



Bonneagar Iompair Éireann
Transport Infrastructure Ireland

AECOM

TRANSPORT INFRASTRUCTURE IRELAND
ONE-YEAR POST OPENING EVALUATION

BAILE BHÚIRNE BAILE MHCÍRE

BYPASS IMPACT EVALUATION

November 2025

Assessing the Impacts of the N22 Bypass of Baile Bhúirne/Baile Mhic Íre

1 Introduction

This report marks the second in a series of evaluations to understand the impacts of TII-funded schemes on the towns and communities that they bypass. It looks in this instance at the impacts of the N22 scheme on the villages of Baile Bhúirne and Baile Mhic Íre.

Transport Infrastructure Ireland (TII) is responsible for the delivery and management of a safe and efficient national road network. In its forward planning role, the focus of TII is on delivery of the national road projects from the National Development Plan. TII-funded projects often feature town bypasses, which can have significant impacts on local communities and things like their travel behaviour, their safety and the environment.

Traditionally, post-project reviews for TII-funded projects have been carried out to understand whether the expected benefits have been achieved. In compliance with the Government Value for Money assessment requirements, such reviews have often focussed on the benefits of the new road, and using traditional traffic engineering metrics, such as travel time, traffic volumes or collision numbers.

With the adoption in 2022 of the National Sustainability Mobility Policy and the Town Centre First Policy, TII is aware of the many opportunities that town bypasses can provide in support of such plans, beyond typical traffic engineering metrics. Furthermore, the objectives of TII-funded schemes have broadened in recent years, with an emphasis on multi-modal projects that can facilitate active travel and public transport.

As such, with technical support from AECOM, TII is carrying out a series of studies to obtain a comprehensive, evidence-based understanding of the impacts of TII-funded schemes on bypassed towns and villages. These studies consider a wide range of areas, including motorised and active modes, local economy, accessibility and, social inclusion, safety and the local environment.

Since 2022, TII, AECOM and Interactions Research have carried out baseline studies in six towns bypassed by TII-funded national road schemes, namely Macroom, Westport, Moycullen, Baile Bhúirne/ Baile Mhic Íre, Listowel and Adare. The baseline studies collected data on noise and air quality, travel modes, impacts on local business, impacts on congestion, town dereliction, road safety and more variables. These studies include desktop research, onstreet surveys, traffic counts, noise monitoring, air quality monitoring and focus groups for residents and businesses.

The N22 Macroom-Baile Bhúirne Project was officially opened on the 6th of November 2023. Cork County Council was the lead authority and sponsoring agency for the Project, which was funded by TII. The location of the bypass in relation to the towns is shown in Figure 1. TII and AECOM, with support from Cork County Council

and the N22 Project Team, collected data for the broad range of indicators prior to the opening. Upon reaching the one-year post-opening mark, the data collection was repeated in October 2024.

TII then carried out its first comparisons of the pre/post-bypass opening results across the indicators. TII will return to Baile Bhúirne/Baile Mhic Íre in the future, to assess the medium and longer-term impacts (e.g. after 5 or 10 years). This study is part of a series of evaluations, that will be repeated in this sequence, for all six towns in the study.

The highlights of the comparative results and insights, from Baile Bhúirne/Baile Mhic Íre one year since the bypass opening, are presented in this summary document. The report concludes by identifying issues of interest to future monitoring studies and highlights local infrastructure improvements that could be considered.

