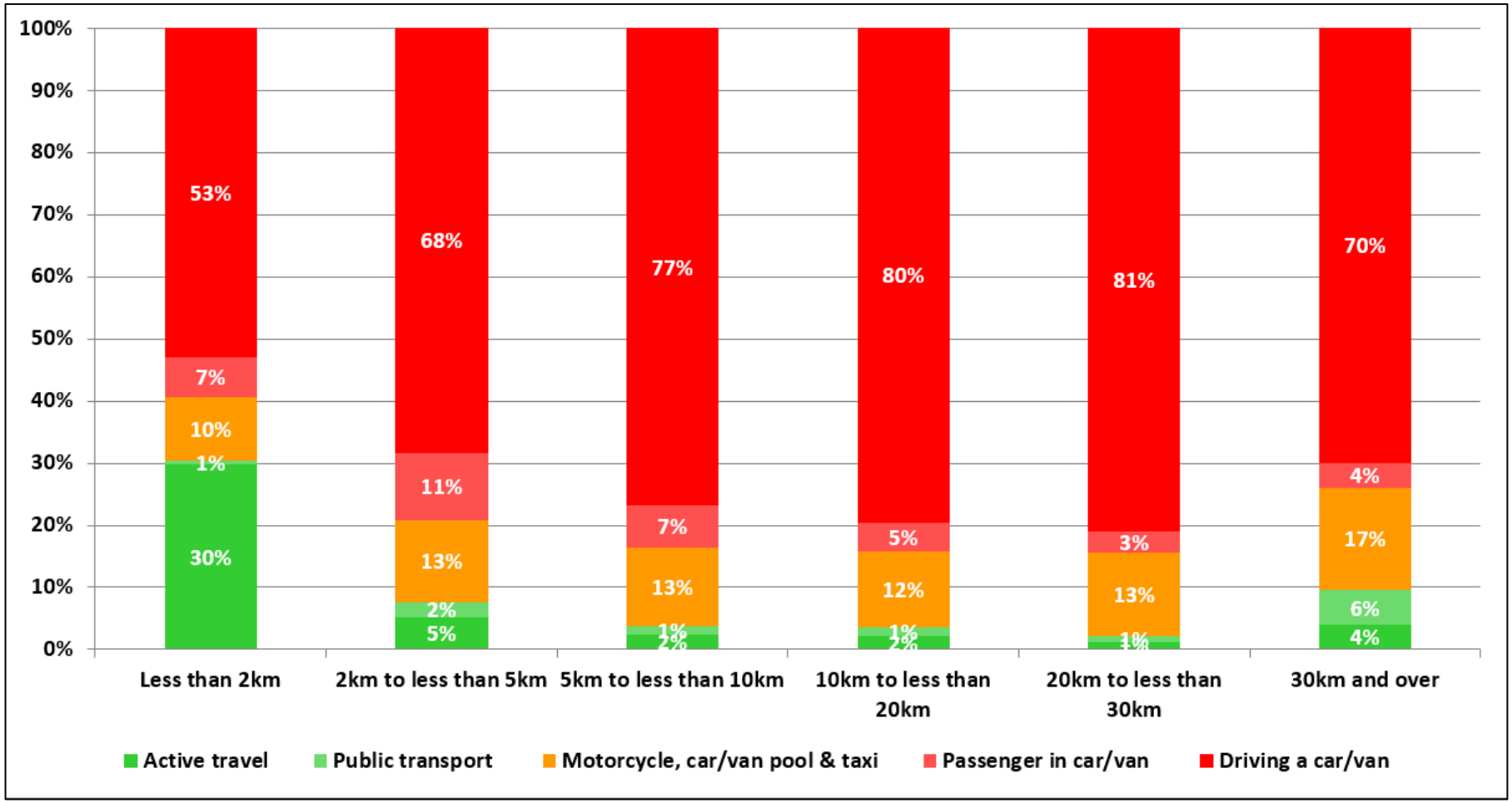


Figure 11 – Modal Choice for Journey to Education in Mid Ulster

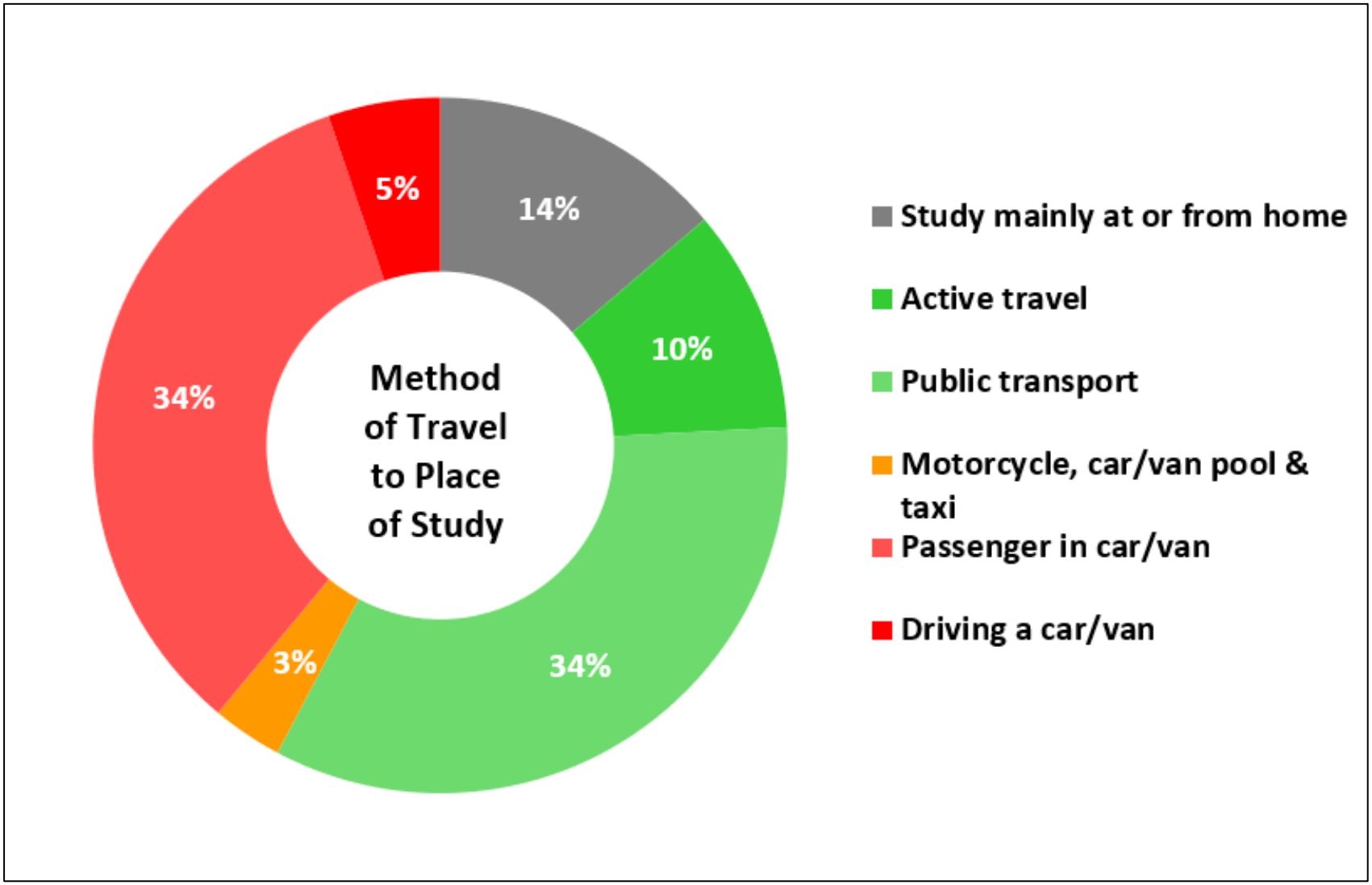
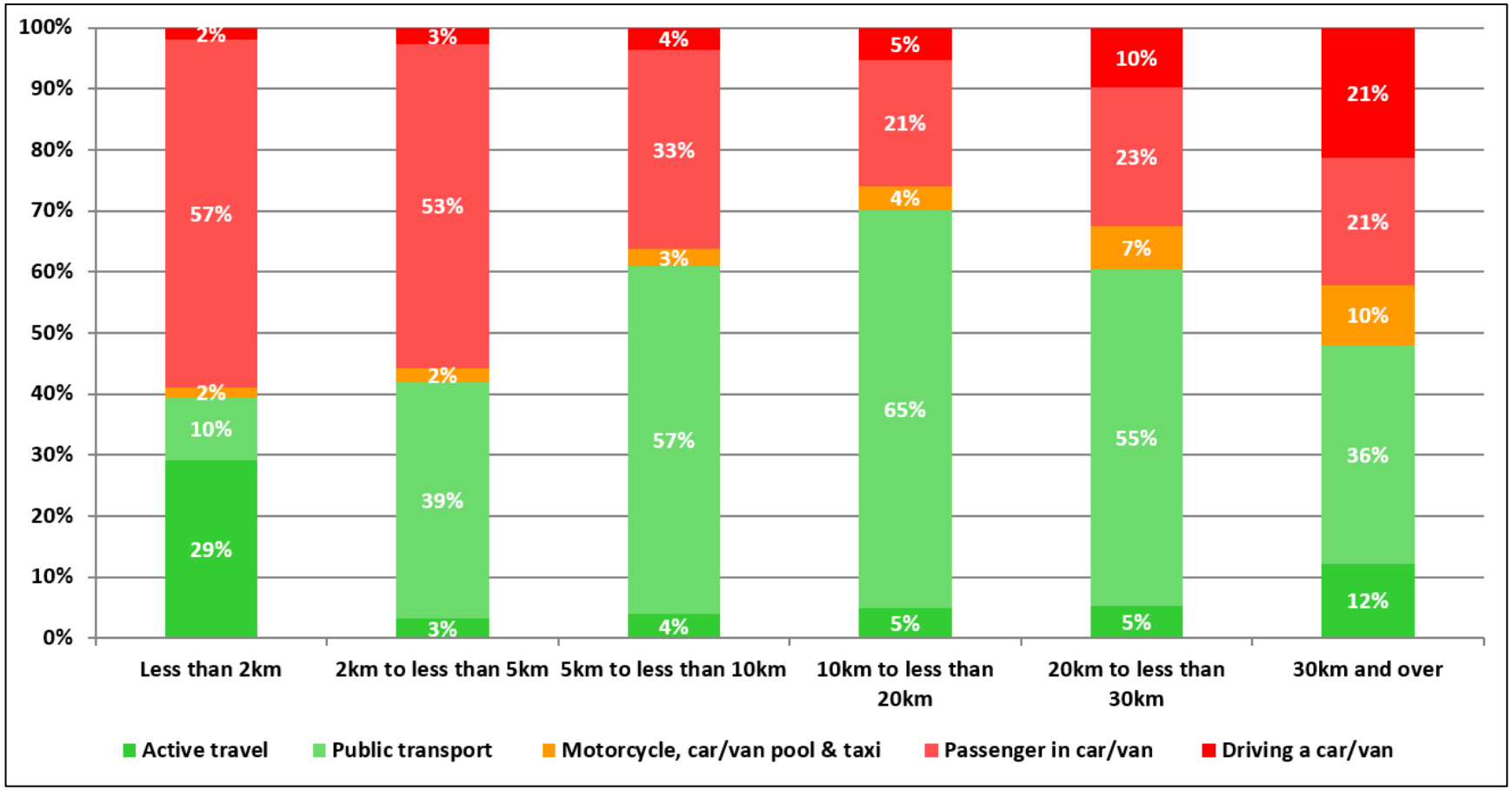


