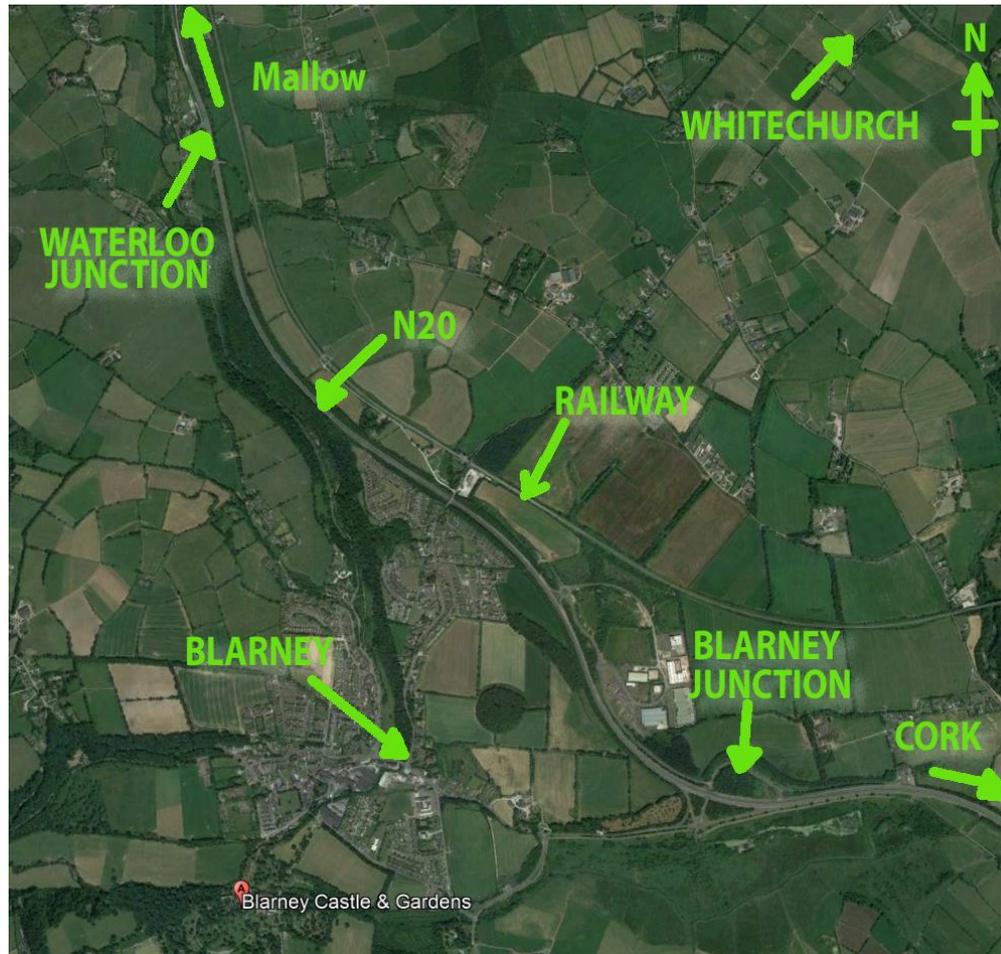




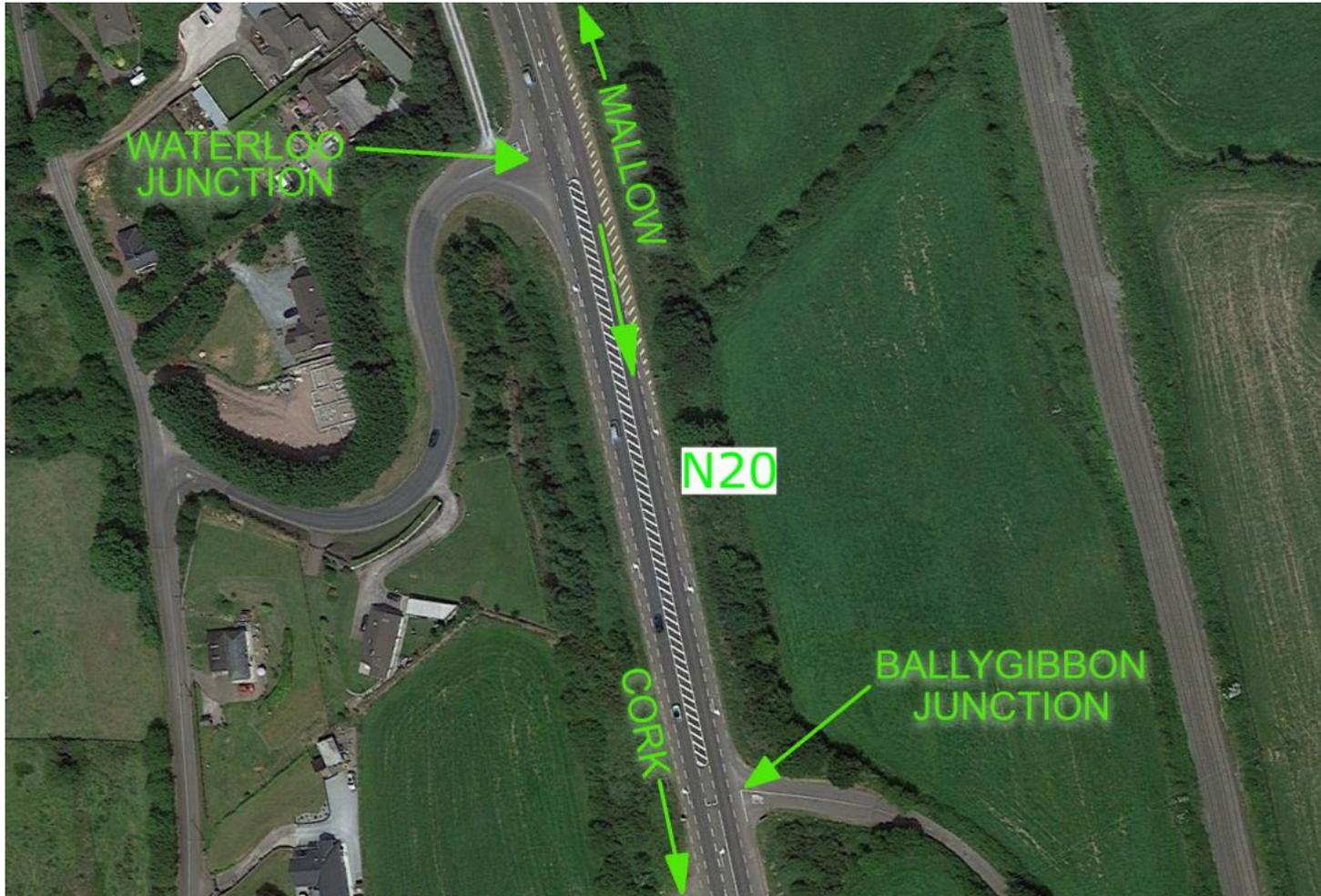
Cork  
County Council  
comhairle contae chorcaí