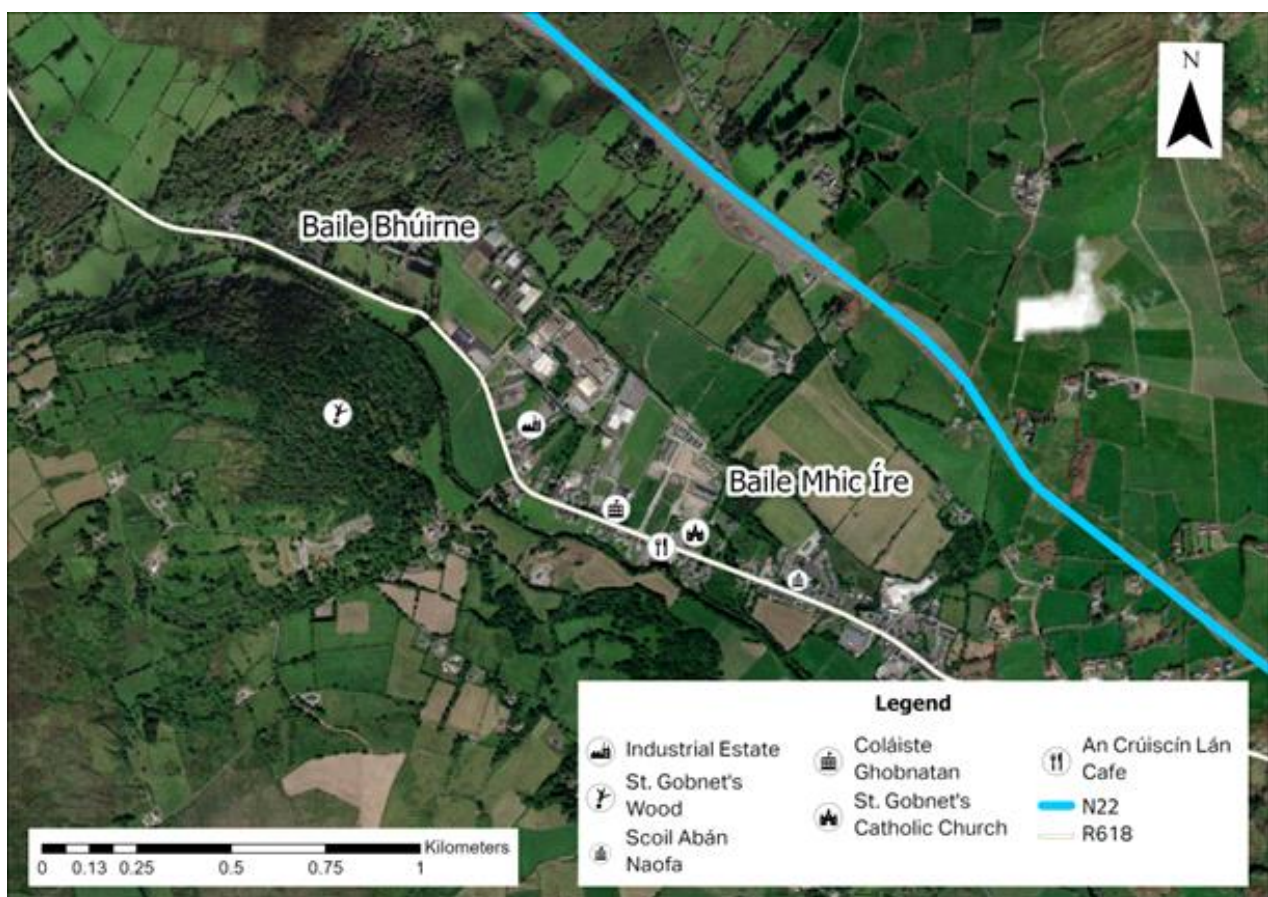


Figure 1 - Map of N22 Scheme, the and Baile Bhúirne/Baile Mhic Íre

2 High-Level Survey Findings

Reduced Traffic Volumes

As expected, traffic volumes in Baile Bhúirne/Baile Mhic Íre reduced following the opening of the bypass. Light¹ vehicle volumes fell by 66% and 70% on average on weekdays and week-ends, respectively.

"I'd say 80% of the traffic was through traffic that never stopped there, and since the bypass is open, people have a better chance of actually pulling in now and taking a walk up the village"



From a safety perspective, the reduction observed for average HGV traffic travelling through the town centres on weekdays (50% reduction) and weekends (51% reduction), is particularly important for creating a safe environment for active travel and a more pleasant town centre. As HGVs produce more emissions and noise relative to cars, while also causing more safety issues for active travel, this reduction is particularly welcome.

50% reduction in average weekday HGV traffic.



