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Engineering Services Statement

Proposed Change of Use and Associated Works to Presentation Convent building

Presentation Convent, New Road, Clondalkin, Dublin 22

Client: Bartra Property (NH) Limited

Job No. G103

March 2023

CS CONSULTING
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ENGINEERING SERVICES STATEMENT

PROPOSED CHANGE OF USE AND ASSOCIATED WORKS TO PRESENTATION CONVENT BUILDING, PRESENTATION CONVENT, NEW ROAD, CLONDALKIN, DUBLIN 22

CONTENTS

File Location: Job-G103\B_DOCUMENTS\1.0 Planning \1.0 Reports\Refusal Appeal

BS 1192 FIELD	**G103-CSC-ZZ-XX-RP-C-0101-P2**				
Job Ref.	Author	Reviewed By	Authorised By	Issue Date	Rev. No.
G103	LJ	NB	NB	08.03.2023	P2
G103	LJ	NB	NB	07.03.2023	P1
G103	LJ	NB	NB	03.03.2023	P0

1.0 INTRODUCTION

Cronin & Sutton Consulting Engineers (CS Consulting) have been commissioned by Bartra Property (NH) Limited to prepare an Engineering Services Statement for a proposed change of use application to a previously granted planning permission under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19) at Presentation Convent, Clondalkin, Dublin 22.

It is proposed to change a use of part of the existing convent building (Protected Structure) from staff accommodation ancillary to the adjacent nursing home building permitted under Ref: SD18A/0328 (An Bord Pleanála under ABP- 304708-19) to a geriatric day-care centre (Ageing Well Centre).

This planning application was previously lodged with South Dublin County Council and was refused under SDCC planning SD22A/0336, one of the reason for refusal being Item 3, which states that;

'The applicant has provided insufficient information in relation to the traffic and transport impacts of the development. The applicant has not satisfactorily provided information in relation to parking arrangements to serve the geriatric day centre, or the potential impact of the development on the surrounding road network. The Planning Authority has a concern that these impacts have not been properly considered in making this application and therefore the development would be contrary to the proper planning and sustainable development of the area'. This document under section 7.0 responds to item 3 of the previous refusal.

This report assesses the proposed development under the following headings:

- Flood Zoning;
- Foul Drainage Infrastructure;

- Stormwater Drainage Infrastructure;
- Potable Water Infrastructure;
- Traffic and Transport Statement.

In preparing this report, CS Consulting has made reference to the following:

- South Dublin County Council Development Plan 2022-2028;
- Regional Code of Practice for Drainage Works;
- Irish Water Code of Practice for Water;
- Irish Water Code of Practice for Wastewater;
- Local Authority Drainage Records;
- The Institute of Highways and Transportation Guidelines for Traffic Impact Assessments
- TII Project Appraisal Guidelines 2011
- TII Traffic and Transport Assessment Guidelines
- Design Manual for Urban Road and Streets 2019.

2.0 SITE LOCATION AND PROPOSED DEVELOPMENT

2.1 Site Location

The site of the proposed development lies between New Road and Convent Road of Clondalkin village centre in Dublin 22, on the grounds of the Presentation Convent. The overall ownership site has a total area of 1.34ha, and the application site has a total area of approx. 0.12ha. The development site is located in the administrative jurisdiction of South Dublin County Council.

Figure 1 – Location of proposed development site
(map data & imagery: EPA, OSM Contributors, Google)

The location of the proposed development site is shown in **Figure 1** above; the indicative extents of the development site, as well as relevant elements of the surrounding road network, are shown in more detail in **Figure 2**.

The site is bounded to the north by the Church of the Immaculate Conception and by the existing vehicular access to the Presentation Convent, to all other side by lands of permitted development under planning ref. SDDC Reg. Ref. No. SD18A/0328.

Figure 2 – Indicative site extents
(map data & imagery: NTA, OSM Contributors, OSi, Google)

2.2 Existing Land Use

The site of the proposed development comprises of existing convent building. Planning has been granted for the provision of Nursing home (currently under construction), Retirement home, internal alterations and improvements to part of existing convent building, car parking, vehicular and pedestrian entrances under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19).

2.3 Description of the Proposed Development

The proposed development is described in the public notices as follows:-

The development will consist of: change of use of part of existing convent building (Protected Structure - Ref. 158) from staff accommodation ancillary to the adjacent nursing home/ retirement home permitted under Ref: SD18A/0328 (ABP-304708-19) to community geriatric daycare centre (Ageing Well Centre) with all associated ancillary accommodation; internal alterations and improvements to the interior of the convent at ground, first and second floors; external alterations to accommodate two stair cores (one includes a lift) within the courtyard space and alterations to two existing windows to form escape doors and blocking up a second floor window. Permission is also sought for all ancillary site and development works associated with the above.

3.0 FLOOD ZONING

Flood Zoning for the lands is based on the Strategic Flood Risk Assessment which forms a part of the current South Dublin County Council Development Plan 2022 – 2028.

Recent modelling of the area as part of the *Eastern Catchment Flood Risk Assessment Mapping*, CFRMA, project indicates that the subject lands is deemed to be located outside of the 0.1% AEP fluvial floodplain, based on the available maps. Therefore, the development site is located in Flood Zone 'C', a designation that it is suitable for all forms of development. See **Figure 3** and **Appendix B** for a copy of CFRAMS maps and South Dublin flood zoning map.

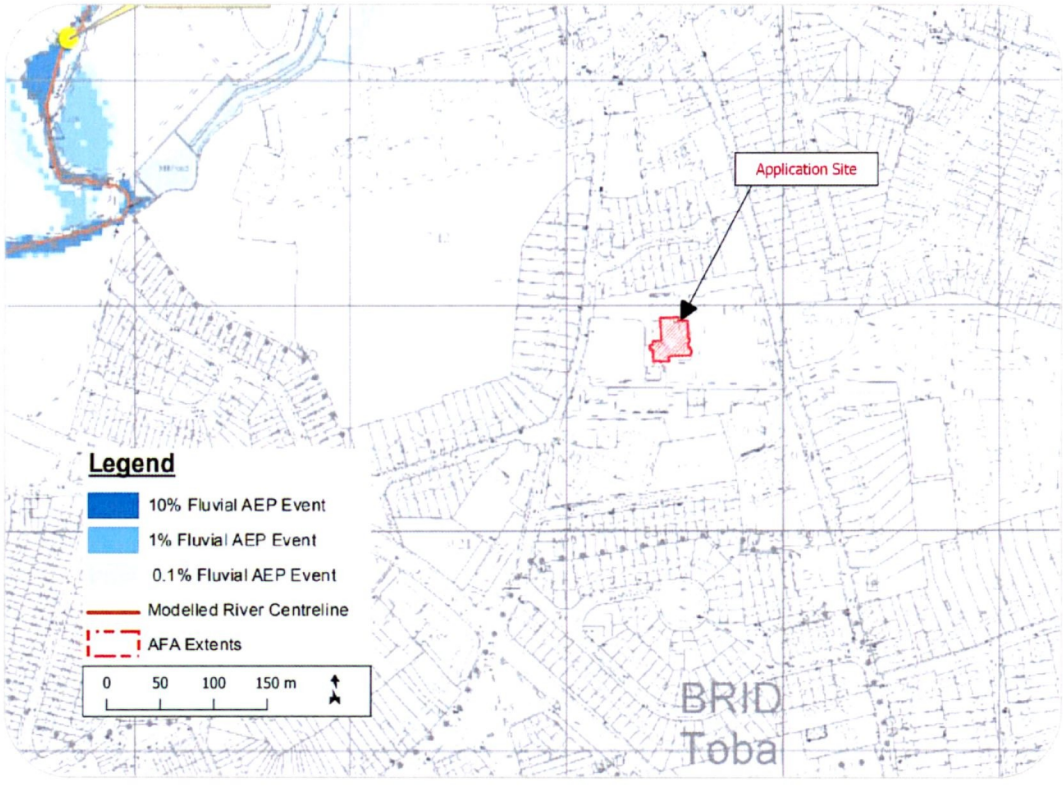


Figure 3 – Extract of CFRAMS Mapping
(background image source: floodmaps.ie)

4.0 WASTEWATER INFRASTRUCTURE

A review of the foul drainage infrastructure in the environs of the subject lands indicate an existing 225mm diameter foul sewer flowing south to north on Convent Road, and New Road along eastern and western boundary of the development site. See **Appendix A** for Irish Water drainage records.

It was permitted under planning ref. SDDC Reg. Ref. No. SD18A/0328 to discharge all the foul effluent generated by the development into the existing 225mm diameter foul sewer on Convent Road. This drainage infrastructure shall be retained for the proposed change of use application.

The proposed development consists of geriatric day-care centre of approx. GFA 1,267m^2 with an anticipated staffing level of 25no. staff[1] and a maximum visitor occupancy of 30no. visitors. Irish Water recommends an effluent volume of 350l/person/day.

This equates to effluent loading of:

- 385l/person/day (Irish Water recommendation + 10%)
- 55 x 385 l/person/day = 21,175 l/day = 21.175 m^3/day.
- 0.245 l/sec Dry Weather Flow (DWF)
- 1.470 l/sec (Peak – 6 DWF)

The previously permitted development comprises of 146-bedroom nursing home and a 14-bedroom retirement home, which accounted for the following effluent generation:

- 160 x 350 l/person/day = 56,000 l/day = 56.0 m^3/day;
- 0.648 l/sec Dry Weather Flow (DWF).

[1] 1no. staff per 50m^2

- 3.889 l/sec (6DWF)

This results in 0.245 l/sec increase in the Dry Weather Flow and 1.470 l/sec in Peak flow.

This increase in the foul generated by the proposed development shall not have adverse effect on the surrounding foul infrastructure and can be accommodated by the previously proposed arrangements as permitted under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19).

A Pre-Connection Enquiry (PCE) was lodged with Irish Water and received a favourable response for the previously permitted application under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP-304708-19). Refer to **Appendix C** for Correspondence with Irish Water.

5.0 POTABLE WATER INFRASTRUCTURE

Records obtained from Irish Water indicate a public watermains adjacent to the development site on Convent Road and New Road.

It was proposed to make two number connections to the existing watermain. One connection from the existing main on New Road to the east and another from the existing main on Convent Road to the west as submitted under planning application SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19). This connection shall be retained to serve the proposed development.

The proposed development consists of geriatric day-care centre of approx. GFA 1,267m^2 with an anticipated staffing level of 25no. staff[2] and a maximum visitor occupancy of 30no. visitors. Irish Water recommends an effluent volume of 350l/person/day.

This equated to potable water demand of:

- 55 x 350 l/person/day = 19,250 l/day = 19.25 m^3/day
- 0.222 l/sec (Average Demand);
- 1.11 l/sec (Peak Demand - 5 x Average Demand).

The previously permitted development comprises of 146-bedroom nursing home and a 14-bedroom retirement home, which accounted for the following water demand.

- 160 x 350 l/person/day = 56,000 l/day = 56.0 m^3/day;
- Average Demand = 0.648 l /sec
- Peak Demand = 3.25 l/sec.

[2] 1no. staff per 50m^2

This results in 0.222 l/sec increase in the Dry Weather Flow and 1.11 l/sec in Peak flow.

This increase in the demand for potable water can be accommodated by the existing watermain on Convent Road as permitted under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19. As mentioned above a PCE form was submitted for the permitted nursing home and received a favourable response. The minor increase in potable water demand shall have a negligible impact on services. See **Appendix C** Correspondence with Irish Water for details.

6.0 SURFACE WATER INFRASTRUCTURE

Irish Water drainage records indicate a 225mm diameter public storm drain to the west of the development site.

Surface water infrastructure is under the jurisdiction of South Dublin County Council. A key requirement for surface water disposal is to incorporate Sustainable urban Drainage Systems (SuDS) into any proposed scheme.

The pervious planning application permitted under SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19) had proposed to provide attenuation in 2no. areas. The first area catered for the rear of the development including the access roads and car parking spaces. Limiting the discharge from this area to 2.0 l/s an attenuation volume of 190m^3 for the 1-in-100-year storm event was provided.

A secondary attenuation system shall then be installed downstream to cater of the remainder of the development and the final discharge from here shall be limited to 2.75 l/s (the total for the site) and an attenuation tank of 147m^3 shall be provided.

This surface water arrangement shall be retained as the requirement for the attenuation volume still remains the same for the overall development area 1.34hectors.

The following SuDS proposals were permitted under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19), these SuDS features shall be retained for the proposed development;

- Permeable Paving to all new parking spaces;
- Soakaways/infiltration trenches
- Water butts for local irrigation and washing down;
- Low water usage appliances, to restrict potable water demand;

- Attenuation tank with flow control device, sized to contain a 1-in-100-year storm event and increased by 10% for predicted climate change to limit the surface water discharge from the site during extreme rainfall events.

Under this application there is no increase in hard standing to that previously permitted under planning ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19).