# N20 Waterloo Junction Safety Scheme

By Eddie Murphy  
Chartered Engineer  
Cork County Council  
National Road Office



Waterloo Junction Overview



Waterloo Junction Layout



## **N20 Waterloo Junction Scheme**

### **N20 Ballygibbon to Ballymartin Pavement Scheme**

- In or about April 2018, Cork County Council RDO were planning to resurface the road through this area
- During consultations with An Garda Síochána, Cork County Council were made aware of the concerns the Gardaí had regarding the junction
- The recent collision history of the junction was made available to Cork County Council
- As part of these discussions, a request was made by the Gardaí to close the junction



## N20 Waterloo Junction Scheme

- Following on from meeting with An Garda Síochána, Cork National Roads Design Office prepared a Feasibility Report for Waterloo Junction
- This considered options for the junction with a view to prepare a plan to improve the safety at the junction
- Traffic Counts were carried out in conjunction with Irish Traffic Surveys Ltd on traffic in the area



11<sup>th</sup> Sept 2017

# Two people dead after three-vehicle crash on Cork road

Three others were injured in the crash.



CorkBeo

SHARE 0 COMMENTS

**C** READ MORE

► Full list of all parking offences and how much you will be fined for each in Cork City

## The Waterloo junction of the N20 Cork to Mallow road



**The N20 Cork to Mallow road** (Image: John Delea)

A notorious hotspot, most Cork people are aware and that bit more careful in the area.

Two American tourists were killed in September 2017 when their car collided with a lorry at the junction.

In 2018 a further two major crashes happened on the road but luckily there were no more fatalities.



23<sup>rd</sup> April 2018

# Tourist with serious injuries after head-on smash at accident blackspot on N20 Cork-Limerick road near Waterloo junction

One of the vehicles was a hire car carrying a US couple who were on holidays in Ireland

