

Feasibility and Options Report

Traffic Calming Scheme, N56 Lettermacaward

N56DL_

(Type: D)



Road Design Office,
Donegal County Council,
Lifford,
Co. Donegal

Tel: (074) 9153900
Fax: (074) 9341793

Date: 16/08/2021

Contents

1	Introduction	3
2	Description of the Safety Problem and Collision History	4
2.1	Speed Assessment.....	4
2.2	Review of Collision History.....	5
2.1	Constraints	6
2.3	Future Development / Scheme	11
3	Proposed Options	11
3.1	Option 1	11
4.0	Preferred Option	13
4.1	Collision Modification Factor	13
4.2	First Year Rate of Return.....	13
5.0	Programme	13
6.0	Conclusions and Recommendation.....	14
	Appendix A –	i

1 Introduction

Lettermacaward is a Gaeltacht village in the Rosses region in the West of County Donegal. It is located on the N56 between the larger towns of Glenties and Dungloe. It is home to approximately 650 residents. The proposed scheme is approximately a 2,150m section of the N56 on the main thoroughfare of the village and includes numerous junctions/entrances to both commercial and residential developments, including a church with adjoining graveyard and carpark, GAA grounds, petrol station and National School.

The proposed scheme has been identified due to concerns of elevated speeds within the 60kph zone of Lettermacaward. This report provides the preferred option including a programme for implementation.



Figure 1 - LOCATION MAP

2 Description of the Safety Problem and Collision History

This section of the N56 is within a 60km speed limit at Lettermacaward village and is approximately 2.1km in length from the northern side of the village through to the southern side at the Gweebarragh bridge. The village can be considered as a low density residential area, may become heavily trafficked at certain times due to the inclusion of GAA grounds and church with adjoining graveyard. The proposed scheme has been assessed under Type D review and is identified as a site having an elevated speed within the 60kph zone of Lettermacaward.

2.1 Speed Assessment

A traffic count and speed survey was carried out between the 8th and the 18th of December 2020 on a section of the N56 in the centre of the village between St Bridget's Church and Clerkins's filling station (see figure 2). The table A below summarises the findings of the survey. A copy of the survey is contained in Appendix A of this report.



Figure 2 – Speed Counter Location

	Eastbound (From Dungloe)	Westbound (From Glenties)
Posted Speed Limit	60 km/h	60 km/h
Number of Vehicles Recorded	8,905	8,765
85 th – Percentile Speed	81km/h	79km/h
Maximum Speed Recorded	125km/h (Car)	132km/h (Car)

2.2 Review of Collision History

The road traffic collision data from the Road Safety Authority detail the severity of collisions, when and where road collisions occur, who was involved, contributory actions and contributory factors.

A review of the available collision data for this section of the N56 revealed that there has been two collisions recorded in the vicinity of the junction between 2005 and 2016 (See Fig 3 Collision Statistics).

The serious accident was the result of a head on conflict recorded between 0300 and 0700 involving a Goods vehicle, the incident left one casualty with serious injury.

The minor accident occurred to the south of the Village and was the result of a head-on right turn recorded between 0700 and 1000 involving a car, the incident left three casualties with minor injuries.