Figure 12 – Modal Choice for Journey to Education in Mid Ulster



Road network speeds at peak and off peak time periods

Figure 13 – Average Off Peak Speeds (mph) in Mid Ulster

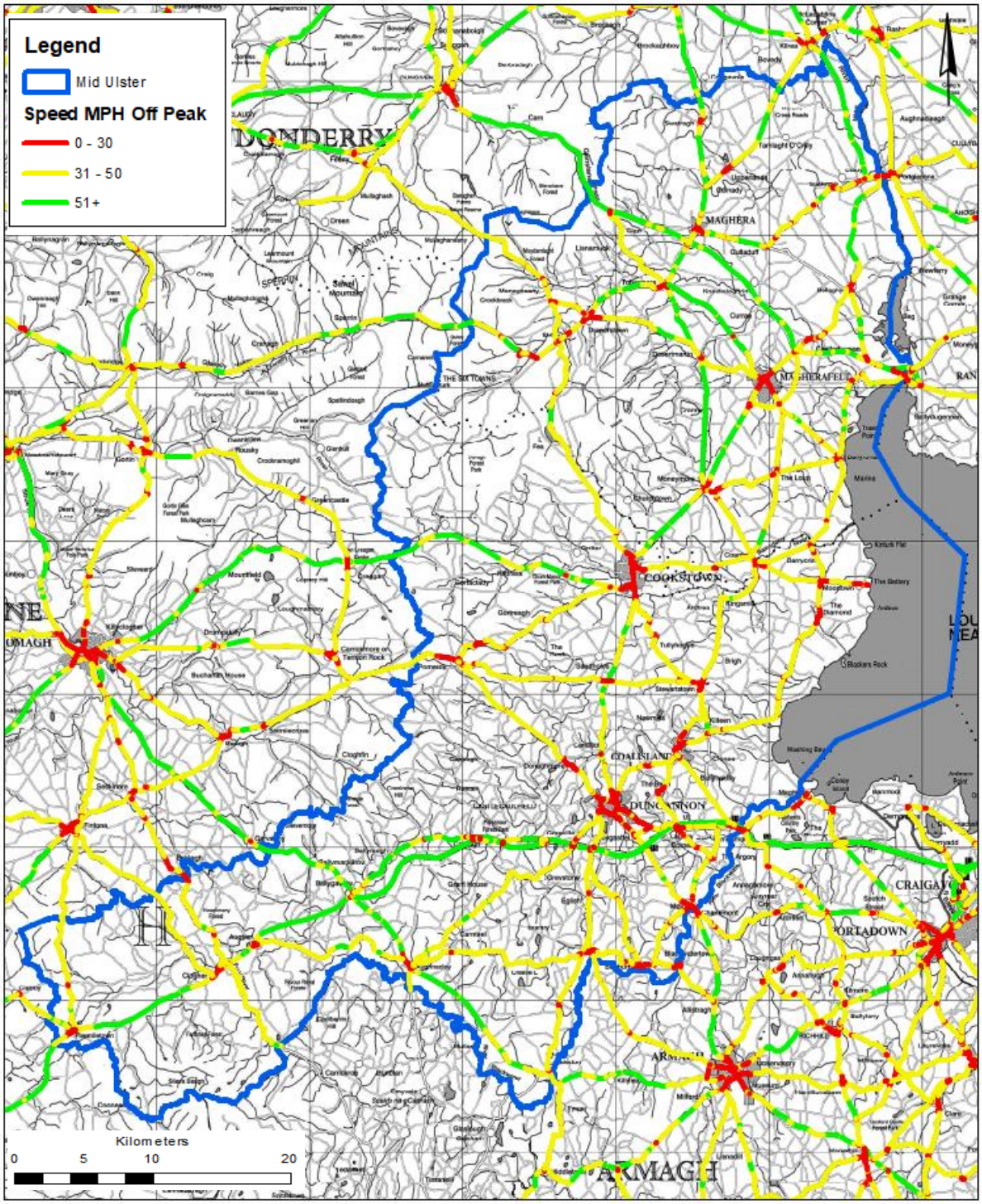
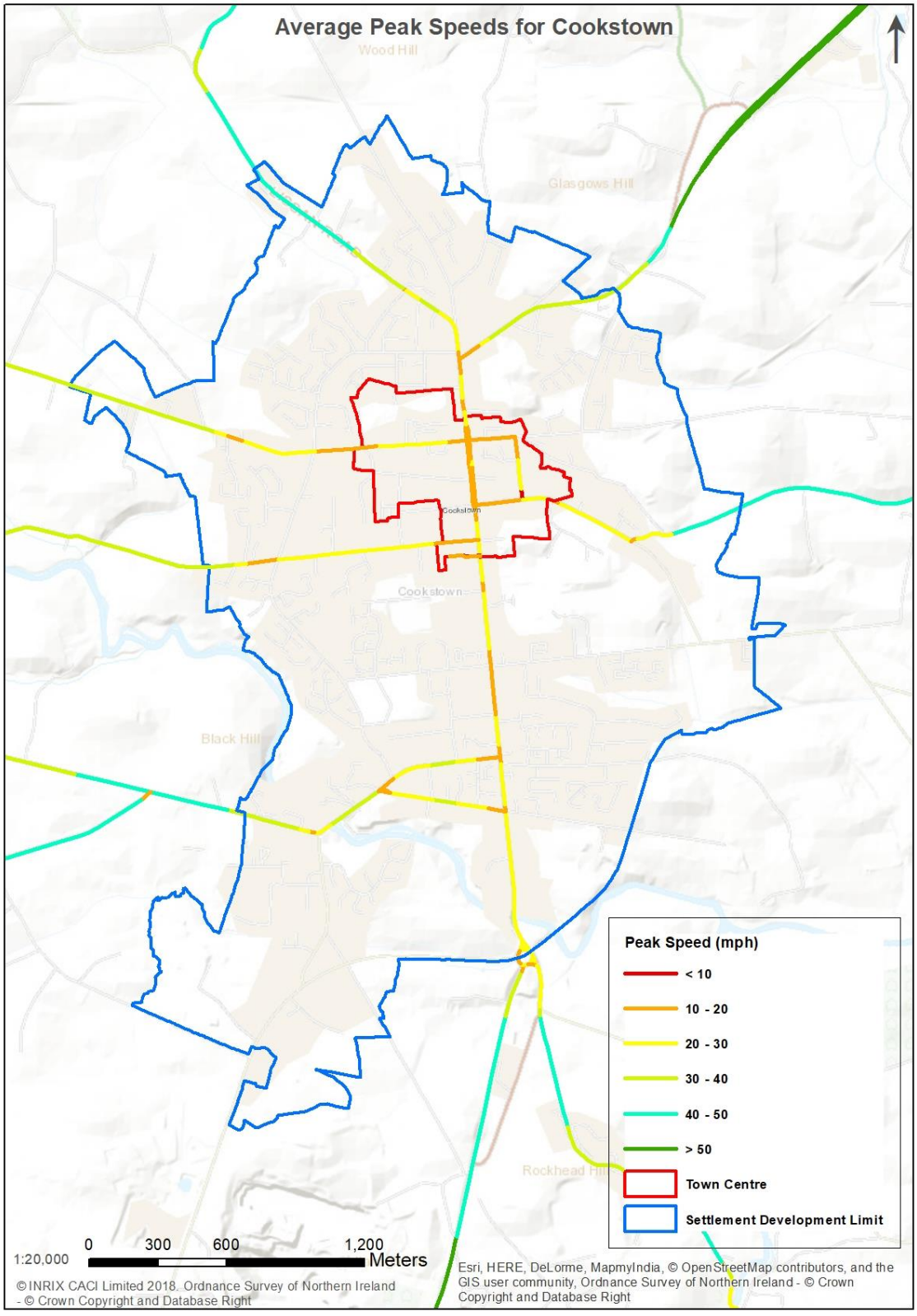
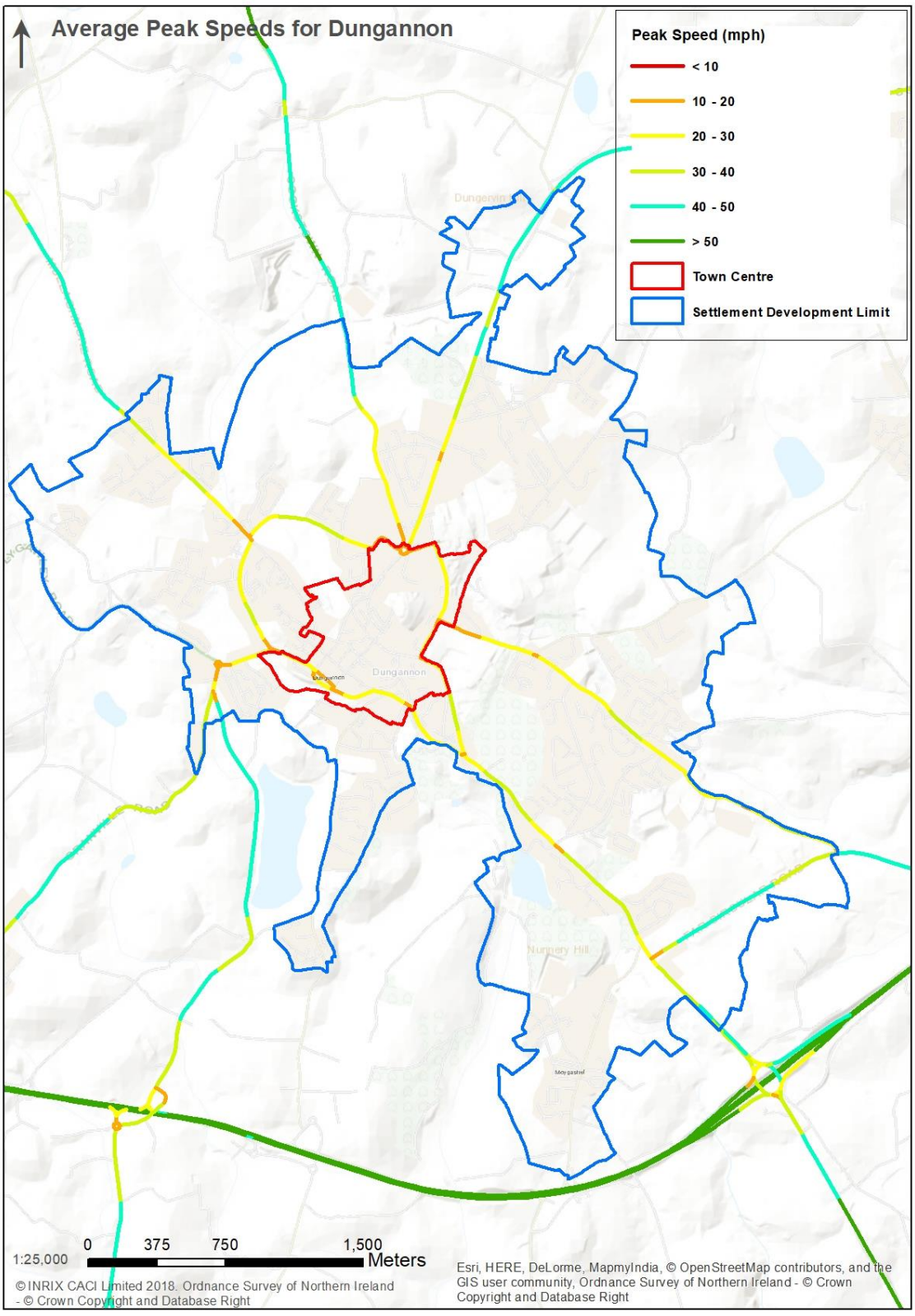