SHARE   

By **Cillian O'Brien**  
16:46, 23 APR 2018 | UPDATED 17:46, 23 APR 2018

# US tourists injured in Co Cork road crash

Updated / Monday, 23 Apr 2018 17:44

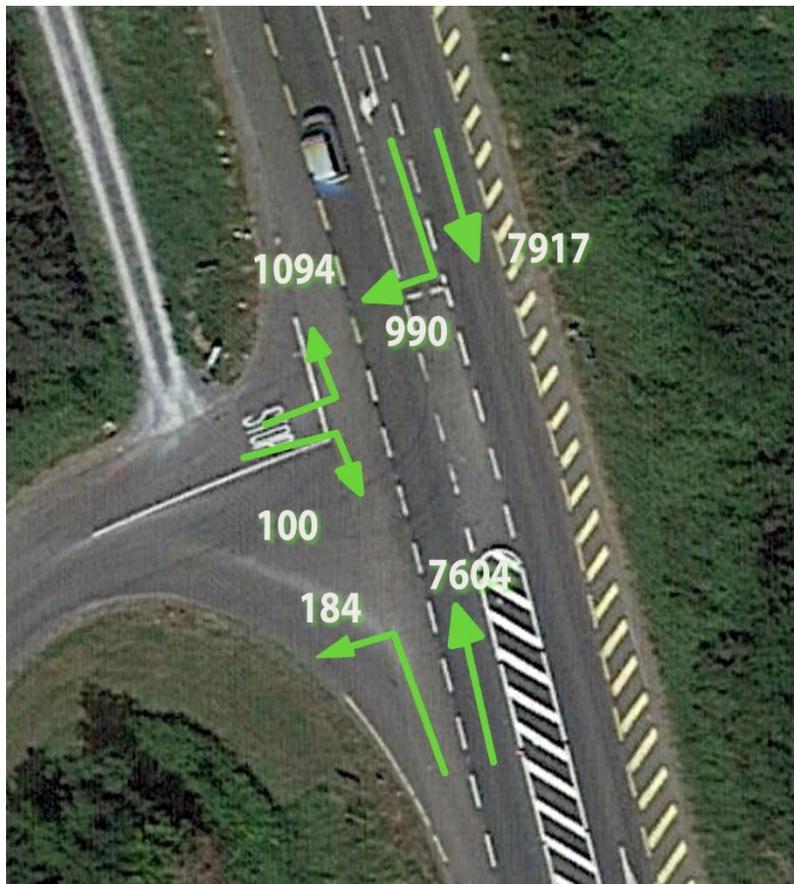
    





# N20 Waterloo Junction Scheme

## 12-hr Traffic Counts – Waterloo Junction



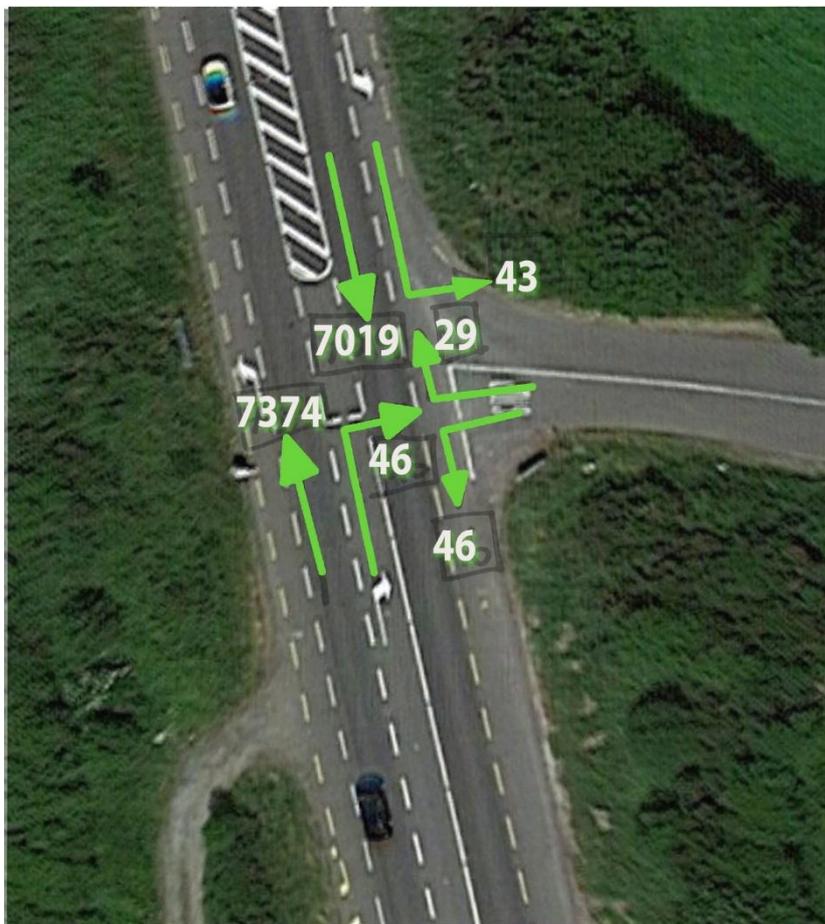
Irish Traffic Surveys

AADT 21,750



# N20 Waterloo Junction Scheme

## 12-hr Traffic Counts – Ballygibbon Junction



Irish Traffic Surveys

AADT 21,750



## N20 Waterloo Junction Scheme

### Options Considered

#### Feasibility Report – Options Considered

	Cost Estimate	FYRR
1. Change Priority of Junction	€150,000	49%
2. Improve Signage at the location	€40,000	34%
3. Extend the 2+1 carriageway	€10,000,000	1%
4. Closing the Junction	€70,000	134%



## N20 Waterloo Junction Scheme

### Options Considered

#### Feasibility Report – Options Considered

	Cost Estimate	FYRR
1. Change Priority of Junction	€150,000	49%
2. Improve Signage at the location	€40,000	34%
3. Extend the 2+1 carriageway	€10,000,000	1%
<b>4. Closing the Junction</b>	<b>€70,000</b>	<b>134%</b>

Preferred Option: Closing the Junction



## **N20 Waterloo Junction Scheme**

### **Road Closure Procedure – S.73 Roads Act 1993**

- (i) – Publish a notice in the newspaper
- (ii) – Display documentation, include in a map of right of way to be closed, for not less than 1 month
- (iii) – Indicate that objections/representations can be made for 2 weeks after the end of the display period
- (iv) – Place a copy of the notice at the location of the right of way
- (v) – Consider any objections/representations made
- (vi) – Prepare a report for the Municipal District Meeting setting out the objections/representations received during the display period
- (vii) – Report goes before the Municipal District Meeting for a vote



# N20 Waterloo Junction Scheme

## Local residents reaction to proposal for closure



Anthony Horgan and Jonathan Healy, organisers of the public meeting attended by 250 residents, which heard criticism of Cork County Council's failure to re-open the Waterloo junction on the N20.

### Cork News - Live

HOME | [CORK NEWS - LIVE](#) | CORK VIEWS | LOTTO | NATIONAL NEWS | SEND US YOUR

15.08.2018 13:30



Jack Healy, Matthew Healy, Oisín Gough, Pat Crowley and Conor Gleeson, at the blocked junction. Picture: Jim Coughlan.

Facebook | Twitter | Messenger | LinkedIn | WhatsApp | More

### Residents insist they won't back down in row over Waterloo junction closure



# N20 Waterloo Junction Scheme

## Local residents reaction to proposal for closure

Whitechurch & Waterloo Community Association  
13 August 2018 · 🌐



**Whitechurch GAA**  
13 August 2018 · 🌐

Thanks to all the club members who turned out this morning on the Kiln Hill to meet the media ahead of tomorrow night's public meeting at 8pm in the Whitechurch and Waterloo Community Centre to discuss the council's planned closure of the Waterloo junction.

Please attend this important meeting if you can, as both the Council and TII need to know the strength of feeling in our community at the prospect of being permanently divided.

The club colours were worn proudly by a number of our underage players!

👍 3

## Junction to remain closed despite protests by locals



TUE, 09 OCT, 2018 - 05:40



## N20 Waterloo Junction Scheme

- There was significant local opposition to the proposed closure of the junction
- The result of the vote by the Municipal District was to vote against the request for closure
- The result being that we couldn't close the junction
- Cork RDO then had to consider other options
- The Feasibility Report was reconsidered using the remaining options



## N20 Waterloo Junction Scheme

### Feasibility Report – Options Considered

	Cost Estimate	FYRR
1. Change Priority of Junction	€150,000	49%
2. Improve Signage at the location	€40,000	34%
3. Extend the 2+1 carriageway	€10,000,000	1%
<del>4. Closing the Junction</del>	<del>€70,000</del>	<del>134%</del>