Increased Access

The reduction in traffic volumes has resulted in a corresponding increase in accessibility for local people. As part of the study, focus groups with local residents were carried out. Participants highlighted the positive benefits on accessibility for community service drivers for instance. Similarly, personal travel accessibility by car has been improved as well, giving local people more free time to live their lives with less time spent on commuting and waiting in traffic.

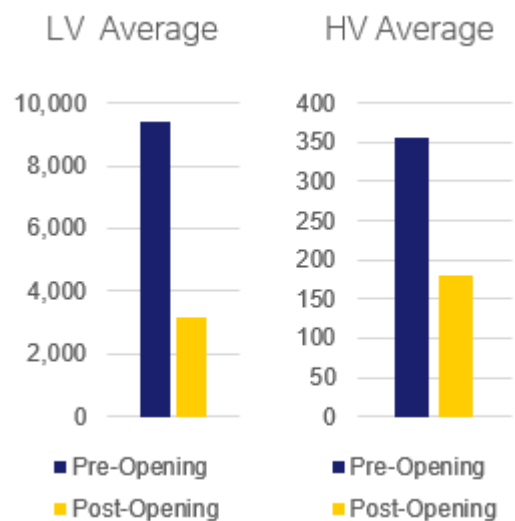


Figure 2 - LV and HV Weekday Average, Pre-Opening and Post-Opening of Bypass

¹ Light vehicles are motorbikes, cars or vans.

Increased Active Travel

There were increases in the numbers of cyclists recorded on the cycle counters on both weekdays and weekends, with a larger increase observed during the week. There was also an increase in pedestrian footfall observed in the town. The increase in active travel may be an indication of a greater sense of safety and enjoyment when walking or cycling in the town, resulting from the reduction of motor vehicle traffic, particularly HGVs.



"Walking dogs along the main foot path from the village between Ballyvourney and Ballymakeery, it's far less stressful for the animals as well, because they don't have big trucks spiralling past within six inches of them. So, it must be better for dog walkers, and much more peaceful."

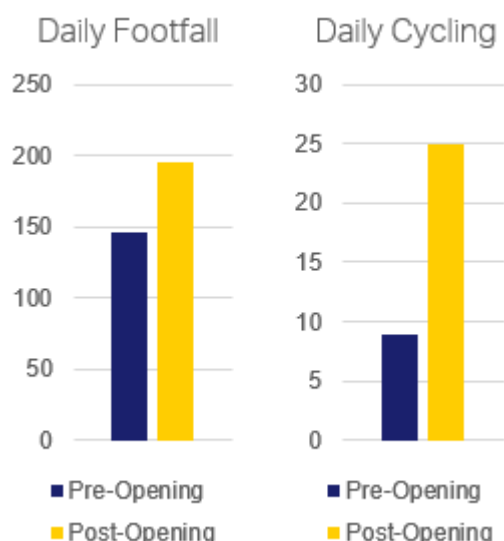


Figure 3 - Baile Mhic Íre Daily Footfall and Cycling, Pre-Opening and Post-Opening of Bypass

While cycling has become a popular mode in Irish cities and large towns, its usage in rural areas is still low.

Therefore, cyclist counts at the site in Baile Mhic Íre showing an increase in daily cyclists from 9 in 2023 – prior to the bypass opening - to 25 in 2024 – following the bypass opening - is very positive. To reinforce evidence of this potential trend for active travel, the average weekday pedestrian count at the same location rose from 146 in 2023 to 195 in 2024 (+34%).² Particularly notable was the observed increase in the percentage of children walking to school. This went from 27% prior to the bypass opening to 46% following its opening, as illustrated in Figure 4.