Figure 14a – Average Peak Speeds (mph) for road in Cookstown



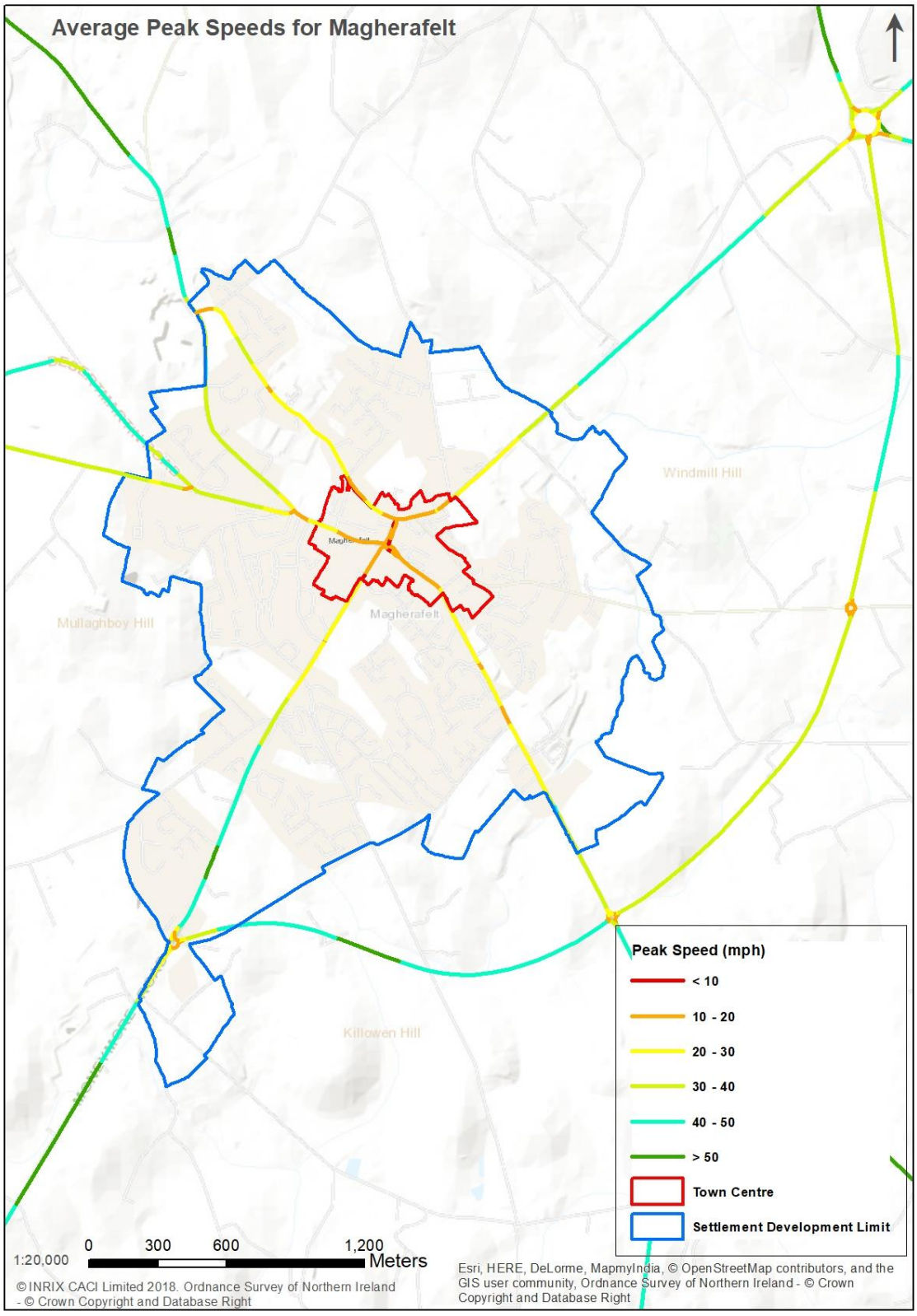
Routes displayed are Motorways (where applicable), A Roads, B Roads, and Radial Routes.