## N20 Waterloo Junction Scheme

### Feasibility Report – Options Considered

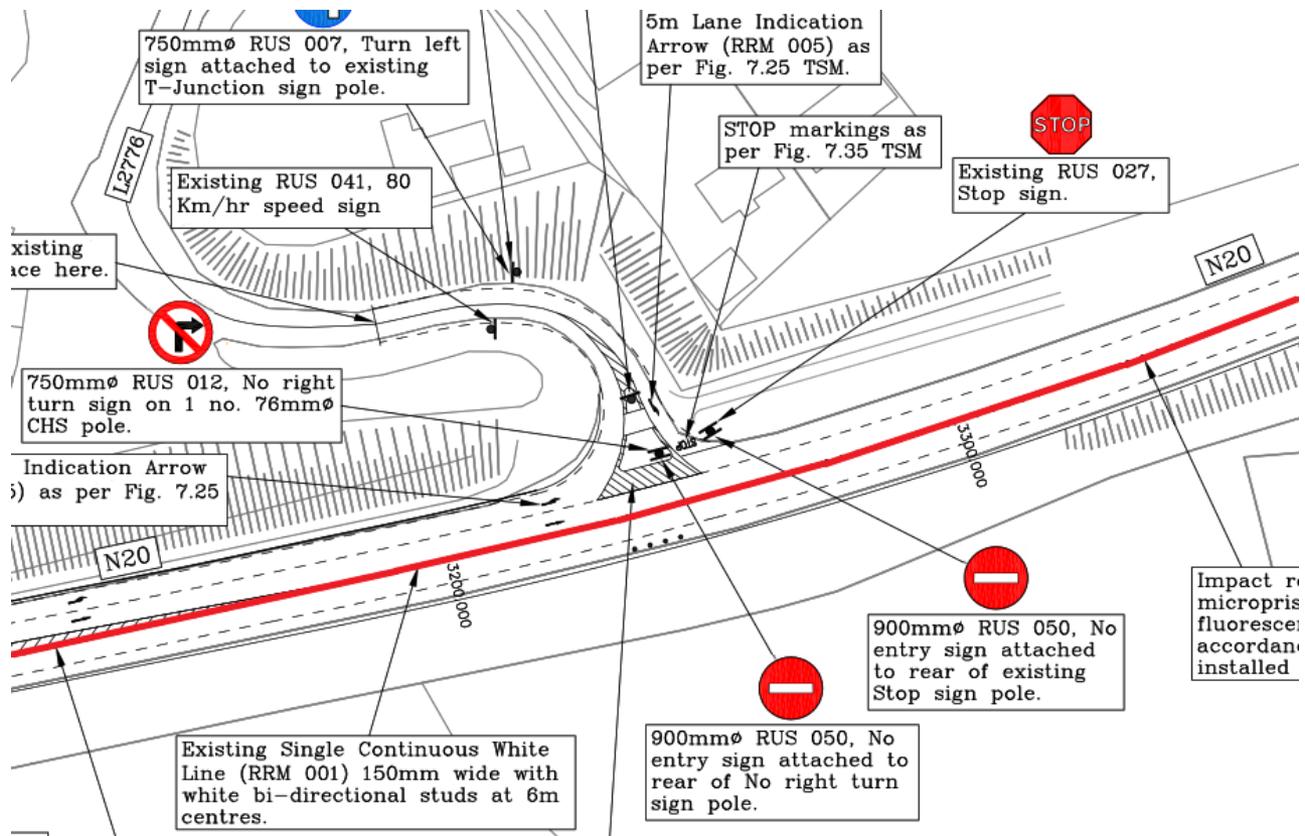
	Cost Estimate	FYRR
<b>1. Change Priority of Junction</b>	<b>€150,000</b>	<b>49%</b>
2. Improve Signage at the location	€40,000	34%
3. Extend the 2+1 carriageway	€10,000,000	1%
<del>4. Closing the Junction</del>	<del>€70,000</del>	<del>134%</del>