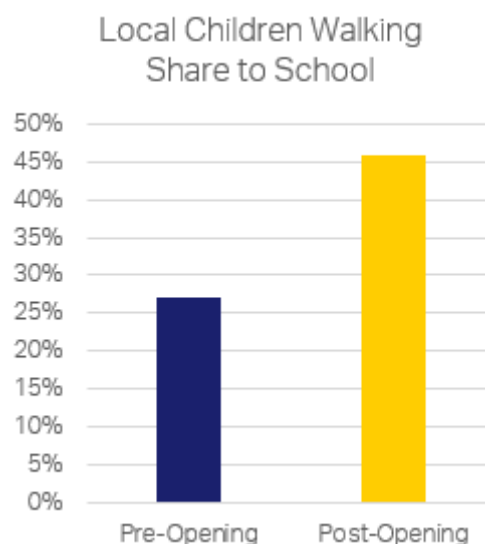


Figure 4 - Local Children Walking Share to School (p-value = 0.1)

² There was a slight decline in the average counts at weekends, which was attributed to wetter weather conditions in 2024, rather than an actual change in walking numbers. Weather conditions during pre- and post-bypass opening monitoring periods were consistent.

Reduced Noise Levels

Noise monitoring carried out as part of the evaluation showed that noise levels halved in the town centre areas, on average, since the opening of the bypass.

Two monitors measured noise in Baile Bhúirne and Baile Mhic Íre. There were reductions across all time periods (morning, evening and night). These reductions were to the magnitude of at least 3 decibels. A maximum reduction of 6 decibels was recorded during the night time in Baile Mhic Íre.

"You can talk now as we're walking, whereas before the bypass, you could be trying to talk to somebody then a few big lorries would pass, and you'd have to wait until they'd be gone... It wouldn't be a much healthier environment now than it was."



This is a very important, positive impact, as reducing noise is associated with tangible public health benefits, including decreased risk of noise-induced stress and less sleep disturbance. Lower ambient noise levels can also contribute to improved cognitive function, particularly in children, and enhance the overall acoustic environment, thereby supporting greater residential amenity and community wellbeing.

This reduction is a clear benefit linked to the bypass project, which has promoted rerouting of through-traffic outside the town centre, therefore reducing the level of ambient noise produced by vehicles.



"There's less traffic.... it is a nicer experience in that sense that there's not all the lorries and cars passing all the time. It's much more tranquil."



Improvement in Air Quality

The Environmental Directorate of Cork County Council installed a continuous air monitor in Baile Mhic Íre, collecting measurements for several months prior to the opening of the bypass, and continuing for a further 10 months after opening.

Prior to the opening of the bypass, air quality in Baile Mhic Íre was very good. Following the opening of the N22 bypass, air quality improved further. Annual mean NO₂ concentrations - a pollutant strongly associated with road traffic emissions - decreased by 10.8% (from 9.4 to 8.4 µg/m³) and when adjusted for wider air quality trends, the reduction is estimated to be 13.5%.³

Though air quality in Baile Mhic Íre was already very good, any improvements are still very significant in terms of health impacts. These improvements in air quality will be particularly beneficial for older people and children in the community.



"When you had heavy weather, you would have a lot of fumes at a lower level. It is a much healthier environment now than it was."

³ PM_{2.5} and PM₁₀ levels increased slightly by 2.5% and 7.5% respectively. In rural areas, PM_{2.5} and PM₁₀ are less likely to be affected by local road traffic emissions sources, than they are to be affected by local and regional agriculture and other sources such as industry and manufacturing.

3 Public Perception Changes

Public opinion and perceptions were measured as part of the study, through surveys and focus groups, to understand people's perceptions of the bypass and how it has changed the area.

Improved Perception of Baile Bhúirne/Baile Mhic Íre

There has been a notable improvement in public perceptions of Baile Bhúirne/Baile Mhic Íre as destinations, observed after the bypass has opened.

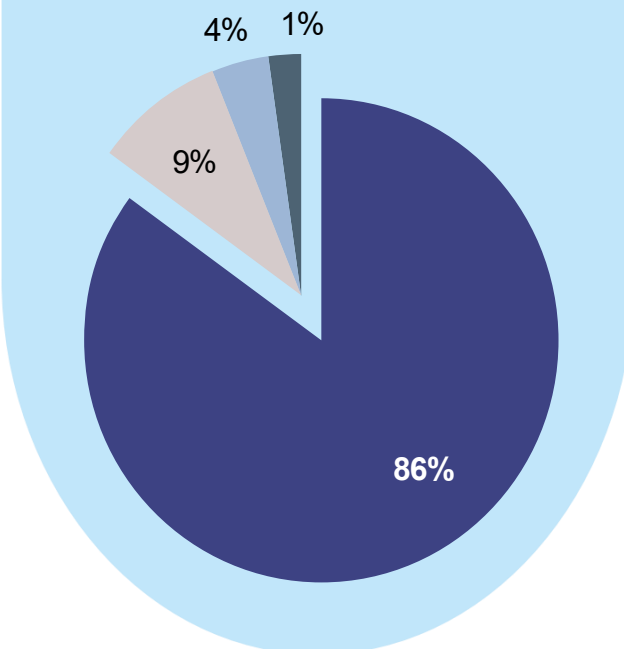
It was found that residents and visitors both viewed the impact of the bypass as positive.