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



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

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



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

Figure 14d – A29 AM Peak Speed

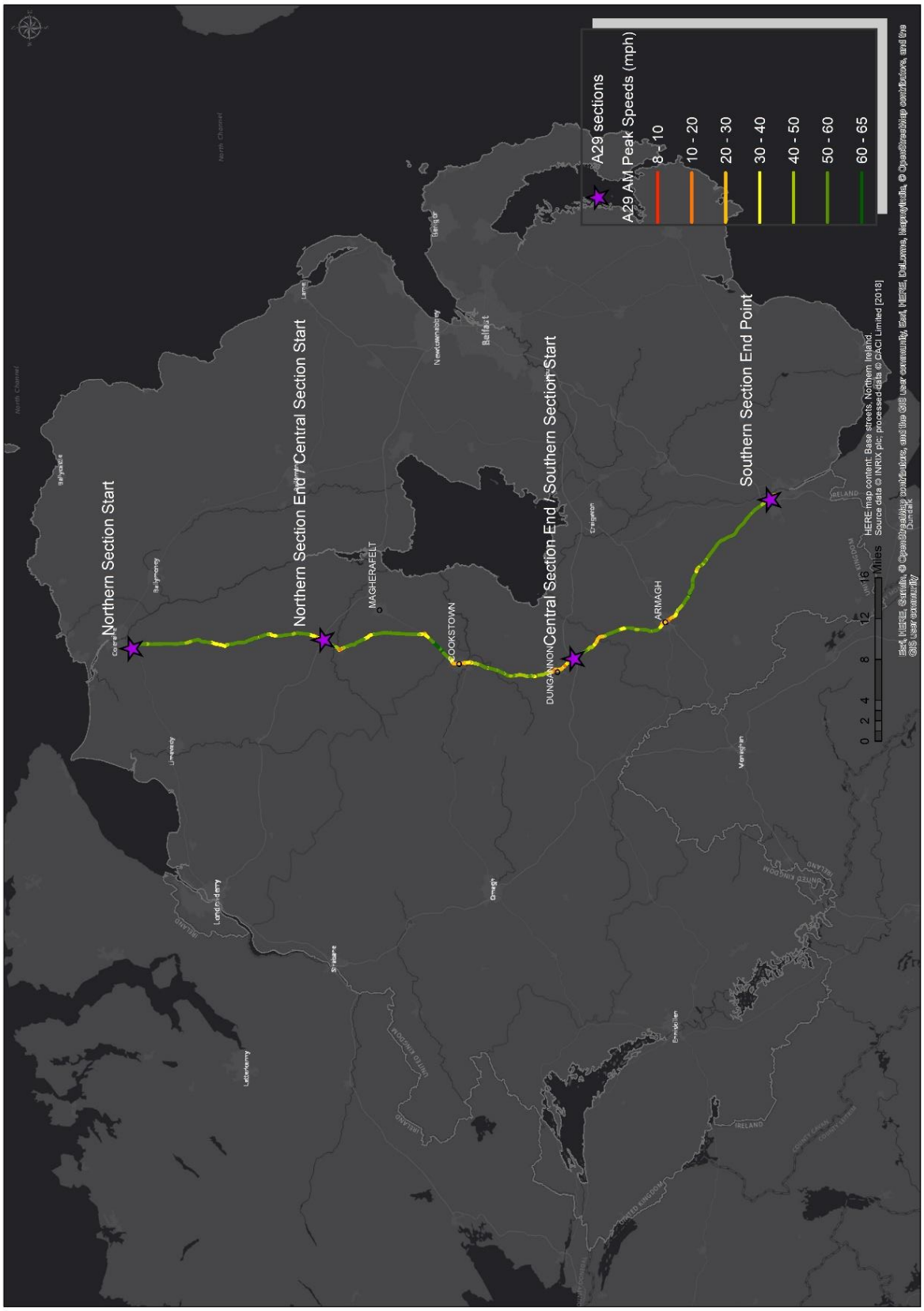


Figure 14e – A29 Section Average Speeds at AM Peak, PM Peak and Offpeak

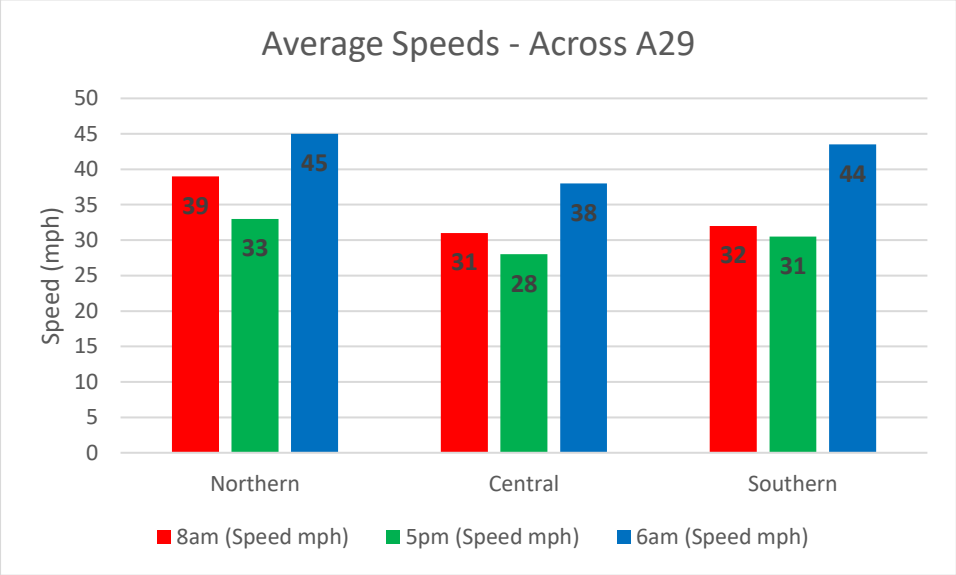


Figure 14f – Average AM Peak Speeds (mph) along Northern Section of A29

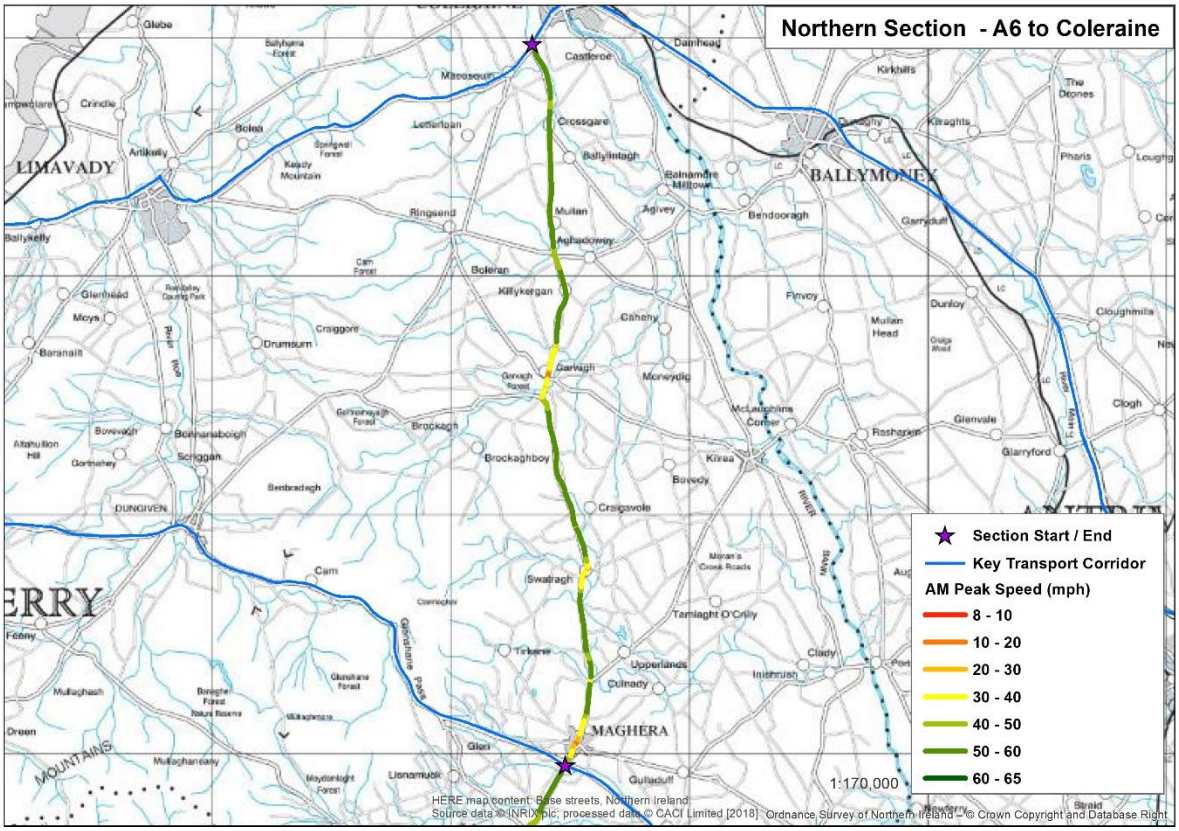


Figure 14g Average AM Peak Speeds (mph) along Central Section of A29

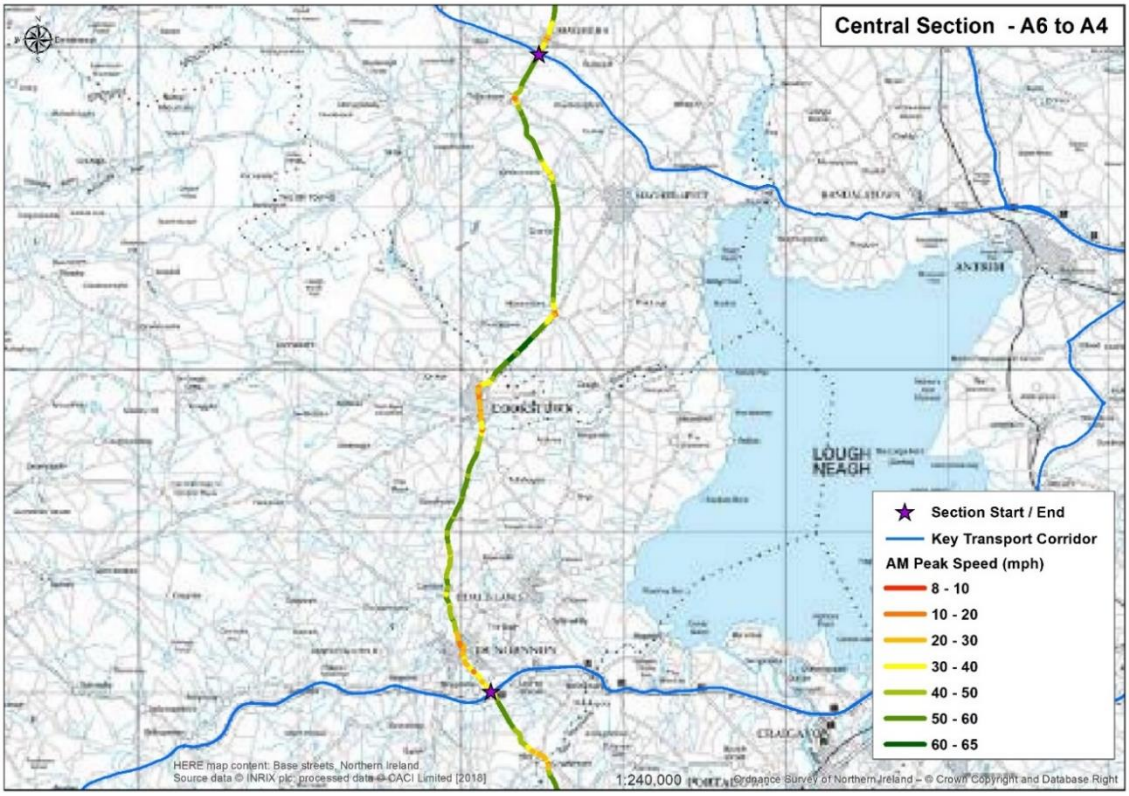


Figure 14h Average AM Peak Speeds (mph) along Southern Section of A29

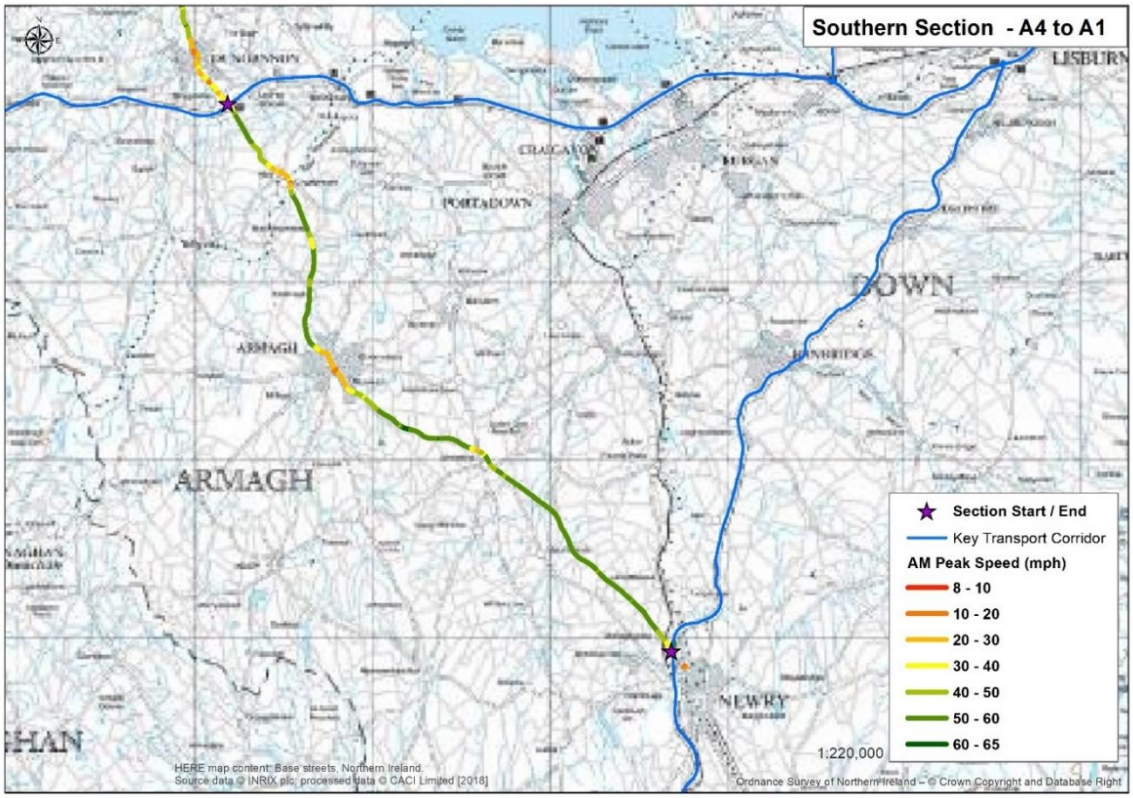


Figure 14i – A29 Cookstown AM Peak Speeds and Surrounding Routes

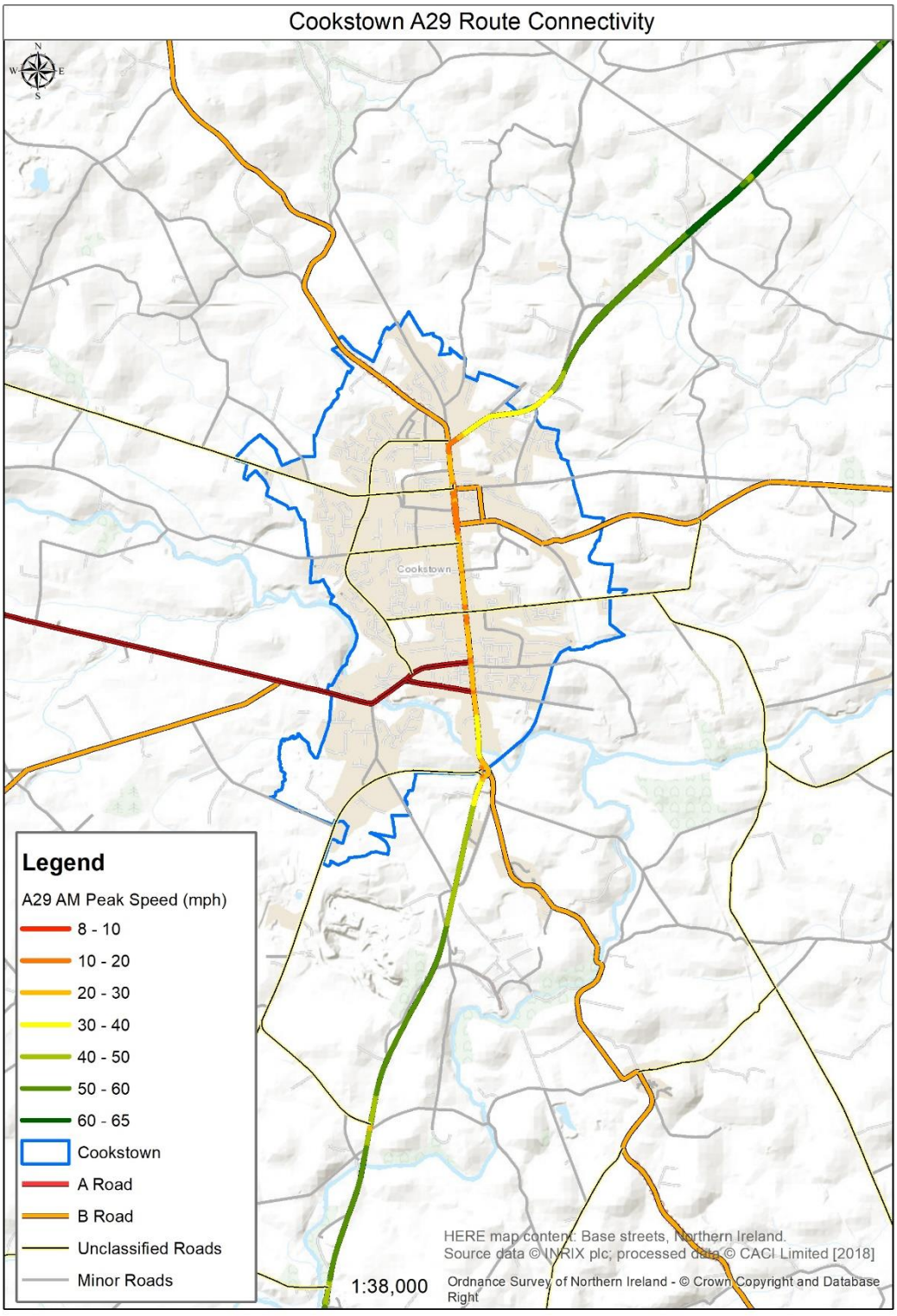


Figure 14j – A29 Dungannon AM Peak Speeds and Surrounding Routes

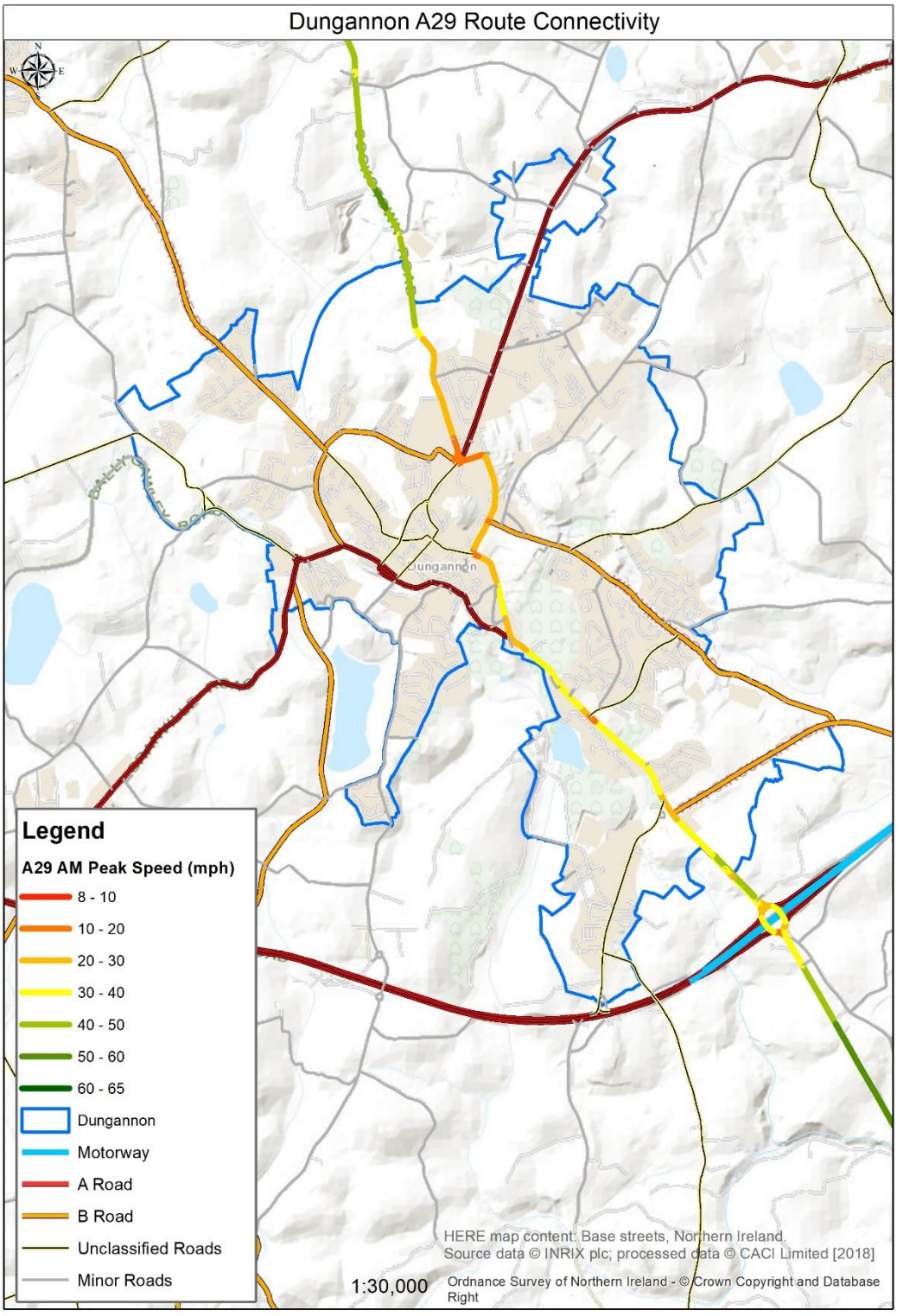
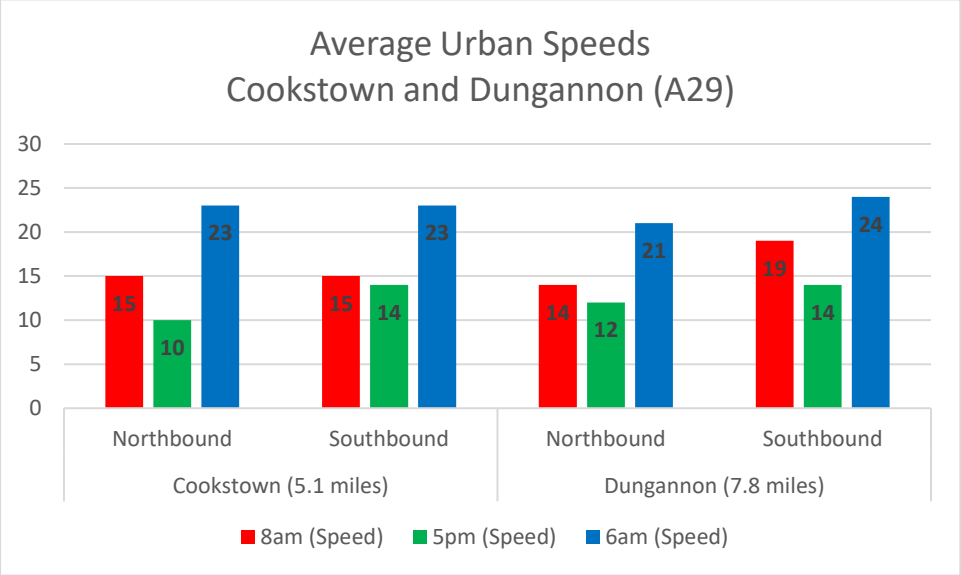


Figure 14k – Average AM Peak, PM Peak and Offpeak for Cookstown and Dungannon



Road collision history in Mid Ulster

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

Road User Type	2007-2011				2012-2016				2007-2016 Combined			
	All casualties	Fatalities	Serious injuries	Slight injuries	All casualties	Fatalities	Serious injuries	Slight injuries	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	226	1	17	208	219	1	14	204	445	2	31	412
Pedestrians	38	0	9	29	38	1	10	27	76	1	19	56
Motor Vehicle Users (inc passengers)	169	1	7	161	169	0	3	166	338	1	10	327
