
Chapter 8

Population

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8 POPULATION

8.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) identifies, describes and presents an assessment of the likely significant effects of the proposed N2 Slane Bypass and Public Realm Enhancement Scheme (the ‘Proposed Scheme’) on Population, during both the construction and operational phases of the development. The assessment presented is informed by the following key chapters of the EIAR: **Chapter 4 – Description of the Proposed Scheme** and **Chapter 5 - Description of Construction Phase**.

Population aspects of relevance to this assessment include residential amenity, journey characteristics, journey amenity, accessibility, community severance, and economic impacts. Other aspects relevant to Population are addressed in the specific chapters of the EIAR, namely:

- **Chapter 7 – Traffic and Transport:** Predicted traffic and mobility effects;
- **Chapter 9 – Noise and Vibration:** Predicted noise levels;
- **Chapter 10 – Air Quality:** Predicted air quality effects;
- **Chapter 11 – Human Health:** Predicted health effects;
- **Chapter 12 – Landscape and Visual:** Predicted visual intrusion and landscape effects;
- **Chapter 20 – Material Assets: Agricultural Properties:** Details of impacts relating to landtake on agricultural properties and impact on farming enterprises;
- **Chapter 21 – Material Assets: Non-agricultural Properties:** Details of impacts relating to landtake on non-agricultural properties; and
- **Chapter 24 – Risk of Major Accidents and/or Disasters:** Vulnerability of the Proposed Scheme and/or the surrounding area to risk of major accidents and/or disasters.

8.2 Methodology

The Population impact assessment has followed the overall methodology and guidance relating to the EIA process and preparation as set out in **Section 1.3.3 of Chapter 1 – Introduction**. This Population assessment is carried out by way of a combination of desk-based studies, consultation, site visits and investigations.

8.2.1 Legislation, Policy and Guidance

8.2.1.1 Legislation

There is no specific legislation or guidance relating to the assessment of Population.

8.2.1.2 Policy

Consideration has been given to the following relevant policy document in the preparation of this chapter:

- MCC (2021) Meath County Development Plan 2021-2027.

8.2.1.3 Guidance

The methodology and associated impact assessment has had regard to the general guidance on preparing an EIAR (as presented in **Section 1.3.3 of Chapter 1 Introduction**) and the following topic specific guidance:

- UK Department of Transport Design Manual for Roads and Bridges (DMRB) *LA 112 Population and human health* (Version 1, Jan. 2021); and

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- Fáilte Ireland (2011) *EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects*.

These are not statutory guidelines in Ireland but provide further guidance that has been used to quantify community impacts.

8.2.2 Zone of Influence

The zone of influence (Zoi) for the Population assessment extends the length of the corridor of the proposed bypass route from commencement on the existing N2 at a location approximately 1.6 km south of the existing Boyne crossing, approximately 0.4 km north of McGruder's Cross and completes at a tie-in to the existing N2 at a location approximately 0.6 km north of the existing 50 km speed limit gateway to Slane village. It also extends east-west to include the realignment of the N51 and the public realm enhancement proposals within Slane village.

It includes the Central Statistics Office (CSO) Electoral Divisions (EDs) of Slane, Painestown and Mellifont.

8.2.3 Sources of Information to Inform the Assessment

This assessment of the population baseline is informed by background research, site visits and desktop analysis of the local area and its facilities including population level, population age structure, households and economic activity. Specifically, data has been collected by means of:

- Ordnance Survey Ireland. Mapping Available at <https://osi.ie/> - accessed February 2022.
- Meath County Development Plan 2021 – 2027.
- Central Statistics Office (CSO), Labour Force Survey Quarter 4 2022. Available at: <https://www.cso.ie/en/statistics/labourmarket/labourforcesurveyqlfs/> - accessed: March 2023.
- Central Statistics Office (CSO), Census 2022, Census 2016, Census 2011 and Census 2006. Available online at: <https://www.cso.ie/en/census/> - accessed: August 2022 and January 2023.
- An Post GeoDirectory (Q1 2023), provided by MCC.
- Economic and Social Research Institute (ESRI) Quarterly Economic Commentary, Spring 2023. Available at: <https://www.esri.ie/publications/quarterly-economic-commentary-spring-2023> - accessed: March 2023.
- Google Maps. Available at <https://www.google.com/maps> – accessed February 2023.
- Google Earth. Available at <https://earth.google.com/web/> – accessed February 2023.
- Department of Housing, Local Government and Heritage (DHLGH) MyPlan. Available at: <https://myplan.ie/> - accessed: February 2023.
- Pobal Map – Deprivation & Community Services Mapping. Available at: <maps.pobal.ie/> – accessed: February 2023.
- Westmeath National Road Design Office (WNRO), Business Survey Report conducted on behalf of MCC (WNRO, 2022).

In addition, a site visit was undertaken on 20 August 2021 to observe local settlement and travel patterns and identify / confirm community facilities.

Consultation responses received during EIA Scoping have been reviewed and addressed either within this chapter or through inter-related chapters as referenced under **Section 8.1**.

8.2.4 Key Parameters for Assessment

The following aspects were considered in the assessment of potential effects of the Proposed Scheme on Population:

- **Residential and Recreational Amenity:** An assessment of the residential and recreational amenity considering the benefit enjoyed from physical external space, which is part of the private home including, size, noise, accessibility, enclosure and the wider natural and built environment;

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- **Journey Characteristics:** An assessment of the potential impacts arising on local journey time, journey time reliability (i.e. the assurance of completing a journey within a predictable time range) and travel patterns including connectivity;
- **Journey Amenity:** This includes the exposure of pedestrians and cyclists to traffic (due to proximity, safety, noise, dirt, poor air quality), as well as impacts for all road users arising from factors such as visual intrusion and congestion;
- **Accessibility and Community Severance:** An assessment of potential impacts with regard to any severance from community facilities, particularly those used by older people, children or other sensitive or vulnerable groups (this category includes relief from existing severance and new severance); and
- **Economic Impacts:** An evaluation of the impact on economic development and employment the Proposed Scheme will have.

8.2.5 Assessment Criteria and Significance

Effects can result from direct, indirect, secondary and cumulative effects on environmental conditions. They can be positive, neutral or negative. The significance of an effect is based on objective evidence and subjective concerns and may be described as not significant, imperceptible, slight, moderate, significant, very significant or a profound impact. Significance depends on, among other considerations, the nature of the environmental effect, the timing and duration of an effect and the probability of the occurrence of an effect. The impacts may be short-term, medium-term or long-term. It usually follows that impacts of a population nature are a function of:

- The location and character of the local environment;
- The sensitivity of the local population and its capacity to absorb change;
- The nature of the environmental effect;
- The scale or extent of the effect in terms of area or population affected;
- The duration and frequency of an effect; and
- The probability of an impact's occurrence.

8.2.5.1 General Residential and Recreational Amenity

Effects on general residential amenity can arise due to any impact that the Proposed Scheme may have on residential quality of life, amenity or recreation due to environmental effects such as noise or visual intrusion, for which specific significance levels are identified in the respective chapters of the EIAR. An assessment of the residential and recreational amenity also considers the benefit enjoyed from physical external space which is part of the private home. The Proposed Scheme may impact on the extent, noise, accessibility and enclosure of this private space and wider recreational facilities. Impacts have been assessed in accordance with the significance criteria outlined in **Table 8-1** with positive impacts resulting from a reduced noise, enhanced enclosure and enhanced accessibility and negative impacts resulting from increased noise, reduced space, accessibility or enclosure.

Table 8-1: Criteria Used in Assessment of Residential and Recreational Amenity

Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
Imperceptible	No appreciable change to present residential and recreational amenity.	No appreciable change to present residential and recreational amenity.
Slight	Slight improvement in residential and recreational amenity.	Some discernible dis-improvement where impact is negative.
Moderate	Moderate increase in residential and recreational amenity.	Moderate decrease in residential and recreational amenity where impact is negative.
Significant	Marked increase in residential and recreational amenity.	Marked decrease in residential and recreational amenity where impact is negative.
Very Significant	Considerably greater residential and recreational amenity.	Considerably reduced residential and recreational amenity where impact is negative. May cause consideration of mitigation measures.

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Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
Profound	Very considerably greater residential and recreational amenity.	Very considerably reduced residential and recreational amenity where impact is negative. Sufficient to cause relocation.

8.2.5.2 Journey Characteristics

Assessment of journey times and patterns during construction and operation is dependent on where an individual journey originates and ends, when it is undertaken (e.g. within or outside peak hours) and by whom it is undertaken, i.e. by drivers, cyclists, users of public transport or pedestrians. The impact varies for each journey, but typical journeys to particular destinations can usually be identified. Impacts have been assessed in accordance with the significance criteria outlined in **Table 8-2** with positive impacts resulting from a decrease in journey length or time, and negative impacts resulting from an increase in journey length or journey time.