Visitors reported that they visit the towns more often following the opening of the bypass.

Increased attractiveness of the villages, as perceived by visitors (see Visitor Perception below), is linked to the improved ease of travel within the town centres, as well as fewer Heavy Goods Vehicles and a nicer local environment.

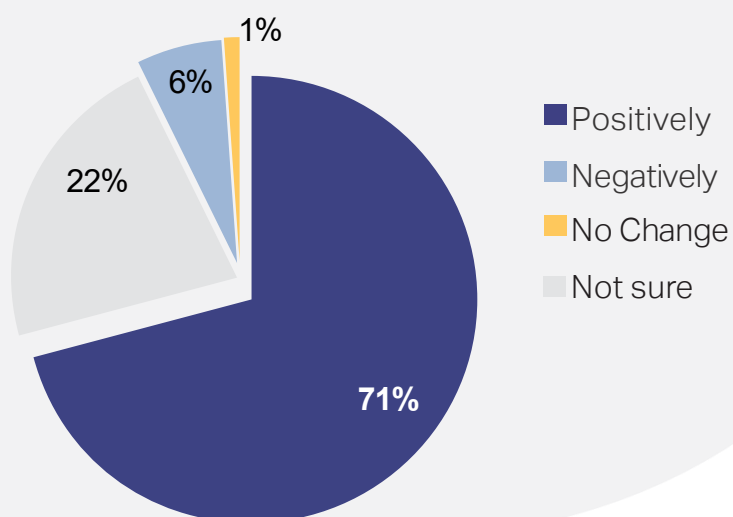
Residents Survey: How do you think the new road has impacted the towns of Baile Bhúirne/Baile Mhic Íre? (n=91, p-value = <0.01)

■ Positively
■ No Change
■ Not sure
■ Negatively



Visitors Survey:

How do you think the new road has impacted the towns of Baile Mhic Íre/Baile Bhúirne? (n=89, p-value <0.01)



Perception of Active Travel

Local residents and visitors reported feeling more positive about walking and cycling following the opening of the bypass. Notably there were no significant upgrades to the infrastructure, such as new bike lanes. This suggests that the perceived improvement may be linked to better usability of existing facilities, and/or a greater sense of safety, likely due to reduced local traffic.

Resident perceptions of walking facilities, such as pedestrian crossings and footpaths, improved significantly one year after bypass opening, with 90% of residents ranking walking facilities in Baile Bhúirne/Baile Mhic Ìre as Good or Very Good, compared to 23% in the baseline. Positive results were also recorded from visitors, as shown in Table 1. For cycling facilities, perception likewise improved after the opening of the bypass, but to a lesser extent than walking. Feedback from focus groups indicates that residents would like further improvements to active travel infrastructure, including crossing points, to take advantage of the opportunities brought about by the removal of traffic resulting from the bypass.

Visitors Perception of Towns

The evaluation team conducted a survey of visitors to Baile Bhúirne/Baile Mhic Ìre to determine their perceptions of the towns after the bypass opening. Visitors' perceptions of several aspects of Baile Bhúirne/Baile Mhic Ìre, including quality and variety/range of shops, general attractiveness of town centre, and ease of getting around by foot and by cycle improved following the opening of the bypass.

Table 2 shows the results, which indicate a positive impact on the perception of shopping, attractiveness of the town centre and the ease of walking or cycling pointing towards a more positive experience for visitors.