Preferred 2<sup>nd</sup> Choice: Change the Priority of the Junction



# N20 Waterloo Junction Scheme

## Left-in/Left-out



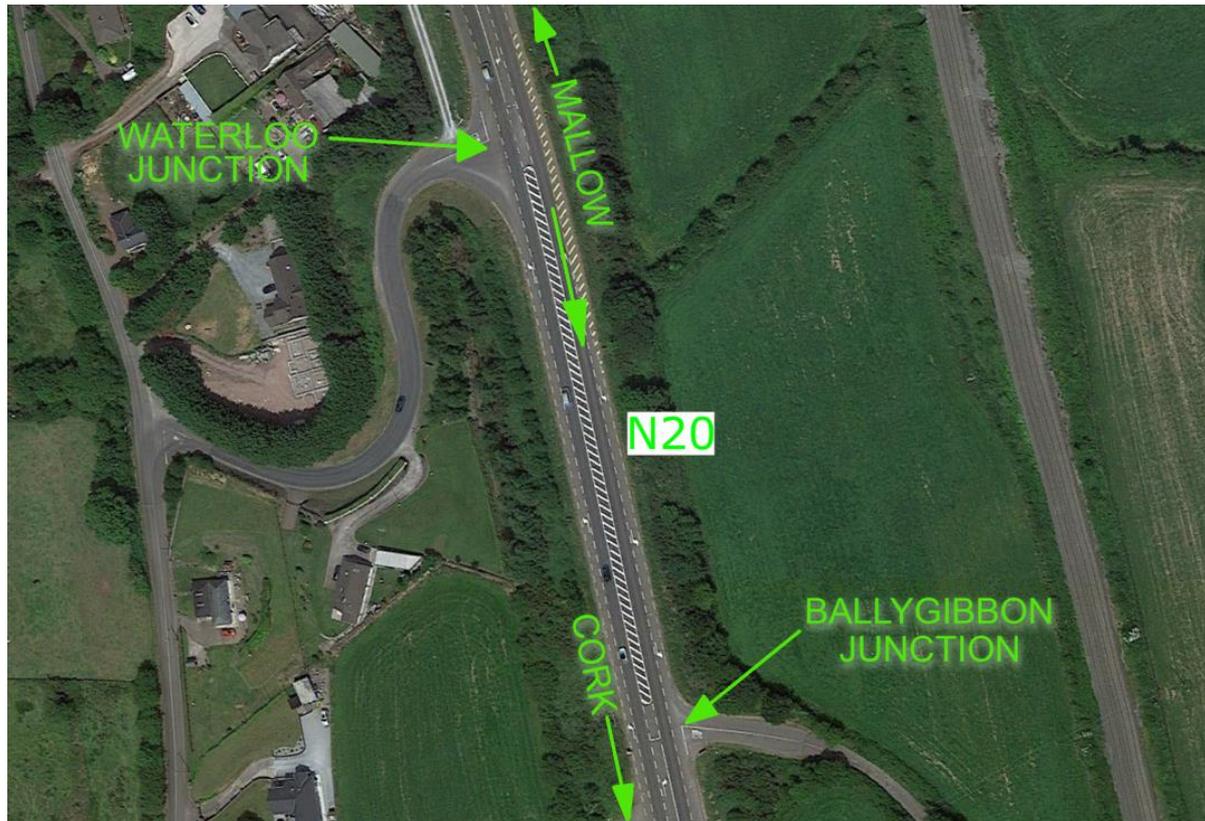


## N20 Waterloo Junction Scheme Left-in/Left-out





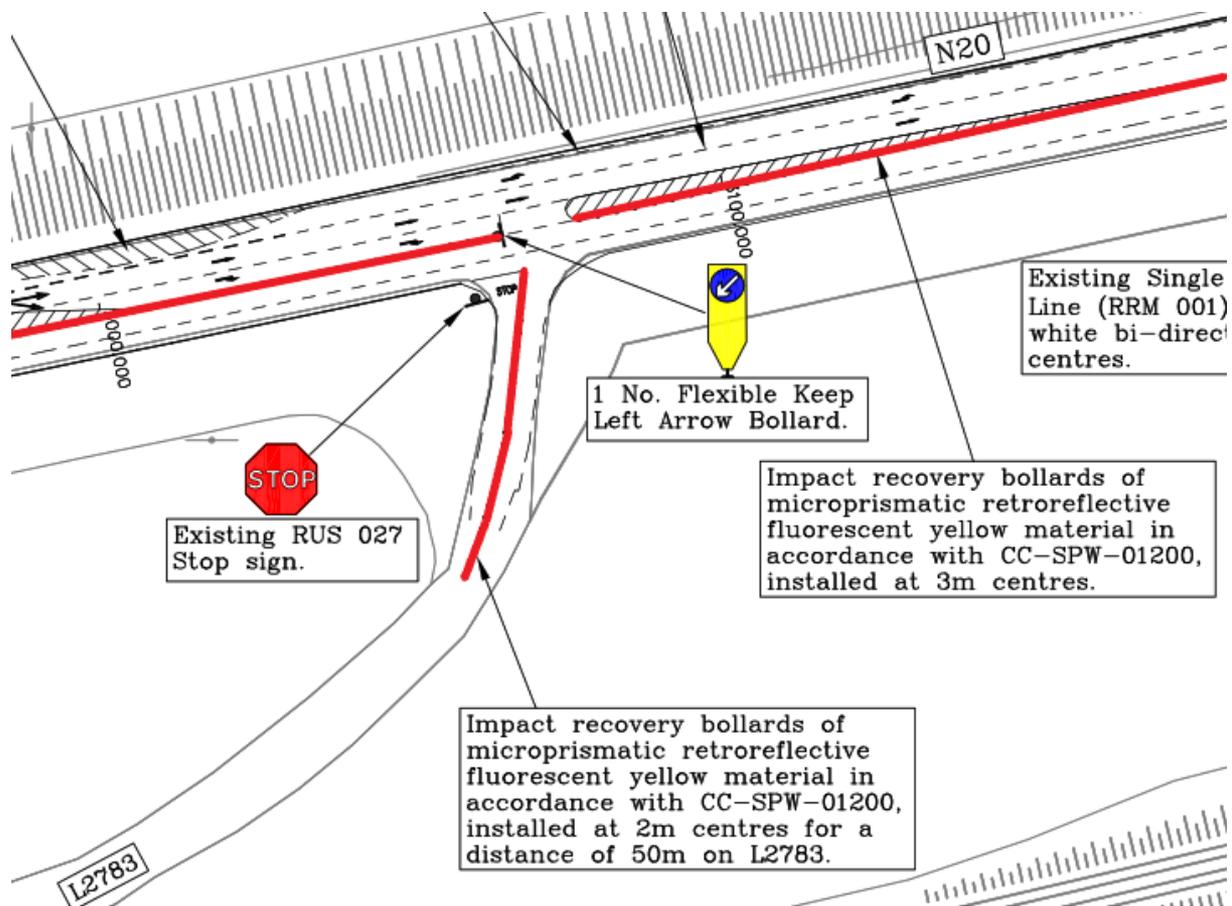
## N20 Waterloo Junction Scheme Ballygibbon Junction





# N20 Waterloo Junction Scheme

## Ballygibbon Junction





## N20 Waterloo Junction Scheme

### S.38 Road Traffic Act 1994 – Traffic Calming Measures

*S.38 (1) A road authority may, in the interest of the safety and convenience of road users, provide such traffic calming measures as they consider desirable in respect of public roads in their charge.*

- The procedure to be followed under this section is similar to that under S.78.
- The important difference is that there is no vote required by the member of the Municipal District



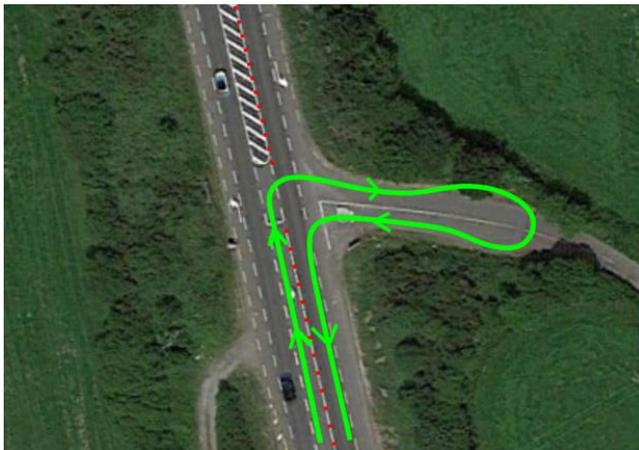
## **N20 Waterloo Junction Scheme Unintended Consequences of the Scheme**

- After the opening of the Left-in/Left-out junction, the RDO received a call from the Area Engineer
- The Area Engineer had been getting phone calls from members of the public and the Gardaí
- The calls identified that vehicles were carrying out dangerous manoeuvres with the new installed works
- A traffic survey was carried out in conjunction with Irish Traffic Surveys to monitor and quantify these manoeuvres over a 12 week period



