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IONA DISTRICT TRAFFIC SITUATION, SURVEY, AND SOLUTIONS

MARCH '24

Iona District Traffic Action Group, Iona and District Residents Association

Contents

Summary

Following extensive consultation with the community within IDRA, a number of voices have been captured for nearly all streets in the neighbourhood. Now is the time for action.

With over 200 responses the community is overwhelmingly in support of change to address concerns across a variety of issues. With an active and engaged community, we believe that the area can be used as a pilot for Dublin City Council to improve neighbourhoods like this to promote; healthier, safer and more vibrant communities on the doorstep of the city centre.

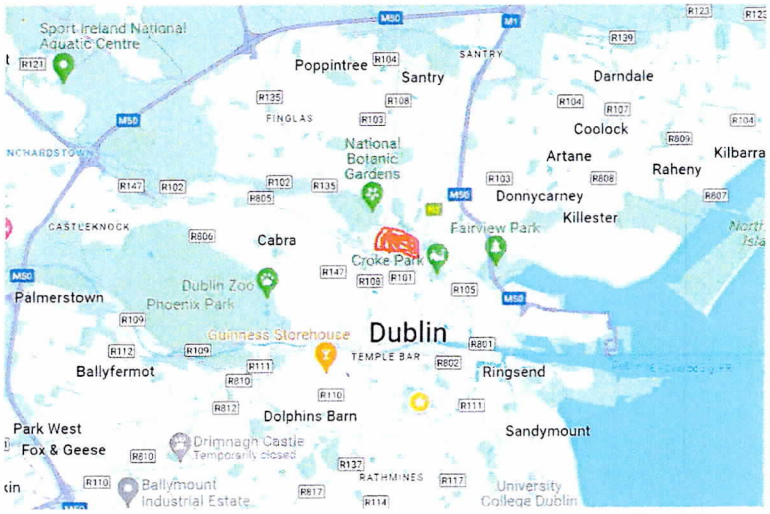
The following points, through extensive consultation, have been established as areas that community believe can form the basis for change.

- Safer friendlier streets promoting active travel in and around the area.
- Promoting doorstep and safe play for all ages in the area.
- Promotion of higher levels of air quality in the area.
- Promotion of higher levels of biodiversity and natural greenscape.
- Development of a more active community with place for safe community events and activities.
- Foster greater levels of community togetherness through streetscape enhancements creating place for outdoor community interaction and events.
- Safeguarding the future of an area rich in architectural heritage through improvements that consider all ages and abilities.

1. Introduction

Iona District is a residential area (see red outline in graphic) bounded by four major roads; two arterial roads, Botanic Avenue and Whitworth Road are to the north and south respectively, and two major national routes. The N1/Drumcondra Road is on the eastern side. The western boundary of Iona District is a confusing mix of names and road numbers including; the N2, R135, and R108, residents know them as Prospect Road, Botanic Road, and St Mobhi Road.
Drumcondra Train Station is in the south east corner of the district, the proposed Glasnevin Metrolink station will be just outside the south west corner.

The district is predominantly (95%+) residential, but because of its location is experiencing high and rising levels of cut-through (rat-run) traffic. This through traffic is forecast to grow by 85% following the completion of BusConnect Corridors along two of the arterial/national roads which bound this residential area.



Iona District Traffic Action Group is a volunteer group of residents acting as a traffic working party for Iona and District Residents Association. Residents and IDRA have long argued that traffic volumes, speed, and behaviour required some sort of response, traffic changes following the COVID period

and the planned BusConnects and Metrolink proposals have prompted us to review the situation more critically, and to put the time and energy into what is a large-scale project for a volunteer group.

This document is made of five components;

- A report prepared in late 2022 on the then current traffic situation,
- a survey put to residents on their feelings on and expectations for the street environment of their neighbourhood,
- the clear response from the meaningful number of residents that responded to that survey,
- an interim update made available to a large proportion of residents who wished to be kept informed outlining the response and examining effective traffic management solutions in Dublin and neighbouring towns, and finally
- investigation of how these traffic management solutions might be effectively applied in Iona District.

Iona District residents have clear opinions and hopes regarding traffic management in their neighbourhood, the reality of three major infrastructure projects (two BusConnects and Metrolink) means that this is a sensible time to examine realistic proposals.

2. The situation as of November 2022

2.1 Traffic Management Issues in Iona District

2.1.a Background

Residents and Iona District Residents' Association has for a number of years alerted Dublin City Council and An Garda Síochána to concerns re traffic in Iona District.

Iona District is a part of Glasnevin and Drumcondra that was first developed in the early 1900s on a grid pattern and continues to grow and change as the city changes and former industrial facilities are redeveloped for residential use.

Residents report that the living environment in the district has become increasingly unsafe, especially for children and vulnerable adults, due to a number of motor traffic issues in the district.

We suggest that more long-term initiatives are needed to reimagine the neighbourhood and ensure a more sustainable and safer neighbourhood for current and future generations.

Department of Transport Traffic Management Guidelines (https://assets.gov.ie/30277/e3faaeaef9f74832947150bd6de1fae2.pdf) have been quoted previously and are worth repeating. These highlight the points made in relation to achieving an environment that is safer and accessible for all.

> "Streets are (or ought to be) living spaces, an integral part of the community and the focus of many activities that link together people's lives. The way in which streets are managed and used promotes or discourages a sense of community and makes them an attractive or unattractive place to live. This imbalance must be reversed if urban communities are to revive and prosper. Planners and engineers must take the lead in this process. The introduction of a road hierarchy and the management of traffic onto appropriate roads is a fundamental step in this process."
>
> "There are many examples where the road design and speed of traffic has discouraged pedestrian and cycle movement because of concerns over safety. It has also led to the creation of areas that are too similar and lack their own sense of local identity."

Also encouraged is the drafting of Dublin City Development Plan 2022-2028 (https://www.dublincity.ie/residential/planning/strategic-planning/dublin-city-development-plan/development-plan-2022-2028) which includes a commitment to sustainable neighbourhoods and movement. The original developments were, and continue to be, added in very different eras, the area continues to develop with the city, providing community oriented residential spaces today. The time has now come to build on the organic growth of the neighbourhood to ensure a safe, secure, age-friendly, accessible, walkable and healthy neighbourhood, in line with the aspirations of the City Development Plan.

2.1.b Residents' concerns

While the district still has a significant number of older people, the changing demographic has seen an increase in families with young children who attend local schools and nearby sports and recreational activities.

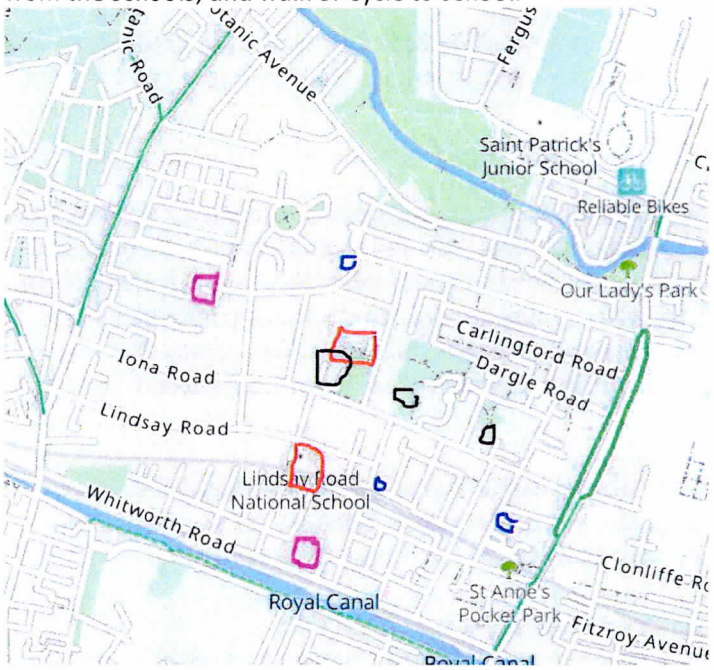
Residents have, for a number of years, raised issues of concern relating to:

- rat runs going through residential roads,
- speeding in the 30km/h zone,
- vehicles of greater than 3.5 tonnes driving through the district,
- drivers ignoring road signage,
- cars and vans parked on paths and corners

In this document we will highlight the areas of concern and we are requesting a review of traffic management in the estate, to ensure safety for pedestrians and cyclists.

2.1.c Safety issues

The district contains two primary schools, three creches, three churches, two facilities for visually impaired, (see graphic, marked in red, blue, black and purple respectively) and is surrounded by primary and secondary schools attended by children from the estate who live within walking distance from the schools, and walk or cycle to school.



The district is also bordered by local shops, post offices, bars and cafes on Botanic Road, Drumcondra Road, St Mobhi Road, and Whitworth Road that residents walk to.

Despite the size of the area there is modest communal recreational space. This means that children, local schools, families, dog walkers, and runners must use roads directly for, or as access routes to, recreation and socialising.