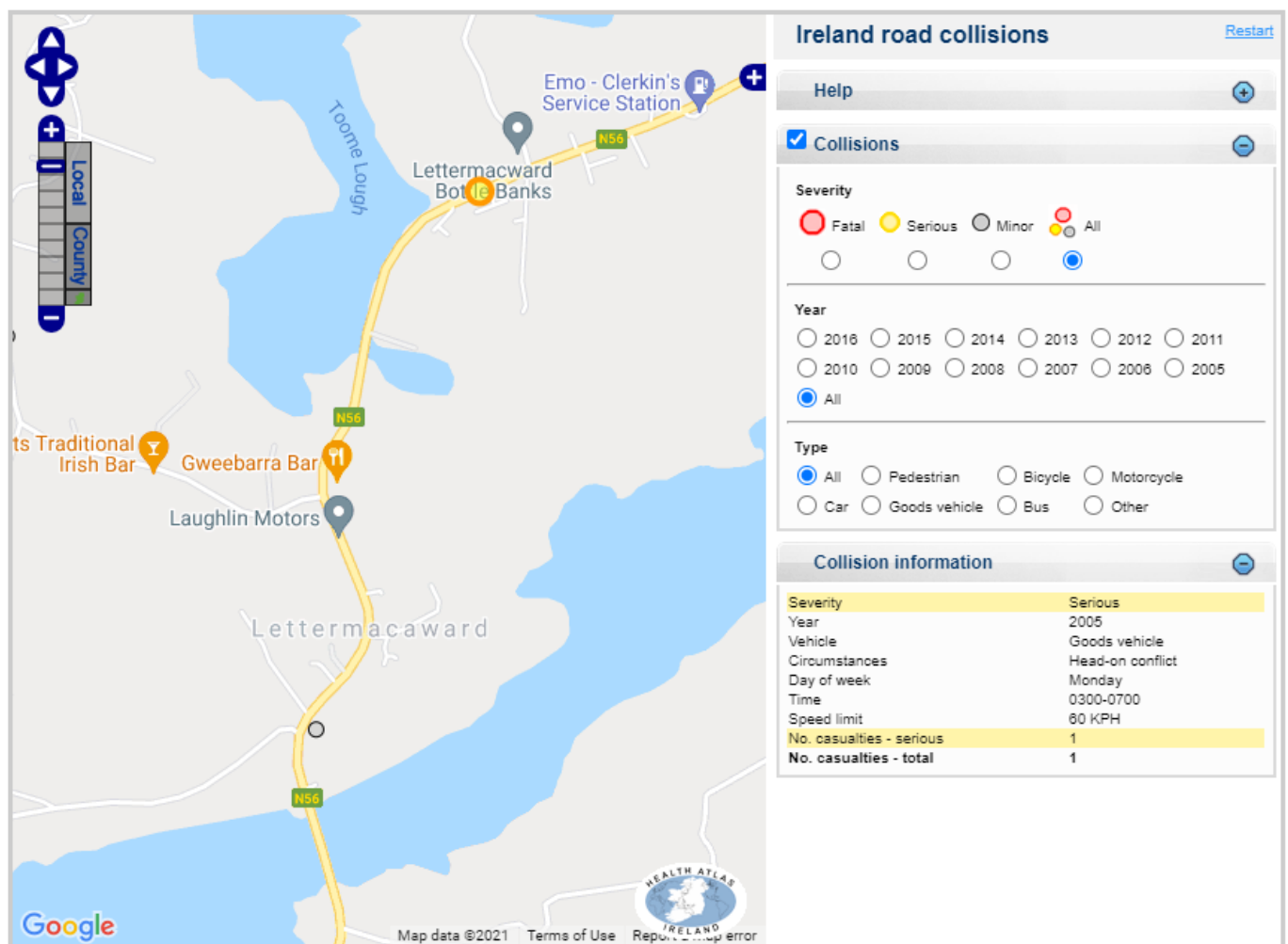


Figure 3 - Collision Statistics

2.1 Constraints

This section of the N56 is within a 60km speed limit at Lettermacaward village and is approximately 2.1km in length from the northern side of the village through to the southern side at the Gweebarragh bridge. The village can be considered as a low density residential area, may become heavily trafficked at certain times due to the inclusion of GAA grounds and church with adjoining graveyard. The proposed scheme has been assessed under Type D review and is identified as a site having an elevated speed within the 60kph zone of Lettermacaward.

During a site inspection the following constraints that may influence increased speeds within the 60km speed limit were identified including:

- The carriageway along this section of the N56 an average width of 6.8m with good vertical and horizontal alignments.
- Currently no traffic calming measures or signage exists on the approaches to either side of the speed restricted zone to clearly inform drivers that they are transitioning from an area of high speed to an area of low speed.