Table 8-2: Criteria Used in Assessment of Journey Characteristics

Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
Imperceptible	No appreciable change to present journeys length or duration.	No appreciable change to present journeys length or duration.
Slight	Slight improvement in journeys where impact is positive. Some likelihood of changes in journey habits.	Some inconvenience where impact is negative. Some likelihood of changes in journey habits.
Moderate	Moderate reduction in journeys where impact is positive. Greater likelihood of changes in journey habits.	Moderate increase in journey times where impact is negative. Greater likelihood of changes in journey habits.
Significant	Much shorter journey times where impact is positive. High likelihood of changes in journey habits.	Much longer journeys where impact is negative. High likelihood of changes in journey habits.
Very Significant	Considerably shorter journey times where impact is positive. Very high likelihood of changes in journey habits.	Considerably longer journeys where impact is negative. Very high likelihood of changes in journey habits.
Profound	An approximate halving in typical journey length or duration sufficient to cause marked change in behaviour of a sizeable proportion of population.	An approximate doubling in typical journey length or duration sufficient to cause marked change in behaviour of a sizeable proportion of population.

8.2.5.3 Journey Amenity

Effects arise from the proximity to construction as it affects the pleasantness and perceived safety of the environment for walking, cycling or driving. The level of traffic on a road, the proximity and separation of footpaths and cycle-paths, the nature of any crossings/junctions to be negotiated, the legibility of a journey (including signage), visual intrusion (including sightlines) and safety for equestrians, are amongst the factors relevant to the assessment of amenity. The principal concern is with pedestrians or cyclists, but journey amenity impacts also apply to drivers, for example due to safety anxiety associated with the crossings of major roads. Impact levels are defined in **Table 8-3** below.

Table 8-3: Criteria Used in Assessment of Journey Amenity Effects

Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
Imperceptible	No significant journey amenity impacts are apparent	No significant journey amenity impacts are apparent
Slight	A small improvement on journey amenity can be attributed to the proposed development.	A small dis-improvement on journey amenity can be attributed to the proposed development.
Moderate	A moderate positive impact on journey amenity can be attributed to the proposed development.	A moderate negative impact on journey amenity can be attributed to the proposed development.
Significant	Proposed development has the potential to impact positively on journey amenity such as	Proposed development has the potential to impact negatively on journey amenity such as to

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Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
	to significantly affect many people's behaviour and quality of life.	significantly affect many people's behaviour and quality of life.
Very Significant	Proposed development has the potential to substantially impact positively on journey amenity such as to affect most people's behaviour and quality of life.	Proposed development has the potential to substantially impact negatively on journey amenity such as to affect most people's behaviour and quality of life.
Profound	Effects of a scale to significantly impact on journey amenity to an extent that people's behaviour or quality of life is substantially changed.	Effects of a scale to significantly impact on journey amenity to an extent that people's behaviour or quality of life is substantially changed; for example, where significant health issues arise or where people may wish to relocate.

8.2.5.4 Accessibility and Community Severance

Accessibility and community severance concern people's access to one another, workplaces or community facilities, particularly as it affects facilities used by older people, children or other vulnerable groups such as those with limited mobility and/or disabilities. There can be relief from severance due to improvements to road design or sightlines, or from the introduction of crossing facilities, underpasses or bridges and other traffic calming measures or from a reduction in traffic volumes. There can also be new severance, where a proposed development creates a barrier to access or increased traffic. Social severance can occur too due to changes in accessibility, and where communities become identified by their containment within road boundaries. Impact levels are defined in **Table 8-4** below.

Table 8-4: Criteria Used in Assessment of Accessibility and Community Severance

Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
Imperceptible	Journey patterns due to accessibility or severance not discernibly altered.	Journey patterns due to accessibility or severance not discernibly altered.
Slight	Present journey patterns likely to be maintained, notwithstanding some enhancement to movement.	Present journey patterns likely to be maintained, notwithstanding some hindrance to movement.
Moderate	Some residents, including children and elderly people, likely to encounter enhanced accessibility with journeys shorter / more attractive.	Some residents, including children and elderly people, likely to encounter severance with journeys longer / less attractive
Significant	Many residents, including children and elderly people, are likely to encounter significant improvements to accessibility which could persuade them to make particular journeys where impact is positive.	Many residents, including children and elderly people, likely to encounter significant severance which could dissuade them from making particular journeys where impact is negative.
Very Significant	Most residents, including children and elderly people likely to encounter very significantly enhanced accessibility including increased cycling and pedestrian movement which will be such as to induce a reorganisation of their activities, to cause them to make more frequent trips to nearby neighbourhoods or to make more use of particular community facilities where impact is positive.	Most residents, including children and elderly people, likely to encounter very significant severance which will be sufficient to induce a reorganisation of their activities, to cause them to make less frequent trips to nearby neighbourhoods or to make less use of particular community facilities where impact is negative.
Profound	People, including vulnerable road users are likely to be encouraged to make new trips to an extent that includes permanent enhancement of access to centres of activity. There is a very significant increase in pedestrian or cycle journeys where impact is positive.	People are likely to be deterred from making trips to an extent that includes permanent loss of access or a change in the location of centres of activity where impact is negative.

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8.2.5.5 Economic Impacts

Economic effects can arise during construction from local employment opportunities and purchasing of local inputs, or from the impact of construction works on local economic activity or businesses. When operational the Proposed Scheme may improve national competitiveness and economic/social linkages; for instance, in relation to reducing journey time and improving journey time reliability for commercial goods or for travel and commuting by employees. There can also be negative impacts in relation to loss of passing trade to businesses such as newsagents, grocery stores, service stations, guest houses, cafes etc. Impact levels are defined in **Table 8-5**, below.

Table 8-5: Criteria Used in Assessment of Economic Impacts

Impact Level	Significance Criteria – Positive	Significance Criteria – Negative
Imperceptible	No significant economic impacts are discernible	No significant economic impacts are discernible
Slight	A small effect on the business environment arising from the proposed development	A small effect on the business environment arising from the proposed development
Moderate	A moderate effect on the business environment.	A moderate effect on the business environment.
Significant	An effect that has the potential to impact on business performance or to influence the location decisions of new business.	An effect that has the potential to impact on business performance or to influence the location decisions of new business.
Very Significant	An effect that has the potential to substantially impact on business performance or to influence the location decisions of new business.	An effect that has the potential to substantially impact on business performance or to influence the location decisions of new business.
Profound	Effects of a scale to substantially and positively impact on the performance and associated employment of major existing business(es) or decisively impact on the location of major new businesses.	Effects of a scale to substantially and negatively impact on the performance and associated employment of major existing business(es) or decisively impact on the location of major new businesses.

8.2.6 Data Limitations

This chapter of the EIAR has been prepared based upon the best available information and in accordance with current best practice and relevant guidelines. There were no particular difficulties encountered in preparing the population assessment.

The most recent Census of Population was undertaken in April 2022. At the time of preparation of this chapter, a limited quantity of relevant data from the 2022 Census has been published, pertaining chiefly to overall population in counties and Electoral Divisions (EDs). The 2022 data has been utilised where available. Data from the 2016 census is used where the 2022 Census data is unavailable.

8.3 Description of Existing Environment (Baseline Scenario)

8.3.1 Current Baseline Environment

The Proposed Scheme is located in County Meath within Slane and its environs. The Zol includes the village of Slane and a number of EDs: Slane, Painestown and Mellifont (which is shared with County Louth). Demographic information from the 2006, 2011, 2016 and 2022 census for the EDs within the Zol and for counties Louth and Meath are set out in **Table 8-6** to **Table 8-12** pertaining to:

- Population;
- Age cohorts;
- Household composition;
- Employment;
- Means of travel to work, school or college; and
- Car ownership within households.

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At this time, a very limited range of relevant data from the 2022 Census has been published, pertaining chiefly to overall population in counties and Electoral Districts (EDs). The 2022 census data has been utilised where available. As detailed in **Table 8-6**, there has been growth within counties Louth and Meath and within the study area in the 2006 – 2016 period. There has been a particularly high level of population growth within County Meath and within Slane ED. The settlement of Slane has a total population of 1,369 (as recorded in the 2016 census).

Table 8-6: Population Change

Area	2006	2011	2016	2022	% change 2006 – 2011	% change 2011 – 2016	% change 2016 – 2022
Co. Meath	162,831	184,135	195,044	220,296	13.1%	5.9%	12.9%
Co. Louth	111,267	122,897	128,884	139,100	10.5%	4.9%	7.9%
Painestown ED	1,118	1,175	1,185	1,278	5.1%	0.9%	7.8%
Slane ED	1,587	1,834	1,853	1,925	15.6%	1.0%	3.9%
Mellifont ED	523	561	541	572	7.3%	-3.6%	5.7%

As detailed in **Table 8-7** the population within the Zol and within Counties Louth and Meath is comparatively young.

