

**Barrett Mahony Consulting Engineers**  
**Civil . Structural . Project Management**

Dublin Sandwith House, 52 – 54 Lower Sandwith Street, Dublin 2, Ireland.

Tel: (01) 677 3200 Fax: (01) 677 3164 Email: [bmce@bmce.ie](mailto:bmce@bmce.ie) Web: [www.bmce.ie](http://www.bmce.ie)

**DOCUMENT  
LEAD  
SHEET**

**PAGE  
1  
OF  
19**

**PROJECT: DEPARTMENT OF EDUCATION & SKILLS INTERIM SCHOOLS**

**PROJECT NO. 19.303**

---

**DOCUMENT TITLE: TRAFFIC ASSESSMENT AND MOBILITY REPORT**

**DOCUMENT NO: 19.303 – A06 – IR – 02**

Issue	Date	Description	Orig.	PE	PD	Issue Check
PL1	15.05.20	Issued for Planning	MR	DO'R	SO'C	
PL2	15.12.20	Issued for Planning - AI	MR	DO'R	SO'C	

**DEPARTMENT OF EDUCATION & SKILLS INTERIM SCHOOLS**

**TRAFFIC ASSESSMENT AND MOBILITY REPORT**

**barrett mahony**

# **Proposed Interim School, Main Street, Rathcoole, Co. Dublin**

## **Traffic Assessment and Mobility Report**

### **Client: Department of Education and Skills**

Barrett Mahony Consulting Engineers

Dr Martin Rogers  
Transport Planning Professional  
Chartered Civil Engineer and Chartered Town Planner

December 2020

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>4</b>
1.1	GENERAL DESCRIPTION.....	4
1.2	SCOPE OF THE REPORT.....	4
<b>2.0</b>	<b>THE RECEIVING ENVIRONMENT</b> .....	<b>5</b>
2.1	INTRODUCTION.....	5
2.2	EXISTING BUS SERVICES.....	6
2.3	EXISTING CYCLING FACILITIES.....	6
<b>3.0</b>	<b>GENERATING BASELINE MODAL SPLIT DATA</b> .....	<b>7</b>
3.1	MODAL SPLITS FOR ELECTORAL DISTRICT CONTAINING THE PROPOSED DEVELOPMENT.....	7
3.2	DATA FROM NEARBY SCOIL CHRONAIN.....	7
<b>4.0</b>	<b>ACCESS ISSUES ASSOCIATED WITH THE SITE AND PROPOSED SCHOOL BUS SERVICE</b> .....	<b>9</b>
4.1	ACCESS ISSUES.....	9
4.2	PROPOSED SCHOOL BUS.....	9
<b>5.0</b>	<b>PARKING REQUIREMENTS, PARKING PROVISION AND SETDOWN ARRANGEMENTS AT THE SUBJECT SITE</b>	<b>10</b>
5.1	CAR PARKING REQUIREMENTS UNDER SOUTH DUBLIN DEVELOPMENT PLAN.....	10
5.2	PROPOSED CAR PARKING PROVISION AND SET-DOWN ARRANGEMENTS.....	10
5.3	CYCLE PARKING REQUIREMENTS UNDER CORK COUNTY DEVELOPMENT PLAN.....	10
5.4	PROPOSED CYCLE PARKING PROVISION.....	11
<b>6.0</b>	<b>MOBILITY MANAGEMENT STRATEGY</b> .....	<b>12</b>
6.1	PREDICTED SCHOOL TRAVEL PATTERNS AT THE SUBJECT SITE.....	12
6.2	OBJECTIVES OF SCHOOL TRAVEL PLAN.....	12
6.3	FUTURE MEASURES TO ENSURE TARGET MODAL SPLITS WILL BE ACHIEVED.....	12
6.3.1	<i>INTRODUCTION</i> .....	12
6.3.2	<i>ACHIEVING OBJECTIVE NO. 1 – APPOINTMENT OF MOBILITY MANAGEMENT COORDINATOR</i> ...	13
6.3.3	<i>ACHIEVING OBJECTIVE NO. 2 – MEASURES ENCOURAGING SHUTTLE BUS TRAVEL</i> .....	13
6.3.4	<i>ACHIEVING OBJECTIVE NO. 3 – ENSURING THE SAFETY OF CHILDREN WALKING TO THE PROPOSED SCHOOL</i> .....	13
6.4	ROLE OF THE MOBILITY MANAGEMENT COORDINATOR AT THE PROPOSED DEVELOPMENT.....	13
6.4.1	<i>MOBILITY PLAN ADMINISTRATION</i> .....	13
6.4.2	<i>DUTIES OF THE MOBILITY MANAGEMENT COORDINATOR</i> .....	13
<b>7.0</b>	<b>OVERALL CONCLUSIONS</b> .....	<b>14</b>