# N20 Waterloo Junction Scheme

## Dangerous Manoeuvres





# N20 Waterloo Junction Scheme

Consolidated Counts for N20 Waterloo Junction illegal manoeuvres 1/7/2019 - 20/9/2019

Site 1 - Ballygibbon

	Wk 1 1/7 -8/7	Wk 2 8-15/7	Wk 3 15-22/7	Wk 4 22-26/7	Wk 5 26-2/8	Wk 6 2-9/8	Wk 7 9-16/8	Wk 8 16-23/8	Wk 9 23-30/8	Wk 10 30-5/9	Wk 11 5-13/09	Wk 12 13-20/9	Total	AADT
A-A	38	32	33	11	31	39	42	39	40	32	47	45	429	22103
B-B	2	0	1	0	1	0	0	0	0	0	1	0	5	
C-C	13	8	16	7	21	11	21	2	19	19	24	25	186	
AB-BA	32	19	51	17	57	59	57	65	57	62	64	55	595	
AC-CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
CB-BC	16	18	39	13	35	38	33	33	32	38	32	29	356	

Site 2 - Waterloo

	Wk 1 1/7 -8/7	Wk 2 8-15/7	Wk 3 15-22/7	Wk 4 22-26/7	Wk 5 26-2/8	Wk 6 2-9/8	Wk 7 9-16/8	Wk 8 16-23/8	Wk 9 23-30/8	Wk 10 30-5/9	Wk 11 5-13/09	Wk 12 13-20/9	Total
A-A	0	0	0	0	0	0	0	0	0	0	0	0	0
B-B	22	8	13	4	13	11	8	11	7	5	7	10	119
AB-BA	0	0	0	0	0	0	0	0	0	0	0	0	0
BA-AB	0	0	9	1	3	4	0	2	3	1	2	1	26



# N20 Waterloo Junction Scheme

Consolidated Counts for N20 Waterloo Junction illegal manoeuvres 1/7/2019 - 20/9/2019

Site 1 - Ballygibbon

	Wk 1 1/7 -8/7	Wk 2 8-15/7	Wk 3 15-22/7	Wk 4 22-26/7	Wk 5 26-2/8	Wk 6 2-9/8	Wk 7 9-16/8	Wk 8 16-23/8	Wk 9 23-30/8	Wk 10 30-5/9	Wk 11 5-13/09	Wk 12 13-20/9	Total	AADT
A-A	38	32	33	11	31	39	42	39	40	32	47	45	429	22103
B-B	2	0	1	0	1	0	0	0	0	0	1	0	5	
C-C	13	8	16	7	21	11	21	2	19	19	24	25	186	
AB-BA	32	19	51	17	57	59	57	65	57	62	64	55	595	
AC-CA	0	0	0	0	0	0	0	0	0	0	0	0	0	
CB-BC	16	18	39	13	35	38	33	33	32	38	32	29	356	

Site 2 - Waterloo

	Wk 1 1/7 -8/7	Wk 2 8-15/7	Wk 3 15-22/7	Wk 4 22-26/7	Wk 5 26-2/8	Wk 6 2-9/8	Wk 7 9-16/8	Wk 8 16-23/8	Wk 9 23-30/8	Wk 10 30-5/9	Wk 11 5-13/09	Wk 12 13-20/9	Total
A-A	0	0	0	0	0	0	0	0	0	0	0	0	0
B-B	22	8	13	4	13	11	8	11	7	5	7	10	119
AB-BA	0	0	0	0	0	0	0	0	0	0	0	0	0
BA-AB	0	0	9	1	3	4	0	2	3	1	2	1	26