Table 8-7: Age Distribution

Area	0 – 16	17 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65+
Co. Meath	27.9%	8.6%	12.2%	17.2%	13.8%	9.6%	10.7%
Co. Louth	25.9%	9.3%	13.1%	15.7%	13.5%	10.1%	12.5%
Painestown ED	23.0%	9.7%	8.1%	15.9%	15.3%	13.5%	14.4
Slane ED	26.2%	7.5%	10.8%	18.6%	14.7%	10.1%	11.9%
Mellifont ED	22.4%	7.4%	8.1%	14.1%	17.6%	12.0%	18.5%

As detailed in **Table 8-8** household composition within the Zol varies, however a significant proportion of households have children.

Table 8-8: Household Composition

Area	One Person	Couple	Couple with Children	Couple with Other/ Children & others	Parent with Children/ Children and others	Two or more family units	Non-family households
Co. Meath	17.9%	18.0%	44.4%	3.7%	10.9%	1.6%	3.4%
Co. Louth	22.6%	17.7%	37.2%	2.8%	13.5%	1.5%	4.8%
Painestown ED	15.0%	20.6%	47.1%	4.6%	9.2%	1.8%	1.8%
Slane ED	23.9%	17.3%	41.4%	2.5%	11.1%	1.1%	2.7%
Mellifont ED	21.5%	23.6%	39.8%	2.6%	7.4%	2.1%	3.1%

Table 8-9 illustrates that over 50% of adults were recorded in the 2016 census as being employed, while within the 3 no. ED in the Zol over 55% of adults are employed. The COVID-19 pandemic has impacted directly and significantly on employment, but by Q1 2022 this impact had lessened. This is captured in the Quarterly Labour Force Surveys conducted by CSO for the state which is reported in **Table 8-10**.

Table 8-9: Individual Economic Status

Area	At Work	Not Employed	Student	Home Maker	Retired	Unable to Work
Co. Meath	50.9%	10.2%	11.3%	8.6%	14.1%	4.9%
Co. Louth	57.2%	7.2%	11.0%	9.1%	12.0%	3.5%
Painestown ED	55.0%	5.8%	12.3%	11.5%	12.3%	3.1%

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Area	At Work	Not Employed	Student	Home Maker	Retired	Unable to Work
Slane ED	55.7%	8.2%	9.2%	9.5%	13.2%	4.2%
Mellifont ED	57.9%	4.2%	8.2%	9.8%	16.8%	3.0%

Table 8-10: Employment Rate of Persons Aged 15 years and Over

Period	Employment rate % (Persons aged 15 - 64)	Employment rate % (Persons aged 15 - 64) COVID-19 adjusted ¹	Unemployment rate % (Persons aged 15 - 74)
Q1 2019	69.2%	–	4.8%
Q1 2020	69.6%	57.5%	4.7%
Q1 2021	65.6%	52.0%	7.1%
Q1 2022	72.8%	–	4.8%
Q4 2022	73.2%	–	4.2%

As detailed in Table 8-11, approximately two thirds of people travel by car to work, college and school and there is very significant dependence on the road network and vehicular traffic to meet transport demand. It is notable that within the Zol, travel on foot is considerably higher within Slane ED than in other EDs.

Table 8-11: Means of Travel to Work, School or College

Area	Foot	Bicycle	Public Transport	Motor Vehicle	Work mainly at home	Not Stated
Co. Meath	12.5%	0.9%	12.9%	67.5%	2.9%	3.3%
Co. Louth	15.6%	1.8%	11.9%	64.2%	2.0%	4.5%
Painestown ED	3.9%	0.5%	14.7%	74.7%	3.7%	2.5%
Slane ED	9.8%	0.3%	18.5%	62.1%	4.3%	4.8%
Mellifont ED	2.2%	0.6%	20.1%	66.9%	8.5%	1.7%

As detailed in Table 8-12, over 53% of households in County Meath have two or more cars compared to 37% in Louth and 46% in Slane ED.

Table 8-12: Car Ownership Per Household

Area	No Car	One Car	Two Cars	Three Cars	Four or more Cars	Not Stated
Co. Meath	7.6%	36.9%	43.4%	7.4%	2.7%	2.2%
Co. Louth	17.2%	42.8%	30.9%	4.6%	1.4%	3.2%
Painestown ED	3.6%	30.6%	48.5%	11.2%	4.8%	1.3%
Slane ED	10.3%	40.3%	38.8%	5.5%	1.5%	3.4%
Mellifont ED	2.6%	33.0%	47.6%	10.0%	4.7%	1.0%

8.3.1.1 Character and Significance

Slane is a small historic village located at a strategic bridging point on the River Boyne. The historic route between Dublin and the northwest of the island of Ireland and the road between Drogheda and Navan (N51)

¹ The CSO produced a COVID-19 Adjusted Measure of Employment from Quarter 1 (Q1) 2020 until Q4 2021. The estimate for the end of Q1 2021 was calculated by subtracting those who were in receipt of the Pandemic Unemployment Payment (PUP) at the end of March 2021 (end of Q1 2021) from the numbers in employment during Q1 2021. The COVID-19 Adjusted Measure of Employment is a crude measure which should be considered as the lower bound for employment.

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intersect at Slane. In the centre of the village stand four nearly identical Georgian houses framing ‘The Square’. This is currently a signalised junction (N51 and N2) with high volumes of traffic and no dedicated cycle facilities. Much of Slane’s distinctive quality derives from its geographical setting, its formal set piece of ‘The Square’, use of stone in its architecture and its association with Slane Castle Demesne and Slane Mill.

The population of the village was recorded in the 2016 census as 1,369 (1,853 for the entire ED). Within the village and the immediate vicinity are a number of local shops, bars, cafes and services and a national school, health centre, churches and sports clubs, including:

- St. Patrick’s Church;
- St. Patrick’s National School;
- Tus Maith Montessori & Pre School;
- Slane GAA Club;
- Slane Wanderers Football Club;
- Slane Garda Station;
- Slane Library;
- Slane Community Centre; and
- Slane Health Centre.

Slane Castle is located close to the banks of the River Boyne and is approximately 1 km to the west of the centre of the village. The castle hosts events, including large-scale music concerts, the grounds are open to the public and a distillery is now operational within the Castle grounds.

On the east side of Slane village is the Slane Mill, a five storey cut stone building, standing on the north bank of the River Boyne beside Slane Bridge dating back to c.1765.

The former home of poet, Francis Ledwidge, now a museum is located approximately 1km to the east of the village centre on the N51.

To the north of the village rises the Hill of Slane. The hill contains a number of historic sites including the site of a Christian abbey. The Hill of Slane can be seen from the Hill of Tara which is approximately 16 km away.

The River Boyne within the study area is a recreational resource with fishing and kayaking undertaken in the river. The Slane area is considered to be an important salmon and trout fishery, leased out to various angling clubs including Slane Bridge Anglers and Rossin, Slane and District Angling Clubs. The Boyne is reported to have a good run of salmon and sea trout in summer and the autumn.² The Ramparts Walk (canal towpath for the Boyne Navigation) is a local walking/ cycling route along the riverbank.

Grassland Agro, a significant manufacturer of agricultural fertiliser is located on the N2 approximately 1 km to the north of the village centre. Slane Industrial Estate, containing a number of industrial units is situated north of the River Boyne, approximately 700 m to the southeast of the village centre.

The N2 is a strategic national route linking Dublin and Northern Ireland (Derry) and carried circa 8,247 Annual Average Daily Traffic (AADT) in 2019 at Slane Bridge. At present, it is characterised by a steep descent to Slane Bridge, steep approaches to and tight geometry at ‘The Square’ in Slane village, and a high percentage of heavy goods vehicles (HGVs) which pass through the village on the National Primary Route of the N2.

At the southern end of Slane village, the existing N2 crosses the River Boyne on a multi-arched masonry bridge. This bridge is too narrow to cater for two-way traffic and a traffic signal shuttle system operates. Southbound HGVs are segregated from other traffic for safety reasons. Facilities for vulnerable road users are extremely limited in the vicinity of Slane Bridge.

There are no overtaking opportunities on the N2 for over four kilometres from south of McGruder’s Cross to north of the Grassland Agro access. Speed limits have been reduced to 60 km/h, 50 km/h and 30 km/h approaching and through the village.