Motorcyclists (inc pillion passengers)	10	0	1	9	3	0	1	2	13	0	2	11
Pedal Cyclists	9	0	0	9	9	0	0	9	18	0	0	18
Other Road Users	0	0	0	0	0	0	0	0	0	0	0	0

Casualties in Cookstown 2012-2016 - Modal Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	219	1	14	204
Pedestrians	17.4%	100.0%	71.4%	13.2%
Motor Vehicle Users (inc passengers)	77.2%	0.0%	21.4%	81.4%
Motorcyclists (inc pillion passengers)	1.4%	0.0%	7.1%	1.0%
Pedal Cyclists	4.1%	0.0%	0.0%	4.4%
Other Road Users	0.0%	0.0%	0.0%	0.0%

Casualties in Cookstown 2012-2016 - Severity Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	219	0.5%	6.4%	93.2%
Pedestrians	38	2.6%	26.3%	71.1%
Motor Vehicle Users (inc passengers)	169	0.0%	1.8%	98.2%
Motorcyclists (inc pillion passengers)	3	0.0%	33.3%	66.7%
Pedal Cyclists	9	0.0%	0.0%	100.0%
Other Road Users	0	0.0%	0.0%	0.0%

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

Road User Type	2007-2011				2012-2016				2007-2016 Combined			
	All	Fatalities	Serious	Slight	All	Fatalities	Serious	Slight	All	Fatalities	Serious	Slight
All Road Users	235	1	26	208	277	0	15	262	512	1	41	470
Pedestrians	40	0	13	27	40	0	8	32	80	0	21	59
Motor Vehicle Users (inc passengers)	185	1	13	171	224	0	3	221	409	1	16	392
Motorcyclists (inc pillion passengers)	2	0	0	2	4	0	1	3	6	0	1	5
Pedal Cyclists	6	0	0	6	8	0	3	5	14	0	3	11
Other Road Users	2	0	0	2	1	0	0	1	3	0	0	3

Casualties in Dungannon 2012-2016 - Modal Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	277	0	15	262
Pedestrians	14.4%	0.0%	53.3%	12.2%
Motor Vehicle Users (inc passengers)	80.9%	0.0%	20.0%	84.4%
Motorcyclists (inc pillion passengers)	1.4%	0.0%	6.7%	1.1%
Pedal Cyclists	2.9%	0.0%	20.0%	1.9%