## N20 Waterloo Junction Scheme

### Illegal Manoeuvres Ballygibbon Junction [A-A]

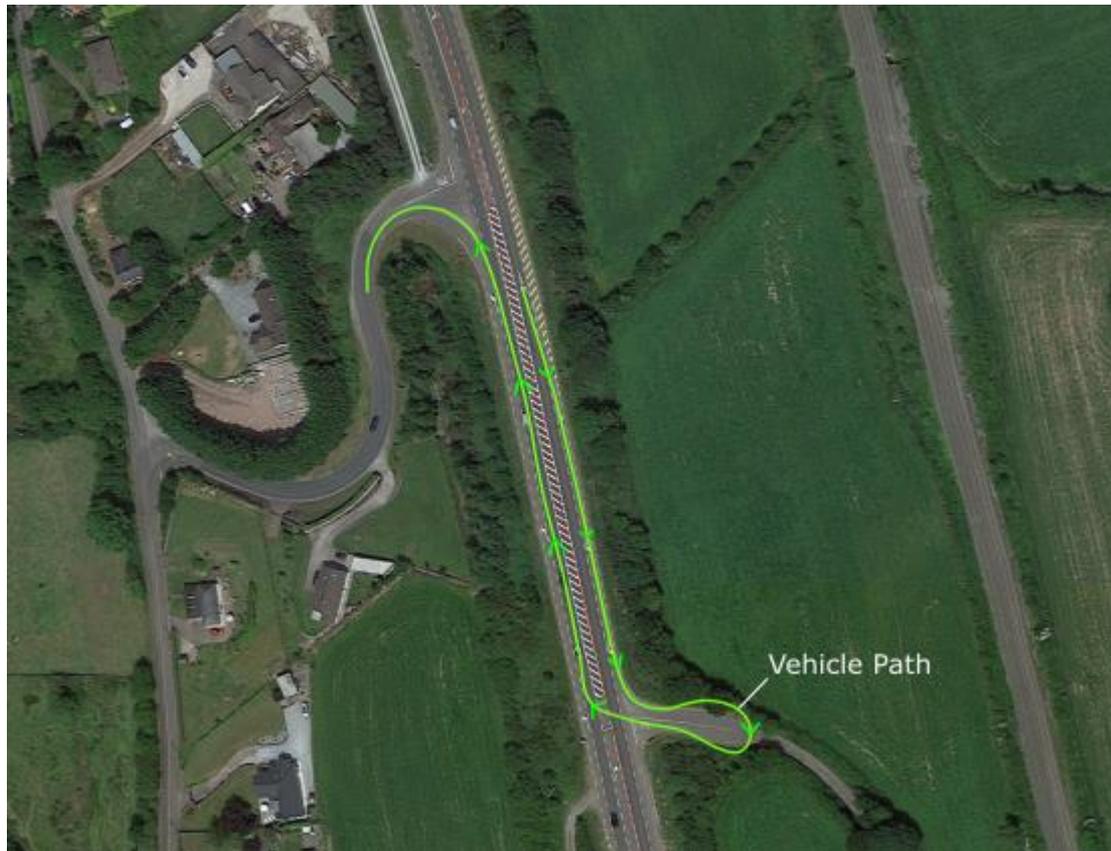


Site 1 - Ballygibbon	
	Total
A-A	429



# N20 Waterloo Junction Scheme

## Illegal Manoeuvres Ballygibbon Junction [AB-BA]

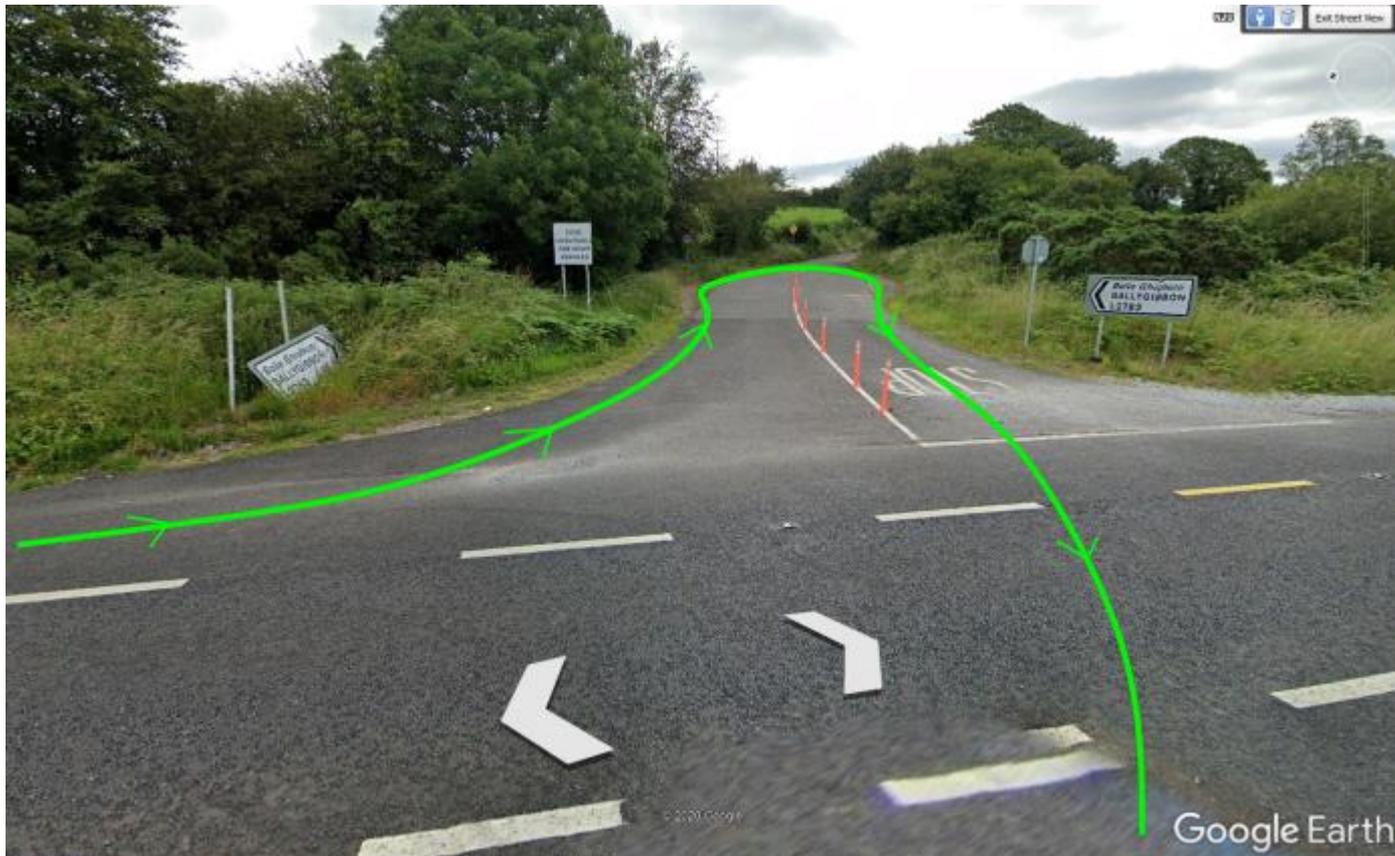


Site 1 - Ballygibbon	
	Total
AB-BA	595



## N20 Waterloo Junction Scheme

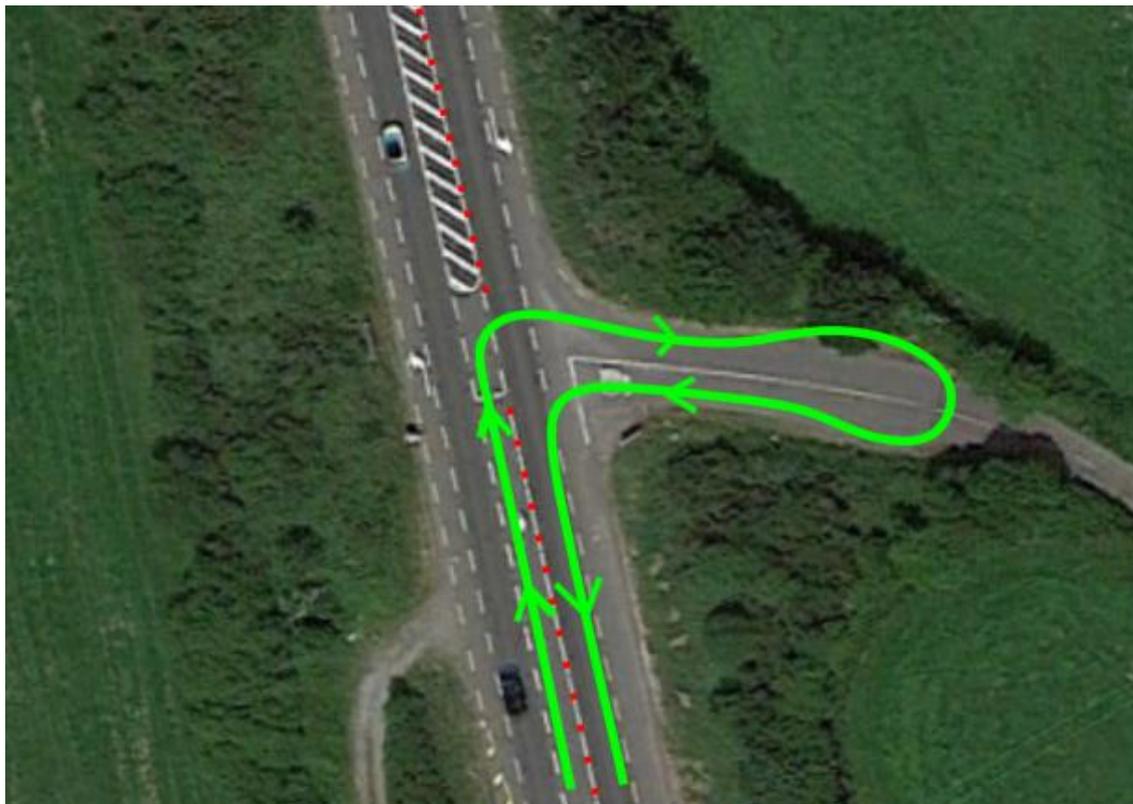