Figure 5

Bohill Bridge on the N22 near
Baile Bhúirne

Photo Source: Cork Roads
Design Office

Table 1 - Quality of Active Travel Facilities

How would you rate the quality of active travel facilities on the roads and streets in Baile Bhúirne/Baile Mhic Íre? (Good/Very Good)	2023	2024
Residents' perceptions of walking facilities ⁴	23%	90%
Visitors' perceptions of walking facilities ⁵	33%	70%
Residents' perceptions of cycling facilities ⁶	8%	34%
Visitors' perceptions of cycling facilities ⁷	7%	24%
Sample base: All surveyed residents. 2023 features under-represented elements. 2024 features over-represented elements. P-values all 0.02 or less.		

Table 2 - Perception of Baile Bhúirne/Baile Mhic Íre

Perceptions of transport and non-transport related aspects of Baile Bhúirne/Baile Mhic Íre	2023 (n = 35)	2024 (n = 36)
Quality and variety/range of shops	55%	70%
General attractiveness of town centre	69%	88%
Ease of getting around on foot	54%	82%
Ease of getting around by cycling	9%	27%
Sample base: All surveyed visitors. 2023 features under-represented elements. 2024 features over-represented elements. P-values all 0.05 or less.		



Figure 6
N22 Baile Bhúirne Junction on the Bypass

Photo Source: Cork Roads Design Office



Figure 7
Construction of the N22

Photo Source: Cork Roads Design Office

⁴ n = 99 (2023), 91 (2024).

⁶ n = 99 (2023), 91 (2024).

⁵ n = 89 (2023), 89 (2024).

⁷ n = 89 (2023), 89 (2024).

Local Business Perceptions

The evaluation team conducted a survey of representatives of 13 businesses in Baile Bhúirne/Baile Mhic Íre to determine their expectations of the bypass in 2023. This process was repeated in 2024 after the bypass was completed, with 15 businesses responding. This included a wide variety of businesses, including retail stores, agricultural stores, food manufacturing, accommodation, medical practices, pubs and restaurants.

Business survey respondents were asked whether their business had experienced any changes in customer numbers after bypass opening in 2024. Figure 7 shows that nine of the business survey respondents reported no change in customer numbers. One reported a small increase in business and two reported a small decrease. One reported a large decrease in customer numbers.

Business owners were asked in the focus group discussion what they thought were the main reasons their business had experienced improved or disimproved trading in 2024. The respondent who reported improvements in trading in 2024 cited examples such as improved accessibility to the village for locals and better access to parking within the village.

Respondents who felt their business was impacted negatively cited examples such as poor signage to the town from the bypass and less people passing businesses and stopping to shop.

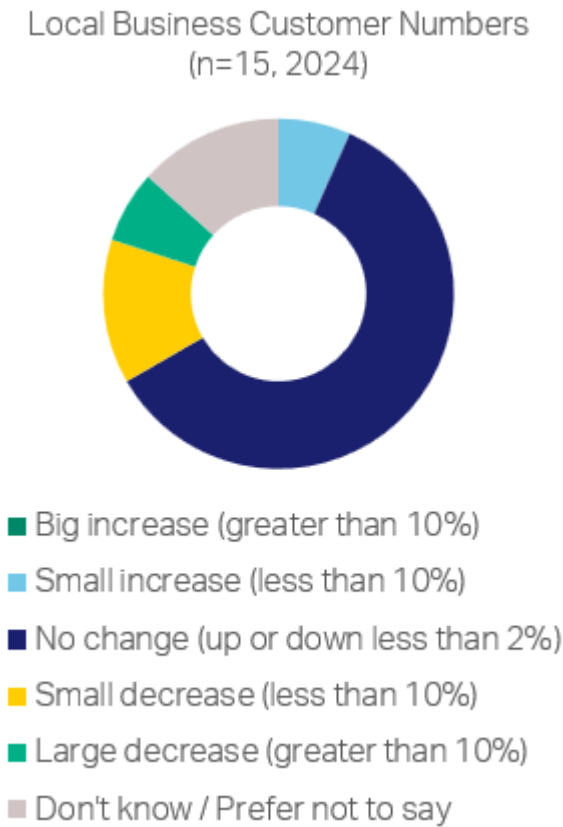


Figure 8
Local Business Customer Numbers
in Baile Bhúirne and Baile Mhic Íre
Post-Bypass Opening

5 Speeding Identified as an Issue for Further Monitoring

Parking

One business owner in the focus group discussion identified better access to parking within the village as a reason for improved trading in 2024.

