

Proposed Residential Development on the R280 Sean Mac Diarmada Street, Manorhamilton, Co. Leitrim

Traffic Report

8th December 2023

Prepared for

Sweeney Architects

Traffic Transport and Road Safety Associates Ltd.

Barran

Blacklion

Co. Cavan

Ireland

t. +353(0)71 9853847

e. info@ttrsa.com



Document Control Sheet

Project Title	Proposed Residential Development on the R280 Sean Mac Diarmada Street, Manorhamilton, Co. Leitrim
Report Title	Traffic Report
Project Number	T231106
Revision	1
Status	Final
Control Date	8 th December 2023

Record of Issue

Issue	Status	Date
1/1	Draft	27/11/2023
1/2	Final	08/12/2023

Distribution

Organisation	Copies
Sweeney Architects	1 Electronic (.pdf)

©Copyright 2023, Traffic Transport and Road Safety Associates Ltd. All rights reserved.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Traffic Transport and Road Safety Associates Ltd., no other party may copy, reproduce, distribute, make use of, or rely on the contents of the report. No liability is accepted by Traffic Transport and Road Safety Associates Ltd. for any use of this report, other than for the purposes for which it was originally prepared and provided. Opinions and information provided in this report are on the basis of Traffic Transport and Road Safety Associates Ltd. using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy.

Contents

Document Control Sheet.....	i
Non-technical summary.....	1
1 Introduction.....	2
1.1 Traffic Transport and Road Safety Associates.....	2
1.2 Proposed development.....	2
1.3 Format of this report.....	2
2 The existing local environment.....	3
2.1 The local highway network.....	3
2.2 Existing traffic movements.....	3
2.3 Local traffic growth.....	4
2.4 Road safety.....	4
3 Analysis of development impact.....	5
3.1 Predicted trip vehicular generation.....	5
3.2 Modal split.....	5
3.3 Percentage impact of the proposed development.....	5
3.4 Availability of car parking.....	6

Non-technical summary

- TTRSA has been commissioned by Sweeney Architects to prepare a traffic report and associated analysis for a proposed residential development located on the western side of the R280 Sean Mac Diarmada Street, Manorhamilton, Co. Leitrim. The proposed development is to be progressed by Leitrim County Council under Part 8 of the Planning and Development Regulations 2001 to 2023.
- The proposed development seeks '*demolition of an existing 2 storey old building and construction of 4 no. Apartment Units consisting of 2 no. 1 bedroom apartment units at the ground floor and 2 no. 1 bed apartment units at first floor with all associated site development works including private open spaces, upgrade of existing footpaths, resurfacing of existing pedestrian access lane to the south-east, boundary fence, bicycle storage, bin storages, formation of new connections to existing foul/surface water drainage and existing utilities*'.
- The site layout drawing of the proposed development, upon which the analysis contained within this report is based, has been prepared by Sweeney Architects, entitled 'Existing & Proposed Site Layout & Site Location Map'; Drawing Number: SA22510-th DecPLA-100; Dated: 08/12/2023.
- To assist in the preparation of this traffic report, TTRSA undertook a video-based peak hour manual classified traffic count survey on Sean Mac Diarmada Street, for the peak periods of 08:00 to 09:59 hours and 16:00 to 18:14 hours on Thursday 23rd November 2023. This traffic survey determined the local traffic peak hours an AM peak of 08:30 to 09:29 and a PM peak 16:00 to 16:59.
- The National Transport Model forecasts local traffic growth through to 2029 as being 0.5% per annum, with 0% (no) local traffic growth between 2030 and 2039, and a reduction in local traffic of 0.3% per annum between 2040 and 2049.
- TTRSA also undertook a video-based survey of: on-street parking and loading activity on Sean Mac Diarmada Street; and, off street parking activity within the Manorhamilton Car Park, between 07:00 and 18:59 hours on Thursday 23rd November 2023. The results of this survey show that **there is available public car parking within the immediate vicinity to accommodate car parking associated with the proposed development.**
- Consultation of Health Atlas Ireland online collision data for the period 2005-2016, the latest for which information is publicly available to the initial issue date of this report (27th November 2023), indicates no collisions resulting in injury have been reported on the R280 Sean Mac Diarmada Street in the vicinity of the proposed development.
- TTRSA have predicted vehicular trip generation for the proposed development by applying trip rates per apartment, based on trip generation surveys undertaken at a range of existing apartment developments in Ireland.
- The TII 'Traffic and Transport Assessment Guidelines' (PE-PDV-02045) specify a threshold level of a 10% increase in traffic resulting from a development (over and above existing traffic levels) for additional assessment to be undertaken. During the four hour period covering 08:00-09:59 and 16:00-17:59, the traffic volume recorded on the R280 Sean Mac Diarmada Street was 881 Passenger Car Units (PCUs). Over the same four hour period, the proposed development is predicted to generate 6 PCUs. **The percentage impact of the proposed development on the R280 is 0.7%, thus below the specified threshold for further detailed traffic assessment.**