7.0 TRAFFIC AND TRANSPORT STATEMENT

7.1 Existing Traffic Flows

The Clondalkin Nursing Home planning application, which was permitted under SDCC planning reg. ref. SD18A/0328 (An Bord Pleanála under ABP-304708-19) adjacent to the subject site was supported by a Traffic and Transport Assessment prepared by CS Consulting. This was informed by traffic surveys conducted by Tracsis plc, on Tuesday the 12th of December 2017. The traffic survey was conducted between 07:00 and 19:00, at 5no. key junctions on New Road and on Convent Road. Count information was obtained for the following junction;

J1. Main Street (L1017) / New Road (L5260)
(3-arm priority junction with one-way major arm)

J2. New Road (L5260) / Coláiste Bríde school access
(3-arm priority junction)

J3. New Road (L5260) / Knockmeenagh Road / St. Brigid's Road
(staggered 4-arm priority junction)

J4. New Road (L5260) / Presentation Convent eastern access
(3-arm priority junction)

J5. Convent Road (L1008) / Presentation Convent western access
(3-arm priority junction)

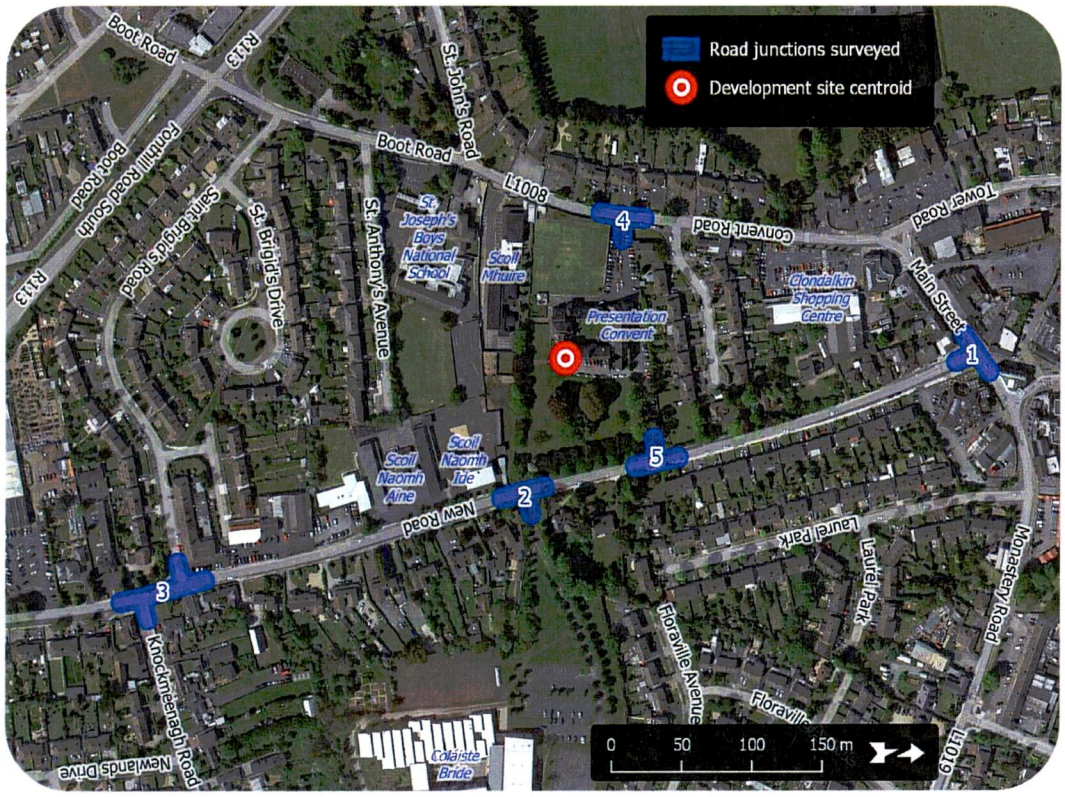


Figure 4 – Surveyed Road Junctions
(map data & imagery: EPA, OSM Contributors, Google)

The peak hour traffic flows across all three survey sites were found to be between 08:00 and 09:00 (AM peak hour) and between 17:00 and 18:00 (PM peak hour).

The 2017 weekday peak hour traffic movements at the 5no. traffic survey junctions have been extracted from the CS Consulting Traffic and Transport Assessment, which was submitted previously for the permitted planning application under SDCC reg. ref. SD18A/0328 (An Bord Pleanála under ABP-304708-19). These surveyed traffic flows have then been scaled up to baseline levels for the year 2023 using *Unit 5.5 of the TII Project Appraisal Guidelines (Link-Based Traffic Growth Forecasting)* for this application. The surveyed year and baseline year peak hour flows are included in the traffic flow matrices given in **Appendix E** and **Appendix F** and a summary is given in **Table 1**.

Table 1 – Total Weekday Peak Hour Traffic Flows

Time Period	Total Junction Traffic Movements (in Passenger Car Units)	
	2017 Survey	2023 Baseline
Main Street (L1017) / New Road (L5260)		
AM Peak	1121	1234
PM Peak	1013	1116
New Road (L5260) / Coláiste Bríde school access		
AM Peak	623	421
PM Peak	421	463
New Road (L5260) / Knockmeenagh Road / St. Brigid's Road		
AM Peak	715	788
PM Peak	531	585
New Road (L5260) / Presentation Convent eastern access		
AM Peak	805	888
PM Peak	299	740
Convent Road (L1008) / Presentation Convent western access		
AM Peak	568	625
PM Peak	375	412

7.2 Subject Development Trip Generation

Trip generation factors from the TRICS database have been used to predict the trip generation to and from the proposed development, for both the AM and PM peak hour periods. Full details of the TRICS data used in the assessments are provided in **Appendix D**.

The subject development comprises of a geriatric day care centre with a GFA of approx. 1,267 sqm. The TRICS sub-category '05 Health / E – Clinics' has been employed, being the most appropriate for this type of development. This is described in the TRICS land use category definitions as follows;

Clinics

"Health centres covering specialist care, not to be confused with GP surgeries. Also includes alternative therapy centres, sports injury centres,

Osteopathy centres, etc. Trip rates are calculated by Gross Floor Area or Employees."

To ensure a robust assessment of the subject development's trip generation potential, the highest average morning and afternoon trip rates have been selected for the AM and PM peak hour assessments, irrespective of whether these occur during the background traffic peak hours. The trip rates selected are given in **Table 2.**

Table 2 – Subject Development TRICS Trip Generation Rates

	Geriatric Centre	
	Arrivals per 100sqm	Departures per 100sqm
AM Peak	0.813	0.163
PM Peak	0.325	0.325

Trip numbers in this instance have been calculated as a function of the TRICS trip rates given in **Table 2** above and the GFA of the proposed geriatric day care centre (1,267sqm). The following trip generation figures are calculated:

Table 3 – Subject Development Trip Generation from TRICS

	Geriatric Centre		Total trips
	Arrivals	Departures	
AM Peak	10	2	**12**
PM Peak	4	4	**8**

7.3 Subject Development Trip Distribution

Vehicular traffic to and from the subject development shall arrive and depart along New Road. The development's vehicular access shall be positioned slightly offset from the existing access to Coláiste Bríde as

permitted under SDCC planning reg. ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19), therefore, this existing 3-arm priority junction shall become a staggered 4-arm priority junction. It is assumed that the north/south distribution of development traffic shall follow the directional splits currently shown by the combined traffic to and from the Presentation Convent and associated Church (at surveyed junctions 4 and 5). These are given in **Table 4**.

Table 4 – Directional Splits of Convent Traffic (Survey Junctions 4 & 5)

Arrivals TO Convent & Church			
From	North	South	TOTAL
AM Peak	67%	33%	100%
PM Peak	57%	43%	100%
Departures FROM Convent & Church			
To	North	South	TOTAL
AM Peak	57%	43%	100%
PM Peak	29%	71%	100%

It is assumed that no vehicular traffic related to the proposed development shall enter or exit either of the existing accesses to the Presentation Convent and associated Church (surveyed junctions 4 and 5). At the vehicular access along New Road as permitted under SDCC planning reg. ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19), it is assumed that vehicular traffic to and from the subject development shall be distributed according to the directional splits currently observed at these junctions.

7.4 Proportional Increase in Traffic due to Subject Development

Table 5 – Increases in Traffic at Junction Survey Sites

Junction Survey Site	Baseline Traffic Flows at Junction (Year 2023)		Development-Related Trips Through Junction		Proportional Increase	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
J1	1234	1013	8	3	0.7%	0.3%
J2	687	463	12	8	1.8%	1.8%
J3	788	585	4	5	0.5%	0.8%
J4	805	672	0	0	0.0%	0.0%
J5	625	412	8	3	1.3%	0.8%

The TII *Traffic and Transport Assessment Guidelines* (PE-PDV-02045) advise that Transport Assessments should generally be applied where traffic to and from a development is predicted to exceed 10% of the existing background traffic on the adjoining road (or 5% at sensitive locations).

As shown in **Table 5**, vehicular traffic generated by the subject development shall not result in an increase of more than 10% in total traffic flows at the surveyed junctions, in either peak hour period. Therefore, no further assessment has been carried out for any of the surrounding road junctions.

7.5 Potential Increase in Traffic due to Committed Development and Subject Development

Trip generation factors from the TRICS database have been used to predict the trip generation to and from the Committed Development – Clondalkin Nursing Home, permitted planning under SDCC planning reg. ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19), for both the AM and

PM peak hour periods. Full details of the TRICS data used in the assessments are provided in **Appendix D**.

The committed development comprises a 146-bedroom nursing home and 14no. retirement home bedrooms. The TRICS sub-categories '05 Health / F – Care Home' has been employed, being the most appropriate for this type of development. This is described in the TRICS land use category definitions as follows;

Care Home

"A care home in a residential setting where a number of older people live, usually in single rooms, with access to on-site care services. These sites are not registered to meet a specific care need, so not to be confused with the "Care Home (specific condition)" land use sub-category. Trip rates are calculated by Residents or Parking Spaces."

To ensure a robust assessment of the committed development's trip generation potential, the highest average morning and afternoon trip rates have been selected for the AM and PM peak hour assessments, irrespective of whether these occur during the background traffic peak hours. The trip rates selected are given in **Table 6**.

Table 6 – Committed Development TRICS Trip Generation Rates

	Nursing Home	
	Arrivals per bedroom	Departures per bedroom
AM Peak	0.083	0.019
PM Peak	0.045	0.064

Trip numbers in this instance have been calculated as a function of the TRICS trip rates given in **Table 6** above and the number of bedrooms (160no.) as granted permission under SDCC planning reg. ref. SD18A/0328

(An Bord Pleanála under ABP- 304708-19). The following trip generation figures are calculated:

Table 7 – Committed Development Trip Generation from TRICS

	Nursing Home		Total trips
	Arrivals	Departures	
AM Peak	13	3	**16**
PM Peak	7	10	**17**

Table 8 below gives the combined vehicular trips including committed development and the subject development.

Table 8 – Combined Trip Generation

	Nursing Home		Geriatric Centre		Total trips
	Arrivals	Departures	Arrivals	Departures	
AM Peak	13	3	10	2	**28**
PM Peak	7	10	4	4	**25**

As shown in **Table 9** below, the combined vehicular traffic generated by committed development and the subject development shall also not result in an increase of more than 10% in total traffic flows at the surveyed junctions, in either peak hour period. A maximum increase of 5.5% has been observed during the PM peak hour at Junction 2. Therefore, no further assessment has been carried out for any of the surrounding road junctions.

Table 9 – Increases in Traffic due to Committed Dev and Subject Dev

Junction Survey Site	Baseline Traffic Flows at Junction (Year 2023)		CD + SC[3] - Related Trips Through Junction		Proportional Increase	
	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
J1	1234	1013	19	11	1.5%	0.9%
J2	687	463	29	26	4.2%	5.5%
J3	788	585	10	15	1.3%	2.6%
J4	805	672	0	0	0.0%	0.0%
J5	625	412	19	11	3.0%	2.6%

7.6 Development Access

Vehicular access to the proposed development shall be via a priority-controlled junction on New Road, at the south-eastern boundary of the development site and facing the existing access to Coláiste Bríde as previously permitted under planning ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19). There is no proposed change in the surrounding road network, development access, or car parking to that previously permitted under planning ref. SD18A/0328 (An Bord Pleanála under ABP-304708-19).

7.7 Car and Bicycle Parking

It is not proposed to provide any additional car parking for the proposed development. A total of 39no. car parking spaces (including 3no. disabled-accessible spaces) and 60no. bicycle parking spaces were provided for the previously permitted planning application SDDC Reg. Ref. No. SD18A/0328

[3] CD – Committed Development, SD – Subject Development

(An Bord Pleanála under ABP- 304708-19). All the car parking spaces shall be used as shared spaces for both the permitted nursing home and the proposed daycare centre.