### Illegal Manoeuvres Ballygibbon Junction [AB-BA]





# N20 Waterloo Junction Scheme

## Illegal Manoeuvres Ballygibbon Junction [CB-BC]



Site 1 - Ballygibbon	
	Total
CB-BC	356



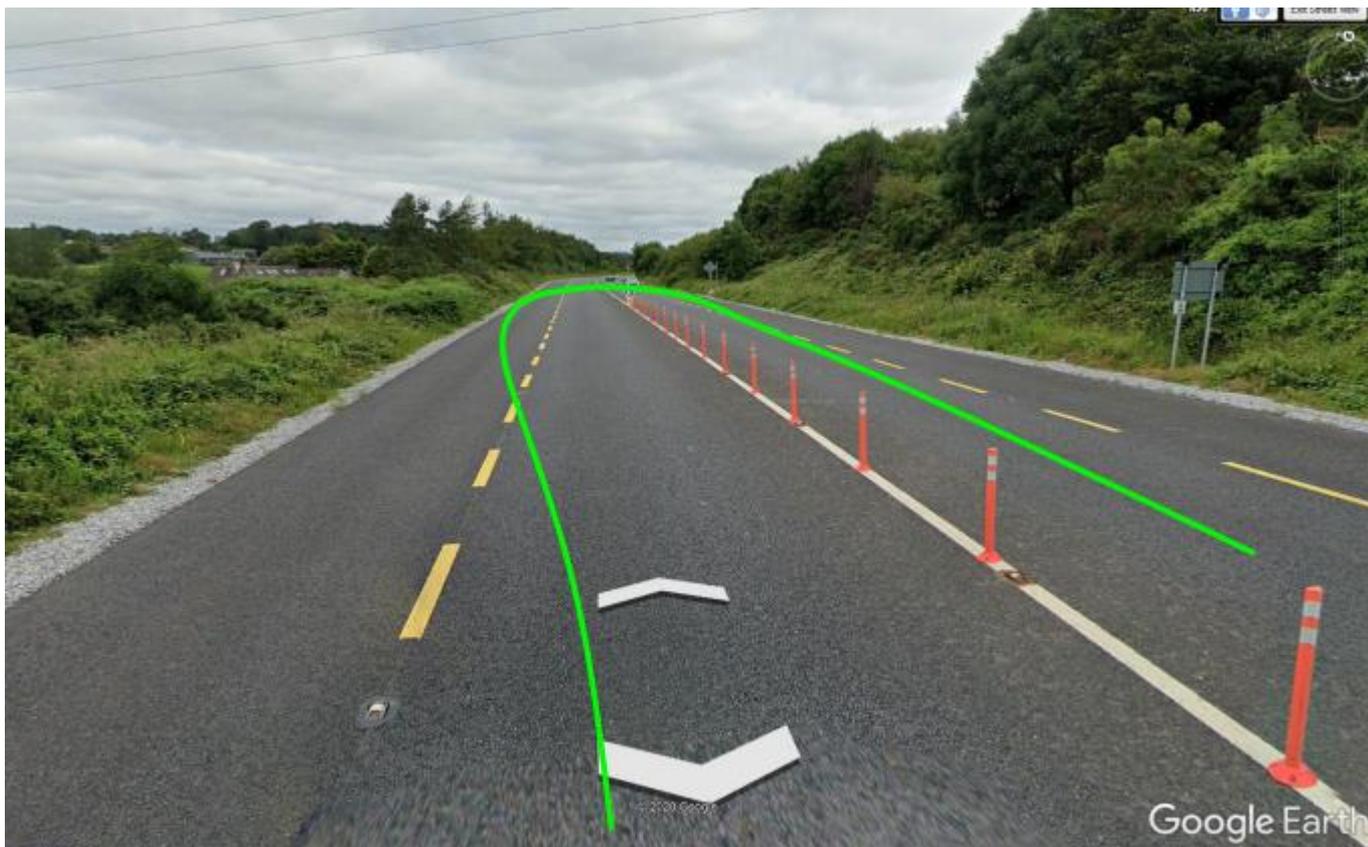
## N20 Waterloo Junction Scheme Illegal Manoeuvres Northern End [B-B]



Site 2 - Waterloo	
	Total
B-B	119



## N20 Waterloo Junction Scheme Illegal Manoeuvres Northern End [B-B]





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# Thank You

## Any Questions?

[Eddie.Murphy@corkrdo.ie](mailto:Eddie.Murphy@corkrdo.ie)