² <https://rossinslaneangling.com/>

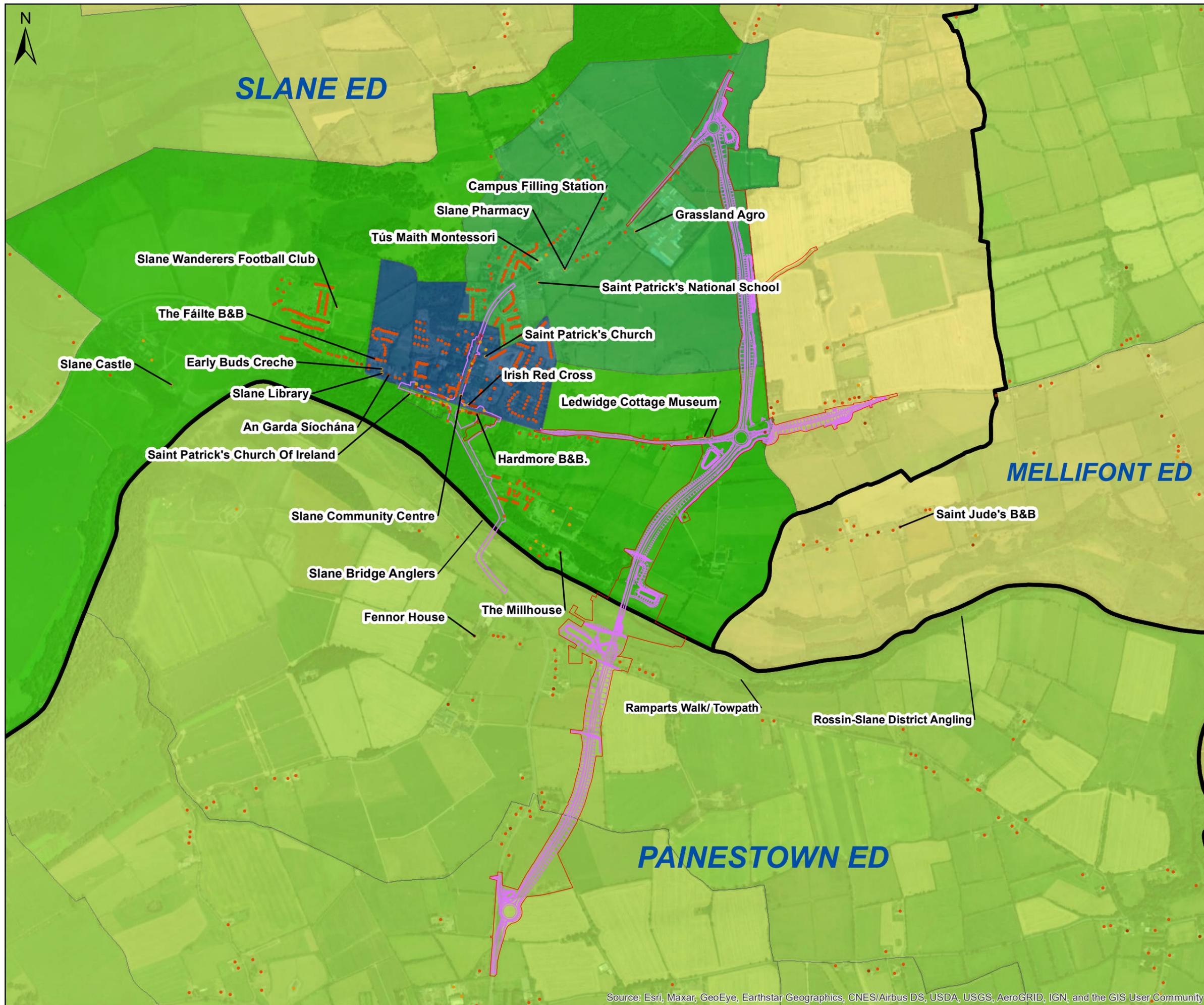
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The level of service on the N2 in Slane is rated as poor with resultant reduction in traffic speed and driver delay as detailed in **Section 2.3.5** in **Chapter 2 – Background and Need for Scheme**. **Table 8-13** outlines the current indicative traffic volumes in each direction on the N2 and N51 based on the traffic count undertaken in Slane for the N2 Monaghan scheme in May 2019.

Table 8-13: Indicative Existing Traffic Volumes in Slane

Road Section	Annual Average Daily Traffic (AADT)	HGV Content
N2 South	8,755	17%
N2 North	10,360	1%
N51 West	10,240	11%
N51 East	6,070	8%

The village is surrounded by agricultural lands with dairy, tillage and beef farming being the most prominent sectors. Located outside the village there is also one-off housing and some businesses including Granite Tops and Slane Memorials. **Figure 8.1** outlines information on population density and the location of residential, commercial and other development within the study area. Within the village centre there are a number of additional smaller retail and commercial businesses in addition to those detailed in **Figure 8.1**.

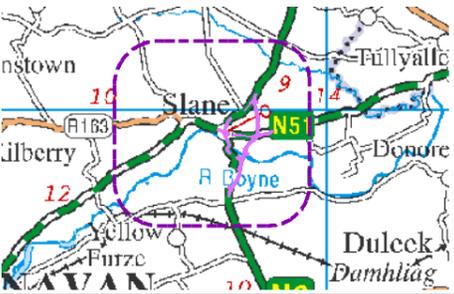


Legend

- Proposed Scheme
- Proposed Scheme Boundary
- GeoDirectory (Q1 2023)**
 - Residential
 - Commercial
 - Business
- Electoral Division (2016)
- Population Density by SAPS (People / sq.km)**
 - Less than 20
 - 21 - 50
 - 51 - 100
 - 101 - 200
 - 201 - 300
 - 301 - 500
 - 501 - 1,000
 - 1,001 - 2,000
 - 2,001 - 4,000
 - 4,001 - 15,072

Data Source: CSO Census 2016; SAPS July 2016 (Small Area Population Statistics) ungeneralised boundaries sourced from the OSI at data.gov.ie; An Post GeoDirectory (Q1 2023) provided by Meath County Council.

0 0.125 0.25 0.5 Kilometres



Client
Meath County Council

N2 Slane Bypass and Public Realm Enhancement Scheme

Title
Figure 8.1

Population Density by Small Area and GeoDirectory Properties

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Issue Details

File Identifier:
 MDT0806-RPS-00-N2-DR-Z-AG-3008

Status: A1	Rev: C01	Model File Identifier: MDT0806-RPS-01-N2-M2-C-XM1001 MDT0806-RPS-01-PR-M2-C-XR9000
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Approved: MH	Projection: ITM
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8.3.1.2 Sensitivity

A very significant level of traffic including HGV traffic is currently routed through Slane arising from a national primary and national secondary route passing through the village. This traffic has the effect of diminishing connectivity in the centre of the village thereby reducing the attractiveness of the centre for retail and social activity and the attractiveness of the village for new residents or investment. This severance, imposed by road traffic, has potential implications for health, including limits on physical movement and social interaction. It has an effect on sensitive groups such as school children and elderly people given the proximity of various educational, religious and other facilities to the N2.

The implementation of a bypass around Slane will significantly reduce traffic volumes in the village. The Proposed Scheme also includes for public realm enhancement proposals which will enable a significant change of character and improved public realm for the village centre made possible by the reduction in vehicular traffic.

The current horizontal and vertical alignments of the N2 within the study area are poor as described in **Chapter 2, Chapter 4** and **Chapter 7** of this EIAR. Cycling on the N2 within Slane and proximate to Slane is discouraged by the poor journey amenity and severance. There are very limited provisions for cyclists or public transport infrastructure on the N2 within the study area and motor vehicular traffic levels, including HGV traffic are high.

The landscape around Slane is a rolling, rural landscape with significant agricultural activity. There are a number of local and nationally significant tourist attractions in the general area including:

- Hill of Slane (approximately 600 m to the north of village centre);
- Francis Ledwidge Museum (approximately 1 km to the east);
- Slane Castle including Slane Distillery (approximately 1.2 km to the west);
- Knowth (approximately 3.5 km to the east);
- Newgrange (approximately 4.5 km to the east);
- Battle of the Boyne Interpretative Centre (approximately 8.2 km to the east); and
- Hill of Tara (approximately 15 km to the south).

Minimisation and mitigation of visual impact from these landmarks and more generally is an important consideration. The landscape and visual receptors are further described in **Chapter 12 – Landscape and Visual**.

A number of roads are also directly impacted by the Proposed Scheme in addition to the N2, including the N51 and the Rossnaree Road (L16002).