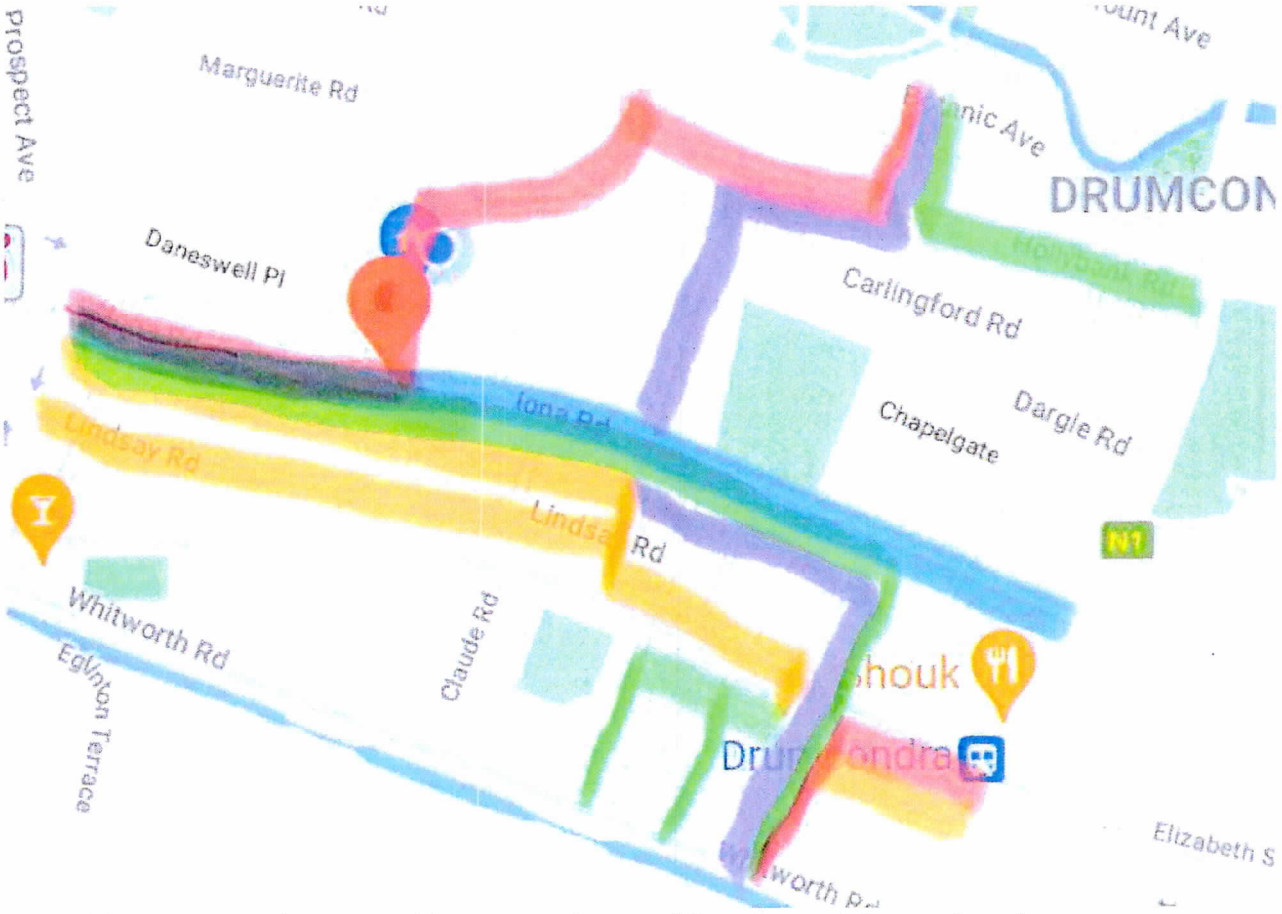
A number of older residents use mobility scooters, walking aids and wheelchairs to support them living independently and accessing local facilities.

An increasing number of residents in the estate cycle on a daily basis and commuter cyclists choose to pass through the district from the canal and Tolka bridges.

The Bus Connects and Metrolink projects will substantially change vehicle flows in and around the areas in ways that are beyond the understanding of residents.

2.1.d Existing Rat-Runs and flow diagram

There are a number of through traffic routes (frequently known as rat-runs) in the district. Most of this motor traffic speeds through the roads in rush hours, though there is steady volume in shoulder hours, i.e. the hours immediately before and after rush hour.



Most of the motorists who rat run, drive at excessive speed, ignoring road signage. Broadly;

1) [Red] Motorists turn left onto Iona Road drive onto Iona Park, then Iona Crescent and Hollybank Road taking a left onto the Drumcondra Road. All of the flows mentioned are two-way with generally and equivalent number traveling the opposite direction.
2) [Green] Some motorists, seeking to avoid one set of traffic lights, take a right off Botanic Avenue, the a left onto Hollybank Road and back onto the Drumcondra Road.
3) [Blue] The highest volume of traffic through the district takes a left off Mobhi Road onto Iona Road, proceeds at speed along Iona Road and St Alphonsus Road Upper and Lower (hereafter

St Alphonsus Road) to Drumcondra Road. The narrowness of the last section of St Alphonsus Road means that car owners park on the footpath to avoid having their vehicles damaged by aggressive drivers.

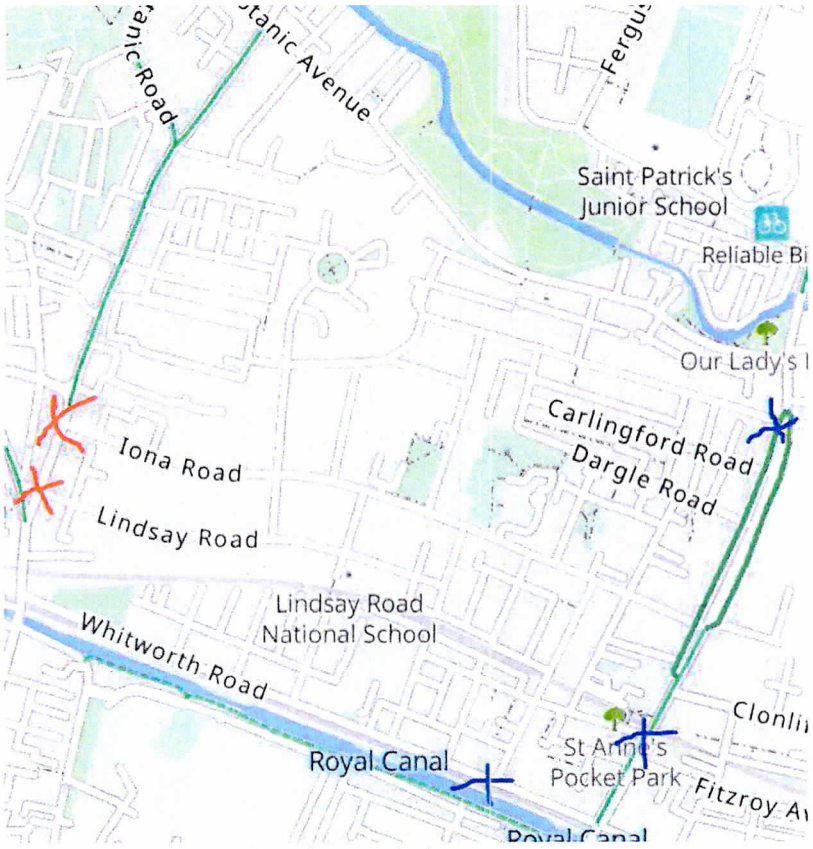
4) [Green] some portion of traffic avoids the bottleneck on St Alphonsus Road by taking a right onto St Patricks Road, and exiting to Whitworth Road. Residents have observed some portion of cars at peak times taking a right off St Patricks Road onto St Annes Road, and even St Clement's Road, before turning onto Whitworth Road. This adds distance but avoids tailbacks on the southern part of St Patricks Road.
5) [Yellow] Motorists turn left and right onto St Anne's Road, then right onto St Patricks Road before weaving through St Patricks Parade, St Columba's Rd Upper and Lindsay Road.
6) [Purple] Drivers crossing Binn's bridge take a right off Whitworth Rd, or left off Drumcondra Road, proceed up St Patricks Road, left onto Iona Road, and take a right onto Crawford Avenue, then another right onto Hollybank Road, left onto Glendalough Road to join Botanic Avenue, or perhaps Drumcondra Road.

These are the major flows, there are some smaller ones along Glenarm Avenue, St Joseph's Avenue, some of these routes are used in combination. There are schools and creches on Iona Road, Crawford Avenue, Iona Crescent, Lindsay Road, St Joseph's Avenue, and St Patricks Parade and vehicles drive at speed irrespective of whether children are on their route to and from school or creche.

2.1.d Impact of through traffic on bicycle lanes

There are a series of major bicycle routes running along the arterial roads that outline the district. Cut through traffic turning off these arterial roads crosses bicycle lanes at a high volume creating accident risk and impeding cyclists.

There are two intersections that are simply busy, and a number that are more dangerous (see graphic).