Other Road Users	0.4%	0.0%	0.0%	0.4%

Casualties in Dungannon 2012-2016 - Severity Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	277	0.0%	5.4%	94.6%
Pedestrians	40	0.0%	20.0%	80.0%
Motor Vehicle Users (inc passengers)	224	0.0%	1.3%	98.7%
Motorcyclists (inc pillion passengers)	4	0.0%	25.0%	75.0%
Pedal Cyclists	8	0.0%	37.5%	62.5%
Other Road Users	1	0.0%	0.0%	0.0%

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

Road User Type	2007-2011				2012-2016				2007-2016 Combined			
	All	Fatalities	Serious	Slight	All	Fatalities	Serious	Slight	All	Fatalities	Serious	Slight
All Road Users	110	0	5	105	115	1	9	105	225	1	14	210
Pedestrians	33	0	3	30	23	1	3	19	56	1	6	49
Motor Vehicle Users (inc passengers)	67	0	1	66	86	0	5	81	153	0	6	147
Motorcyclists (inc pillion passengers)	5	0	1	4	2	0	0	2	7	0	1	6
Pedal Cyclists	5	0	0	5	4	0	1	3	9	0	1	8
Other Road Users	0	0	0	0	0	0	0	0	0	0	0	0

Casualties in Magherafelt 2012-2016 - Modal Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	115	1	9	105
Pedestrians	20.0%	100.0%	33.3%	18.1%
Motor Vehicle Users (inc passengers)	74.8%	0.0%	55.6%	77.1%
Motorcyclists (inc pillion passengers)	1.7%	0.0%	0.0%	1.9%
Pedal Cyclists	3.5%	0.0%	11.1%	2.9%
Other Road Users	0.0%	0.0%	0.0%	0.0%

Casualties in Magherafelt 2012-2016 - Severity Split (%)				
Road User Type	All casualties	Fatalities	Serious injuries	Slight injuries
All Road Users	115	0.9%	7.8%	91.3%
Pedestrians	23	4.3%	13.0%	82.6%
Motor Vehicle Users (inc passengers)	86	0.0%	5.8%	94.2%
Motorcyclists (inc pillion passengers)	2	0.0%	0.0%	100.0%
Pedal Cyclists	4	0.0%	25.0%	75.0%
Other Road Users	0	0.0%	0.0%	0.0%