Existing road safety infrastructure for vulnerable road users include as follows:

- An uncontrolled pedestrian crossing currently exists between the car park at St Bridget's Church and Na Rossa GAA grounds (Figure 4b).
- A recently completed road relighment project has provided one uncontrolled crossing near the National School linking the two paths (figure 4b).
- A 3m wide cycleway currently exists along one side of this section of the N56 along with a grass planted buffer between the N56 and the cycle way while on the opposite side a footpath currently spans between the Gweebarra Bridge and the N56/L-1783 junction, (shown in figures 4a to 4d).

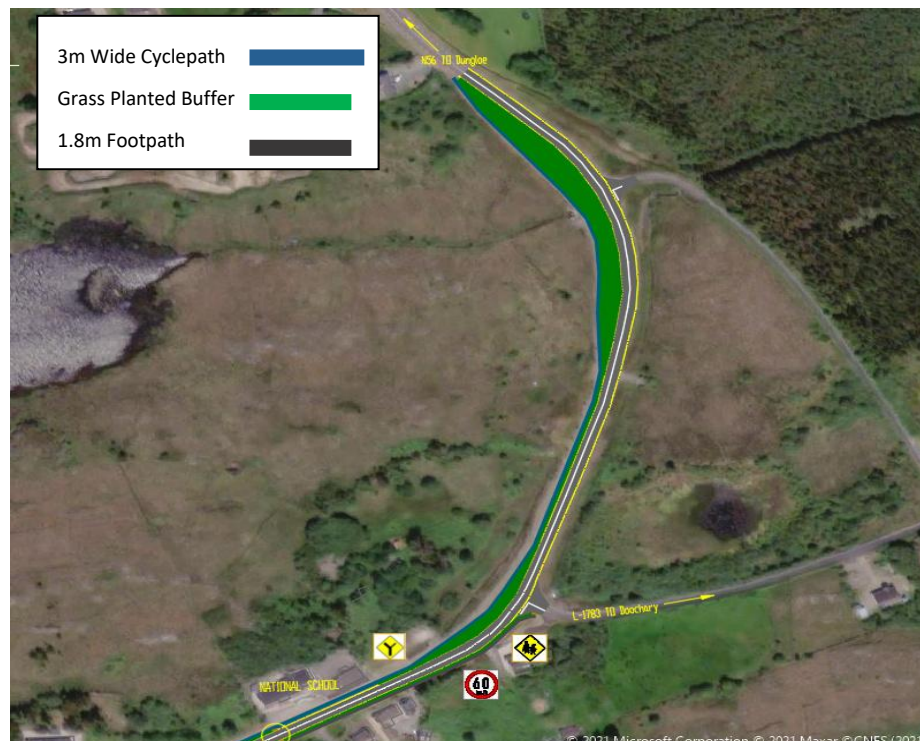


Fig 4a - Existing Layout on the northern side of Lettermacaward (1 of 4)



Fig 4b - Existing Layout in Lettermacaward (2 of 4)



Fig 4c - Existing Layout in Lettermacaward (3 of 4)



Fig 4d – Existing Layout in Lettermacaward at the N56/L-1773 junction (4 of 4)