Busy (indicated in Red on the graphic)

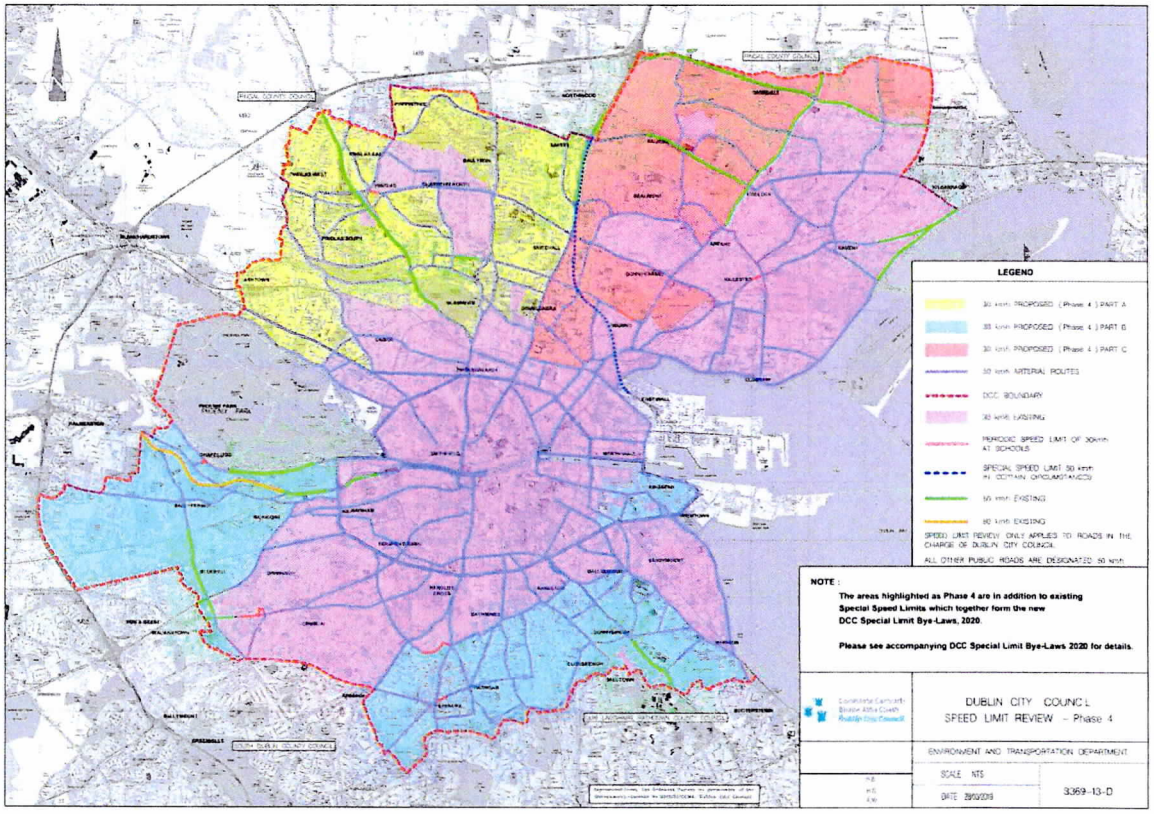
- Left turn onto Iona Road
- Left turn onto Lindsay Road

More dangerous (indicated in Blue on the graphic)

- The turn from Drumcondra Road onto St Anne's Road
    - Vehicles enter St Annes Road turning left across the outward bike lane. Vehicles also enter St Annes Road taking a right off Drumcondra Road. These vehicles often cannot see oncoming bicycles.
- Intersection of St Patricks Road and Whitworth Road.
    - Cars queuing for the lights from Whitworth to Drumcondra Road block the view of vehicles turning right off of Whitworth Road.
- Intersection of Hollybank Road and Drumcondra Road.
    - The bicycle lane is set back from the road and a combination of; trees, railings and limited lighting can mean that drivers do not see cyclists,
    - Cars taking a right turn off Drumcondra negotiate two lanes of motor vehicles before crossing the cycle lane.
    - Cars exiting Hollybank Road are crossing two lanes of vehicles and a bicycle lane.

2.1.e 30km/h speed limit

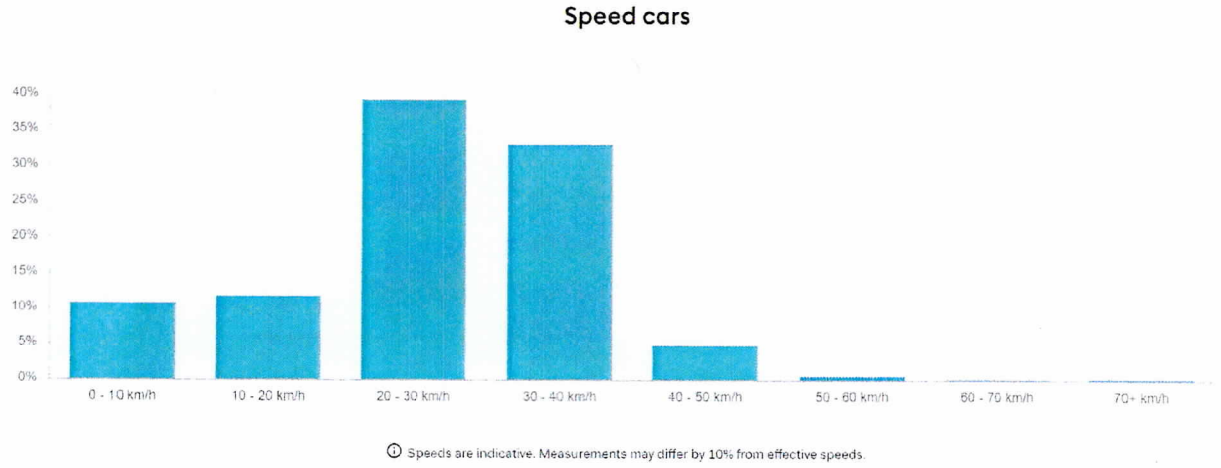
The district is included in Dublin City Council's 30km/h speed limit zone. The 2020 version showing implemented and planned phases is shown in the graphic.



There is signage at entrances to the district, but motorists tend to either not notice it or ignore it. There is very little evidence of awareness that this speed limit applies to all roads within the district.

Iona district residents have gotten funding for a number of Telraam devices through WeCount on ChangeX. Telraams (www.telraam.net) are "..a combination of a Raspberry Pi computer, sensors, and a low resolution camera.." that function as an automatic traffic counter. The Belgian Data Protection Authority has issued an opinion that Telraam "..does not..involve any processing of personal data" and therefore does not require GDPR policies. Telraam collect data during daylight hours.

Data from Telraam devices on Iona Road, Iona Park, Lindsay Road, Crawford Avenue, and St Clement's Road has shown that v85 ("..the 85th percentile speed...gives an indication of the typical speeds driven at a specific Telraam location..") is typically in excess of the 30km/h speed limit. The devices report that 30%-40% of vehicles exceed the speed limit.



This speed limit is ignored by motorists daily. Data suggests that more motorists observe speed limits at peak times, but observation suggests that this is because the volume of traffic, cause cars to slow.

2.1.f Road signage

Residents frequently observe drivers of motor vehicles ignoring the following signs.

'Yield'
Intersection of St Anne's Road and St. Joseph's Avenue.

'Roundabout'
Intersection of Iona Road and Iona Park.
Intersection of St Anne's Road and St Patrick's Road.
Intersection of St Alphonsus Road Upper and St Brigid's Road Upper

'No Left Turn'
Junction of Whitworth Road and Phibsborough Road. This is less frequent, but does mean that vehicles are driving through a green pedestrian light which allows walkers and bicycles to use the Royal Canal paths.

'No Right Turn – Time restricted'
From Botanic Avenue onto Mannix Road

'Maximum Gross Weight 3.5t'
All roads into district from arterial roads.

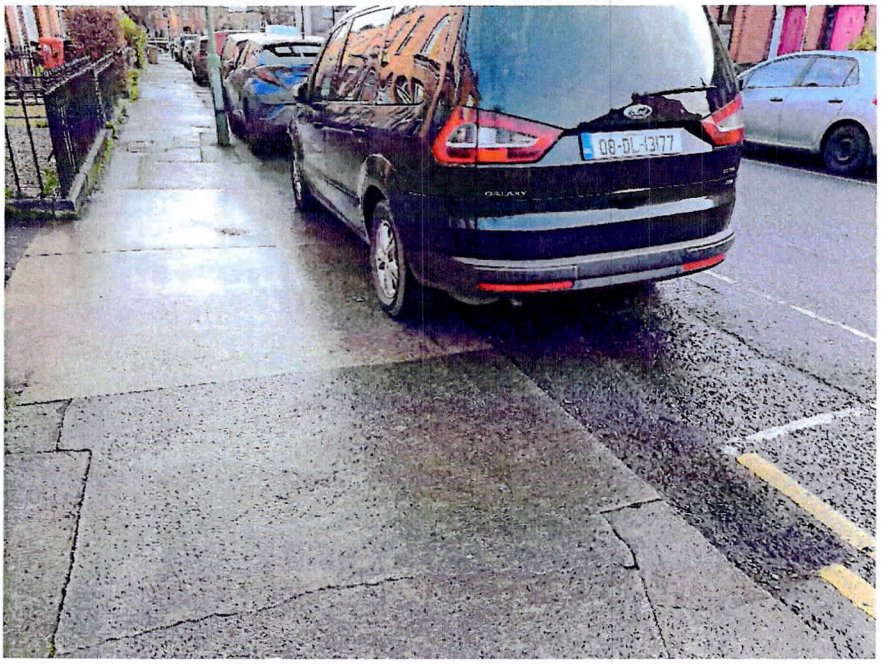
'Children crossing'
'School traffic warden'
Lindsay Road and Crawford Avenue. School wardens are present at school times. There are on-road painted circles and a yellow crossing grid on Iona Road used by children walking east on Iona Road. Many children exit church grounds at a different point onto Iona Road. Wardens have described the situation as; "mad", dangerous", and that they or others were "nearly killed". One warden said the situation was "worse than Gardiner Street". Gardiner Street is an arterial route with a 50km/h limit, but congestion reduces actual speeds at school times. There is no evidence that motorists on Iona Road moderate speeds at school times.

2.1.g Car parking

Footpaths in the district are generally wide enough, there is one particularly handsome section of path and trees on St Alphonsus Rd Upr (see image).