### APPENDIX 1 - SITE LAYOUT PLAN

### APPENDIX 2 – CENSUS DATA – RATHCOOLE ELECTORAL DISTRICT

## **1.0 INTRODUCTION**

### **1.1 GENERAL DESCRIPTION**

The Department of Education & Skills have appointed a Design Team to deliver a number of Interim Schools in specific areas. These interim schools are intended to provide facilities until such a time as the permanent school for that area is constructed. For this proposed development, the proposed duration of the interim school is intended to be for a period of approximately 3 years.

Barrett Mahony Consulting Engineers (BMCE) have been appointed as part of the team to provide civil and structural consultancy services for this project.

It is proposed to provide an Interim Primary School as a series of pre-fabricated buildings located at a site on the north side of Main Street, Rathcoole, Co. Dublin, adjacent to the Church of the Holy Family. These buildings will be arranged within a newly formed enclosure to form the overall school site.

The primary school will be two stream, with 2 classrooms and an SNU provided in year 1. In year 2, there will be 4 classrooms and an SNU. It is envisaged at the end of year 2 there will be a maximum of 100 No. pupils in 5 No. classrooms, with 5 No. teachers employed.

### **1.2 SCOPE OF THE REPORT**

Section 2 of this report details the receiving environment in the vicinity of the proposed development, including details of limited public transport and cycling facilities.

Section 3 will detail the baseline data on modal splits for students at the Interim School based on 2016 Census data, explaining the basis for assuming a high percentage of pupils being driven to school.

Section 4 details the access issues with the site and the proposed provision of a shuttle bus to address these issues.

Section 5 details the parking requirements, staff parking and shuttle bus drop-off provision at the proposed Interim School.

Section 6, under the umbrella of formulating a School Travel Plan for the proposed Interim School, sets out the transport strategy for the school and commits to the appointment of a mobility management coordinator who will be responsible for monitoring progress towards implementing the strategy, in liaison with school management. The duties of the mobility management coordinator in monitoring progress towards these targets are outlined.

Section 7 makes some overall concluding comments regarding the sustainability of the proposed Interim School in transportation terms.

Appendix 1 contains a layout of the proposed Interim School, indicating all classrooms and on-site car and cycle parking and drop-off zone.

## 2.0 THE RECEIVING ENVIRONMENT

### 2.1 INTRODUCTION

The site is located on the northern side of the Main Street, Rathcoole / L2004, approximately 15 km south-west of Dublin City Centre.

A general site location map is contained within Figure 2-1, with Figure 2-2 containing the location of the proposed prefabs within the proposed site.



Figure 2-1: Site location map



Figure 2-2: Location of prefab units

There will be on-site parking for staff via an existing entrance to the site on its northern end.

The vast majority of students will be transported into the site by the shuttle bus strategy, with a drop-off for the bus provided for within the site.

Access for students walking into the school site will be via the existing footpaths adjacent to the access road. A new 2m wide footpath, as agreed with Mr. John Hegarty of SDCC, and uncontrolled crossing has been proposed



adjacent to the interim school site with a pedestrian entrance on the western boundary. Any student arriving by private car will use the proposed drop off area within the site.

**2.2 EXISTING BUS SERVICES**

There is one major bus service servicing Rathcoole – the 69 Route

The frequency of this route in each direction during the morning peak is detailed within Table 2-1.