1 Introduction

1.1 Traffic Transport and Road Safety Associates

Traffic Transport and Road Safety Associates Ltd. (TTRSA) is a specialist Traffic Engineering and Transport Planning practice, based in Ireland. The senior managers within TTRSA have extensive experience of developing traffic management schemes, assessing the transport related impacts of development and improving road safety both nationally and internationally.

TTRSA has been commissioned by Sweeney Architects to prepare a traffic report and associated analysis for a proposed residential development located on the western side of the R280 Sean Mac Diarmada Street, Manorhamilton, Co. Leitrim. The proposed development is to be progressed by Leitrim County Council under Part 8 of the Planning and Development Regulations 2001 to 2023.

1.2 Proposed development

The proposed development seeks *'demolition of an existing 2 storey old building and construction of 4 no. Apartment Units consisting of 2 no. 1 bedroom apartment units at the ground floor and 2 no. 1 bed apartment units at first floor with all associated site development works including private open spaces, upgrade of existing footpaths, resurfacing of existing pedestrian access lane to the south-east, boundary fence, bicycle storage, bin storages, formation of new connections to existing foul/surface water drainage and existing utilities at Sean Mac Diarmada Street, Manorhamilton, Co Leitrim.'*

A scaled copy of the site layout drawing of the proposed development prepared by Sweeney Architects, entitled 'Existing & Proposed Site Layout & Site Location Map'; Drawing Number: SA22510-PLA-100; Dated: 08/12/2023, is included for information within Appendix A, and provides the basis of the analysis contained within this report.

1.3 Format of this report

This traffic report has been prepared in accordance with the agreed design brief for the housing scheme, with cognisance of the Transport Infrastructure Ireland (TII) document 'Traffic and Transport Assessment Guidelines' (PE-PDV-02045) published in May 2014. The remaining sections of this traffic report are set out as follows:

- Chapter 2 describes the existing local environment into which the development meshes; and,
- Chapter 3 provides details of predicted trip generation, the percentage impact of the proposed development on the R280 Sean Mac Diarmada Street, and availability of car parking.

2 The existing local environment

2.1 The local highway network

As noted in Section 1.1, the proposed development is located on the western side of the R280 Sean Mac Diarmada Street, Manorhamilton, Co. Leitrim, approximately 15m to the north of its signal controlled junction with the N16 (Plate 2.1). Sean Mac Diarmada Street is formed from single northbound and southbound lanes, and has a surfaced width of approximately 6.5m. Double yellow-line parking restrictions are present on the development frontage, whilst a loading bay and an inset parking bay are present on the eastern side of Sean Mac Diarmada Street. The footpath across the development frontage is approximately 1.4m in width. Public street lighting and formal surface water drainage are present, and the posted speed limit is 50km/h.

Plate 2.1 – R280 Sean Mac Diarmada Street, Manorhamilton – Looking south with the proposed development site on the right



2.2 Existing traffic movements

To assist in the preparation of this traffic report, TTRSA undertook video-based peak hour manual classified count survey (MCC), on Sean Mac Diarmada Street, for the peak periods of 08:00 to 09:59 hours and 16:00 to 18:14 hours on Thursday 23rd November 2023. These surveys determined the local traffic peak hours as an AM peak hour of 08:30 to 09:29 and a PM peak hour of 16:00 to 16:59.

The MCC survey data was coded into 15 minute periods, classified into bicycles; motorcycles; cars and light goods vehicles (LGV); and, heavy goods vehicles (HGV) and public service vehicles¹ (PSV). In addition, for the purpose of this analysis contained within Section 3 of this report, the traffic count survey data was converted into Passenger Car Units (PCUs), using factors of: 0.2 for bicycles; 0.4 for motorcycles; 1.0 for cars and LGVs (including those towing trailers); and 2.3 for buses and all types of rigid and articulated HGV and PSV.

The coded traffic survey count data, including PCU values, is included within Appendix B of this report.

TTRSA also undertook a video-based survey of: on-street parking and loading activity on Sean Mac Diarmada Street; and, off street parking activity within the Manorhamilton Car Park, between 07:00 and 18:59 hours on Thursday 23rd November 2023.