7.8 Electric Vehicle Charging Provision

Table 10 – Electric Vehicle Parking Provision

Proposed Car Parking Provision	Standard Required Proportion	Electric Charging Spaces Required	Electric Charging Spaces Proposed
Development Total			
39 spaces	20%	8	8

Facilities for the charging of battery electric vehicles (BEVs) shall be provided at 8no. parking spaces, representing 20% of the overall development's car parking provision as permitted under SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19), therefore satisfying the standards given in *SDCC Development Plan 2022-2028*.

7.9 Car Parking Assessment

Table 11 and **Table 12** gives the average TRICS trip generation rates for Nursing Home facilities and Day Care centres in locations similar to the permitted nursing homes and proposed geriatric day care centre develops over a 14-hour period from 07:00 to 21:00 (the maximum time range interrogable in TRICS for these land use), for cars only. From these trip rates, hourly car arrivals and departures trips have been calculated for the permitted nursing home and proposed geriatric day care centre. See **Appendix D** for TRICS database.

Table 11 – TRICS 14-hour Nursing Home Car Trip Generation

Time Period	TRICS Rates (per bedroom)		Car Trips (160no. bedroom)		Net Inbound Car Trips
	Arrivals	Departures	Arrivals	Departures	
07:00 - 08:00	**0.083**	**0.019**	**13**	**3**	**10**
08:00 - 09:00	0.038	0.019	6	3	3
09:00 - 10:00	0.013	0.006	2	1	1
10:00 - 11:00	0.026	0.019	4	3	1
11:00 - 12:00	0.032	0.032	5	5	0
12:00 - 13:00	0.032	0.013	5	2	3
13:00 - 14:00	0.019	0.032	3	5	-2
14:00 - 15:00	0.064	0.026	10	4	6
15:00 - 16:00	**0.045**	**0.064**	**7**	**10**	**-3**
16:00 - 17:00	0.038	0.045	6	7	-1
17:00 - 18:00	0.026	0.077	4	12	-8
18:00 - 19:00	0.013	0.058	2	9	-7
19:00 - 20:00	0.006	0.038	1	6	-5
20:00 - 21:00	0.026	0.058	4	9	-5

The peak hour as seen from the TRICS data for the Nursing home facility is between 07:00 – 08:00 (AM Peak hour), and 15:00 – 16:00 (PM Peak hour).

Table 12 – TRICS 14-hour Day Care Centre Car Trip Generation

Time Period	TRICS Rates (per 100 sqm GFA)		Car Trips (1,267 sqm GFA)		Net Inbound Car Trips
	Arrivals	Departures	Arrivals	Departures	
07:00 - 08:00	0	0	0	0	0
08:00 - 09:00	0.325	0	4	0	4
09:00 - 10:00	**0.813**	**0.163**	**10**	**2**	**8**
10:00 - 11:00	0.65	0.325	8	4	4
11:00 - 12:00	**0.325**	**0.325**	**4**	**4**	**0**
12:00 - 13:00	0	0.163	0	2	-2
13:00 - 14:00	0	0	0	0	0
14:00 - 15:00	0.325	0.163	4	2	2
15:00 - 16:00	0.488	0.325	6	4	2
16:00 - 17:00	0.325	0.813	4	10	-6
17:00 - 18:00	0	0.488	0	6	-6
18:00 - 19:00	0	0.488	0	6	-6
19:00 - 20:00	0	0	0	0	0
20:00 - 21:00	0	0	0	0	0

The peak hour as seen from the TRICS data for the Day Care centre is between 09:00 – 10:00 (AM Peak hour), and 11:00 – 12:00 (Mid-day departure peak). The proposed geriatric day care centre has a GFA of approx. 1,267 sqm, and the trip generation has been calculated per 100 sqm.

No over-lap in peak vehicle hours (both arriving and departure) has been observed between the permitted nursing home facility and the proposed geriatric day care centre.

Table 13 – Parking Generated by Overall Development

Time Period	Spaces Occupied at Start of the hour	Net Inbound Car Trips	Spaces Occupied at End of Hour	Total permitted car parking spaces
07:00 - 08:00	0	10	10	39
08:00 - 09:00	10	7	17	39
09:00 - 10:00	17	9	26	39
10:00 - 11:00	26	5	32	39
11:00 - 12:00	32	0	32	39
12:00 - 13:00	32	1	32	39
13:00 - 14:00	32	-2	30	39
14:00 - 15:00	**30**	**8**	**38**	**39**
15:00 - 16:00	38	-1	37	39
16:00 - 17:00	37	-7	30	39
17:00 - 18:00	30	-14	16	39
18:00 - 19:00	16	-13	3	39
19:00 - 20:00	3	-5	0	39

From the **Table 13** above, it should be noted that a maximum of 38no. spaces shall be required at any time during the day for both permitted nursing home and proposed day care centre. As mentioned earlier, a total of 39no. car parking spaces were permitted previously under planning application SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP-304708-19).

Car parking spaces shall be monitored and controlled by the management company via a Demand Management Strategy (DMS). The DMS will prioritise staff working night shifts and emphasize the importance of the Mobility Management Plan framework proposed, thereby maximising the occupancy rate of the permitted 39no. car parking spaces rather than the implementation of additional car parking spaces which would in turn encourage vehicular trips to the development by car.

13no. car parking spaces located adjacent to the proposed development building shall primarily, but not exclusively be allocated to the Aging Well Centre.

Staff working night shifts shall be given priority on the availability of a car parking space as the alternative transport modes at this time would be less frequent and would be during off peak operation hours. The car parking spaces occupied by the night shift staff shall have no impact on the day time operations of the Ageing Well Centre.

Staff working day shifts shall have minimal or no access to the car parking spaces and shall be encouraged to commute using the public transport facilities (see sub-section 7.11). A Mobility Management Plan (MMP) framework shall be implemented for the proposed development to promote and enhance sustainable modes of travel for staff and visitors. Staff and visitors of the proposed development shall be informed about the existing alternative modes of transport to the private car and shall be given required support and encouragement to travel in a sustainable way.

In advance of opening the adjacent Nursing Home which is currently in the final phase of construction (permitted planning under SDCC planning reg. ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19)), the clients of the Nursing Home have been conducting a recruitment campaign. The results of this recruitment campaign shows that 80% of the expressions of interest come from the surrounding Clondalkin area. Therefore, the recruited staff who reside in close proximity of the site shall be encouraged and supported to commute to work by walking, cycling or using public transport and therefore further reducing the demand on car parking spaces.

Therefore, the 39no. car parking spaces permitted under planning ref. SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19) can be used as shared spaces for both permitted and proposed developments.

7.10 Bicycle spaces

The bicycle parking provision of the proposed development has been assessed with respect to the South Dublin County Council Development Plan 2022 -2028.

Table 14 – Bicycle Parking Provision

Use	Cycle Parking Minimum	Quantum	Minimum Provision	Proposed Provision
Long-stay	1 space per 5 staff	25 staff[4]	5 spaces	6 spaces
Short-stay	0.5 per consulting room	8no. consulting rooms	4 spaces	4 spaces
TOTALS			9 spaces	10 spaces

60no. bicycle parking spaces were provided for the previously permitted planning application SDDC Reg. Ref. No. SD18A/0328.

In addition, it is now proposed to provide a total of 10no. bicycle parking spaces in a safe, secure area for the proposed development.

[4] Assumed staff number.

7.11 Public Transport Services

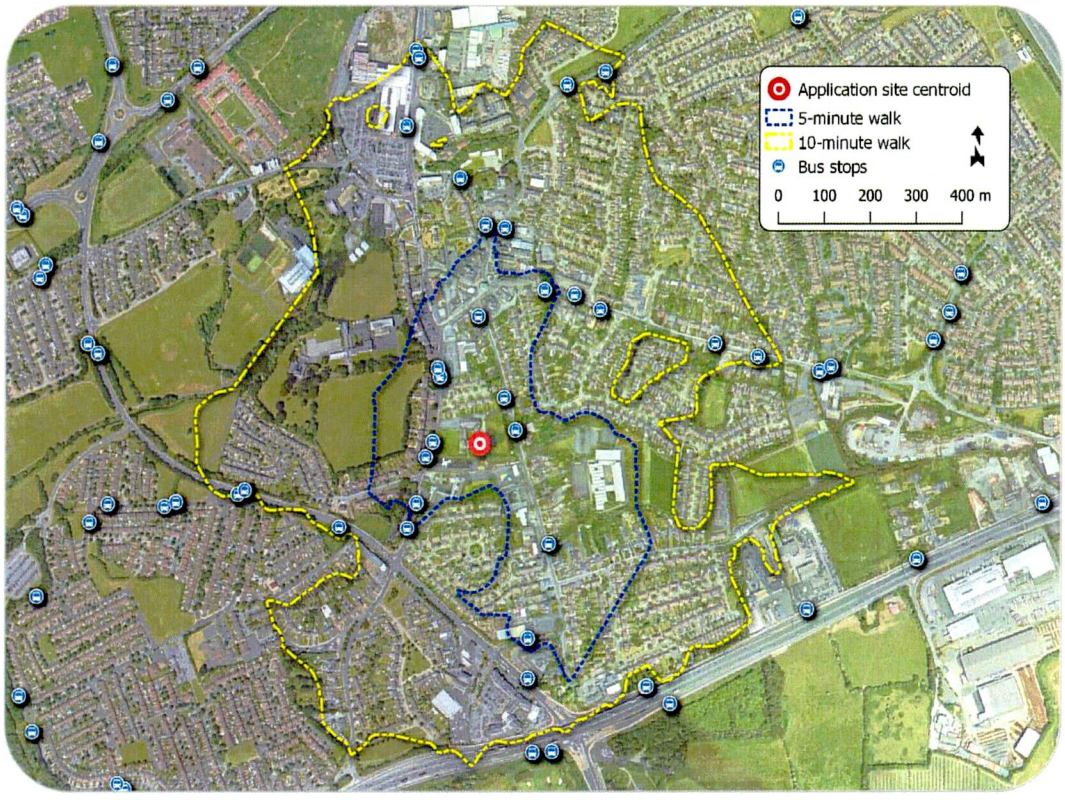


Figure 5 – Walking times and public transport facilities
(map data & imagery: NTA, OSM Contributors, OSi, Google)

Bus stops within 400m of the development site are served by 7no. Dublin Bus routes, which connect it to Dublin city centre and to the city's western, northern, and south-eastern suburbs. Details of which are given in the **Table 15** below.

In addition, the development site is also located within a 25-minute walk of the Red Cow light rail stop on the LUAS Red Line.

Table 15 – Bus services in the vicinity of the development

Route No.	Operator	Destinations	Weekday Services	Peak Interval
13	Dublin Bus	Harristown / Grange Castle	85	10 mins
68, 68a	Dublin Bus	Hawkins St. / Newcastle / Greenogue Business	20	30 mins
69	Dublin Bus	Hawkins St. / Rathcoole	18	45 mins
76, 76a	Go-Ahead	Glenaulin / Belgard Square South	51	20 mins

8.0 SUMMARY AND CONCLUSION

The main observations and conclusions of this study are as follows:

- All the car parking spaces shall be used as shared spaces for both the permitted nursing home and the proposed daycare centre.
- No over-lap in either development's peak hour parking demand (both arriving and departure) is anticipated between the permitted nursing home facility and the proposed geriatric day care centre.
- The subject development shall result in 12no. vehicular traffic movements arriving and departing in AM peak hour period and 8no. vehicular traffic movements arriving and departing in PM peak hour period. Therefore, it is not expected to result in an increase of more than 10% in total traffic flows at any adjoining roads, in either peak hour period due to the minimal level of vehicular traffic forecasted. As such, further assessment is not required.
- The combined vehicular traffic generated by the Clondalkin Nursing Home permitted under SDCC planning reg. ref. SD18A/0328 (An Bord Pleanála under ABP- 304708-19), and the subject development is also not expected to result in an increase of more than 10% in total traffic flows at any adjoining roads, in either peak hour period.
- Facilities for the charging of battery electric vehicles (BEVs) shall be provided at 8no. parking spaces, representing 20% of the overall development's car parking provision as permitted under SDDC Reg. Ref. No. SD18A/0328 (An Bord Pleanála under ABP- 304708-19).