8.3.2 Evolution of the Environment in the Absence of the Proposed Scheme

If the Proposed Scheme does not proceed it is considered that there will continue to be a very significant level of traffic passing through the centre of Slane and as considered in the Do-minimum traffic modelling described in Chapter 7, the quantum of traffic is projected to increase. In the absence of any reduction in traffic on the existing N2 there will be very limited opportunities to enhance cycling or pedestrian infrastructure or the public realm more generally. It is considered that the absence of the Proposed Scheme would lead to:

- Continued severance would be expected within the village centre;
- The current baseline situation would continue to act as a disincentive to cycling and pedestrian movement;
- Journey time by all modes would be expected to generally increase and become less predictable under a Do-Nothing scenario;
- The amenity of journeys, due to increased traffic levels and associated hazard would disimprove somewhat under a Do-Nothing scenario;

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- Noise and air pollution would continue to impact negatively on residential amenity within Slane village. As the population grows this impact would be experienced by more people. In the long term this may be ameliorated somewhat by the increased uptake of e.g. electric vehicles; and
- Land and properties required for the Proposed Scheme would remain in existing use.

8.4 Description of Likely Significant Effects

Sections 8.4.1 and 8.4.2 provide a description of the likely significant effects of the Proposed Scheme on population in cumulation with other existing development in the area. A description of the likely significant effects in cumulation with approved development i.e., development not yet built, is presented in **Section 8.4.3** based on the detailed methodology for the CIA included in **Chapter 25**.

The impact interactions between population and other environmental factors are identified and described in **Chapter 26** and assessed throughout **Sections 8.4.1 to 8.4.3**.

8.4.1 Construction Phase

Construction is expected to take in the order of 36 months on a phased basis with varied levels of activity. Construction phase effects that have potential to impact on the population within the study area comprise emissions of construction dust, noise, vibration, visual intrusion and overall impacts to amenity resulting from traffic diversions, road closures, traffic congestion and land take.

Effects considered in regard to the key parameters for assessment as set out in **Section 8.2.4** are considered below.

8.4.1.1 Residential and Recreational Amenity

The Proposed Scheme entails significant construction works which include the new roadway and tie-ins including roundabout junctions. The works, including roundabouts are located proximate to a number of existing residences. In total the number of residential dwellings and all property types in the vicinity of the proposed bypass and N51 road improvements are recorded in **Table 8-14**.

Table 8-14: Property Proximate to the Project (Mainline Bypass and N51 Links)

Buffer Band ³	Count of All Property Types	Count of Residential Only
0 – 50 m	38	28
50 – 100 m	16	14
100 – 200 m	47	42
200 – 300 m	129	115
300 – 500 m	260	209

Source: GeoDirectory Q1 2023, MCC.

Landtake for the Proposed Scheme will require approximately 43.4 hectares (ha) of permanent landtake (agricultural and non-agricultural) with a further approximately 6.9 ha temporarily acquired to facilitate construction activities including site compounds, stockpile areas, temporary access roads and temporary works areas etc. This landtake is further assessed in **Chapter 20 – Material Assets: Agricultural Properties** and **Chapter 21 – Material Assets: Non-agricultural Properties**. Four properties are included for demolition to facilitate the Proposed Scheme: a derelict gatelodge at N51 West at approx. Ch. 700; an occupied private dwelling adjacent to the proposed bypass, approx. Ch. 1825; an occupied private dwelling at N51 East approx. Ch. 75; and agricultural buildings and an uninhabited dwelling at the northern roundabout tie-in. A further occupied private dwelling on Rosnaree Road will be acquired but the house will not be demolished.

Public realm enhancements are proposed throughout the centre of Slane on the existing N2 and N51. The proposals include the reorganisation of the N2 and the N51 passing through the village and the redesign of

³ Ring buffers generated from the centreline of the scheme; this includes junctions, roundabouts and link roads. Source: Meath GeoDirectory (Q1 2023).

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'The Square'. There are 1,369 no. people living within Slane (as of 2016 census). The public realm enhancements will only be undertaken once the bypass is complete and operational, meaning there will be less through traffic while these construction works take place. Such works are smaller in scale and duration (between 6 and 9 months) than those works required for the delivery of the bypass and the N51 improvements however, they will be undertaken directly adjacent to residential properties, businesses and services within Slane village. The works will result in reallocation of road space through the village including loss of 24 on-street parking spaces however, it is also proposed to provide a new off-street car park with capacity for 31 cars, accessed off the N51 with pedestrian connectivity to the existing N2, and a new shared pedestrian/cyclist facility extending from the village centre to St Patrick's National School.

More generally the works will impact negatively on residents' enjoyment of the public realm and local recreational facilities due to those factors identified as impacting on private residential amenity. Recreational walking, cycling and angling will all be impacted negatively during construction, as a result of temporary restrictions on access e.g. along the towpath, during construction. It should be noted that no significant residual impacts on aquatic ecology are anticipated to arise from the construction / operation of the project (See **Chapter 16**).

Construction works will have an impact on residential amenity through the removal of hedgerows, trees and other elements of the natural environment in the construction of the bypass. These are considered more fully in **Chapter 12 – Landscape and Visual**.

The locations of construction compounds have been selected, in part, to reduce environmental impacts, however there are two no. residential properties within 100 m of the proposed main compound and a further seven no. within 100 m of the proposed satellite construction compound that will experience more continuous traffic and noise impacts and dust nuisance. Smaller temporary sites required for the construction of particular structures and bridges, excavation and processing of materials, specialised earthwork construction and at certain drainage areas, may also be sited at various locations along the length of the Proposed Scheme proximate to existing residences. Such temporary sites will be subject to the provisions of this EIAR in terms of dust control, noise and visual impact. While site access points are concentrated on existing national roads, with 4 no. of the access points from national road network, there will be 2 no. access points from the local Rosnaree Road. This reduces traffic and noise impacts on the local population, though there will be an increase of some 38 HGVs passing through the centre of Slane during construction on some days when particular activities are being carried out on site.

There is likely to be a temporary moderate negative effect on the amenity enjoyed by residents for the duration of construction activities. This includes a temporary negative effect on the residential amenity enjoyed by residents of the properties located within 100 m of the new mainline bypass, within 50 m of the N51 Route Improvements and within 25 m of the public realm works while construction is underway due to increased noise and air emissions, loss of privacy, visual intrusion arising from construction works, including earthworks, stockpiling of material and the provision of site compounds and reduced accessibility. The effects in many instances will be intermittent reflecting the level and location of construction activity.

The noise and vibration, air quality, and landscape and visual impacts are further detailed in **Chapters 9, 10 and 12** respectively.

A flood risk assessment has been carried out for the Proposed Scheme. Overall, it found that for construction, the magnitude of the impact would be negligible and the sensitivity of receptors would be low. This is considered more fully in **Chapter 17 – Water**.

8.4.1.2 Journey Characteristics

Construction activities will include an increase in movement of HGV traffic, traffic diversions, increased dust, noise and vibration emissions, impacting journey characteristics for all road users close to the construction activities, construction sites and compounds. Some construction works will impact on road service due to the requirement for works to take place online e.g. N51 road improvements, tie-ins etc. and will require short diversions and delays for local traffic accessing the existing N51 and N2 routes at for isolated periods during the construction phase.

The design of N2 South and North roundabouts allows for offline construction, however, temporary traffic management will be implemented for construction of the links to the existing road. See **Chapter 5 – Description of the Construction Phase** for further details in relation to construction traffic effects.

The design of N51 roundabout allows for offline construction, however, temporary traffic management will be implemented for construction of the links to the existing road. The proposed works on the N51 link between

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the bypass and Slane village entails on-line improvement works. The majority of this work will be completed under temporary traffic management arrangements whereby the road will be maintained open, albeit with single way shuttle systems at varying locations to enable the construction works to be completed in a safe manner. During these temporary traffic management phases, the road will remain open to traffic. However, some works, such as pavement construction may be carried out under a temporary road closure. It is envisaged these closures will be at night and alternative routes will be made available to accommodate travellers. Closures of the N51 will likely be short-term. See **Chapter 5 – Description of the Construction Phase** for further details in relation to construction traffic effects.

Access Point 3 on the Rossnaree Road L16002 facilitates construction of the River Boyne bridge. Abnormal loads are likely to deliver large plant (cranes) and bridge girders, and these loads will be subject to statutory process and management. Temporary closure of the Rossnaree Road will be necessary to facilitate the construction of the mainline in the area and also the proposed Rossnaree Road overbridge. The closure is expected to last for a period of 8 to 9 months. Diversions via McGruder's Cross will be in place in order to maintain local access during this temporary closure. See **Chapter 5 – Description of the Construction Phase** for further details in relation to construction traffic effects.

The proposed public realm works within Slane village involve considerable works to reconfigure existing roads and footways. All works in the village will take place sequentially after the proposed bypass is operational and traffic volumes have reduced through the village. The works will be constructed with temporary traffic management arrangements in place. Works areas will be isolated using one-way shuttle systems for the most part during the construction, however, temporary road closures are also anticipated to facilitate critical works. These road closures are likely to be at night and local diversions will be in place.