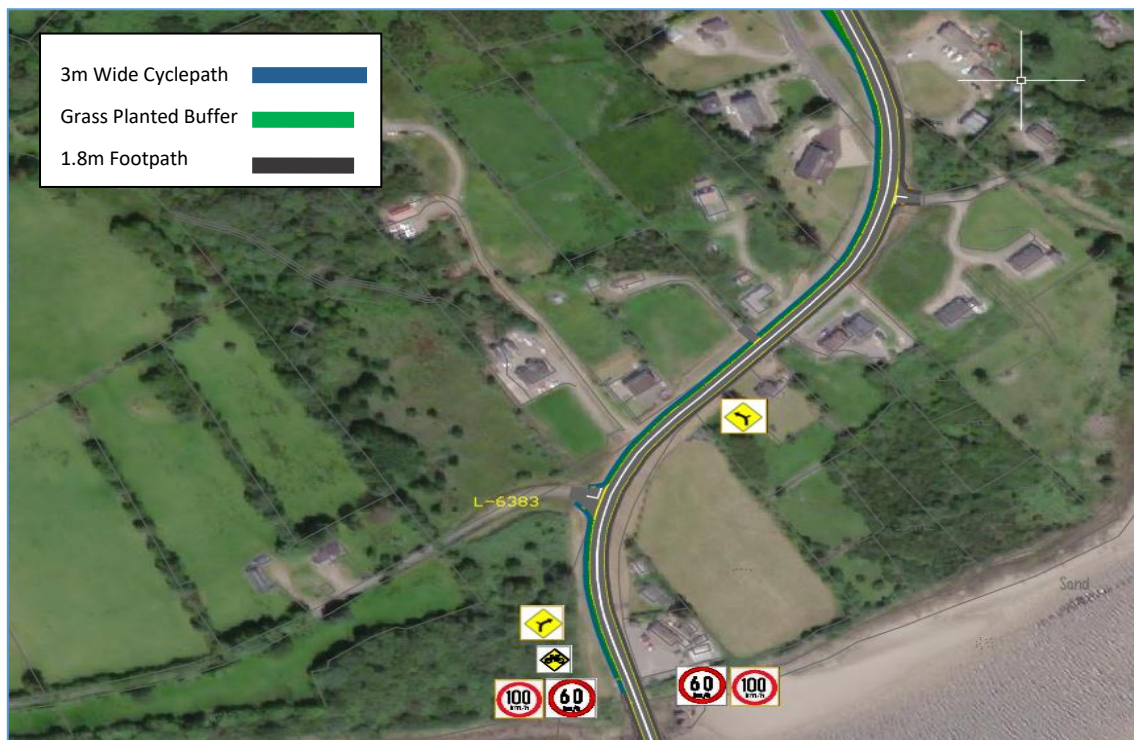


Fig 4d – Existing Layout on the southern side of Lettermacaward (4 of 4)