Appendix A: Irish Water Drainage Records

Irish Water Webmap

November 21, 2017

Legend

Stormwater Gravity Mains (Irish Water Owned)
- Surface

Stormwater Gravity Mains (Non-Irish Water Owned)
- Surface

Storm Manholes
- Cascade
- Catchpit
- Hatchbox
- Lamphole
- Standard
- Other; Unknown

Storm Inlets
- Gully
- Standard
- Other; Unknown

Storm Fittings
- Vent/Col
- Other; Unknown

Storm Discharge Points
- Outfall
- Overflow
- Soakaway
- Other; Unknown
- Storm Culverts
- Storm Clean Outs

Sewer Gravity Mains (Irish Water owned)
- Combined
- Foul
- Overflow
- Unknown

Sewer Gravity Mains (Non-Irish Water owned)
- Combined
- Foul
- Overflow
- Unknown

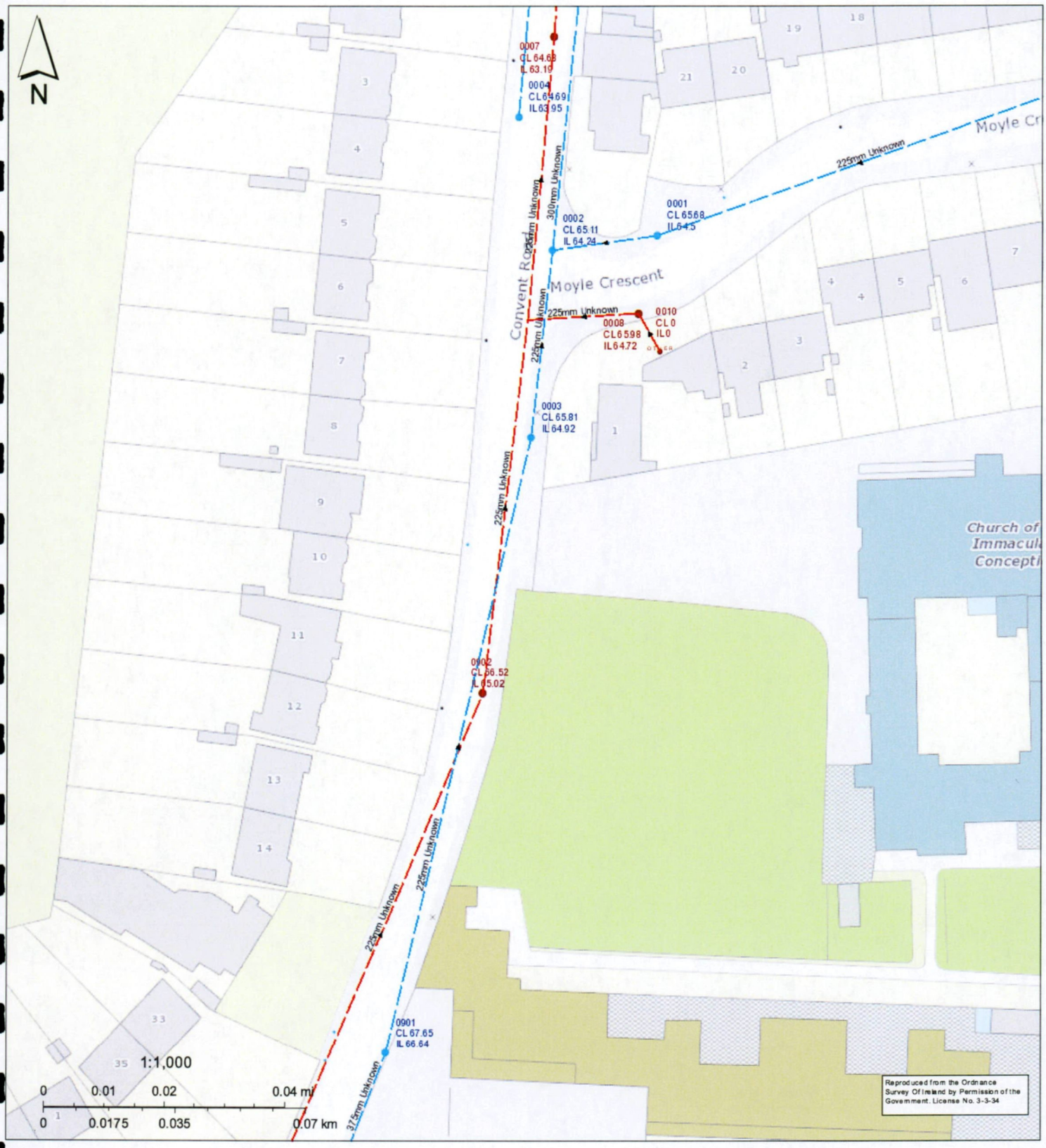
Sewer Pressurized Mains (Irish Water owned)
- Combined
- Foul
- Overflow
- Unknown

Sewer Pressurized Mains (Non-Irish Water owned)
- Combined
- Foul
- Overflow
- Unknown

Irish Water gives this information as to the position of its underground network as a general guide only on the strict understanding that it is based on the best available information provided by each Local Authority in Ireland. It should not be relied upon in the event of excavations or other works being carried out in the vicinity of the network. The onus is on the parties carrying out the works to ensure the exact location of the network is identified prior to mechanical works being carried out. Service pipes are not generally shown but their presence should be anticipated.

"Gas Networks Ireland (GNI), their affiliates and assigns, accept nc responsibility for any information contained in this document concernin location and technical designation of the gas distribution and transmiss network ("the Information"). Any representations and warranties express implied, are excluded to the fullest extent permitted by law. No liability shall be accepted for any loss or damage including, without limitation, direct, indirect special, incidental, punitive or consequential loss including loss of profits arising out of or in connection with the use of the Information (including maps o mapping data). NOTE: DIAL BEFORE YOU DIG Phone 1850 427 747 or e-m dig@gasnetworks.ie – The actual position of the gas/electricity distribution a transmission network must be verified on site before any mechanica excavating takes place. If any mechanical excavation is proposed, hard copy maps must be requested from GNI re gas. All work in the vicinity of the gas distribution and transmission network must be completed in accordance w the current edition of the Health & Safety Authority publication, 'Code Practice For Avoiding Danger From Underground Services' which is available from the Health and Safety Authority (1890 28 93 89) or can be downloaded

Irish Water Webmap



November 22, 2017

Legend

Stormwater Gravity Mains (Irish Water Owned)
- Surface

Stormwater Gravity Mains (Non-Irish Water Owned)
- Surface

Storm Manholes
- Cascade
- Catchpit
- Hatchbox
- Lamphole
- Standard
- Other; Unknown

Storm Inlets
- Gully
- Standard
- Other; Unknown

Storm Fittings
- Vent/Col
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- Overflow
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- Overflow
- Unknown

Sewer Pressurized Mains (Non-Irish Water owned)
- Combined
- Foul
- Overflow
- Unknown

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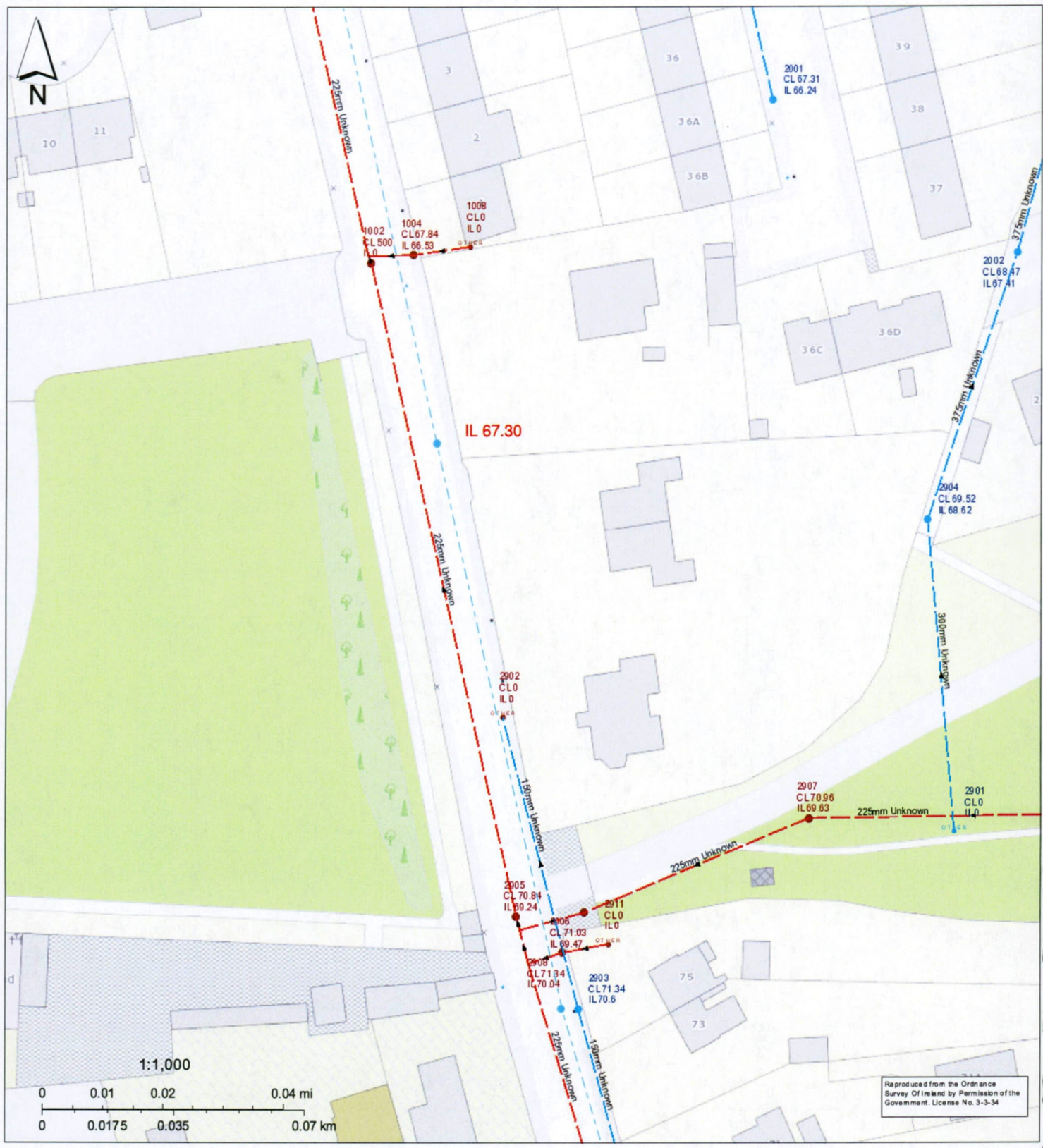
Irish Water Webmap



November 22, 2017

Legend

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Storm Discharge Points
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Irish Water Webmap

November 21, 2017

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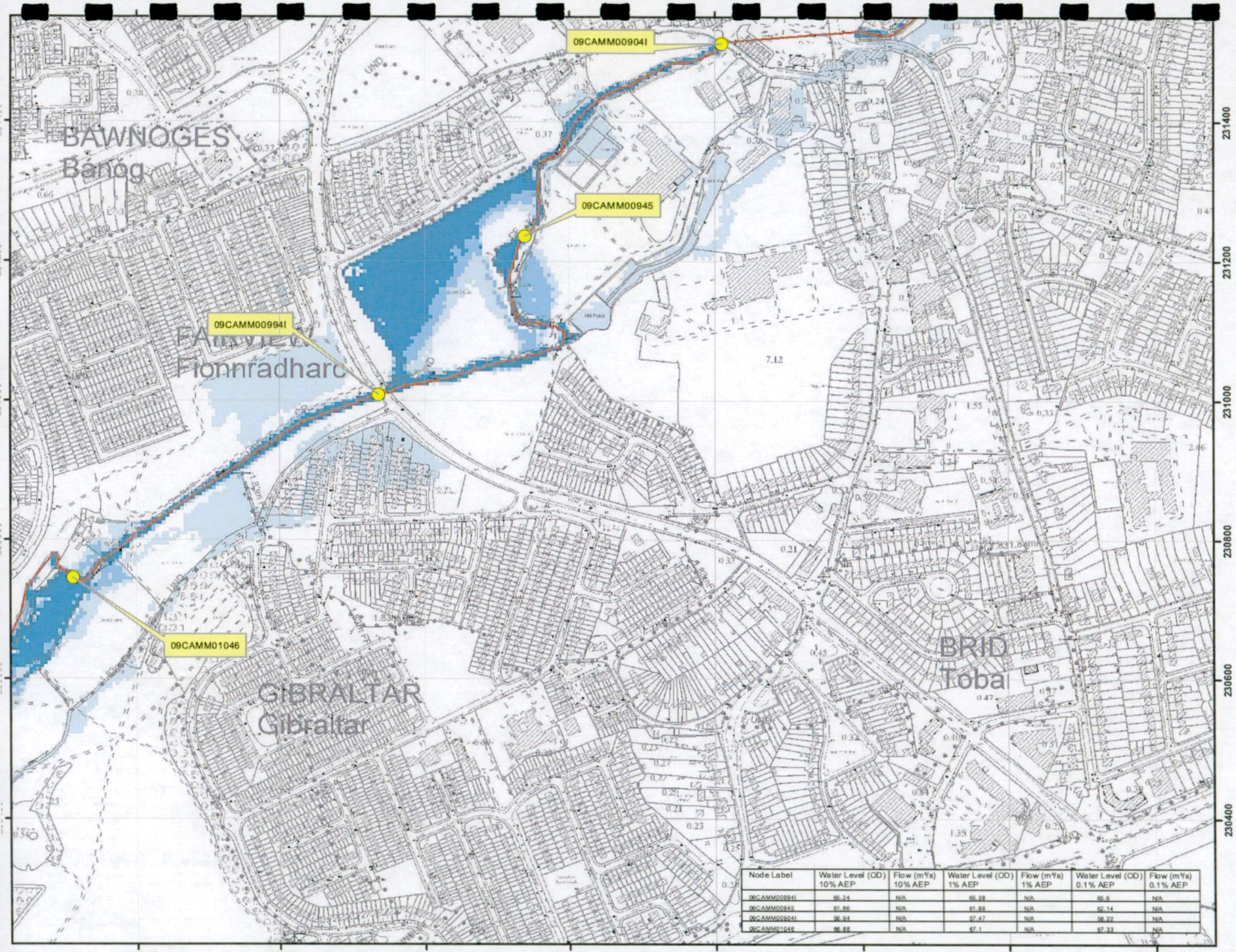
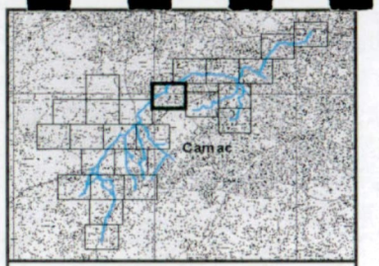
Legend