There are sections on St Alphonsus Road Lwr, St Patricks Avenue, St Alphonsus Ave., and Whitworth Rd. where parking on footpaths (partially and completely) on both sides of the road causes wheelchair users, people with walking aids and parents wheeling children in buggies, to have no alternative but to move out onto the road in order to get past parked cars and vans. St Alphonsus Rd Lwr has adequate footpaths, but the effective width is reduced by cars parking on the path, to avoid damage from passing vehicles. Photos show cars on path on St Alphonsus Rd., Whitworth Rd., and an extreme example on St Alphonsus Ave.

Cars parking on footpaths need not be a problem on quiet streets, but as vehicle and pedestrian volumes increase there is more stress on all resources.



While some parked cars belong to residents, an increasing number of cars are owned by people from outside the district who park during the day and night and take buses, trains, or walk the remainder of their journey.

2.1.h Narrow footpaths

There are narrow paths in the district. Sections of footpath on Crawford Avenue near St Columba's National School are narrow. Large, mature trees on; Lindsay Road, Iona Road, Hollybank Road, Gartan Avenue, and Iona Park cause narrowing of paths.

Narrow footpaths in the district encourage pedestrians onto busy roads. Some path users needing a wider path (those with prams, buggies, on wheelchairs, mobility devices) may be forced onto roads.

2.1.i Dealing with issues to date

Iona District Residents' Association have for a number of years brought traffic concerns to the attention of Dublin City Council and An Garda Síochána.

These concerns have been addressed through;

- mini roundabouts, and signage on those roundabouts,
- no right turn during certain hours onto Mannix Road,
- speed and size signs on entries to the district off arterial roads,
- traffic lights on Iona Road,
- footpath adjustments on Iona Road and Crawford Avenue, Iona Road and Gartan Avenue, Lindsay Road and Gartan Avenue, and Botanic Road and Iona Road,
- school themed bollards and road colouring on Crawford Avenue and Lindsay Road,
- speed bumps on Hollybank Road and Iona Road.

These are ignored daily. The district now has multiple established rat-runs.

Data from Telraam devices from recent months, shows an average of over 300 motor vehicles per hour proceed along Iona Road at peak times, with smaller numbers (though still in excess of one per minute) on Lindsay and Iona Park. Over 4,000 motor vehicles per day travel through Iona Road during daylight hours.

Regular complaints to An Garda Síochána have resulted in occasional traffic policing. This results in a slight decrease for a few days, and then traffic returns to high numbers again.

2.1.j Bus Connects and Metrolink

Bus Connects and Metrolink are very substantial projects with potentially very positive impacts on the district and wider city. The location of the district means that there will be major construction works at the edge of the district, with these works expected to continue for close to a decade.

During recent evening road works on Prospect Road (minor road resurfacing for a few days) it was clear that there was a pickup in traffic though the district in the last evening and early night as drivers diverted around a relatively modest section of works. Thus, residents are concerned that larger, more prolonged engineering works on the N1 and N2 roads will have a greater impact on through traffic.

2.2 What we are looking for

The number of issues we have highlighted are cause of great concern in relation the safety of residents, especially children and vulnerable adults.

We are seeking a review and a traffic management plan for Iona District for the duration of the BusConnects and Metrolink construction period particularly with a view to traffic calming initiatives.

The lengthy construction period and subsequent change in traffic patterns will likely establish different traffic flows in the district, a traffic management plan should set out long-term goals for the post-construction period consistent with Department of Transport guidelines.

Some more immediate measures could be introduced, e.g.

- Specific measures to discourage heavy vehicles from entering the district.
- Specific measures at times when children are going to and from schools and childcare.
- Sweeping corners on could be made safer so that vehicles cannot 'carry momentum' through the corner,
- Narrow sections of footpath on multiple roads could be widened so that pedestrians are not encouraged to walk on the road,
- Higher volume roads could be narrowed to encourage motorists to moderate their speed,
- The mini roundabouts on Iona Road and St Alphonsus Road need some adjustment.

- These changes can have impact, but we believe that the range and extent of the problems and high volume of traffic may require a more fundamental re-working of street design in the district.

We appreciate that Dublin City Council may have workable solutions that could address our concerns and Iona District residents are happy to engage with Dublin City Council and give whatever support may be required in implementing any solutions.

3. The survey

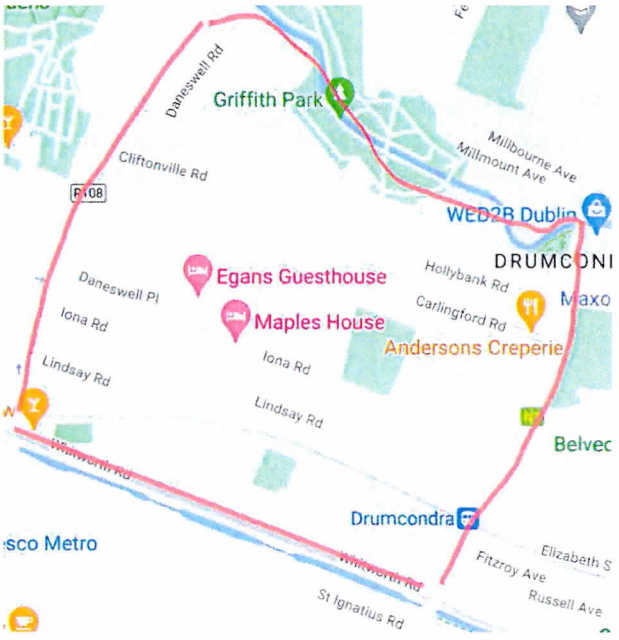
This group sought to identify the opinions or residents on traffic. This survey was introduced at the IDRA AGM where it was available in physical and online form (accessible through a QR code and web link) and was subsequently distributed physically throughout the district.
The full survey is reproduced in jpeg form toward the end of this document, the original is available through Google Survey and pdf.

4. Survey Interim Update

A progress report was prepared and distributed by email in November 2023. The original version can be accessed through the IDRA website (https://www.ionaanddistrictresidentsassociation.com/).

Update – Iona District Traffic and Environment Survey

We recently distributed a survey. Respondents were asked if they wished to be kept up to date on any developments. This note is summarising responses as of early September.



4.1 Summary of survey responses Nov. '23

- The survey had collected a very encouraging 202 responses as of 21st Nov.
- Question 2 asked if it has become more challenging to access local amenities. 86% reported that it had.
- Question 3 asked about air quality. Over 90% of respondents would favour measures that would improve air quality.
- Question 4 asked if residents would be in favour of steps to reduce traffic volume and speed. 74% of respondents would be in favour of "meaningful" traffic management measures.
- Question 5 asked about specific measures, respondents could choose more than one.
    - 20% would welcome modest measures,
    - Close to 33% would be in favour of measures such as one-way streets,
    - Close to 56% would welcome steps which would eliminate all non-local ("rat-run") traffic,
    - Over 28% would accept street specific solutions.
- Finally, Question 6 asked "what would you like to see done?".
    - Many responded with specific suggestions. The most popular were; one-ways, cul de sacs (filtered permeability), "zig-zags", narrowings, and the use of planters (for environmental, amenity, and traffic management tools).
    - A significant number of respondents were more focused on desired outcomes; "change", a better environment for pedestrians, and reductions in the speed and volume of traffic were all mentioned many times.

- Question 6 was in free text form, and the 160 responses often contained multiple suggestions, and outcomes. The following table is an attempt to capture the strength, based on mentions of various themes. From this analysis we could conclude that the most important outcomes are; change (a reduction in volume and speed), an acceptance that the solution need not be a simple change (we used "complex" to capture those responses that contained multiple aims) , and that strong measures such as one-ways and cul de sacs were expected and even welcome. We did set aside the responses that asked for more; enforcement, speed bumps, signage, and speed limits as these are in place, have been for many years and ultimately remind us of the apocryphal Einstein quote "madness is doing the same thing again and expecting a different result".

	Reverse the Triangle decision. Eliminate roundabouts. Help vehicle traffic	MOTS speed bumps/police/signs/speed limits	Direction restriction (no left/right turn)	Parking (or specific mention of croke)	narrowings	One ways	Cul de sacs/road closures/filtetered permiabilit	"Change", speed or volume reduction	cars only	avoid changes that have knock on	local traffic only	google	more walking/cycling/public transport	complex responses
June	9	27	7	10	5	14	7	17	1	1	12	2	10	17
Sept	6	26	11	15	5	19	17	62	4		7	1	2	21

4.2 How busy is traffic?

Traffic data was collected through Telraam devices. This data is consistent with data collected as part of the BusConnects planning process. Our data indicates that the busiest streets see over 4,500 motor vehicles in daylight hours on the busier week days. This equates to a vehicle every 15 seconds in peak hours. The medium volume streets see over 1,500 motor vehicles in daylight hours on the busy days, and over 1 vehicle every minute in peak hours.
Our data shows that over 1/3 of motor vehicles exceed the 30km/h speed limit.

4.3 How busy is traffic projected to become – The impact of BusConnects Corridor(s)

Iona District is located between the N1 and N2. Both of these routes are scheduled to become Bus Connects corridors. These corridors will lead to much improved bus travel times and reduced private motor vehicle capacity. Some vehicles are expected to divert through Iona Distract. The official projections are that residents will experience an 85% increase in in-District traffic, i.e. the busiest streets will experience a motor vehicle every 9 seconds in peak periods, we expect medium volume streets to see at least a similar percentage increase.

4.4 What solutions might be available

Our group has visited and examined residential areas in Ireland and abroad and observed effective traffic management solutions.