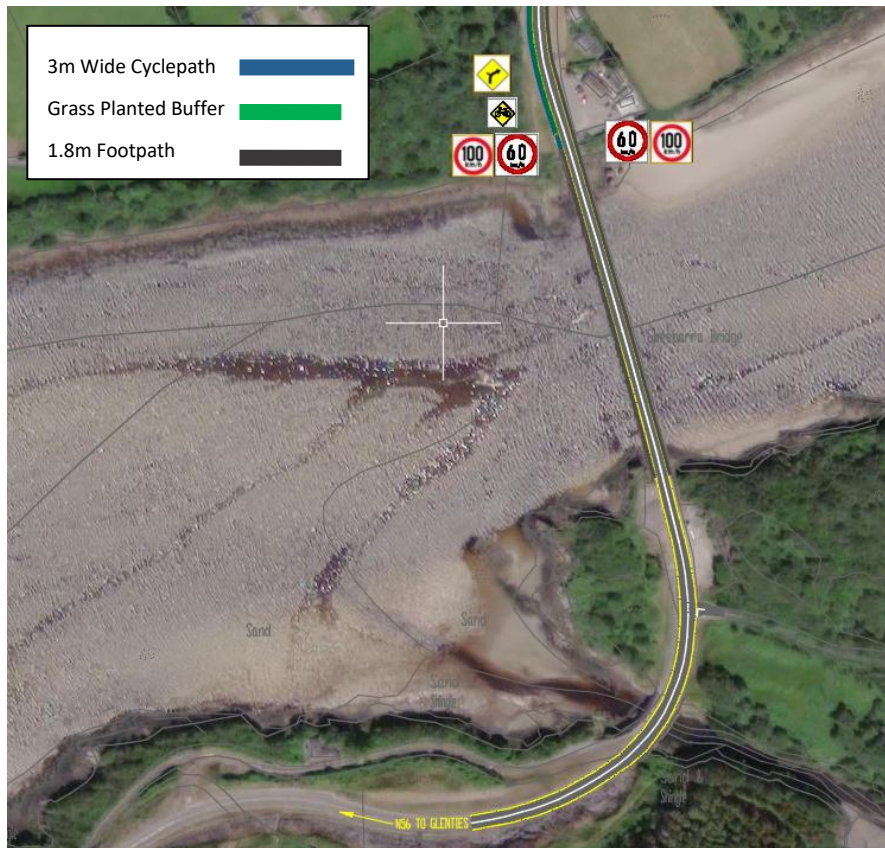


Fig 5 – Existing Layout showing the Gweebarra Bridge in the led up the 60km speed limit at Lettermacaward



Fig 6 – N56 Gweebarra Bridge looking North



Fig 7 – N56 Looking south from the N56/L-1773



Figure 8 – N56 Looking north from the N56/L-1773



Figure 9 – N56 Looking south from the N56/L-6433



Figure 10 – N56 Looking north at St Bridget's Church



Figure 11 – N56 Looking south from the National School



Figure 12 – N56 Looking south from the N56/L-1783 junction showing the start of the 60km speed limit on the northern side of Lettermacaward

2.3 Future Development / Scheme

N/A

3 Proposed Options

A road realignment and pedestrian linkages scheme was completed in 2015 and included good vertical and horizontal alignments. The village included wide open landscaping that may influence excessive speeds within the 60kph speed limit as was recorded in a traffic survey undertaken in December 2020. Currently no traffic calming measures or signage on the approaches to either side of the speed restriction zone exist to clearly inform drivers that they are transitioning from an area of high speed to an area of low speed.

The proposed option will include safety measures that aim to reduce speeds within the 60kph zone of Lettermacaward from the recorded 85th Percentile Speed of 80kph to within the posted speed limit.

3.1 Option 1

Transition Zone at North and South sides of the Village approach

It is proposed to appoint a consultant to develop a Transition Zone landscaping design and gateway signage in accordance with TII Publications. -

The proposed measures will involve the following works:

- To appoint a consultant to design a Gateway and Transition Zone and all associated landscaping required in accordance with **DN-GEO-03084** that clearly indicates to drivers that they are transitioning from an area of high speed to an area of low speed on each side of the restricted speed zone.
- Construction of new Gateway signage for traffic approaching Lettermacaward from both directions on the N56, in accordance with **DN- GEO-03084** and with all associated road marking works (refer to figures 14 & 15).
- Development of alternative road surface texture/colour on either end of the speed restriction zone in accordance with **CC-SCD-05101** to clearly indicate to drivers that they are transitioning from an area of high speed to an area of low speed

The Gateway and transition zone shall mark a definite change in the character of the surrounding area from rural to urban (100km to 60km). The Gateway shall be conspicuous and be the most prominent element in the Rural Fringe. The proposal will be subject to a RSA to ensure that the speed limit zones are reviewed and changed if necessary, so that the location of the speed limit sign corresponds with the Gateway.

The Gateway should not interfere with sightlines at junctions or accesses. For ease of maintenance and dismantling, all foundations for posts at gateways shall include appropriate post retention socket systems in accordance with **CC-SPW-01200**.