- **Air Control Valves**
  - Non-return
  - Hydro
  - Orifice Plate
  - PRV
  - PSV
  - Other
- **Boundary Valves**
  - Open
  - Closed
  - Part Closed
- **Boundary Valves**
  - Open
  - Closed
  - Part Closed
  - Air Control Valves
  - Water Stop Valves
- **Non Boundary Meter**
  - Meter
  - Group Scheme
  - Source
- **Boundary Meter**
  - District (Boundary Meter)
- **Water Hydrants**
  - Fire Hydrant
  - Fire Hydrant/Washout
  - Washout
  - Treatment Plant
- **Reservoir**
  - Potable
  - Raw Water
  - Pump Stations
  - Water Network Structures
  - Abstraction Point
  - Kisok
  - Water Service Connections
- **Water Fittings**
  - Cap
  - Other Fitting
  - Water Distribution Chambers
  - Pressure Monitoring Point
- **Water Mains(Irish Water Owned)**
  - Untreated
  - Potable Water
- **Water Mains(Non Irish Water Owned)**
  - Untreated
  - Potable Water
- **Water Lateral Lines**
  - Irish Water
  - Non IW
  - Water Abandoned Lines
  - Water Casings

Appendix B: CFRAMS Map and South Dublin Flood Zoning Map



Node Label	Water Level (OD) 10% AEP	Flow (m³/s) 10% AEP	Water Level (OD) 1% AEP	Flow (m³/s) 1% AEP	Water Level (OD) 0.1% AEP	Flow (m³/s) 0.1% AEP
09CAMM00994I	65.24	N/A	65.39	N/A	65.6	N/A
09CAMM00945	61.86	N/A	61.88	N/A	62.14	N/A
09CAMM00904I	56.94	N/A	57.47	N/A	58.22	N/A
09CAMM01046	56.88	N/A	57.1	N/A	57.33	N/A



IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

Legend

- 10% Fluvial AEP Event
- 1% Fluvial AEP Event
- 0.1% Fluvial AEP Event
- Modelled River Centreline
- AFA Extents
- Embankment
- Wall
- Defended Area
- 1% AEP — Standard of Protection of Flood Defence (Walls / Embankments)
- 1% AEP
- Node Point
- Node ID — Node Label

FINAL

REV:	NOTE:	DATE:
01	SOP label updated (Pg 21) Removal of Def. Area (Pg 21)	13/11/2017

EASTERN CFRAM STUDY

The Office of Public Works
Jonathan Swift Street
Trim
Co Meath

Elmwood House
74 Boucher Road
Belfast
BT12 6RZ

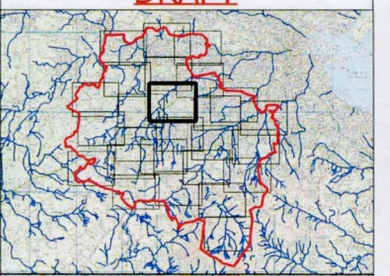
T +44(0) 28 90 667914
F +44(0) 28 90 668286
W www.rpsgroup.com
E ireland@rpsgroup.com

Map:	Camac Fluvial Flood Extents
Map Type:	EXTENT
Source:	FLUVIAL
Map Area:	HPW
Scenario:	CURRENT
Drawn By :	C.McG. Date : 13 November 2017
Checked By :	A.S. Date : 13 November 2017
Approved By :	S.P. Date : 13 November 2017
Drawing No. :	E09CAM_EXFCD_F1_16
Map Series :	Page 16 of 24
Drawing Scale :	1:5,000 @A3

Legend

- Flood Zone A - 1% AEP Flood Extent (1 in 100 chance in any given year)
- Flood Zone B - 1% AEP Flood Extent (1 in 1000 chance in any given year)
- Defended Area
- Watercourse Centreline
- Indicative Flood Extents
- County Boundary

DRAFT



Comhairle Contae Átha Cliath Theas
South Dublin County Council

Project Strategic Flood Risk Assessment

Title Fluvial Flood Zone Mapping

Figure MDW657_0009

RPS
RPS Consulting Engineers
West Pier Business Campus
Dun Laoghaire
Co. Dublin
Tel: +353 1 488 2900
Fax: +353 1 462 0814

Issue Details

Drawn:	BT	Project No.	MDW0657
Checked:	JH	File Ref	MDW0657QG0010F02
Approved:	JH		
Scale:	1:6000 @ A1	Drawing No.	Projection
Date:	14/01/2016	9 of 26	IG

Notes
1. The viewer of this map should refer to the SFRA Report and Disclaimer

Appendix C: Correspondence with Irish Water

Gessica Silva
19-22 Dame Street
Dublin

Uisce Éireann
Bosca OP 6000
Baile Átha Cliath 1
Éire

Irish Water
PO Box 6000
Dublin 1
Ireland

T: +353 1 89 25000
F: +353 1 89 25001
www.water.ie

08 August 2018

Dear Sir/Madam,

Re: Customer Reference No 5507690942 pre-connection enquiry - Subject to contract | Contract denied
[Connection for 155 bed residential care home]

Irish Water has reviewed your pre-connection enquiry in relation to water and wastewater connections at Convent Road Clondalking Dublin. Based upon the details you have provided with your pre-connection enquiry and on the capacity currently available as assessed by Irish Water, we wish to advise you that, subject to a valid connection agreement being put in place, your proposed connection to the Irish Water network can be facilitated.

You are advised that this correspondence does not constitute an offer in whole or in part to provide a connection to any Irish Water infrastructure and is provided subject to a connection agreement being signed at a later date.

A connection agreement can be applied for by completing the connection application form available at **www.water.ie/connections**. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities.

If you have any further questions, please contact us on **1850 278 278** or **+353 1 707 2828, 8.00am-4.30pm, Mon-Fri** or email **newconnections@water.ie**. For further information, visit **www.water.ie/connections**

Yours sincerely,

Maria O'Dwyer
Connections and Developer Services

Appendix D: TRICS Database

Calculation Reference: AUDIT-656801-220803-0837

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : E - CLINICS
MULTI-MODAL CARS

Selected regions and areas:
08 NORTH WEST
MS MERSEYSIDE 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 615 to 615 (units: sqm)
Range Selected by User: 60 to 4000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/14 to 26/11/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:
Wednesday 1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:
Edge of Town Centre 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:
Built-Up Zone 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:
E(e) 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **MS-05-E-01** **COSMETIC SURGERY CLINIC** **MERSEYSIDE**
RODNEY STREET
LIVERPOOL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 615 sqm
Survey date: WEDNESDAY *28/11/18* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 05 - HEALTH/E - CLINICS

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00	1	615	0.325	1	615	0.000	1	615	0.325
09:00 - 10:00	**1**	**615**	**0.813**	1	615	0.163	1	615	0.976
10:00 - 11:00	1	615	0.650	1	615	0.325	1	615	0.975
11:00 - 12:00	1	615	0.325	1	615	0.325	1	615	0.650
12:00 - 13:00	1	615	0.000	1	615	0.163	1	615	0.163
13:00 - 14:00	1	615	0.000	1	615	0.000	1	615	0.000
14:00 - 15:00	1	615	0.325	1	615	0.163	1	615	0.488
15:00 - 16:00	1	615	0.488	1	615	0.325	1	615	0.813
16:00 - 17:00	1	615	0.325	**1**	**615**	**0.813**	**1**	**615**	**1.138**
17:00 - 18:00	1	615	0.000	1	615	0.488	1	615	0.488
18:00 - 19:00	1	615	0.000	1	615	0.488	1	615	0.488
19:00 - 20:00	1	615	0.000	1	615	0.000	1	615	0.000
20:00 - 21:00	1	615	0.000	1	615	0.000	1	615	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.251			3.253			6.504

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-656801-220803-0805

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : F - CARE HOME (ELDERLY RESIDENTIAL)
MULTI-MODAL CARS

Selected regions and areas:

04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days
11	**SCOTLAND**		
	EB	CITY OF EDINBURGH	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of residents
Actual Range: 48 to 56 (units:)
Range Selected by User: 17 to 180 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/14 to 09/11/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Thursday	1 days
Saturday	1 days
Sunday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C2	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included
Population within 1 mile:

25,001 to 50,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 **CA-05-F-01** **NURSING HOME** **CAMBRIDGESHIRE**
PARK CRESCENT
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 48
Survey date: SUNDAY *16/10/16* *Survey Type: MANUAL*

2 **EB-05-F-01** **NURSING HOME** **CITY OF EDINBURGH**
CRAIGHOUSE TERRACE
EDINBURGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 56
Survey date: SATURDAY *19/03/16* *Survey Type: MANUAL*

3 **TW-05-F-03** **NURSING HOME** **TYNE & WEAR**
MOORE STREET
GATESHEAD
FELLING SHORE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 52
Survey date: THURSDAY *02/05/19* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

MULTI-MODAL CARS

Calculation factor: 1 RESIDE

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	**3**	**52**	**0.083**	3	52	0.019	3	52	0.102
08:00 - 09:00	3	52	0.038	3	52	0.019	3	52	0.057
09:00 - 10:00	3	52	0.013	3	52	0.006	3	52	0.019
10:00 - 11:00	3	52	0.026	3	52	0.019	3	52	0.045
11:00 - 12:00	3	52	0.032	3	52	0.032	3	52	0.064
12:00 - 13:00	3	52	0.032	3	52	0.013	3	52	0.045
13:00 - 14:00	3	52	0.019	3	52	0.032	3	52	0.051
14:00 - 15:00	3	52	0.064	3	52	0.026	3	52	0.090
15:00 - 16:00	3	52	0.045	3	52	0.064	**3**	**52**	**0.109**
16:00 - 17:00	3	52	0.038	3	52	0.045	3	52	0.083
17:00 - 18:00	3	52	0.026	**3**	**52**	**0.077**	3	52	0.103
18:00 - 19:00	3	52	0.013	3	52	0.058	3	52	0.071
19:00 - 20:00	3	52	0.006	3	52	0.038	3	52	0.044
20:00 - 21:00	3	52	0.026	3	52	0.058	3	52	0.084
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.461			0.506			0.967

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Appendix E: Traffic Matrices - Subject Development

Peak Hour Traffic Flow Matrices (Passenger Car Units) - Proposed Development

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	290	585	**875**
New Road	0	0	246	**246**
Main Street West	0	0	0	**0**
TOTALS	**0**	**290**	**831**	**1121**

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	237	624	**860**
New Road	0	0	152	**152**
Main Street West	0	0	0	**0**
TOTALS	**0**	**237**	**776**	**1013**

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	319	644	**963**
New Road	0	0	271	**271**
Main Street West	0	0	0	**0**
TOTALS	**0**	**319**	**915**	**1234**

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	261	687	**948**
New Road	0	0	168	**168**
Main Street West	0	0	0	**0**
TOTALS	**0**	**261**	**855**	**1116**

2024 AM Peak — **Other committed development flows**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	0	0	**0**
New Road	0	0	0	**0**
Main Street West	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 PM Peak — **Other committed development flows**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	0	0	**0**
New Road	0	0	0	**0**
Main Street West	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	324	654	**978**
New Road	0	0	276	**276**
Main Street West	0	0	0	**0**
TOTALS	**0**	**324**	**930**	**1254**

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	265	698	**963**
New Road	0	0	171	**171**
Main Street West	0	0	0	**0**
TOTALS	**0**	**265**	**869**	**1134**

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	330	665	**995**
New Road	0	0	280	**280**
Main Street West	0	0	0	**0**
TOTALS	**0**	**330**	**945**	**1275**

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	269	709	**978**
New Road	0	0	173	**173**
Main Street West	0	0	0	**0**
TOTALS	**0**	**269**	**882**	**1151**

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	7	0	**7**
New Road	0	0	1	**1**
Main Street West	0	0	0	**0**
TOTALS	**0**	**7**	**1**	**8**

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	2	0	**2**
New Road	0	0	1	**1**
Main Street West	0	0	0	**0**
TOTALS	**0**	**2**	**1**	**3**