There are many effective solutions implemented in residential areas in Dublin. The advantages of considering solutions that are already implemented in Dublin are that; residents can examine them at first hand, the local authority has experience, and vehicle drivers will be familiar with these.

There is no reason that in the future Iona District could not see more creative solutions.

4.5 What sort of solutions have residents suggested?

4.5.a Speed bumps, enforcement, signs

There are a set of solutions we characterise as "more of the same". **Speed bumps, enforcement**, and **signs** are the main examples.

Speed bumps on Iona Road, Hollybank, and Lyndsey Road seem to have little impact. Gardai do carry out speed checks, Irish drivers are a persistent bunch. The photo below is of a sign erected in the Phoenix Park around the time the 30km/h limit was introduced there. If drivers can ignore a glowing object as large as a medium size van, a few extra static signs cannot be expected to work any magic.

4.5.b One-ways

Many respondents mentioned **one-ways**. There are one-ways in Iona District, St Joseph's Avenue and part of St Anne's Road are examples. One-way streets can make an area less attractive as a short-cut. One-ways would typically be used in conjunction with other measures. A problem with one-ways is that eliminating oncoming traffic makes a street feel wider and this can encourage speeding. One-way streets in Portobello, Shandon Park and the area around Innisfallen Parade are effective because they are supported by other features.

4.5.c Herringbone parking

Herringbone parking patterns reduce the effective width of wide streets. Narrower streets can; encourage more careful driving, create space for features such as planters, and all while leaving the number of parking spaces at previous levels.

The photograph shows herringbone parking on Lennox Place, Portobello.

4.5.d Zig-zags and chicanes

Zig-zags and chicanes eliminate straight through routes, encouraging drivers to slow down. They can take many forms. The chicane (see photo) on Avondale Road, Phibsborough is built around a bike rack. Chicanes can be built up with planters, wider sections of footpath and straight-in (90 degree) or herringbone parking.

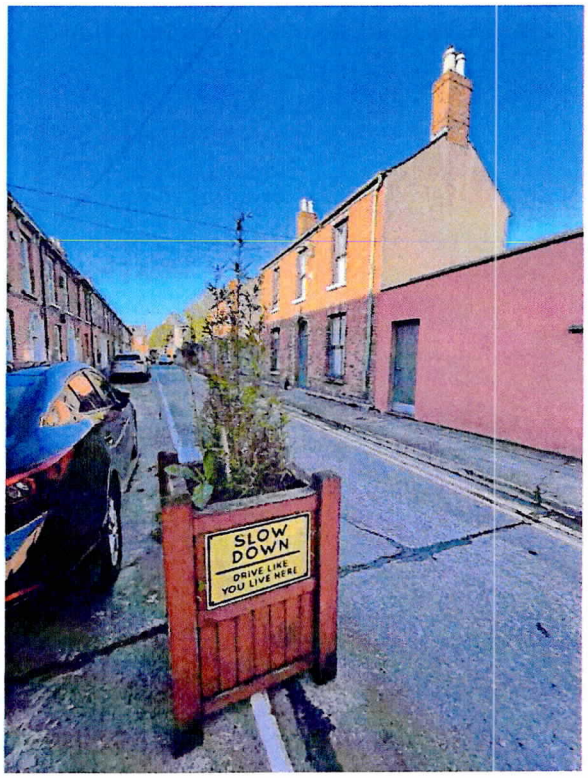
This zig-zag/(chicane) on Longwood Avenue, Portobello is created by having parking on alternating sides of the street. This can be done with parallel or other parking layouts.

Finally this zig-zag from Birr, Co. Offaly is fairly substantial. A potential problem with chicanes is that some drivers accelerate to try to get to the chicane first, or get frustrated if an unbroken stream of cars keeps them from making progress. Frustrated drivers can be more aggressive. Like one-ways, chicanes are more effective when combined with other features.

4.5.e Planters

Planters can have a number of functions, including being used strategically to narrow a street.

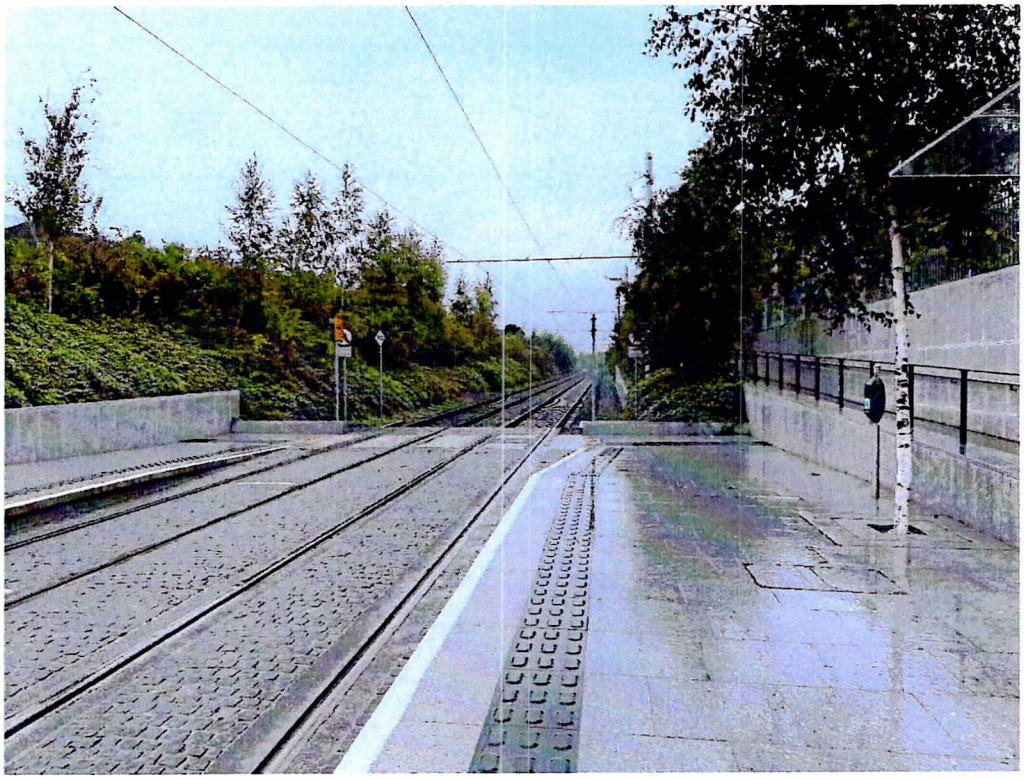
The photos show a simple planter from St. Kevin's Road, Portobello and a more complex (read costly and requiring planning) example on Oxmantown Road, Stoneybatter.



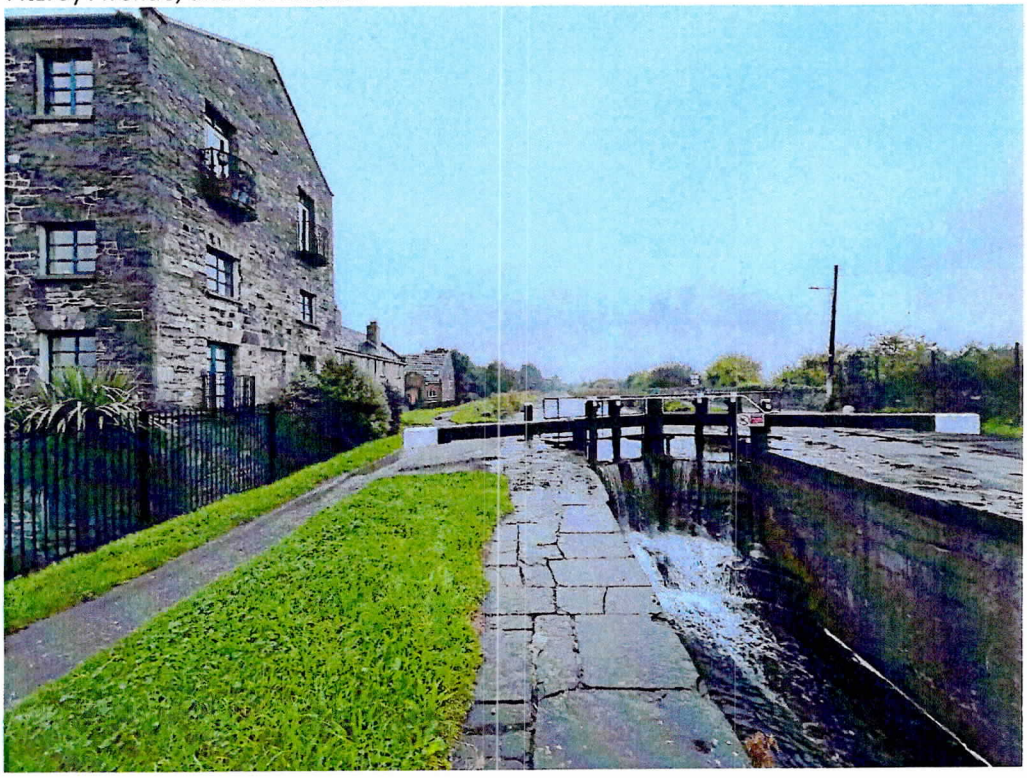
4.5.f Natural barriers

One inadvertent traffic management tool that is a feature of many Dublin neighbourhoods are the **natural barriers** made by canals, rivers, and railway lines. Natural barriers can function as amenities.

Luas and rail lines act as barriers in Cabra and parts of Phibsborough, the photo shows the Luas line north from Cabra station.