1 buses and coaches

2.3 Local traffic growth

Local traffic growth estimates for Manorhamilton are specified for Zone 95 of the National Transport Model (NTpM). Taking into account the 3.1% HGVs recorded within the aforementioned traffic survey, local traffic growth through to 2029 is forecast as being 0.5% per annum, with 0% (zero) local traffic growth between 2030 and 2039, and a reduction in local traffic of 0.3% per annum between 2040 and 2049.

2.4 Road safety

Consultation of Health Atlas Ireland online collision data for the period 2005-2016, the latest for which information is publicly available to the initial issue date of this report (27th November 2023), indicates no collisions resulting in injury have been reported on the R280 Sean Mac Diarmada Street in the vicinity of the proposed development.

3 Analysis of development impact

3.1 Predicted trip vehicular generation

TTRSA have predicted vehicular trip generation for the proposed development by applying trip rates per apartment, based on trip generation surveys undertaken at range of existing apartment developments in Ireland. In the case of the proposed development the trip rate is multiplied by four (the number of apartments), to provide the number of PCUs related to the proposed development arriving and departing in each hour between 07:00 and 18:59, on a typical weekday. The hourly trip rates and predicted vehicular trip generation for the proposed development are shown in Table 3.1.

Table 3.1 – Predicted vehicular trip rate per apartment and predicted vehicular trip generation for the proposed development (in PCUs)

Time Period 1 Hour	Trip Rate Per Apartment		Proposed Development Predicted Vehicular Trip Generation	
	Arrival	Departure	Arrivals	Departures
07:00 – 07:59	0.037	0.239	0	1
08:00 – 08:59	0.130	0.273	1	1
09:00 – 09:59	0.178	0.150	1	1
10:00 – 10:59	0.074	0.111	0	0
11:00 – 11:59	0.150	0.113	1	0
12:00 – 12:59	0.098	0.119	0	0
13:00 – 13:59	0.136	0.126	1	1
14:00 – 14:59	0.089	0.098	0	0
15:00 – 15:59	0.191	0.167	1	1
16:00 – 16:59	0.164	0.178	1	1
17:00 – 17:59	0.230	0.104	1	0
18:00 – 18:59	0.170	0.148	1	1
12 Hour	1.647	1.825	7	7

PCU values are rounded to the nearest whole number

3.2 Modal split

No modal split targets have been set for the development. The 2022 Census modal split for journeys to work in the Census Small Area² covering the proposed development was reported as: Walk 24%; Cycle 0%; Public Transport 7%; Car/Van 69%; and, for journeys to school was reported as: Walk 45%; Cycle 0%; Public Transport 6%; and, Car 48%. 29% of households in the Census Small Area indicated that they do not own a car.

3.3 Percentage impact of the proposed development

The TII 'Traffic and Transport Assessment Guidelines' (PE-PDV-02045) specify a threshold level of a 10% increase in traffic resulting from a development (over and above existing traffic levels) for additional assessment to be undertaken.

During the four hour period covering 08:00-09:59 hours and 16:00-17:59 hours, the traffic volume recorded on the R280 Sean Mac Diarmada Street was 881 PCUs.

2 2022 Census Small Area 117063003

Over the same four hours, the proposed development is predicted to generate 6 PCUs³.

The percentage impact of the proposed development is therefore 0.7%. This is below the specified threshold for further detailed traffic assessment.

3.4 Availability of car parking

Requirements for car parking within proposed developments are specified by CP POL 5, Section 13.16.6, and Table 13.6 within the Leitrim County Development Plan 2023-2029, noting that Table 13.6 specifies maximum car parking requirements. Within the context of the Development Plan, Leitrim County Council allows for reduced car parking provision in a number of situations including for replacement buildings.

Because the proposed development does not include any on-site car parking, and because road-side parking at the site frontage is not permitted, as noted within Section 2.2 of this Traffic Report, a survey was undertaken of on-street parking and loading activity on Sean Mac Diarmada Street; and, off street parking activity within the Manorhamilton Car Park. The results of this survey, detailed within Table 3.2, show that there is available public car parking within the immediate vicinity, to accommodate car parking associated with the proposed development.

Table 3.2 – Availability of car parking spaces in the immediate vicinity of the proposed development (Thursday 23rd November 2023)

Time	Number of available car parking spaces	
	R280 On-street (loading and parking)	Manorhamilton (Off-street) Car Park
07:00:00	3	25
08:00:00	4	24
09:00:00	4	20
10:00:00	4	17
11:00:00	4	13
12:00:00	0	13
13:00:00	3	16
14:00:00	2	18
15:00:00	2	16
16:00:00	3	14
17:00:00	2	15
18:00:00	3	20
19:00:00	3	22

3 Both PCUs rounded to the nearest whole number

Appendix A

Site Layout Drawing (prepared by Sweeney Architects)

Drawing Title: Existing & Proposed Site Layout & Site Location Map

Drawing Number: SA22510-PLA-100

Drawing Dated: 08/12/2023

Scaled drawing for information only

Appendix B

Traffic Count Data and PCU Conversion

Video-based Manual Classified Count Thursday 23rd November 2023
Existing R280 Sean Mac Diarmada Street, Manorhamilton, Co. Leitrim.