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	337	665	**1002**
New Road	0	0	281	**281**
Main Street West	0	0	0	**0**
TOTALS	**0**	**337**	**946**	**1283**

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	271	709	**980**
New Road	0	0	174	**174**
Main Street West	0	0	0	**0**
TOTALS	**0**	**271**	**883**	**1154**

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	357	720	**1077**
New Road	0	0	303	**303**
Main Street West	0	0	0	**0**
TOTALS	**0**	**357**	**1023**	**1380**

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	292	769	**1061**
New Road	0	0	188	**188**
Main Street West	0	0	0	**0**
TOTALS	**0**	**292**	**957**	**1249**

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	364	720	**1084**
New Road	0	0	304	**304**
Main Street West	0	0	0	**0**
TOTALS	**0**	**364**	**1024**	**1388**

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	294	769	**1063**
New Road	0	0	189	**189**
Main Street West	0	0	0	**0**
TOTALS	**0**	**294**	**958**	**1252**

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	376	758	**1134**
New Road	0	0	319	**319**
Main Street West	0	0	0	**0**
TOTALS	**0**	**376**	**1077**	**1453**

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	307	809	**1116**
New Road	0	0	198	**198**
Main Street West	0	0	0	**0**
TOTALS	**0**	**307**	**1007**	**1314**

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	383	758	**1141**
New Road	0	0	320	**320**
Main Street West	0	0	0	**0**
TOTALS	**0**	**383**	**1078**	**1461**

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	309	809	**1118**
New Road	0	0	199	**199**
Main Street West	0	0	0	**0**
TOTALS	**0**	**309**	**1008**	**1317**

Peak Hour Traffic Flow Matrices (Passenger Car Units) - Proposed Development

2017 AM Peak (08:00-09:00) — SURVEYED TRAFFIC FLOWS

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	43	208	0	251
Coláiste Bríde	41	0	50	0	91
New Road South	197	85	0	0	282
Development Access	0	0	0	0	0
TOTALS	238	128	257	0	623

2017 PM Peak (17:00-18:00) — SURVEYED TRAFFIC FLOWS

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	9	213	0	222
Coláiste Bríde	18	0	29	0	47
New Road South	128	23	0	0	151
Development Access	0	0	0	0	0
TOTALS	146	32	242	0	421

2023 AM Peak — BASELINE TRAFFIC FLOWS (surveyed flows + TII growth factor)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	48	229	0	277
Coláiste Bríde	45	0	55	0	100
New Road South	217	93	0	0	310
Development Access	0	0	0	0	0
TOTALS	262	141	284	0	687

2023 PM Peak — BASELINE TRAFFIC FLOWS (surveyed flows + TII growth factor)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	235	0	245
Coláiste Bríde	20	0	32	0	52
New Road South	141	25	0	0	166
Development Access	0	0	0	0	0
TOTALS	161	35	267	0	463

2024 AM Peak — Other committed development flows

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	0	0
Coláiste Bríde	0	0	0	0	0
New Road South	0	0	0	0	0
Development Access	0	0	0	0	0
TOTALS	0	0	0	0	0

2024 PM Peak — Other committed development flows

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	0	0
Coláiste Bríde	0	0	0	0	0
New Road South	0	0	0	0	0
Development Access	0	0	0	0	0
TOTALS	0	0	0	0	0

2024 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	48	232	0	280
Coláiste Bríde	46	0	55	0	101
New Road South	220	95	0	0	315
Development Access	0	0	0	0	0
TOTALS	266	143	287	0	696

2024 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	239	0	249
Coláiste Bríde	20	0	32	0	52
New Road South	144	26	0	0	170
Development Access	0	0	0	0	0
TOTALS	164	36	271	0	471

2025 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	49	236	0	285
Coláiste Bríde	47	0	56	0	103
New Road South	224	96	0	0	320
Development Access	0	0	0	0	0
TOTALS	271	145	292	0	708

2025 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	243	0	253
Coláiste Bríde	20	0	33	0	53
New Road South	146	26	0	0	172
Development Access	0	0	0	0	0
TOTALS	166	36	276	0	478

2025 AM Peak — SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	7	7
Coláiste Bríde	0	0	0	0	0
New Road South	0	0	0	3	3
Development Access	1	0	1	0	2
TOTALS	1	0	1	10	12

2025 PM Peak — SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	2	2
Coláiste Bríde	0	0	0	0	0
New Road South	0	0	0	2	2
Development Access	1	0	3	0	4
TOTALS	1	0	3	4	8

2025 AM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	49	236	7	292
Coláiste Bríde	47	0	56	0	103
New Road South	224	96	0	3	323
Development Access	1	0	1	0	2
TOTALS	272	145	293	10	720

2025 PM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	243	2	255
Coláiste Bríde	20	0	33	0	53
New Road South	146	26	0	2	174
Development Access	1	0	3	0	4
TOTALS	167	36	279	4	486

2030 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	53	256	0	309
Coláiste Bríde	51	0	61	0	112
New Road South	243	104	0	0	347
Development Access	0	0	0	0	0
TOTALS	294	157	317	0	768

2030 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	11	263	0	274
Coláiste Bríde	22	0	36	0	58
New Road South	158	28	0	0	186
Development Access	0	0	0	0	0
TOTALS	180	39	299	0	518

2030 AM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	53	256	7	316
Coláiste Bríde	51	0	61	0	112
New Road South	243	104	0	3	350
Development Access	1	0	1	0	2
TOTALS	295	157	318	10	780

2030 PM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	11	263	2	276
Coláiste Bríde	22	0	36	0	58
New Road South	158	28	0	2	188
Development Access	1	0	3	0	4
TOTALS	181	39	302	4	526

2040 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	56	269	0	325
Coláiste Bríde	53	0	64	0	117
New Road South	255	110	0	0	365
Development Access	0	0	0	0	0
TOTALS	308	166	333	0	807

2040 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	12	277	0	289
Coláiste Bríde	23	0	38	0	61
New Road South	166	30	0	0	196
Development Access	0	0	0	0	0
TOTALS	189	42	315	0	546

2040 AM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	56	269	7	332
Coláiste Bríde	53	0	64	0	117
New Road South	255	110	0	3	368
Development Access	1	0	1	0	2
TOTALS	309	166	334	10	819

2040 PM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	12	277	2	291
Coláiste Bríde	23	0	38	0	61
New Road South	166	30	0	2	198
Development Access	1	0	3	0	4
TOTALS	190	42	318	4	554

Peak Hour Traffic Flow Matrices (Passenger Car Units) - Proposed Development

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	16	184	73	273
Knockmeenagh Road	25	0	25	17	67
New Road South	105	13	0	15	132
St. Brigid's Road	217	8	18	0	243
TOTALS	347	37	228	105	715

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	13	188	51	251
Knockmeenagh Road	14	0	15	10	39
New Road South	103	26	0	37	166
St. Brigid's Road	36	24	15	0	75
TOTALS	152	63	218	98	531

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	17	203	80	300
Knockmeenagh Road	28	0	28	19	75
New Road South	115	14	0	16	145
St. Brigid's Road	239	9	20	0	268
TOTALS	382	40	251	115	788

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	207	56	277
Knockmeenagh Road	15	0	17	11	43
New Road South	113	29	0	41	183
St. Brigid's Road	39	26	17	0	82
TOTALS	167	69	241	108	585

2024 AM Peak — **Other committed development flows**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	0	0	0
Knockmeenagh Road	0	0	0	0	0
New Road South	0	0	0	0	0
St. Brigid's Road	0	0	0	0	0
TOTALS	0	0	0	0	0

2024 PM Peak — **Other committed development flows**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	0	0	0
Knockmeenagh Road	0	0	0	0	0
New Road South	0	0	0	0	0
St. Brigid's Road	0	0	0	0	0
TOTALS	0	0	0	0	0

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	17	206	82	305
Knockmeenagh Road	28	0	28	19	75
New Road South	117	15	0	16	148
St. Brigid's Road	243	9	20	0	272
TOTALS	388	41	254	117	800

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	210	57	281
Knockmeenagh Road	16	0	17	11	44
New Road South	115	29	0	41	185
St. Brigid's Road	40	27	17	0	84
TOTALS	171	70	244	109	594

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	18	209	83	310
Knockmeenagh Road	28	0	29	19	76
New Road South	119	15	0	16	150
St. Brigid's Road	247	9	20	0	276
TOTALS	394	42	258	118	812

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	214	58	286
Knockmeenagh Road	16	0	17	11	44
New Road South	117	30	0	42	189
St. Brigid's Road	40	27	17	0	84
TOTALS	173	71	248	111	603

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	1	0	1
Knockmeenagh Road	0	0	0	0	0
New Road South	1	0	0	0	1
St. Brigid's Road	2	0	0	0	2
TOTALS	3	0	1	0	4

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	2	1	3
Knockmeenagh Road	0	0	0	0	0
New Road South	1	0	0	0	1
St. Brigid's Road	0	0	0	0	0
TOTALS	2	0	2	1	5

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	18	210	83	311
Knockmeenagh Road	28	0	29	19	76
New Road South	120	15	0	16	151
St. Brigid's Road	249	9	20	0	278
TOTALS	397	42	259	118	816

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	216	59	289
Knockmeenagh Road	16	0	17	11	44
New Road South	118	30	0	42	190
St. Brigid's Road	40	27	17	0	84
TOTALS	175	71	250	112	608

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	19	227	90	336
Knockmeenagh Road	31	0	31	21	83
New Road South	129	16	0	18	163
St. Brigid's Road	267	10	22	0	299
TOTALS	427	45	280	129	881

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	15	232	63	310
Knockmeenagh Road	17	0	18	12	47
New Road South	127	32	0	46	205
St. Brigid's Road	44	30	18	0	92
TOTALS	188	77	268	121	654

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	19	228	90	337
Knockmeenagh Road	31	0	31	21	83
New Road South	130	16	0	18	164
St. Brigid's Road	269	10	22	0	301
TOTALS	430	45	281	129	885

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	15	234	64	313
Knockmeenagh Road	17	0	18	12	47
New Road South	128	32	0	46	206
St. Brigid's Road	44	30	18	0	92
TOTALS	190	77	270	122	659

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	20	239	95	354
Knockmeenagh Road	32	0	33	22	87
New Road South	135	17	0	19	171
St. Brigid's Road	281	10	23	0	314
TOTALS	448	47	295	136	926

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	16	244	66	326
Knockmeenagh Road	18	0	19	13	50
New Road South	133	34	0	48	215
St. Brigid's Road	46	31	19	0	96
TOTALS	197	81	282	127	687

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	20	240	95	355
Knockmeenagh Road	32	0	33	22	87
New Road South	136	17	0	19	172
St. Brigid's Road	283	10	23	0	316
TOTALS	451	47	296	136	930

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	16	246	67	329
Knockmeenagh Road	18	0	19	13	50
New Road South	134	34	0	48	216
St. Brigid's Road	46	31	19	0	96
TOTALS	199	81	284	128	692

Peak Hour Traffic Flow Matrices (Passenger Car Units) - Proposed Development

2017 AM Peak (08:00-09:00) — SURVEYED TRAFFIC FLOWS

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	35	328	363
Presentation Convent	16	0	17	33
Convent Road South	392	16	0	408
TOTALS	408	51	345	805

2017 PM Peak (17:00-18:00) — SURVEYED TRAFFIC FLOWS

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	361	363
Presentation Convent	2	0	8	10
Convent Road South	297	2	0	299
TOTALS	299	4	369	672

2023 AM Peak — BASELINE TRAFFIC FLOWS (surveyed flows + TII growth factor)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	39	362	401
Presentation Convent	18	0	19	37
Convent Road South	432	18	0	450
TOTALS	450	57	381	888

2023 PM Peak — BASELINE TRAFFIC FLOWS (surveyed flows + TII growth factor)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	398	400
Presentation Convent	2	0	9	11
Convent Road South	327	2	0	329
TOTALS	329	4	407	740

2024 AM Peak — Other committed development flows

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	0
Presentation Convent	0	0	0	0
Convent Road South	0	0	0	0
TOTALS	0	0	0	0

2024 PM Peak — Other committed development flows

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	0
Presentation Convent	0	0	0	0
Convent Road South	0	0	0	0
TOTALS	0	0	0	0

2024 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	39	367	406
Presentation Convent	18	0	19	37
Convent Road South	439	18	0	457
TOTALS	457	57	386	900

2024 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	404	406
Presentation Convent	2	0	9	11
Convent Road South	332	2	0	334
TOTALS	334	4	413	751

2025 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	40	373	413
Presentation Convent	18	0	19	37
Convent Road South	446	18	0	464
TOTALS	464	58	392	914

2025 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	411	413
Presentation Convent	2	0	9	11
Convent Road South	337	2	0	339
TOTALS	339	4	420	763

2025 AM Peak — SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	0
Presentation Convent	0	0	0	0
Convent Road South	0	0	0	0
TOTALS	0	0	0	0