Figure 15d– All NI Road Traffic Casualties 2007 -2016

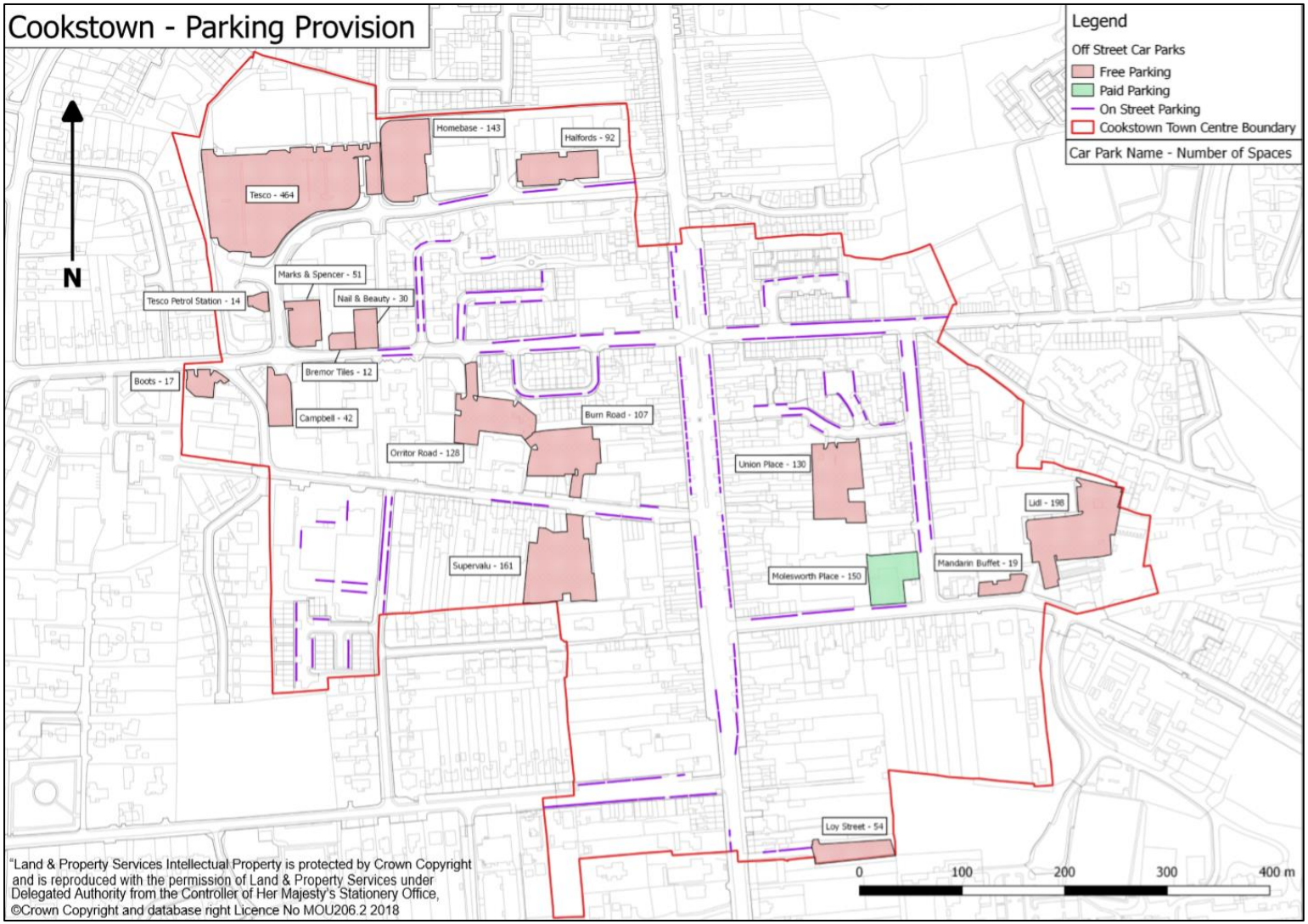
2007-2016	All casualties	Fatalities	Serious injuries	Slight injuries
All NI Casualties	93,384	775	8603	84,006
NI Urban Road Traffic Casualties	48,894	167	3134	45,593
NI Rural Road Traffic Casualties	44,490	608	5469	38,413

Figure 15e – Mid Ulster Road Traffic Casualties 2012 -2016

2012 - 2016 Mid Ulster Road Traffic Casualties												
	Total Casualties			**Fatalities**			**Serious Injuries**			**Slight Injuries**		
Road User Type	**Council Total**	**Urban**	**Rural**	**Council Total**	**Urban**	**Rural**	**Council Total**	**Urban**	**Rural**	**Council Total**	**Urban**	**Rural**
All Road Users	3,120	679	2,441	31	2	29	291	41	250	2798	636	2,162
Pedestrians	196	105	91	5	2	3	44	23	21	147	80	67
Motor Vehicle Users (inc passengers)	2806	538	2,268	23	0	23	213	13	200	2570	525	2,045
Motorcyclists (inc pillion passengers)	46	9	37	3	0	3	15	0	15	28	9	19
Pedal Cyclists	72	27	45	0	0	0	19	5	14	53	22	31
Other Road Users	0	0	0	0	0	0	0	0	0	0	0	0