PCU Factors	Cycle	0.2
	Motorcycle	0.4
	Car/LGV	1
	HGV/PSV	2.3

Cycle	Northbound	Southbound
08:00 – 08:14	0	0
08:15 – 08:29	0	0
08:30 – 08:44	0	0
08:45 – 08:59	0	0
09:00 – 09:14	0	0
09:15 – 09:29	0	0
09:30 – 09:44	0	0
09:45 – 09:59	0	0
16:00 – 16:14	0	0
16:15 – 16:29	0	0
16:30 – 16:44	0	0
16:45 – 16:59	0	0
17:00 – 17:14	0	0
17:15 – 17:29	0	0
17:30 – 17:44	0	0
17:45 – 17:59	0	0
18:00 – 18:14	0	0

Motorcycle	Northbound	Southbound
08:00 – 08:14	0	0
08:15 – 08:29	0	0
08:30 – 08:44	0	0
08:45 – 08:59	0	0
09:00 – 09:14	0	0
09:15 – 09:29	0	0
09:30 – 09:44	0	0
09:45 – 09:59	0	0
16:00 – 16:14	0	0
16:15 – 16:29	0	0
16:30 – 16:44	0	0
16:45 – 16:59	0	0
17:00 – 17:14	0	0
17:15 – 17:29	0	0
17:30 – 17:44	0	0
17:45 – 17:59	0	0
18:00 – 18:14	0	0

Car / LGV	Northbound	Southbound
08:00 – 08:14	11	24
08:15 – 08:29	18	25
08:30 – 08:44	41	29
08:45 – 08:59	28	40
09:00 – 09:14	16	32
09:15 – 09:29	25	29
09:30 – 09:44	17	15
09:45 – 09:59	18	23
16:00 – 16:14	34	14
16:15 – 16:29	25	15
16:30 – 16:44	39	23
16:45 – 16:59	38	25
17:00 – 17:14	26	19
17:15 – 17:29	28	23
17:30 – 17:44	35	14
17:45 – 17:59	47	21
18:00 – 18:14	28	21

HGV/PSV	Northbound	Southbound
08:00 – 08:14	0	0
08:15 – 08:29	1	1
08:30 – 08:44	1	1
08:45 – 08:59	1	0
09:00 – 09:14	2	1
09:15 – 09:29	1	2
09:30 – 09:44	1	2
09:45 – 09:59	0	1
16:00 – 16:14	0	3
16:15 – 16:29	3	1
16:30 – 16:44	0	0
16:45 – 16:59	2	0
17:00 – 17:14	1	0
17:15 – 17:29	0	0
17:30 – 17:44	2	0
17:45 – 17:59	1	0
18:00 – 18:14	0	0

Total Vehicles	Northbound	Southbound
08:00 – 08:14	11	24
08:15 – 08:29	19	26
08:30 – 08:44	42	30
08:45 – 08:59	29	40
09:00 – 09:14	18	33
09:15 – 09:29	26	31
09:30 – 09:44	18	17
09:45 – 09:59	18	24
16:00 – 16:14	34	17
16:15 – 16:29	28	16
16:30 – 16:44	39	23
16:45 – 16:59	40	25
17:00 – 17:14	27	19
17:15 – 17:29	28	23
17:30 – 17:44	37	14
17:45 – 17:59	48	21
18:00 – 18:14	28	21

PCUS	Northbound	Southbound
08:00 – 08:14	11	24
08:15 – 08:29	20	27
08:30 – 08:44	43	31
08:45 – 08:59	30	40
09:00 – 09:14	21	34
09:15 – 09:29	27	34
09:30 – 09:44	19	20
09:45 – 09:59	18	25
16:00 – 16:14	34	21
16:15 – 16:29	32	17
16:30 – 16:44	39	23
16:45 – 16:59	43	25
17:00 – 17:14	28	19
17:15 – 17:29	28	23
17:30 – 17:44	40	14
17:45 – 17:59	49	21
18:00 – 18:14	28	21

PCUS	Northbound	Southbound
08:30 – 09:29	122	139
16:00 – 16:59	148	86

PCUs are rounded to the nearest whole number

Survey Data and Analysis © TTRSA 2023 – Unauthorised use prohibited