2025 PM Peak — SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	0
Presentation Convent	0	0	0	0
Convent Road South	0	0	0	0
TOTALS	0	0	0	0

2025 AM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	40	373	413
Presentation Convent	18	0	19	37
Convent Road South	446	18	0	464
TOTALS	464	58	392	914

2025 PM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	411	413
Presentation Convent	2	0	9	11
Convent Road South	337	2	0	339
TOTALS	339	4	420	763

2030 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	43	405	448
Presentation Convent	20	0	21	41
Convent Road South	483	20	0	503
TOTALS	503	63	426	992

2030 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	445	447
Presentation Convent	2	0	10	12
Convent Road South	366	2	0	368
TOTALS	368	4	455	827

2030 AM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	43	405	448
Presentation Convent	20	0	21	41
Convent Road South	483	20	0	503
TOTALS	503	63	426	992

2030 PM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	445	447
Presentation Convent	2	0	10	12
Convent Road South	366	2	0	368
TOTALS	368	4	455	827

2040 AM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	45	426	471
Presentation Convent	21	0	22	43
Convent Road South	509	21	0	530
TOTALS	530	66	448	1044

2040 PM Peak — WITHOUT SUBJECT DEVELOPMENT (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	3	468	471
Presentation Convent	3	0	10	13
Convent Road South	385	3	0	388
TOTALS	388	6	478	872

2040 AM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	45	426	471
Presentation Convent	21	0	22	43
Convent Road South	509	21	0	530
TOTALS	530	66	448	1044

2040 PM Peak — WITH SUBJECT DEVELOPMENT IN OPERATION (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	3	468	471
Presentation Convent	3	0	10	13
Convent Road South	385	3	0	388
TOTALS	388	6	478	872

Peak Hour Traffic Flow Matrices (Passenger Car Units) - Proposed Development

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	35	328	**363**
Presentation Convent	16	0	17	**33**
Convent Road South	392	16	0	**408**
TOTALS	**408**	**51**	**345**	**805**

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	361	**363**
Presentation Convent	2	0	8	**10**
Convent Road South	297	2	0	**299**
TOTALS	**299**	**4**	**369**	**672**

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	39	362	**401**
Presentation Convent	18	0	19	**37**
Convent Road South	432	18	0	**450**
TOTALS	**450**	**57**	**381**	**888**

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	398	**400**
Presentation Convent	2	0	9	**11**
Convent Road South	327	2	0	**329**
TOTALS	**329**	**4**	**407**	**740**

2024 AM Peak — **Other committed development flows**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 PM Peak — **Other committed development flows**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	39	367	**406**
Presentation Convent	18	0	19	**37**
Convent Road South	439	18	0	**457**
TOTALS	**457**	**57**	**386**	**900**

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	404	**406**
Presentation Convent	2	0	9	**11**
Convent Road South	332	2	0	**334**
TOTALS	**334**	**4**	**413**	**751**

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	40	373	**413**
Presentation Convent	18	0	19	**37**
Convent Road South	446	18	0	**464**
TOTALS	**464**	**58**	**392**	**914**

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	411	**413**
Presentation Convent	2	0	9	**11**
Convent Road South	337	2	0	**339**
TOTALS	**339**	**4**	**420**	**763**

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	40	373	**413**
Presentation Convent	18	0	19	**37**
Convent Road South	446	18	0	**464**
TOTALS	**464**	**58**	**392**	**914**

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	411	**413**
Presentation Convent	2	0	9	**11**
Convent Road South	337	2	0	**339**
TOTALS	**339**	**4**	**420**	**763**

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	43	405	**448**
Presentation Convent	20	0	21	**41**
Convent Road South	483	20	0	**503**
TOTALS	**503**	**63**	**426**	**992**

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	445	**447**
Presentation Convent	2	0	10	**12**
Convent Road South	366	2	0	**368**
TOTALS	**368**	**4**	**455**	**827**

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	43	405	**448**
Presentation Convent	20	0	21	**41**
Convent Road South	483	20	0	**503**
TOTALS	**503**	**63**	**426**	**992**

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	445	**447**
Presentation Convent	2	0	10	**12**
Convent Road South	366	2	0	**368**
TOTALS	**368**	**4**	**455**	**827**

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	45	426	**471**
Presentation Convent	21	0	22	**43**
Convent Road South	509	21	0	**530**
TOTALS	**530**	**66**	**448**	**1044**

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	3	468	**471**
Presentation Convent	3	0	10	**13**
Convent Road South	385	3	0	**388**
TOTALS	**388**	**6**	**478**	**872**

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	45	426	**471**
Presentation Convent	21	0	22	**43**
Convent Road South	509	21	0	**530**
TOTALS	**530**	**66**	**448**	**1044**

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	3	468	**471**
Presentation Convent	3	0	10	**13**
Convent Road South	385	3	0	**388**
TOTALS	**388**	**6**	**478**	**872**

Appendix F: Traffic Matrices - Committed and Subject Development

Peak Hour Traffic Flow Matrices (Passenger Car Units)

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	290	585	**875**
New Road	0	0	246	**246**
Main Street West	0	0	0	**0**
TOTALS	**0**	**290**	**831**	**1121**

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	237	624	**860**
New Road	0	0	152	**152**
Main Street West	0	0	0	**0**
TOTALS	**0**	**237**	**776**	**1013**

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	319	644	**963**
New Road	0	0	271	**271**
Main Street West	0	0	0	**0**
TOTALS	**0**	**319**	**915**	**1234**

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	261	687	**948**
New Road	0	0	168	**168**
Main Street West	0	0	0	**0**
TOTALS	**0**	**261**	**855**	**1116**

2024 AM Peak — **Other committed development flows**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	0	0	**0**
New Road	0	0	0	**0**
Main Street West	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 PM Peak — **Other committed development flows**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	0	0	**0**
New Road	0	0	0	**0**
Main Street West	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	324	654	**978**
New Road	0	0	276	**276**
Main Street West	0	0	0	**0**
TOTALS	**0**	**324**	**930**	**1254**

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	265	698	**963**
New Road	0	0	171	**171**
Main Street West	0	0	0	**0**
TOTALS	**0**	**265**	**869**	**1134**

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	330	665	**995**
New Road	0	0	280	**280**
Main Street West	0	0	0	**0**
TOTALS	**0**	**330**	**945**	**1275**

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	269	709	**978**
New Road	0	0	173	**173**
Main Street West	0	0	0	**0**
TOTALS	**0**	**269**	**882**	**1151**

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	16	0	**16**
New Road	0	0	3	**3**
Main Street West	0	0	0	**0**
TOTALS	**0**	**16**	**3**	**19**

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	6	0	**6**
New Road	0	0	4	**4**
Main Street West	0	0	0	**0**
TOTALS	**0**	**6**	**4**	**11**

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	346	665	**1011**
New Road	0	0	283	**283**
Main Street West	0	0	0	**0**
TOTALS	**0**	**346**	**948**	**1294**

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	275	709	**984**
New Road	0	0	177	**177**
Main Street West	0	0	0	**0**
TOTALS	**0**	**275**	**886**	**1162**

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	357	720	**1077**
New Road	0	0	303	**303**
Main Street West	0	0	0	**0**
TOTALS	**0**	**357**	**1023**	**1380**

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	292	769	**1061**
New Road	0	0	188	**188**
Main Street West	0	0	0	**0**
TOTALS	**0**	**292**	**957**	**1249**

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	373	720	**1093**
New Road	0	0	306	**306**
Main Street West	0	0	0	**0**
TOTALS	**0**	**373**	**1026**	**1399**

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	298	769	**1067**
New Road	0	0	192	**192**
Main Street West	0	0	0	**0**
TOTALS	**0**	**298**	**961**	**1260**

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	376	758	**1134**
New Road	0	0	319	**319**
Main Street West	0	0	0	**0**
TOTALS	**0**	**376**	**1077**	**1453**

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	307	809	**1116**
New Road	0	0	198	**198**
Main Street West	0	0	0	**0**
TOTALS	**0**	**307**	**1007**	**1314**

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	392	758	**1150**
New Road	0	0	322	**322**
Main Street West	0	0	0	**0**
TOTALS	**0**	**392**	**1080**	**1472**

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Main Street East	New Road	Main Street West	TOTALS
Main Street East	0	313	809	**1122**
New Road	0	0	202	**202**
Main Street West	0	0	0	**0**
TOTALS	**0**	**313**	**1011**	**1325**

Peak Hour Traffic Flow Matrices (Passenger Car Units)

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	43	208	0	**251**
Coláiste Bríde	41	0	50	0	**91**
New Road South	197	85	0	0	**282**
Development Access	0	0	0	0	**0**
TOTALS	**238**	**128**	**257**	**0**	**623**

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	9	213	0	**222**
Coláiste Bríde	18	0	29	0	**47**
New Road South	128	23	0	0	**151**
Development Access	0	0	0	0	**0**
TOTALS	**146**	**32**	**242**	**0**	**421**

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	48	229	0	**277**
Coláiste Bríde	45	0	55	0	**100**
New Road South	217	93	0	0	**310**
Development Access	0	0	0	0	**0**
TOTALS	**262**	**141**	**284**	**0**	**687**

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	235	0	**245**
Coláiste Bríde	20	0	32	0	**52**
New Road South	141	25	0	0	**166**
Development Access	0	0	0	0	**0**
TOTALS	**161**	**35**	**267**	**0**	**463**

2024 AM Peak — **Other committed development flows**

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	0	**0**
Coláiste Bríde	0	0	0	0	**0**
New Road South	0	0	0	0	**0**
Development Access	0	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**	**0**

2024 PM Peak — **Other committed development flows**

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	0	**0**
Coláiste Bríde	0	0	0	0	**0**
New Road South	0	0	0	0	**0**
Development Access	0	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**	**0**

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	48	232	0	**280**
Coláiste Bríde	46	0	55	0	**101**
New Road South	220	95	0	0	**315**
Development Access	0	0	0	0	**0**
TOTALS	**266**	**143**	**287**	**0**	**696**

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	239	0	**249**
Coláiste Bríde	20	0	32	0	**52**
New Road South	144	26	0	0	**170**
Development Access	0	0	0	0	**0**
TOTALS	**164**	**36**	**271**	**0**	**471**

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	49	236	0	**285**
Coláiste Bríde	47	0	56	0	**103**
New Road South	224	96	0	0	**320**
Development Access	0	0	0	0	**0**
TOTALS	**271**	**145**	**292**	**0**	**708**

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	243	0	**253**
Coláiste Bríde	20	0	33	0	**53**
New Road South	146	26	0	0	**172**
Development Access	0	0	0	0	**0**
TOTALS	**166**	**36**	**276**	**0**	**478**

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	16	**16**
Coláiste Bríde	0	0	0	0	**0**
New Road South	0	0	0	8	**8**
Development Access	3	0	2	0	**5**
TOTALS	**3**	**0**	**2**	**24**	**29**

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	0	0	6	**6**
Coláiste Bríde	0	0	0	0	**0**
New Road South	0	0	0	5	**5**
Development Access	4	0	10	0	**14**
TOTALS	**4**	**0**	**10**	**11**	**26**

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	49	236	16	**301**
Coláiste Bríde	47	0	56	0	**103**
New Road South	224	96	0	8	**328**
Development Access	3	0	2	0	**5**
TOTALS	**274**	**145**	**294**	**24**	**737**

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	10	243	6	**259**
Coláiste Bríde	20	0	33	0	**53**
New Road South	146	26	0	5	**177**
Development Access	4	0	10	0	**14**
TOTALS	**170**	**36**	**286**	**11**	**504**

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	53	256	0	**309**
Coláiste Bríde	51	0	61	0	**112**
New Road South	243	104	0	0	**347**
Development Access	0	0	0	0	**0**
TOTALS	**294**	**157**	**317**	**0**	**768**

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	11	263	0	**274**
Coláiste Bríde	22	0	36	0	**58**
New Road South	158	28	0	0	**186**
Development Access	0	0	0	0	**0**
TOTALS	**180**	**39**	**299**	**0**	**518**

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	53	256	16	**325**
Coláiste Bríde	51	0	61	0	**112**
New Road South	243	104	0	8	**355**
Development Access	3	0	2	0	**5**
TOTALS	**297**	**157**	**319**	**24**	**797**

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	11	263	6	**280**
Coláiste Bríde	22	0	36	0	**58**
New Road South	158	28	0	5	**191**
Development Access	4	0	10	0	**14**
TOTALS	**184**	**39**	**309**	**11**	**544**

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	56	269	0	**325**
Coláiste Bríde	53	0	64	0	**117**
New Road South	255	110	0	0	**365**
Development Access	0	0	0	0	**0**
TOTALS	**308**	**166**	**333**	**0**	**807**

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	12	277	0	**289**
Coláiste Bríde	23	0	38	0	**61**
New Road South	166	30	0	0	**196**
Development Access	0	0	0	0	**0**
TOTALS	**189**	**42**	**315**	**0**	**546**