A parking survey was conducted in Baile Bhúirne/Baile Mhic Íre that corroborates this message.

The parking survey showed that peak parking occupancy was at 64% of capacity and that the vast majority of drivers spent less than 60 minutes parked in the town.

Participants in the focus group felt speeding within the town is an issue, particularly as there is less traffic to slow drivers

down. Speed was monitored after bypass completion on the R618 southeast of Baile Mhic Íre from Monday 30th of September to Sunday 6th of October, 2024, inclusive. The posted speed limit at this section is 50km/h. The monitoring found that the average speed observed was 58.8km/h, and the maximum speed observed was 108.5km/h.



Figure 9
Speed Monitoring Unit

6 Further Focus Group Insights

The focus groups provided a number of insights in terms of how they would like the opportunities provided by the bypass and the removal of traffic to be maximised, outlined below.

Traffic Calming and Crossings

The focus group feedback indicated a desire for additional crossing points within the town, and traffic calming to slow down traffic.

This could further optimise the benefits of the bypass, providing pedestrians with a greater sense of safety as they cross the road.

Pedestrian Path Network

Focus group respondents also highlighted the opportunities in terms of local active travel infrastructure. They expressed a desire for wider footpaths, especially for those with prams and using wheelchairs.

They likewise proposed greater footpath access to the local wood walk (Saint Gobnet's Wood) highlighted as an opportunity.

They noted that the new N22 route severed a popular walking route, which could be reinstated with a walking loop connecting to the old road to encourage walking and exercise.



'We need more pedestrian crossings and speed ramps in the village'

Cycle Lanes

Some respondents were keen to maximise the benefits enabled by the bypass for cycling in particular. A respondent noted that:



"One of our hopes for after the bypass, ... were actual cycle lanes. With the reduced traffic, it definitely is much safer to be cycling, but I suppose you are still on the road ... while obviously it's much safer because there isn't as much traffic ... it could still potentially be something to be looked at and developed further..."





"Especially for us people with disabilities, and buggies even, besides walking along the main road there, there's nowhere to go. I know there's the wood walk up by the graveyard, but you couldn't bring a buggy up there, or someone in a wheelchair into that."

Promote Local Business

From the focus group discussion with local business representatives, it was clear that they supported the bypass, but that there had been a drop in customer numbers in some local businesses while they adapted to the change. They raised the potential of better signage for the town, highlighting the benefits of stopping to shop or use services.

7 Conclusions

Baile Bhúirne/Baile Mhic Íre is one of six towns featuring in Transport Infrastructure Ireland's (TII) bypass impact evaluation series. These studies help TII understand the impact of bypasses on local towns and communities, and guide future decisions. TII is carrying out these studies precisely so that we have data behind any identified trends and can make data-driven decisions in response.

A key focus is on active travel, such as walking and cycling. TII is tracking usage data to identify trends and assess what improvements might be needed. TII needs to closely monitor the active travel count data and to consider what interventions are necessary by TII and local authorities to further facilitate modal shift, especially considering that the Climate Action Plan 2023 calls for a 20% reduction in vehicle kilometres travelled.

This can include introducing active travel and public realm works into the scope and design of the new national roads projects themselves, in a more holistic approach.

TII is now taking a more holistic approach to road projects, aiming to include public realm upgrades and active travel infrastructure from the start. Updated guidelines encourage planning for all transport modes, not just cars.

Over time, this should lead to bypass projects that also improve town centres through traffic calming, better footpaths, and safer crossings.

As highlighted in TII's Statement of Strategy, "bypasses offer an opportunity to enhance the quality of life in our towns and villages and will be an important feature of our future plans." The findings will help shape future projects and ensure they deliver lasting benefits.