Canals and rivers act as natural barriers in; Shandon Park, the areas around Innisfallen Parade and Fitzroy Avenue, and Portobello.



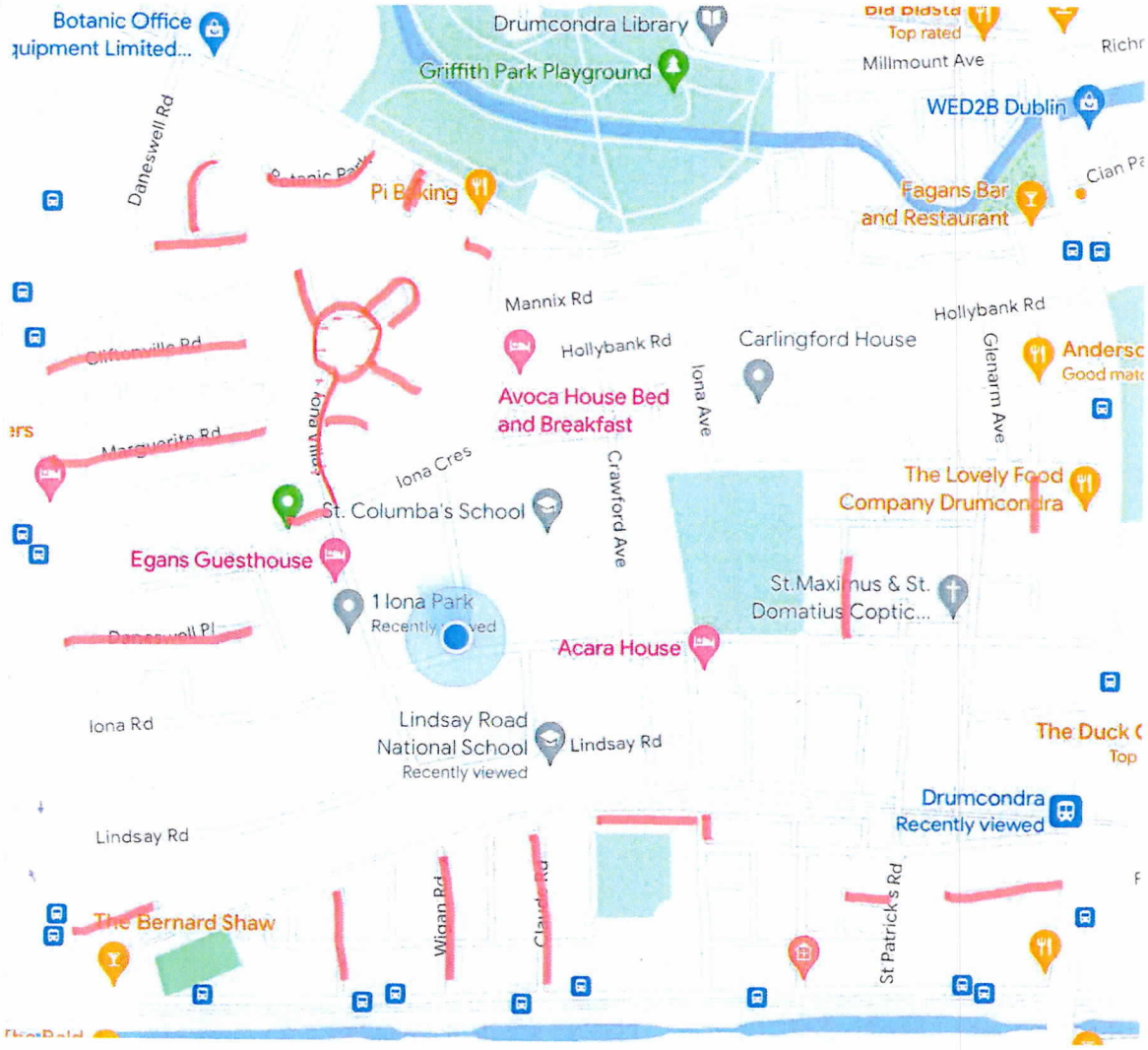
There is no natural barrier in Iona District, i.e. the area is open on four sides. Conceivably, existing rail lines could be incorporated into a traffic barrier.

4.5.g Cul de sacs and road closures

4.5.g.i Cul de sacs in Iona District

There are just over 55 streets and gated residential areas in the District, more than 25 of which (45%) are wholly or partly cul de sac or closed (see graphic).
When done well cul de sacs can retain "filtered permeability", i.e. they allow; pedestrian, wheelchair, bicycle, buggy access, and even emergency access.

A meaningful number of respondents proposed **cul de sacs and road closures** as a means to remove non-local and rat-run traffic.



Cul de sacs (retaining filtered permeability) can be temporary, such as this example from Sallins.

Cul de sacs are more normally permanent. The photo shows a local example from Iona Villas/Cliftonville Road, Iona District. It is too narrow to allow wide buggies or cargo bicycles through.

This simple, attractive, example is on Windsor Terrace, Portobello.

This substantial nature based one on Rathdown Road was built as part of the Technical University of Dublin, Grangegorman development.

Another example can be found at Walsh/Ferguson/Millmount/Milbourne, "the triangle". This version allows emergency vehicles to pass through.

Finally, this impressive selection of, basically, large potted plants on the intersection of Grafton Street and Nassau Street provide a visual barrier. The trees are large enough to provide shade and some sense of security. Their size would make them difficult to move on short notice.

4.5.h The survey remains open

The survey asked if respondents wanted to be kept up to date. This document is an update to summarise a large number of responses; which included observations about problems, aspirations regarding the future of this residential area, and suggestions about specific measures which might be effective.

The survey is not closed, we are continuing to collect responses and the QR code is provided for district residents who have not gotten around to responding.

Want to get in touch, need a printed survey? Email us at ionadistrictd9@gmail.com

5. Solutions

5.1 The criteria

Our survey found that residents wanted change, less through traffic volume, and lower speeds, and were prepared to see substantial change to achieve those goals. With that in mind we have put together some scenarios which achieve a balance of; improvement, a clear path to that improvement, and our subjective estimate of what resources might be available (ie we are making an estimate on cost-benefit analysis).

5.2 The options - Outline

There are three principal kinds of traffic management solutions. Cells (road closure with or without filtered permeability), circuit (one-ways and associated infrastructure), and problem specific measures. These can be applied exclusively, or in almost infinite combinations.

5.2.a Do Nothing

Rather than "No change", a Do Nothing option is the continuation of past incremental adjustments. The problems inherent in this approach are discussed in Section 2, which describes the current situation. This option is analysed as "Existing" in 5.5 Appraisal of Options section.

5.2.b Cells

1. Road closures are used to create areas which have a small number (often just one) connection to an arterial road. No through vehicle traffic is possible.
2. Can be designed ins such a way that pedestrian and non-motor traffic (wheelchairs, buggies, bicycles) can pass freely. Can be designed so that emergency access is retained.
3. The basis for most current planning and the way almost all residential areas are designed.
4. Some creativity may be needed to ensure that large vehicles can retain access. Ideally, waste disposal and delivery vehicles would have at least as good access after any changes. In reality, the reduction in other traffic often means that these large vehicles can operate more safely and efficiently.

5.2.c Circuit

5. A one-way circuit, or circuits in the case of a larger area, reduces the attractiveness to cut-through traffic.
6. Particularly effective where streets are narrow, ie parts of Portobello or older city centres. Where streets are wider a circuit makes an area less attractive by making through journeys a bit longer.
7. Where streets are wider, vehicles may react to the lack of oncoming traffic by speeding. Extra traffic management measures are required to discourage speeding. An area such as Iona District might require a traffic management measure every 100m to 200m. This makes circuit solutions relatively expensive.
8. The complexity of circuits can mean that there is a learning curve for residents and through traffic. Residents must learn new ways to re-create routes. Through traffic will take some time to learn which routes do have some saving. Overall, the effectiveness of a circuit may not be obvious for some time, and will change over time.

5.2.d 'Hot spot' specific solutions

9. Iona District has a number of problem hotspots;
    a. Right turn from Alphonsus to Drumcondra Rd
    b. Time restricted no-right turn from Botanic Ave to Mannix

c. Traffic light avoiding vehicles on Glendalough-Hollybank
d. Mini Roundabout on Iona Road – Iona Park
e. Excessive speeding on wider sections of Hollybank, Iona Road.

10. Addressing these specific problems could provide relief.
11. Point specific solutions have a poor record;
    a. drivers often ignore "no-turn" signs,
    b. patchwork solutions can have very limited benefits,
    c. problems can simply re-locate to neighbouring streets.
    d. When surveyed residents indicated that point specific solutions were not a desirable solution.

5.3 The options. Specific examples

5.3.a Cells

Four cell option

This proposal would involve placing planters or bollards at the locations marked in black. ID would become four vehicle traffic cells.

12. Design, appearance, and implementation
    a. 'Planter' or concrete and bollard
        i. Planters
    b. Planters can be relocated to optimise turning points
13. Transportation benefit
    a. cells are a simple, well tested design with an immediate impact. Through traffic (with associated volume, speed and risky behaviour) would be eliminated
14. Transportation impact
    a. The relatively wide streets (contrast David Park, much of Portobello, parts of Shandon Park) of ID mean that access by delivery and waste collection is unlikely to be a problem.
    b. Some number of residents' journeys would take longer. Cross ID journeys would be most impacted. Journeys at peak hours most impacted. Hollybank to Phibsborough, St Patricks Rd to Botanic, Lindsay Rd to Drumcondra village, and St Alphonsus and St Brendan's Lwr to Na Fianna are examples of the journeys which would be impacted.
    c. There would be modest gains for some residents exiting ID at peak hours.
15. Cost
    a. Modest. These would require 16 to 24 planters (based on 2 to 3 planters at 8 identified points.