The proposed development will generate construction traffic and will increase traffic levels locally, particularly in the vicinity of construction compounds. There is already a significant level of HGV traffic on the N2 and N51 within the study area. The majority of additional traffic in the form of HGVs and particular earthworks related HGVs will utilise the national road network, minimising adverse environmental impact as these roads are designed for such traffic. Construction traffic, including HGVs and abnormal loads will also route via the Rosnaree Road, for the short stretch of road between the existing N2 and the scheme access points. It is considered that the speed reductions, diversions, construction traffic generated and other impacts arising will not be of such a scale as to generally impact discernibly on journey time, while impacts on the Rosnaree Road including the implementation of a one way system will impact local traffic only. See **Chapter 5, Section 5.5.2 Construction Traffic Impact** and **Section 5.5.2.7 Summary of the Construction Traffic Impact** for further details in relation to construction traffic effects.

There is likely to be a negative, and slight temporary impact to journey characteristics as a result of the Proposed Scheme.

8.4.1.3 Journey Amenity

Construction activities will include an increase in movement of HGV traffic, traffic diversions, increased dust, noise and vibration emissions and visual intrusion resulting from removal of existing hedgerows, construction works taking place on agricultural lands and the presence of construction compounds etc all of which will reduce journey amenity. Notwithstanding mitigation measures this will impact on all road users, but particularly on cyclists and pedestrians. The additional construction signage and traffic lights/ flag men and temporary closures/ diversions associated with the construction traffic management will also impact negatively on journey amenity.

There is likely to be a negative, and slight temporary impact to journey amenity as a result of the Proposed Scheme.

8.4.1.4 Accessibility and Community Severance

Traffic management arrangements will aim to minimise/avoid delays and disruption for travel by the local population during the construction period, apart from some short-term limited traffic controls. As detailed in **Section 8.4.1.2**, short diversions or delays due to works traffic lights/ flag men are likely for local traffic and construction traffic.

Temporary traffic management will be needed for construction of the links to the existing N2.

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On the N51 some works, such as pavement construction may be carried out under a temporary road closure. It is envisaged these closures will be at night and alternative routes will be made available to accommodate travellers.

Temporary closure of the Rossnaree Road L16002 late in the construction programme will be necessary to facilitate the construction of the mainline in the area and also the proposed Rossnaree Road overbridge. The closure is expected to last for an approximate period of 8 to 9 months.

A manned traffic controlled one-way system is proposed along a 245 m length of the Rossnaree Road to manage and cater for the anticipated construction stage traffic demand during construction. There are 4 no. private accesses, including 3 no. field accesses and 1 no. residence access, within the length of the proposed one-way system. The one-way system will not generate queuing and it is expected that a flagman will assist vehicles leaving these accesses when required.

Diversions via McGruder's Cross will be in place in order to maintain local access during this temporary closure.

Temporary road closures are also anticipated to facilitate critical works within Slane village. These road closures are likely to be at night and local diversions will be in place. Construction work within Slane village will impede pedestrian and cyclist movement. There may also be a reduction in available car parking spaces within the village during construction (noting the proposed permanent proposals under the public realm element of the Proposed Scheme to reduce on-street parking and provide a dedicated car park).

Local access to lands may be impacted by construction works. Local traffic management and the sequencing of development (see **Section 8.5.1.5**) will ensure access to lands is maintained throughout construction.

These accessibility and community severance impacts are considered to be temporary, negative and slight.

8.4.1.5 Economic Impacts

During construction there will be additional employment within the study area. It is anticipated that there will typically be some 150 to 200 people employed on the construction site across the Proposed Scheme, rising to, in the order of 230⁴ staff at peak construction (refer to **Chapter 5**). A temporary slight positive effect can be expected from the expenditure and accommodation needs of workers directly employed on the Proposed Scheme for the construction period and associated indirect and induced impacts. There may be a temporary imperceptible to slight negative impact on passing trade within Slane and the adjacent tourist attractions, such as the Francis Ledwidge Museum and Slane Castle, due to the large-scale construction activity and the associated noise, air quality and traffic impacts dissuading casual trade from stopping in Slane.

It is not considered that the proposed works will be of such a magnitude as to hinder discernibly local people from accessing local services and businesses within Slane or to stop tourists making planned visits to Slane.

Any impact on journey times in the region is considered to be of such a minor magnitude as to have no effect on economic activity.

Overall, the economic impacts are considered to be slight temporary and positive.

8.4.2 Operational Phase

The following section identifies potential operational phase impacts on population without mitigation in place.

8.4.2.1 Residential and Recreational Amenity

The reduction in traffic along the N2 and through the centre of Slane village will have positive impacts due to reduced severance, noise, visual intrusion and improved local air quality as described in the relevant chapters of this EIAR (see **Chapter 7 – Traffic and Transport**, **Chapter 9 – Noise and Vibration** and **Chapter – 10 Air Quality**). This will impact positively on residential amenity.

The existing community facilities within Slane will benefit from improved access due to the reduction in traffic within the village and enhanced pedestrian, cycle and public transport provisions. Access to community facilities will also be enhanced by greater ease of access onto the existing roads due to lower traffic

⁴ Indicative estimated figures based on previous similar scale construction projects.

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volumes. New tree planting and the removal of street clutter such as traffic gantries will enhance the character of the streetscape and impact positively on residential amenity.

A number of on-street car parking spaces (24 no.) are to be removed. Those on street car parking spaces that remain will be demarcated/ lined. The proposed 31 space car park located to the south of the N51 approximately 140m east of the crossroads in Slane and enhancements of pedestrian and cycle infrastructure are considered to provide enhanced connectivity for residents.

The Proposed Scheme includes for the provision of enhanced footway access along the existing N51 between the village and the bypass. Taking this into consideration, the provision of shared use cycle/ pedestrian facilities along the proposed bypass, linking to the existing canal tow path, will impact positively on residential amenity.

It is proposed to facilitate local cycling loops incorporating the proposed bypass. The cycling route loop includes the existing N2 route through the village and the cycling facilities along the proposed bypass, which will impact positively on residential amenity as shown in Figure 4.3 of the N2 Slane Bypass Cycle Strategy (refer to **Chapter 4**).

The Proposed Scheme will enhance access to the River Boyne and the ease with which recreational activities on the River Boyne, including fishing and kayaking, may be accessed. It is considered the Proposed Scheme, when operational, will have no discernible impact on the enjoyment of those kayaking or fishing on the River Boyne.

Relevant mitigation in relation to impacts from noise and vibration, air quality, human health, and landscape and visual aspects can be found in **Chapters 9, 10, 11 and 12** respectively. Following such mitigation the proposed development will result in a positive aggregate residual impact under the END Noise Mapping and the DMRB impact rating. No significant residual vibration impacts are predicted as a result of the operational phase. No residual air quality impacts are predicted as a result of the Proposed Scheme. With regards to visual impact there will be moderate to major effects on 5 no. properties and major to substantial effects on 1 no. property.

The impact of the Proposed Scheme on residential and recreational amenity is positive, permanent and significant i.e. considerably greater residential and recreational amenity will result from the Proposed Scheme.

The flood risk assessment for the scheme found that during operation, overall, the magnitude of the impact in terms of flood risk would be negligible and the sensitivity of the receptors would be low. This is considered more fully in **Chapter 17 – Water**.

8.4.2.2 Journey Characteristics

The redistribution of traffic along the proposed bypass and through the centre of Slane village will have positive impacts in terms of regional journey times and journey time reliability due to the separation of regional and much local traffic along with the improved vertical and horizontal alignment of the bypass as described in **Chapter 7 – Traffic and Transport**.

Journey times measured between McGruder's Cross and Knockmooney in the Do-Minimum versus Do-Something scenarios for 2041 show significant reductions for the AM Peak, Interpeak and PM Peak hours north and south-bound (up to 63% for PM peak northbound and 51% AM peak southbound). Network-wide journey time savings are also projected due to the scheme, with some small increase in distance travelled for the 2041 Do-Something scenario.

As reported in **Section 7.5.1** in the Do-something Design Year 2041, just over half (7,780 vehicles/day = 57%) of the traffic on the proposed River Boyne Bridge crossing would divert from using the existing Slane Bridge.

Journey times on local trips in and around Slane will also be somewhat reduced as regional traffic is removed from the centre of Slane. The Proposed Scheme will have a moderate permanent positive impact on journey characteristics.

8.4.2.3 Journey Amenity

The Proposed Scheme will present a significant positive impact on journey amenity for drivers due to improved horizontal and vertical alignment as a consequence of reduced need for changes in travelling speed and a reduced perception of and actual road safety risk as described in **Chapter 7 – Traffic and**

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Transport. The provision of a dedicated footpath / cycle path along the mainline bypass and the upgrade of the N51 also present a significant positive impact on journey amenity for these road users.