Fig 14 – Option Transition Zone Proposed Layout (South)

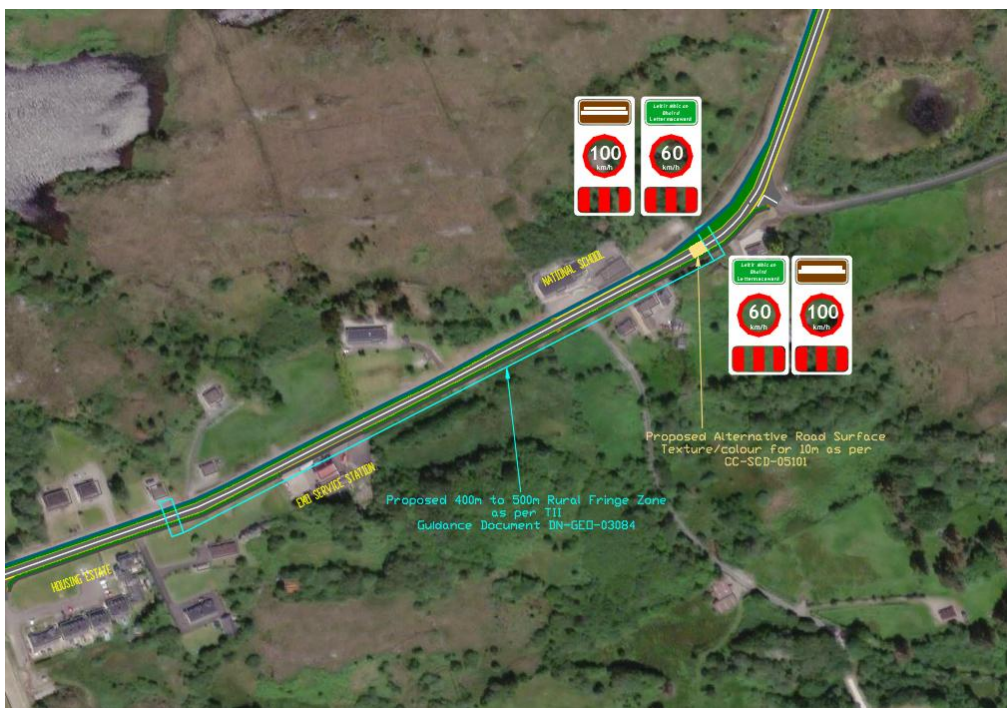


Fig 15 – Option 1 Transition Zone Proposed Layout (North)

Description	Cost/€	Total Estimate (ex VAT)
Consultancy services for the development of Gateway and Transition Zone design	20,000	€95,000
Implementation of proposed design as developed by consultant including Gateway Signage	70,000	
RSA Stage 1/2 & 3	5,000	

Table A – Option 1 Costing Breakdown

4.0 Preferred Option

n/a

4.1 Collision Modification Factor

n/a

4.2 First Year Rate of Return

n/a

5.0 Programme

Programme	Year / (Q1-4)	Costs (€ incl VAT)
Approval of F & O Report	2021 / Q4	€0
Appointment of Consultant	2022 / Q1	€20,000
Preliminary Design Report	2022 / Q3	€20,000
Stage 1 / 2 RSA	2022 / Q3	€2,500
Detailed Design	2022 / Q3	€0
Construction	2022/ Q4	€70,000
Stage 3 RSA	2023 Q2	€2,500

Table B – Proposed Programme of Works

6.0 Conclusions and Recommendation

The purpose of this report was to identify measures on the N56 at Lettermacaward to address the safety issues identified and the assessment of the site by the Donegal County Council.

The option identified by Donegal County Council to reduce the potential safety problems identified in the study area on the N56. The proposed measures were considered by Donegal County Council and it is recommended that the proposed works be implemented based on a cost of **€95,000**.

Based on the above recommendation the Donegal County Council seek funding from TII Road Safety as outline in the programme in Section 5 above.