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	56	269	16	**341**
Coláiste Bríde	53	0	64	0	**117**
New Road South	255	110	0	8	**373**
Development Access	3	0	2	0	**5**
TOTALS	**311**	**166**	**335**	**24**	**836**

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Coláiste Bríde	New Road South	Development Access	TOTALS
New Road North	0	12	277	6	**295**
Coláiste Bríde	23	0	38	0	**61**
New Road South	166	30	0	5	**201**
Development Access	4	0	10	0	**14**
TOTALS	**193**	**42**	**325**	**11**	**572**

Peak Hour Traffic Flow Matrices (Passenger Car Units)

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	16	184	73	**273**
Knockmeenagh Road	25	0	25	17	**67**
New Road South	105	13	0	15	**132**
St. Brigid's Road	217	8	18	0	**243**
TOTALS	**347**	**37**	**228**	**105**	**715**

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	13	188	51	**251**
Knockmeenagh Road	14	0	15	10	**39**
New Road South	103	26	0	37	**166**
St. Brigid's Road	36	24	15	0	**75**
TOTALS	**152**	**63**	**218**	**98**	**531**

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	17	203	80	**300**
Knockmeenagh Road	28	0	28	19	**75**
New Road South	115	14	0	16	**145**
St. Brigid's Road	239	9	20	0	**268**
TOTALS	**382**	**40**	**251**	**115**	**788**

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	207	56	**277**
Knockmeenagh Road	15	0	17	11	**43**
New Road South	113	29	0	41	**183**
St. Brigid's Road	39	26	17	0	**82**
TOTALS	**167**	**69**	**241**	**108**	**585**

2024 AM Peak — **Other committed development flows**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	0	0	**0**
Knockmeenagh Road	0	0	0	0	**0**
New Road South	0	0	0	0	**0**
St. Brigid's Road	0	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**	**0**

2024 PM Peak — **Other committed development flows**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	0	0	**0**
Knockmeenagh Road	0	0	0	0	**0**
New Road South	0	0	0	0	**0**
St. Brigid's Road	0	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**	**0**

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	17	206	82	**305**
Knockmeenagh Road	28	0	28	19	**75**
New Road South	117	15	0	16	**148**
St. Brigid's Road	243	9	20	0	**272**
TOTALS	**388**	**41**	**254**	**117**	**800**

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	210	57	**281**
Knockmeenagh Road	16	0	17	11	**44**
New Road South	115	29	0	41	**185**
St. Brigid's Road	40	27	17	0	**84**
TOTALS	**171**	**70**	**244**	**109**	**594**

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	18	209	83	**310**
Knockmeenagh Road	28	0	29	19	**76**
New Road South	119	15	0	16	**150**
St. Brigid's Road	247	9	20	0	**276**
TOTALS	**394**	**42**	**258**	**118**	**812**

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	14	214	58	**286**
Knockmeenagh Road	16	0	17	11	**44**
New Road South	117	30	0	42	**189**
St. Brigid's Road	40	27	17	0	**84**
TOTALS	**173**	**71**	**248**	**111**	**603**

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	0	1	1	**2**
Knockmeenagh Road	1	0	0	0	**1**
New Road South	2	0	0	0	**2**
St. Brigid's Road	5	0	0	0	**5**
TOTALS	**8**	**0**	**1**	**1**	**10**

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	1	8	2	**10**
Knockmeenagh Road	0	0	0	0	**0**
New Road South	3	0	0	0	**3**
St. Brigid's Road	1	0	0	0	**1**
TOTALS	**5**	**1**	**8**	**2**	**15**

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	18	210	84	**312**
Knockmeenagh Road	29	0	29	19	**77**
New Road South	121	15	0	16	**152**
St. Brigid's Road	252	9	20	0	**281**
TOTALS	**402**	**42**	**259**	**119**	**822**

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	15	222	60	**296**
Knockmeenagh Road	16	0	17	11	**44**
New Road South	120	30	0	42	**192**
St. Brigid's Road	41	27	17	0	**85**
TOTALS	**178**	**72**	**256**	**113**	**618**

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	19	227	90	**336**
Knockmeenagh Road	31	0	31	21	**83**
New Road South	129	16	0	18	**163**
St. Brigid's Road	267	10	22	0	**299**
TOTALS	**427**	**45**	**280**	**129**	**881**

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	15	232	63	**310**
Knockmeenagh Road	17	0	18	12	**47**
New Road South	127	32	0	46	**205**
St. Brigid's Road	44	30	18	0	**92**
TOTALS	**188**	**77**	**268**	**121**	**654**

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	19	228	91	**338**
Knockmeenagh Road	32	0	31	21	**84**
New Road South	131	16	0	18	**165**
St. Brigid's Road	272	10	22	0	**304**
TOTALS	**435**	**45**	**281**	**130**	**891**

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	16	240	65	**320**
Knockmeenagh Road	17	0	18	12	**47**
New Road South	130	32	0	46	**208**
St. Brigid's Road	45	30	18	0	**93**
TOTALS	**193**	**78**	**276**	**123**	**669**

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	20	239	95	**354**
Knockmeenagh Road	32	0	33	22	**87**
New Road South	135	17	0	19	**171**
St. Brigid's Road	281	10	23	0	**314**
TOTALS	**448**	**47**	**295**	**136**	**926**

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	16	244	66	**326**
Knockmeenagh Road	18	0	19	13	**50**
New Road South	133	34	0	48	**215**
St. Brigid's Road	46	31	19	0	**96**
TOTALS	**197**	**81**	**282**	**127**	**687**

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	20	240	96	**356**
Knockmeenagh Road	33	0	33	22	**88**
New Road South	137	17	0	19	**173**
St. Brigid's Road	286	10	23	0	**319**
TOTALS	**456**	**47**	**296**	**137**	**936**

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road North	Knockmeenagh Road	New Road South	St. Brigid's Road	TOTALS
New Road North	0	17	252	68	**336**
Knockmeenagh Road	18	0	19	13	**50**
New Road South	136	34	0	48	**218**
St. Brigid's Road	47	31	19	0	**97**
TOTALS	**202**	**82**	**290**	**129**	**702**

Peak Hour Traffic Flow Matrices (Passenger Car Units)

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	35	328	**363**
Presentation Convent	16	0	17	**33**
Convent Road South	392	16	0	**408**
TOTALS	**408**	**51**	**345**	**805**

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	361	**363**
Presentation Convent	2	0	8	**10**
Convent Road South	297	2	0	**299**
TOTALS	**299**	**4**	**369**	**672**

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	39	362	**401**
Presentation Convent	18	0	19	**37**
Convent Road South	432	18	0	**450**
TOTALS	**450**	**57**	**381**	**888**

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	398	**400**
Presentation Convent	2	0	9	**11**
Convent Road South	327	2	0	**329**
TOTALS	**329**	**4**	**407**	**740**

2024 AM Peak — **Other committed development flows**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 PM Peak — **Other committed development flows**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	39	367	**406**
Presentation Convent	18	0	19	**37**
Convent Road South	439	18	0	**457**
TOTALS	**457**	**57**	**386**	**900**

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	404	**406**
Presentation Convent	2	0	9	**11**
Convent Road South	332	2	0	**334**
TOTALS	**334**	**4**	**413**	**751**

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	40	373	**413**
Presentation Convent	18	0	19	**37**
Convent Road South	446	18	0	**464**
TOTALS	**464**	**58**	**392**	**914**

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	411	**413**
Presentation Convent	2	0	9	**11**
Convent Road South	337	2	0	**339**
TOTALS	**339**	**4**	**420**	**763**

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	0	0	**0**
Presentation Convent	0	0	0	**0**
Convent Road South	0	0	0	**0**
TOTALS	**0**	**0**	**0**	**0**

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	40	373	**413**
Presentation Convent	18	0	19	**37**
Convent Road South	446	18	0	**464**
TOTALS	**464**	**58**	**392**	**914**

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	411	**413**
Presentation Convent	2	0	9	**11**
Convent Road South	337	2	0	**339**
TOTALS	**339**	**4**	**420**	**763**

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	43	405	**448**
Presentation Convent	20	0	21	**41**
Convent Road South	483	20	0	**503**
TOTALS	**503**	**63**	**426**	**992**

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	445	**447**
Presentation Convent	2	0	10	**12**
Convent Road South	366	2	0	**368**
TOTALS	**368**	**4**	**455**	**827**

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	43	405	**448**
Presentation Convent	20	0	21	**41**
Convent Road South	483	20	0	**503**
TOTALS	**503**	**63**	**426**	**992**

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	2	445	**447**
Presentation Convent	2	0	10	**12**
Convent Road South	366	2	0	**368**
TOTALS	**368**	**4**	**455**	**827**

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	45	426	**471**
Presentation Convent	21	0	22	**43**
Convent Road South	509	21	0	**530**
TOTALS	**530**	**66**	**448**	**1044**

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	3	468	**471**
Presentation Convent	3	0	10	**13**
Convent Road South	385	3	0	**388**
TOTALS	**388**	**6**	**478**	**872**

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	45	426	**471**
Presentation Convent	21	0	22	**43**
Convent Road South	509	21	0	**530**
TOTALS	**530**	**66**	**448**	**1044**

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	Convent Road North	Presentation Convent	Convent Road South	TOTALS
Convent Road North	0	3	468	**471**
Presentation Convent	3	0	10	**13**
Convent Road South	385	3	0	**388**
TOTALS	**388**	**6**	**478**	**872**

Peak Hour Traffic Flow Matrices (Passenger Car Units)

2017 AM Peak (08:00-09:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	13	245	258
Presentation Convent	7	0	16	23
New Road North	264	23	0	287
TOTALS	271	36	261	568

2017 PM Peak (17:00-18:00) — **SURVEYED TRAFFIC FLOWS**

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	146	147
Presentation Convent	2	0	2	4
New Road North	222	2	0	224
TOTALS	224	3	148	375

2023 AM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	14	270	284
Presentation Convent	8	0	18	26
New Road North	290	25	0	315
TOTALS	298	39	288	625

2023 PM Peak — **BASELINE TRAFFIC FLOWS** (surveyed flows + TII growth factor)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	161	162
Presentation Convent	2	0	2	4
New Road North	244	2	0	246
TOTALS	246	3	163	412

2024 AM Peak — **Other committed development flows**

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South				0
Presentation Convent				0
New Road North				0
TOTALS	0	0	0	0

2024 PM Peak — **Other committed development flows**

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South				0
Presentation Convent				0
New Road North				0
TOTALS	0	0	0	0

2024 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	15	274	289
Presentation Convent	8	0	18	26
New Road North	295	26	0	321
TOTALS	303	41	292	636

2024 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	164	165
Presentation Convent	2	0	2	4
New Road North	248	2	0	250
TOTALS	250	3	166	419

2025 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	15	279	294
Presentation Convent	8	0	18	26
New Road North	300	26	0	326
TOTALS	308	41	297	646

2025 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	166	167
Presentation Convent	2	0	2	4
New Road North	252	2	0	254
TOTALS	254	3	168	425

2025 AM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	0	3	3
Presentation Convent	0	0	0	0
New Road North	16	0	0	16
TOTALS	16	0	3	19

2025 PM Peak — **SUBJECT DEVELOPMENT FLOWS - OPERATIONAL PHASE**

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	0	4	4
Presentation Convent	0	0	0	0
New Road North	6	0	0	6
TOTALS	6	0	4	11

2025 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	15	282	297
Presentation Convent	8	0	18	26
New Road North	316	26	0	342
TOTALS	324	41	300	665

2025 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	170	171
Presentation Convent	2	0	2	4
New Road North	258	2	0	260
TOTALS	260	3	172	436

2030 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	16	302	318
Presentation Convent	9	0	20	29
New Road North	325	28	0	353
TOTALS	334	44	322	700

2030 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	180	181
Presentation Convent	2	0	2	4
New Road North	273	2	0	275
TOTALS	275	3	182	460

2030 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	16	305	321
Presentation Convent	9	0	20	29
New Road North	341	28	0	369
TOTALS	350	44	325	719

2030 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	184	185
Presentation Convent	2	0	2	4
New Road North	279	2	0	281
TOTALS	281	3	186	471

2040 AM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	17	318	335
Presentation Convent	9	0	21	30
New Road North	342	30	0	372
TOTALS	351	47	339	737

2040 PM Peak — **WITHOUT SUBJECT DEVELOPMENT** (surveyed flows + TII growth factor + committed development)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	190	191
Presentation Convent	3	0	3	6
New Road North	288	3	0	291
TOTALS	291	4	193	488

2040 AM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	17	321	338
Presentation Convent	9	0	21	30
New Road North	358	30	0	388
TOTALS	367	47	342	756

2040 PM Peak — **WITH SUBJECT DEVELOPMENT IN OPERATION** (surveyed + TII growth factor + committed dev. + subject dev.)

From \ To	New Road South	Presentation Convent	New Road North	TOTALS
New Road South	0	1	194	195
Presentation Convent	3	0	3	6
New Road North	294	3	0	297
TOTALS	297	4	197	499