The reduced volume of traffic on the existing section of the N2 to be bypassed together with HGV ban will also result in a significant positive impact on journey amenity for all road users.

Within Slane village centre, where the national school, health centre and other key local services are located, the public realm improvements will reduce severance and enable pedestrian and cycle movement on the existing N2 (which will be reclassified once the Proposed Scheme is in place) to be safer and more pleasant. This combined with a reduction in vehicular through traffic represents a significant and permanent positive impact.

The Proposed Scheme will present overall a very significant permanent positive impact on journey amenity.

8.4.2.4 Accessibility and Community Severance

Accessibility to employment, retail, social and health services in Slane village will be improved as the volume of vehicular traffic and HGV traffic routed through the village will be reduced and the public realm enhancements provide enhanced facilities, particularly for vulnerable road users. The transference of traffic from this settlement will provide for safer crossings of the existing N2 (which will no longer designated a national road when the proposed scheme becomes operational) route through the village and significant relief from severance by permitting less hazardous access to community facilities including shops throughout the centre of the village. The reduction in traffic through the village will make movement by all modes easier and more enjoyable and representing a significant enhancement of pedestrian/ cyclist accessibility.

Movement will be made easier for vulnerable road users through the provision of enhanced dedicated cycle and pedestrian facilities along the N2 from the centre of Slane to the existing River Boyne Bridge and river amenity area. These enhancements include the provision of a cycletrack to be used by northbound cyclists and a footpath extending to the existing bridge from the access to the proposed car park and a shared pedestrian/ cyclist facility along the southbound side of the old N2 within the village and extending north to St. Patrick's National School. The footway and public lighting will also be extended.

Partial new severance is presented by the presence of a significant new road separating Slane village from parts of its hinterland to the east. This severance is more psychological than it is physical as there will be no material change in connectivity between Slane and its hinterland. All existing routes will be maintained. Any division of agricultural properties and the effects of same is considered and assessed in **Chapter 20 – Material Assets: Agricultural Properties.**

Overall, the transfer of a significant volume of traffic away from the centre of Slane and the enhanced new vehicular route along with the upgraded public realm and pedestrian/cycle routes will result in a significant, permanent positive impact on accessibility for people living within the study area.

8.4.2.5 Economic Impacts

The reduced journey time and improved journey time reliability will promote economic activity in the area. Journey time will be reduced on the intercity route between Dublin and Derry and more locally. The improvements in journey time and journey reliability will promote economic growth within the zone of influence and more broadly in the region.

The transference of through traffic from the existing N2 will have a negative impact on businesses located on the existing road that benefit from passing trade, however it is considered that the reduction in traffic, particularly HGV traffic in the village centre will enhance the urban environment and promote local business activity within the village.

Representatives of the National Roads Office visited businesses within Slane on the 11 May 2022 and circulated a questionnaire seeking the input of business to inform the project design process. Questionnaires were given to 51 no. businesses and 12 no. businesses filled out and returned same. The provision of car parking was identified as an item of concern. These concerns are addressed by the provision of additional off street car parking spaces.

The transfer of traffic to the proposed bypass could have an impact on the number of visits to Slane Castle and Slane Distillery, the Francis Ledwidge Museum, the Millhouse and other attractions, but this can be mitigated through marketing and signage in line with TII policy guidance. The reduced journey time and

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reliability and enhanced urban realm within the centre of Slane will also promote visitors to these tourist attractions. Parking in the vicinity of their business was identified as a key concern.

Traffic noise generated by the proposed scheme may impact negatively on the enjoyment of guests in the camping area and wedding venue associated with the Millhouse.

Overall, the effect of the Proposed Scheme on economic activity is considered to be significant, positive and permanent.

8.4.3 Cumulative Impact

A cumulative impact assessment (CIA) has been undertaken to consider potential for cumulative impact of the Proposed Scheme with other approved development. The detailed methodology for the CIA is described in **Chapter 25 – Cumulative Effects**. The assessment has considered cumulative sources and impact pathways which could impact on agricultural enterprise.

The projects listed in **Appendix 25.2** have been assessed. Each project has been considered on a case-by-case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/ temporal scales involved. Projects were screened-in to the population CIA where they discernibly impact directly on population levels, amenity, journey characteristics, accessibility and community severance, and potential economic impacts. The projects that were screened-in for the Population CIA are listed in **Table 8-15**.

Table 8-15: Projects Screened-in for Potential Cumulative Effects on Population

Project Code	Project Location	Project Type	Potential for Cumulative Effect
PR 3	Ledwidge Hall, Drogheda Road, Slane, Co. Meath (<i>now constructed</i>)	Residential Development	36 no. units – increased residential population
PR 4	Ledwidge Hall, Drogheda Road, Slane, Co. Meath (<i>now constructed</i>)	Residential Development	16 no. units – increased residential population
PR 27	Veldonstown Road, Kentstown, Co. Meath	Residential Development	53 no. units – increased residential population
PR 28	Veldonstown Road, Kentstown, Co. Meath	Residential Development	39 no. units – increased residential population
PR 39	Watery Lane, Tullyallen, Co. Louth	Residential Development	21 no. units – increased residential population
PR 41	Old Slane Road & Mell, Tullyallen, Drogheda, Co Louth	Residential Development	237 no. units – increased residential population
PR 46	Kestrel Manor, Matthews Lane/ Platin Road Lagavoreen, Drogheda Co. Meath	Residential Development	86 no. units – increased residential population
PR 50	Bryanstown, Drogheda, Co. Meath	Residential Development	250 no. units – increased residential population
PR 51	Marsh Road, Drogheda, Co. Louth	Residential Development	275 no. units – increased residential population
PR 54	Marsh Road, Drogheda, Co. Louth	Residential Development	133 no. units – increased residential population
PR 61	Lands to the east of the M1 motorway and west of, the Rathmullan Road, Oldbridge Drogheda Co Meath	Residential Development	80 no. units – increased residential population
PR 63	Leonards Cross, Slane Road, Mell Drogheda	Residential Development	98 no. units – increased residential population
PR 67	North Road, Moneymore, Drogheda Co. Louth	Residential Development	133 98 no. units – increased residential population

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Project Code	Project Location	Project Type	Potential for Cumulative Effect
PR 69	Twenties Lane, Moneymore, Drogheda Co Louth	Residential Development	99 no. units – increased residential population
PR 70	Phase 10 Avourwen Platin/ Duleek Road, Lagavooren, Drogheda Co. Meath	Residential Development	24no. units – increased residential population
PR 71	Yellowbatter , Drogheda, Co Louth	Residential Development	84 no. units – increased residential population
PR 73	Ballymakenny Road, Yellowbatter, Drogheda Co Louth	Residential Development	20 no. units – increased residential population
PR 74	Yellowbatter, Drogheda, Co Louth	Residential Development	96 no. units – increased residential population
PR 77	Bryanstown Cross Route (Rear Of Martello Village), Drogheda, Co. Meath	Residential Development	78 no. units – increased residential population
PR 78	Cord Road Greenhills Road North Strand Road, Drogheda, Co Louth	Residential Development	40 no. units – increased residential population
PR 79	Yellowbatter, Drogheda, Co Louth	Residential Development	40 no. units – increased residential population
PR 80	Newtown View Marsh Road, Newtown, Lagavooren	Residential Development	133 no. units – increased residential population

The main pathway for cumulative effect is considered to be an increase in residential populations. For the majority of the projects screened-in, it is considered that there are no predicted construction phase cumulative impacts. For PR 46 and PR 51, the construction phases of these projects have the potential to cause cumulative impacts with the Proposed Scheme if the construction phases coincide, due to the likely timing of the construction works, short-term temporary increases in construction traffic and localised disruptions to population.

However, for all of the projects considered above, the operational phases support population growth and economic activity. Owing to their nature and scale, the potential for cumulative effects with the Proposed Scheme is not considered significant.

8.5 Mitigation Measures

The proposed development will have a broadly significant positive effect on residential amenity, journey characteristics, accessibility and the economy, particularly during the operational phase of the Proposed Scheme. However, in some limited cases additional mitigation measures are proposed to further enhance the scheme.

8.5.1 Construction Phase

8.5.1.1 General Measures

As a result of the assessment of construction works, the following general mitigation measures shall be implemented:

- The Construction Strategy as set out in **Chapter 5** of this EIAR shall be fully implemented.
- The mitigation measures in related chapters of the EIAR directly impacting communities which include **Chapter 7 – Traffic and Transport, Chapter 9 – Noise and Vibration, Chapter 10 – Air Quality, Chapter 11 – Human Health, Chapter 12 – Landscape and Visual, Chapter 20 – Material Assets: Agricultural Properties, and Chapter 21 – Material Assets: Non-agricultural Properties**, shall be fully implemented.