Appendix A – Speed Data

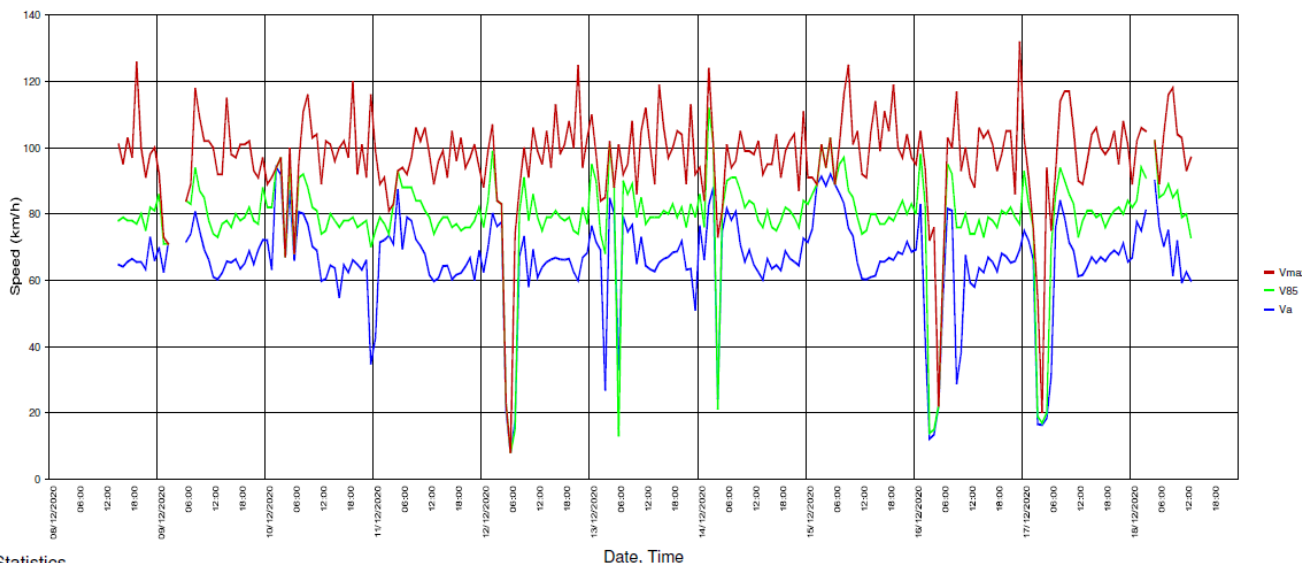
Sierzega Elektronik GmbH
Thürnau 55, A-4062 Thening
Tel.: +43-7221-64114-0, Fax:-14
Mail: office@sierzega.at
Web: www.sierzega.at

Wenn an dieser Stelle Ihr Logo mit Anschrift usw. stehen soll,
so kopieren Sie eine entsprechende Grafik, gespeichert als "logo.wmf" (Windows Metafile)
mit den Proportionen 1:10 (Breite:Länge) in das Programmverzeichnis dieser Software

To see your own logo with your address here at this place:
Design a graphic file and save it as "logo.wmf" (Windows Metafile)
with the proportions 1:10 (width to length) in the program folder of this software



N56 Leitirmacaward (Opposite Health Centre) (+ from Dungloe) (- from Glenties)



Statistics

Date, Time

Period:

08 December 2020, 15:00 o'clock to 18 December 2020, 13:41 o'clock

		Count +	%	Count -	%	Total	%	V15 +	Va +	V85 +	Vmax+	V15 -	Va -	V85 -	Vmax -	
Speed violations:	0 %	Motorcycle	373	4.2	865	9.9	1238	7	9	32	72	112	17	58	79	120
Average time interval:	1.4 sec	Car	7676	86.2	7024	80.1	14700	83.2	52	66	82	125	52	65	80	132
Traffic in column:	17 %	Truck	738	8.3	758	8.6	1496	8.5	42	60	77	98	43	62	78	106
ADT:	1777	Long truck	118	1.3	118	1.3	236	1.3	10	51	74	96	20	50	74	90
Truck Share:	10 %	Total	8905	50.4	8765	49.6	17670	100	48	64	81	125	50	64	79	132





Ionad Ghnó Gheata na Páirce,
Stráid Gheata na Páirce
Baile Átha Cliath 8, Éire



Parkgate Business Centre,
Parkgate Street,
Dublin 8, Ireland



www.tii.ie



info@tii.ie



+353 (01) 646 3600



+353 (01) 646 3601