5.3.b 'Natural' barrier – A specific variation on Cell

Creating one road closure on St Patricks Road under the existing Drumcondra-Broombridge rail line would create a single barrier which would stop through traffic.

16. Cost: modest. One closure consisting of planters or bollards.
    a. Drumcondra-Maynooth Rail line
17. Transportation benefit
    a. Would address north-side through traffic particularly on a number of streets. The Purple, Orange, and one of the Green flows identified in the flow map.
18. Transportation impact
    a. Would divert vehicles to other streets.
    b. Would have no benefit for many streets.
19. The hotspot specific nature of this solution does not meet the goals identified by residents.

5.3.c Circuit

A mix of one-way and traffic calming features with traffic directed in an internal "roundabout". Something similar to that seen in many small towns.

The illustration provided is simply one possibility out of an almost infinite range. In our analysis all circuit designs provide similar benefits and impacts, but the location and robustness of those impacts changed.

1. Design, appearance, and implementation
    a. The most complex design.
    b. Implementation would take substantial time.
2. Transportation benefit
    a. Some internal streets could see improvement with some portion of through journeys made unattractive.
    b. In this example, the Glendalough-Hollybank hotspot would be stopped.
3. Transportation impact
    a. Rat-run traffic would likely remain a problem on straight-through routes.
        i. In the example, traffic entering Iona Rd, exiting Glendalough Rd, entering Hollybank and exiting Iona Road, or entering via St Annes and ultimately exiting via Iona Road would not be disincentivised.

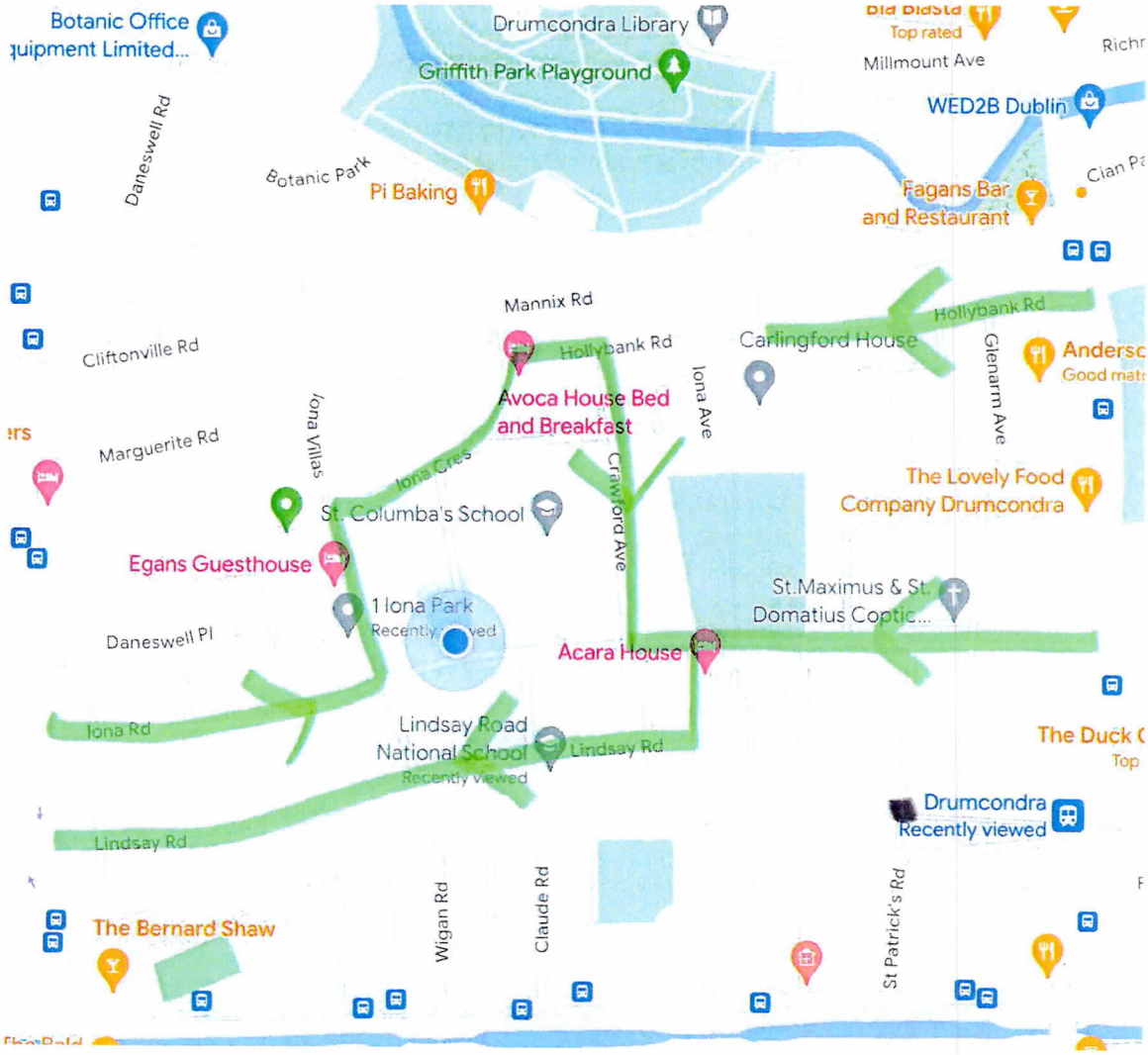
        ii. Some new through routes might emerge, ie entering Glendalough to Crawford, exiting St Patricks.
    b. Streets which did not have traffic management features added would see no attenuation of speed.
    c. One-ways (Iona Road, Lindsay and others) would make the street wider in one direction, incentivising through traffic and requiring off-setting traffic management features.
    d. Traffic could also be encouraged to use alternative streets, ie Lindsay or Iona Crescent-Hollybank.
    e. Streets on the edges (example Hollybank to Glendalough) would see little benefit.
    f. Circuit designs do have a bedding-in period where residents and through traffic would experiment and learn the new layout. The full impact might not be apparent for some time.
4. Cost: adding a traffic management feature every 100m to 200m would require 20 to 40 features.
    a. The 100m to 200m estimate is based off observed feature density in Portobello and current feature density on Iona Road. Iona Road has; 2 mini roundabouts, 3 speed bumps, 1 set of traffic lights in a 700m length.
        i. Based on a estimated 'busy street' length of 4km. Iona Road-St Alphonsus is approximately 1km long. Lindsay-St Patricks Rd, and Hollybank-Iona Crescent-Iona Park are similar lengths. Crawford-Glendalough-Mannix would add to a similar length.
    b. Complex designs can require modifications as circumstances change.

5.3.d Mixed barrier & circuit

A number of the most successful peer residential areas (Portobello, Shandon Park, Innisfallen Parade) have a 'natural' feature which focuses problems onto a smaller number of hotpots which can then be addressed.

Making the rail line into a barrier (the black point under the rail bridge) would focus traffic onto Lindsay Road, St Alphonsus Road, St Alphonsus Ave, and Dargle Rd. A combination of one-way and narrowing features would then be required to implement a circuit.

Our analysis of this proposal identified that, ironically, the pre-existing quite areas of David-Claude-Wigan, Marguerite-Cliftonville-Daneswell, Fairfield-Botanic Park, and the central blocks at St Columbas and monastery-Chapelgate means that problems and potential solutions are more restricted. Simply put, there are relatively few options for a combined barrier-circuit approach.



1. Design, appearance, and implementation
    a. The design process of a mixed barrier & circuit approach would be more simple than a pure circuit design, and more complex than a cell approach.
2. Traffic benefit
    a. This would be similar to original Circuit proposal but with a enhanced benefit for St Annes, St Patricks, St Clement (at peak hours).
3. Traffic impact
    a. Some number of streets would become wider in reality and require extra narrowing measures.
4. Cost
    a. A little lower than a pure circuit design.

5.4 Appraisal of Options

5.4.a Appraisal criteria

In order to determine the preferred option for Iona District IDTAG followed appraisal criteria set down in the Department of Transport COMMON APPRAISAL FRAMEWORK FOR TRANSPORT PROJECTS AND PROGRAMMES (updated October 2021).
Each of the options as well as the current situation has been scored against each of the criteria. A score of 7 is awarded to the highest scoring option while a score of 1 is awarded to the lowest scoring, options with similar outcomes are scored similarly. The preferred option will be that option which has the highest overall rank. The results are summarised in tabular form.

The criteria are;

5.4.a.i Economy

The area is predomintanlty residential and none of the options would return significant advantages in the respect of the economy of the area. However it could be argued that current traffic volume sare having a negative impact on existing and new build (Daneswell and subsequent developments) properties. Our survey suggests that unsafe traffic behaviour does discourage residents from accessing local businesses.

5.4.a.ii Safety

The current situation is already a cause for concern. Any improvement in traffic behaviour at school going times would be an obvious gain, thus Cell would be clearly better, with Circuit designs having general benefit with specific improvements around effective traffic management features.

5.4.a.iii Environment Impacts

Air quality was a specific concern for residents as identified in the Survey. Proximity to major roads means that noise is an issue. The Each scheme would deliver environmental impacts through the reduction of through traffic. Increased walking and cycling, particularly to the two primary schools would provide meaningful benefit both the air quality and physical activity levels.
The Cell option would deliver most benefits, particularly around school usage. The benefit of Circuit designs is less obvious reflecting the difficulty of forecasting the outcome of a complex design. In the case of a Circuit, through traffic should be lowered, residents would drive extra distance to navigate the circuit.