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- An Environmental Operating Plan (EOP) has been prepared and is included in **Appendix 5.6 to Chapter 5** of the EIAR. The EOP contains all of the specific mitigation from the EIAR in relation to Population and shall be implemented by the appointed Contractor(s).
- Construction Traffic Management Plans shall be prepared by the appointed Contractor(s) to deliver the traffic and transport related mitigation measures included in this EIAR. Construction Traffic Management Plans shall incorporate and elaborate on site specific delivery of the stated mitigation measures from the EIAR including temporary disruption to traffic signals, footpath access, management of pedestrian crossing points at the time of construction, provision of appropriate temporary signage to direct road users to alternative routes / car parking arrangements etc. Construction Traffic Management Plans will detail the implementation of the mitigation measures from the EIAR to ensure disruption to economic amenities and residential properties is minimised and access is maintained along haulage routes and in vicinity of the construction site(s) for vehicles, pedestrians, cyclists, and economic operators at all times.
- The appointed Contractor(s) shall provide car and bike parking for construction staff in construction compounds.
- A Community Liaison Officer (CLO) shall be appointed by the Contractor for the construction phase of the Proposed Scheme to facilitate communication between the Contractor and stakeholders and members of the public. Contact details (email, phone) for the CLO shall be included in the EOP for the Proposed Scheme and on the project website. The CLO shall be involved throughout construction on all aspects of community engagement.
- A Community Liaison Plan shall be prepared by the CLO prior to construction and shall be updated regularly. The Community Liaison Plan will specify obligations in relation to community and stakeholder engagement that the Contractor must adhere to. Where communications are related to environmental issues, the Environmental Clerk of Works shall be involved, if appropriate.
- The plan shall include:
 - Details of how the local community, road users and affected residents shall be notified in advance of the scheduling of major works, the temporary traffic diversions, bridge and road closures and the progress of the construction works.
 - Details of the available communication channels/points of contact for members of the public to contact the project team during construction shall be established in advance of the commencement of construction.
 - The contact details for the Community Liaison Officer (CLO) shall be posted on all construction site notice boards and on any other information or correspondence, which may be distributed from time to time.

A significant part of the plan will be 'good neighbour' policy. Key aspects of this policy that shall be implemented by the Contractor include:

- Providing a point of contact for queries and complaints;
- Minimising causes of nuisance;
- Maintaining access to neighbouring premises;
- Clear and concise information distributed widely and updated frequently; and
- Undertaking timely liaison with stakeholders.
- Details of general construction process/phasing shall be communicated to the relevant stakeholders in sufficient time prior to implementation to ensure local residents and businesses are fully informed of the nature and duration of construction.

8.5.1.2 Residential and Recreational Amenity

The measures that shall be implemented by the contractor in liaison with MCC are as follows:

- Where part of the curtilage of a property is to be permanently acquired, boundaries shall be replaced on a like for like basis subject to safety considerations and in discussion with the landowner.
- Prior to construction and subject to agreement with the relevant property owners, property condition surveys shall be undertaken in relation to all buildings/ structures in use, located within 50 m of the

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extents of the landtake boundary and within 150 m of any proposed blasting/ piling works along the Proposed Scheme. This will provide a baseline against which any claims shall be measured.

- Any services that are interfered with as a result of the Proposed Scheme shall be repaired/ replaced without unreasonable delay.
- Prior notice shall be provided to walkers, cyclists, anglers etc. regarding temporary restrictions around the River Boyne and towpath during construction.
- MCC will undertake to replace easements across the lands to be acquired both during construction and operation of the Scheme.

8.5.1.3 Journey Characteristics

No additional mitigation measures are proposed.

8.5.1.4 Journey Amenity

Construction impacts related to noise, air quality and landscape and visual shall be mitigated in line with the mitigations presented in **Chapters 9, 10 and 12** of this EIAR. No additional mitigation measures are proposed.

8.5.1.5 Accessibility and Severance

Where access to a property cannot be fully maintained and temporary interruption is required, advance notice shall be given to the landowner and alternative access arrangements shall be provided as necessary. Access shall be restored without unreasonable delay.

Accommodation works required to maintain access to lands shall be completed as early as feasible in the construction programme. Specifically, the following shall be undertaken:

- **Landowner 107/108:** Overbridge 1 and associated access tracks shall be constructed and ready for landowner's use prior to severing lands for mainline construction. Temporary access across the construction site shall be required until the overbridge is completed and ready for use by the landowner.
- **Landowner 118/119:**
 - Overbridge 3 and associated access tracks shall be constructed and ready for landowner's use prior to severing lands for mainline construction. Temporary access across the construction site shall be required until the overbridge is completed and ready for use by the landowner.
 - Existing access lane from N51 shall be retained for landowner's use until the alternative access to N51 is provided. Construction of the alternative access road from the N51 shall be constructed early in the construction programme to minimise severance of the construction site.
- **Landowner 147:** Prior to severing lands for mainline construction, Access Track 6 shall be constructed and ready for landowner's use to provide access from N2 to severed lands.

8.5.1.6 Economic Impacts

Dedicated signage shall be provided for existing tourist attractions affected by construction traffic management within and on approach to the village. In addition, signage providing advance direction to local services shall be provided in advance of construction.

8.5.2 Operational Phase

8.5.2.1 Residential and Recreational Amenity

No additional mitigation measures are proposed. Relevant mitigation in relation to impacts from noise and vibration, air quality, human health, and landscape and visual aspects are found in **Chapters 9, 10, 11 and 12** respectively shall be fully implemented.

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8.5.2.2 Journey Characteristics

No additional mitigation measures are proposed.

8.5.2.3 Journey Amenity

No additional mitigation measures are proposed.

8.5.2.4 Accessibility and Severance

No additional mitigation measures are proposed. Existing direct accesses to private properties will be maintained wherever possible. Where modification/ removal of a direct access is required, a new access will be provided to a similar standard as the existing access.

8.5.2.5 Economic Impacts

Dedicated signage will be provided in accordance with the Department of Transport Traffic Signs Manual (DoT, 2019). In accordance with the NRA Policy on the Provision of Tourist and Leisure Signage on National Roads (2011), this will be generic in nature except where tourist facilities are of high significance or achieve a threshold of visitor numbers.

8.6 Residual Impacts

The residual construction impacts of the Proposed Scheme on the receiving environment are temporary and are as follows:

- There is likely to be a temporary moderate negative effect on the amenity enjoyed by residents for the duration of construction activities.
- There is likely to be a negative, and slight temporary impact to journey characteristics as a result of the Proposed Scheme.
- There is likely to be a negative, and slight temporary impact to journey amenity as a result of the Proposed Scheme.
- There will be a slight negative temporary permanent residual impact on severance and accessibility due to temporary road closures.
- Overall, the economic impacts are considered to be slight temporary and positive.

The residual impacts of the Proposed Scheme on the receiving environment will be broadly positive, permanent and long term as follows:

- There will be a very significant permanent positive residual impact on residential and recreational amenity through the long-term reduction in traffic in the centre of Slane and the enhanced public realm in the village centre.
- There will be a moderate positive residual impact on journey characteristics by reducing journey time and improving journey time reliability on the N2 and N51 in the region in both opening and design years.
- There will be a very significant permanent positive residual effect on journey amenity through an enhanced horizontal and vertical alignment on the N2 and public realm enhancements within Slane which particularly benefit cyclists and pedestrians.
- There will be a significant positive permanent residual impact on severance and accessibility as journey times on the N2 a in the region are reduced as detailed in **Chapter 7, Section 7.5.2**, and traffic volumes and resultant severance in the village centre are reduced.
- The Proposed Scheme will provide a significant positive residual impact on economic activity through reducing journey time and improving journey time reliability on the N2 in the region delivering and promoting trade and commerce in the village centre by reducing through traffic, notwithstanding some reduction in passing trade and creating an enhanced public realm.

8.7 Monitoring

No specific monitoring is proposed.

8.8 Chapter References

Department of Transport (2019) Traffic Signs Manual (updated 2021).

Fáilte Ireland (2011) EIAR Guidelines for the Consideration of Tourism and Tourism Related Projects.

MCC (2021) Meath County Development Plan 2021 – 2027.

NRA (2011) Policy on the Provision of Tourist and Leisure Signage on National Roads.

UK Department of Transport (2021) Design Manual for Roads and Bridges LA 112 Population and Human Health (Version 1, Jan. 2021).

WNRO (2022) Business Survey Report. Westmeath National Roads Office on behalf of Meath County Council, August 2022.