Parking Provision in Mid Ulster

Figure 16a – Parking Provision Locations in Cookstown



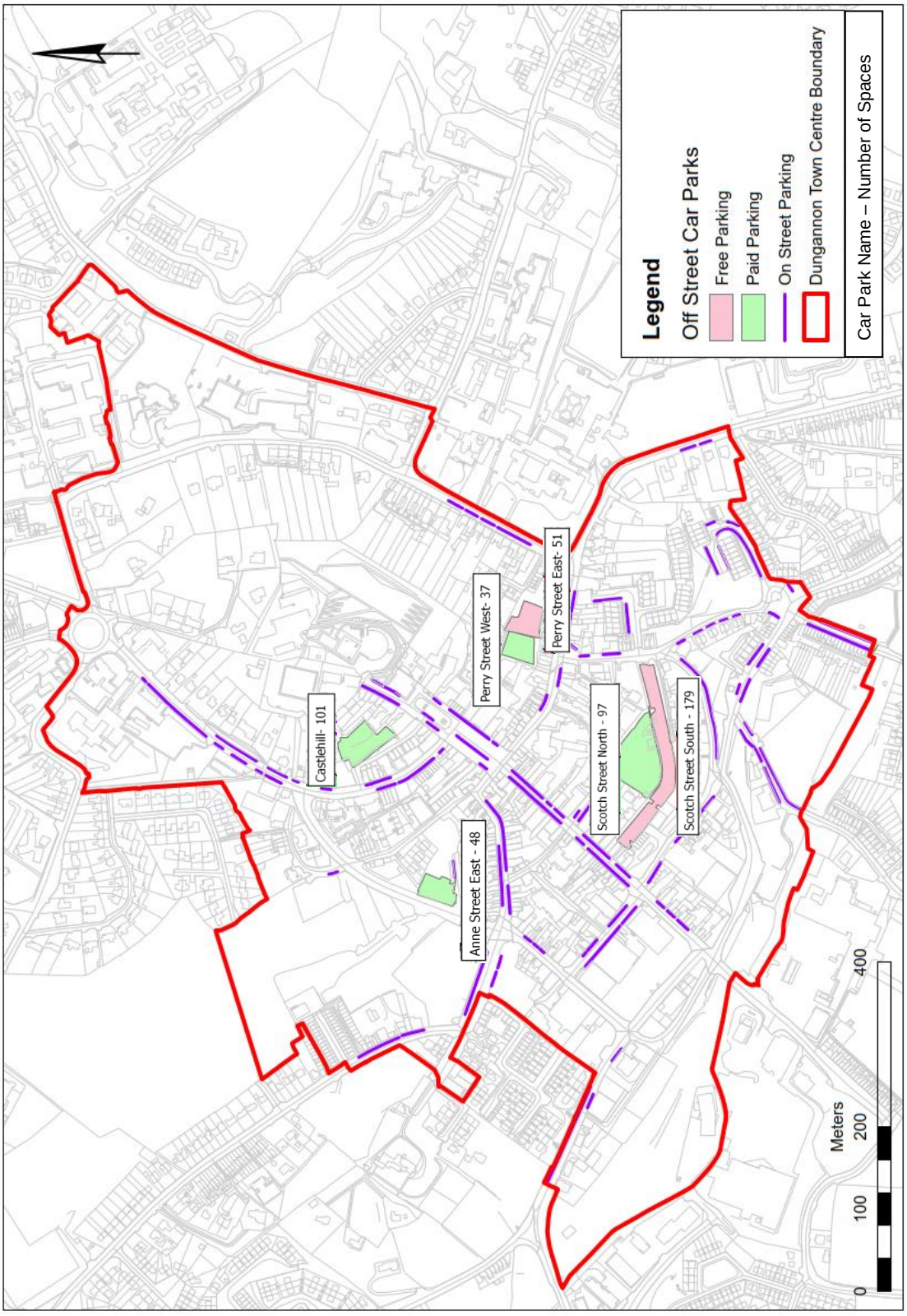


Figure 16b – Parking Provision Locations in Dungannon

Figure 16c – Parking Provision Locations in Magherafelt

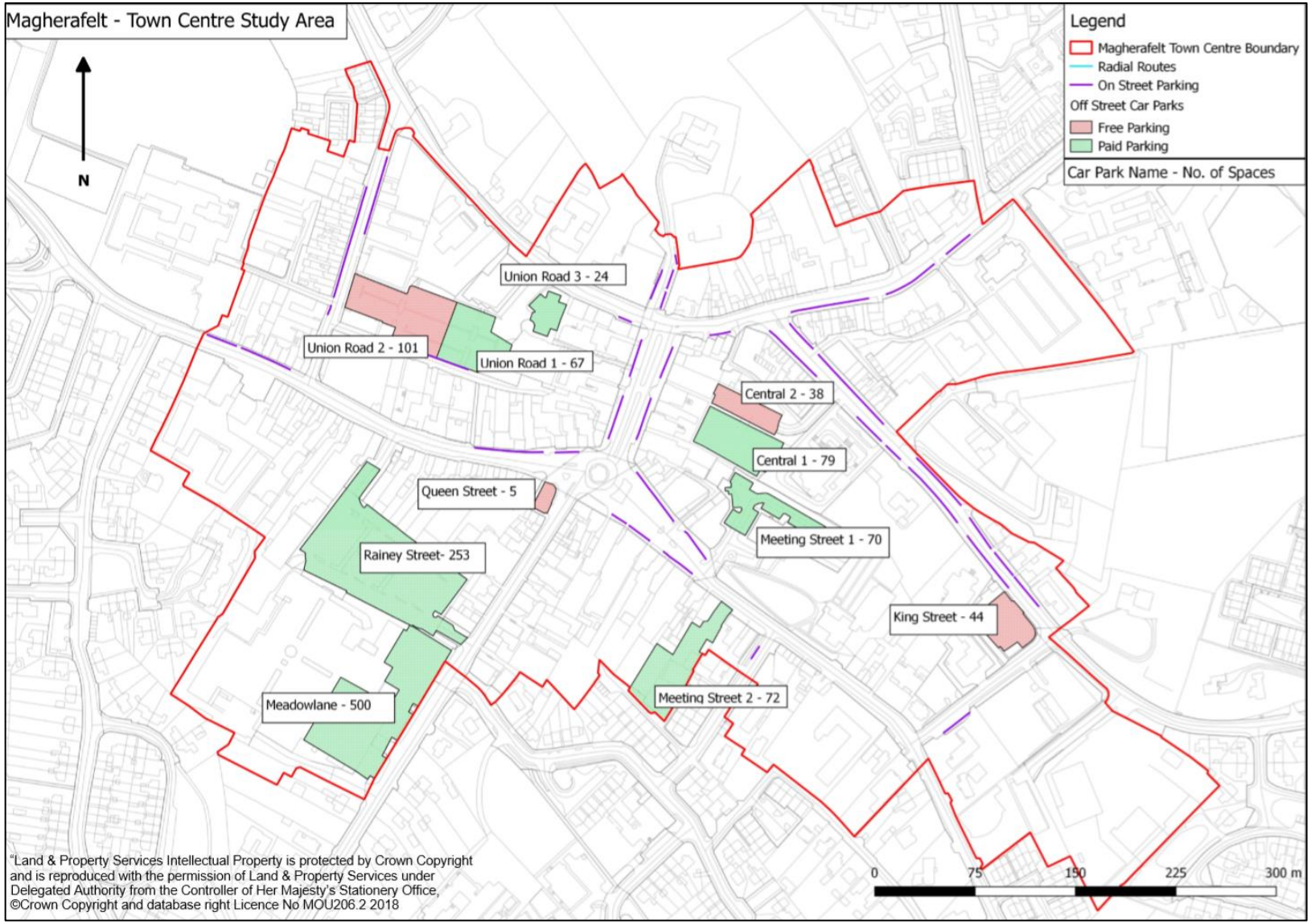


Figure 17a – Off-street Parking Provision by Spaces and Type in Cookstown

Off Street Parking - Cookstown							
Site Name	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**
Loy Street	Free	N/A	Council	54	1	57%	50%
Burn Road	Free	N/A	Council	107	6	104%	99%
Union Place	Free	N/A	Council	130	2	88%	99%
Orritor Road	Free	N/A	Council	128	0	58%	67%
Lidl	Free	N/A	Private	198	6	-	-
Tesco Petrol Station	Free	N/A	Private	14	0	-	-
Tesco	Free	N/A	Private	464	30	-	-
Homebase	Free	N/A	Private	143	5	-	-
Halfords	Free	N/A	Private	92	4	-	-
Supervalue	Free	N/A	Private	161	7	-	-
Campbell	Free	N/A	Private	42	0	-	-
Marks & Spencer	Free	N/A	Private	51	2	-	-
Bremor tiles	Free	N/A	Private	12	0	-	-
Nail & Beauty Garage	Free	N/A	Private	30	0	-	-
Molesworth Place	Free	1st hour free, 90p 1-2hrs, £1.50 2-3hrs, £2.50 3-4 hrs, £1/hr thereafter	Private	150	10	-	-
Mandarin Buffet	Free	N/A	Private	19	4	-	-
Boots	Free	N/A	Private	17	2	-	-
			TOTAL	**1812**	**79**		

This table has been augmented with parking occupancy data collected by AECOM throughout September 2016. The AM and PM weekday data was surveyed between 09:00-12:00 and 15:00-18:00 respectively.

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

Off Street Parking - Dungannon							
Site Name	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**
Perry St East	Free	N/A	Council	51	0	105%	102%
Scotch St South	Free	N/A	Council	161	3	44%	58%
Anne Street East	Paid	£0.40	Council	48	2	31%	29%
Castle Hill	Paid	£0.40	Council	101	2	85%	40%
Scotch Street North	Paid	£0.60	Council	97	4	30%	26%
Perry Street West	Paid	£0.40	Council	37	2	36%	9%
			TOTAL	**495**	**13**		

This table has been augmented with parking occupancy data collected by AECOM throughout September 2016. The AM and PM weekday data was surveyed between 09:00-12:00 and 15:00-18:00 respectively.

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

Off Street Parking - Magherafelt							
Site Name	**Free/Paid**	**Tariff Reference**	**Ownership**	**Total Number of Spaces**	**Includes Number of Disabled Spaces**	**Weekday AM Parking Occupancy**	**Weekday PM Parking Occupancy**
Central	Paid	£0.40	Council	79	4	86%	79%
Central	Free	N/A	Council	38	4	97%	100%
King St	Free	N/A	Council	44	2	102%	91%
Meadowlane	Paid	30p/hr first 3 hrs, £1/hr thereafter	Private	500	30	-	-
Meeting Street	Paid	£1.00	Private	70	5	-	-
Meeting Street	Paid	£0.50	Private	72	3	-	-
Queen Street	Free	N/A	Council	5	1	-	-
Rainey Street	Paid	£0.40	Council	253	13	43%	44%
Union Road	Paid	£0.40	Council	67	2	98%	92%
Union Road	Paid	£0.40	Council	24	1		
Union Road	Free	N/A	Council	101	0	69%	47%
			TOTAL	**1253**	**65**		

This table has been augmented with parking occupancy data collected by AECOM throughout September 2016. The AM and PM weekday data was surveyed between 09:00-12:00 and 15:00-18:00 respectively.

Figure 18a – On-street Parking Provision in Cookstown

On-street car parking - Cookstown		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Limited Waiting 9am-6pm Monday-Saturday 1 hour no return within 2 hours	178	24.8%
Unrestricted Kerb	507	70.5%
Disabled Persons Parking - Unrestricted Kerb	25	3.5%
Loading Only 9am-6pm Monday-Saturday	2	0.3%
Loading Only 8:30am-5:30pm Monday-Friday. Limited Waiting - 09:00am-06:00pm Saturday 1 hour no return within 2 hours	7	1.0%
Total	**719**	**100%**

Figure 18b – On-street Parking Provision in Dungannon

On-street car parking - Dungannon		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Limited Waiting 8.30am-6.15pm Monday-Saturday 1 hour no return within 2 hour	237	40.2%
Limited Waiting 8.15am-6.15pm Monday-Saturday 1 hour no return within 2 hours	5	0.8%
Limited Waiting 8.15am-6.15pm Monday-Saturday 1 hour no return within 1 hours	3	0.5%
Limited Waiting 9.00am-6.00pm Monday-Saturday 1 hour no return within 2 hours	16	2.7%
Disabled Persons Bay	19	3.2%
Unrestricted Kerb	299	50.8%
Loading Only 8.30am-9.30am Monday-Friday Limited Waiting Mon-Sat 8.30am-6.15pm 1hour No Return within 2 hours	4	0.7%
Loading Only 8.30am-5.30pm Monday-Friday Limited Waiting 5:30pm-6:15pm 1 hour No Return within 1 hour	1	0.2%
Loading Only 08.00am-10.30am Monday-Friday	1	0.2%
Loading Only	4	0.7%
Total	**589**	100%

Figure 18c – On-street Parking Provision in Magherafelt

On-street car parking - Magherafelt		
Parking Length Description	**Number of Parking Spaces**	**Percentage of Total Spaces**
Limited Waiting Mon-Sat 8:30am-6:30pm. Max Stay 2hrs. No Return Within 3h	96	47.5%
Loading Only Mon-Fri 8:00am-5:30pm	9	4.5%
Disabled Limited Waiting Mon-Sat 8:30am6:30pm. Max Stay 2hrs. No Return Within 3hrs.	8	4.0%
Unrestricted Kerb	89	44.1%
Total	**202**	**100%**