5.4.a.iv Accessibility and social inclusion

Cell options would provide greatest benefit for enhanced accessibility for pedestrians and cyclists in accessing neighbouring amenities (there are limited amenities in the District). This option would produce a reduction in accessibility for vehicular traffic. Circuit type options would have limited positives and negatives for all users.
Social inclusion would be most enhanced by Cell option as this would enhance access for vulnerable groups. Two local primary schools, two local facilities for the visually impaired would particularly benefit from improved traffic experience.

5.4.a.v Integration

Current and forecast unsafe traffic volumes in the area are not consistent with active travel goals. The secondary 3C cycle link and proposed construction and use of pedestrian and bicycle bridges and infrastructure at Cross Guns, Frank Flood Bridge, and the adjacent section of the Royal Canal are most impacted by the current situation, and would be best supported by a Cell approach.

5.4.a.vi Other government policy integration

This group does not have particular insight into possible future government policy. Current publicly announced policies; public transport (Bus and Metro), active travel (pedestrian and bicycle), and

pollution reduction would all be best served by a Cell solution, Circuit approaches would have some benefit.

5.4.a.vii Cost

The current situation is the most effective on a cost basis as it requires zero new investment and modest maintenance. Circuit designs would require analysis, planning, and construction of multiple features. Cell could be implemented with very substantial and expensive features, or on a much more modest basis. For the purpose of this analysis we are using the lower number as planter type solutions are widely used and proven in this and neighbouring jurisdictions.

5.5 Appraisal of Options

The table below presents our analysis of the broad options available.

Appraisal criteria	Existing	Cell	Circuit	Barrier	Barrier + circuit
Economy	0	1	1	1	1
Safety	0	7	4	3	5
Environment	0	7	5	4	5
Accessibility & Social Inclusion	4	5	4	4	5
Integration	2	6	5	3	5
Other government policy	1	7	4	4	5
Cost	7	4	0	5	2
Total	20	37	17	24	28

5.6 Preferred option

The Cell approach scores well on; Safety, Environment, Integration and alignment with current government policy initiatives. The relatively modest cost is a plus. The Circuit option's complexities and Cost mean that it is less attractive than Cell on every criteria. The approaches built around a rail line based barrier have a solid score, but the complexity and relative inefficiency in achieving definitive scores on factors that are important to residents (safety and environment) score against it. Doing nothing ("Existing") is the cheapest and maintains full accessibility but does not score well enough on other criteria. Importantly Doing Nothing ("Existing") is not consistent with residents clear desire for Change (see 4.1 Summary of survey responses).

5. Conclusion

There is a long record of Iona District residents seeking improvements to traffic management in the district, indeed Dublin City Council has installed multiple traffic management elements that do have the potential to be effective. These elements have been put in place in an ad hoc manner and now, with ever rising traffic volumes and the forecast due to BusConnects and other projects it seems sensible to think about a more integrated solution.

This document contains an analysis of the current situation, which has prompted the sort of survey results we collected. A substantial proportion of residents want change, meaning vehicle speeds, volume, behaviours and environment and social impacts that are consistent with a residential area. IDTAG has spent time examining neighbourhoods in Dublin and some neighbouring towns identifying

traffic management components, and working to identify those which can be effective in Iona District. Based on that research, the stated preferences of residents, and Department of Transport project appraisal criteria we recommend that traffic management be implemented in Iona District. Further, it is clear that a Cell based approach offers the clearest path to satisfying the requirements of stakeholders.

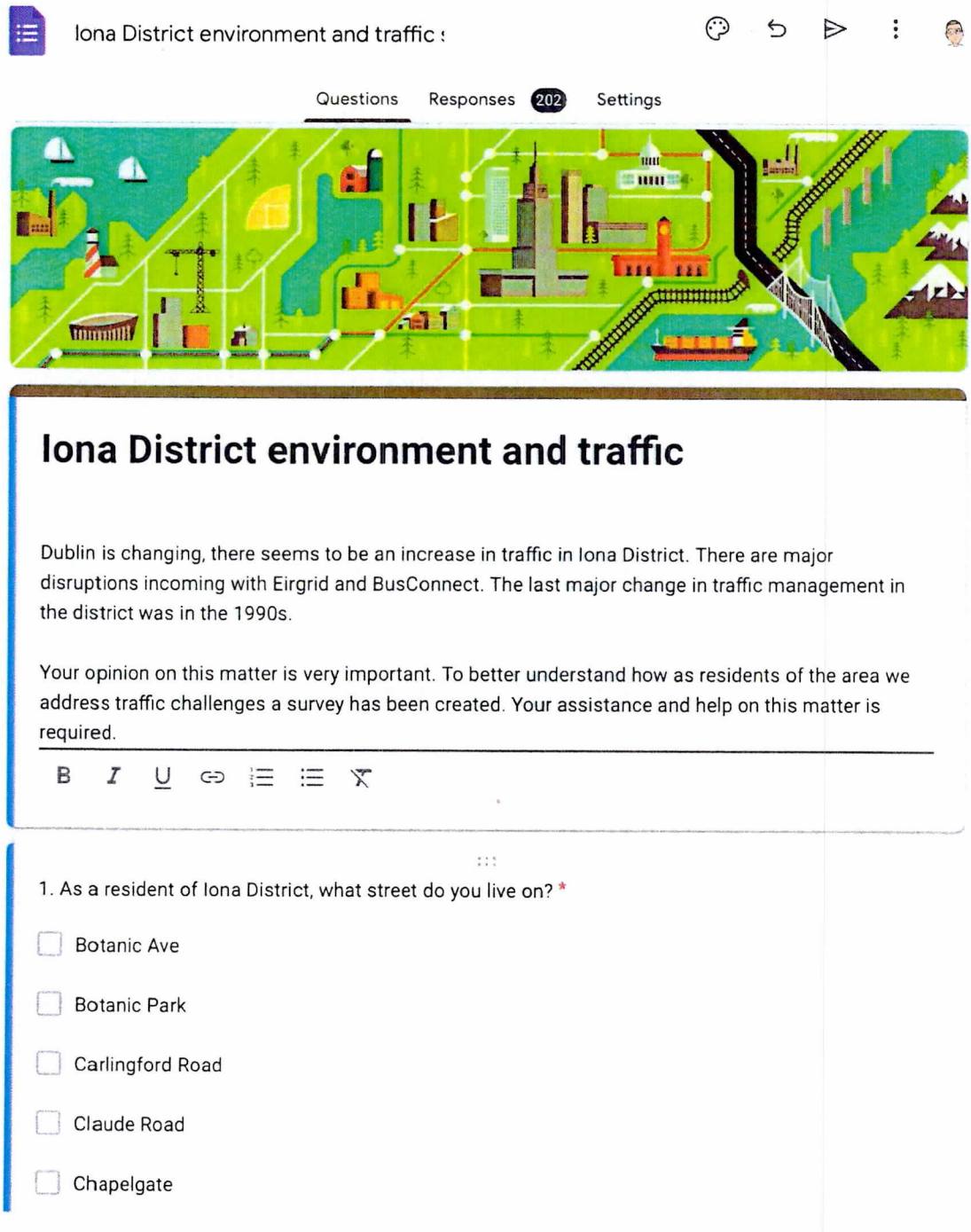
Contact Details

Iona District Traffic Action Group, working party of Iona and District Residents Association would welcome the opportunity to discuss the situation and discuss possible solutions. The group can be contacted at;

Email: ionadistrictd9@gmail.com
Phone: 086 8277528

Appendix

Survey



1a. If where you live isn't above please write it in below

Short-answer text

2. At current traffic levels, has it become more challenging to access nearby amenities and services? *

- [ ] Big change - at certain times of the day or night traffic creates challenges
- [ ] Moderate change - traffic has increased somewhat over the past 3-5 years
- [ ] No change - it takes the same time

3. As a member of the local community, would you be in favour of measures that could improve air quality in the Iona District?

- ○ Air quality is the same or better.
- ○ Modest improvements to air quality in Iona District would be welcome.
- ○ I would be strongly in favour of measures which reduce traffic.

4. As a resident of Iona District, would you be in favour of taking steps to reduce traffic volume and speeds in the District? *

- [ ] I am happy with traffic speeds in the District.
- [ ] Some modest changes are needed to moderate traffic speeds.
- [ ] I would be in favour of meaningful traffic calming interventions to reduce speeding in Iona Distri...

5. As a resident of Iona District, would you be in favour of measures which would deter non-local traffic from using the District as a rat-run? *

- [ ] There is no problem with traffic volumes in the area.
- [ ] Some modest measures (i.e. speed ramps) could be useful.
- [ ] A system of one-way streets and some traffic calming measures is needed.
- [ ] Eliminating all non-local traffic in the District would restore the residential character of the area ...
- [ ] Specific traffic problems require targeted solutions such as creation of cul de sacs on individual...

6. As a resident of the District, what one thing would you like to see introduced into the area to help better manage traffic? *

Long-answer text

7. As a resident of the District, would you be willing to help in some way to improve the street environment in the area?

B I U

- [ ] Not interested - The current level of traffic is satisfactory.
- [ ] I am happy to support needed change.
- [ ] Eager to help

8. If you'd like to stay updated with the latest news on the survey, please provide your email address.

Long-answer text