ROUTE	ORIGIN	DESTINATION	FREQUENCY (8AM – 9AM, 2PM – 3PM)
69	HAWKINS STREET	RATHCOOLE	1 PER HOUR

Table 2-1: Frequency of existing bus route serving subject site

Figure 2-3, details the route relative to the location of the proposed Interim School.

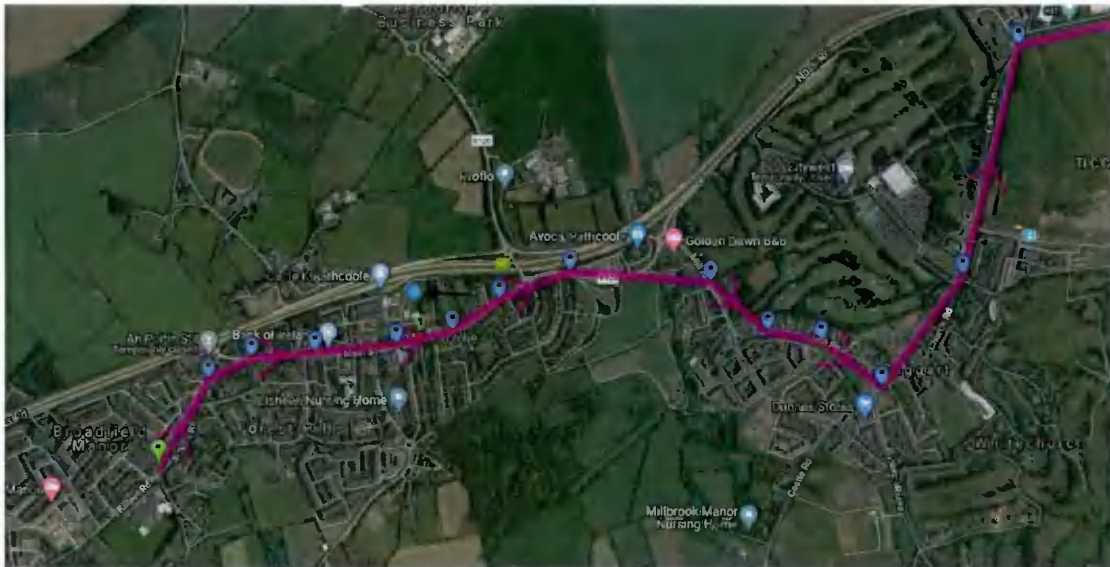


Figure 2-3: Route of 69 bus relative to site of proposed school

One can see that this but only runs every 60 minutes, rendering it of limited use to pupils of the school.

**2.3 EXISTING CYCLING FACILITIES**

There are no cycle facilities within the Rathcoole area close to the site of the proposed development.

### 3.0 GENERATING BASELINE MODAL SPLIT DATA

#### 3.1 MODAL SPLITS FOR ELECTORAL DISTRICT CONTAINING THE PROPOSED DEVELOPMENT

The proposed interim school is located within the Rathcoole Electoral District.

Table 3-1 contains the modal splits for car, bus and Rail travel, walking and cycling for the Rathcoole Electoral District:

Mode	CAR DRIVER (%)	CAR PASSENGER (%)	BUS (%)	TRAIN (%)	CYCLING (%)	WALKING (%)	STAY-AT-HOME / NOT STATED
Rathcoole ED	6	31	10	2	1	46	4

Table 3-1: Modal splits for Rathcoole Electoral District for school / college goers

The above figures are extracted from the 2016 Census for the trips to school or college by students within the Rathcoole Electoral District.

Excluding both car drivers, which is of limited relevance for primary school students, and the no preference stated / stay at home respondents, the figures demonstrate a significant proportion of students walking – 51%, with 1% cycling, 35% of students travelling as car passengers and 11% taking the bus and 2% taking the train.

The 2016 Census map and data are detailed within Appendix 2.

#### 3.2 DATA FROM NEARBY SCOIL CHRONAIN

The 2016 census figures above are now compared with the following survey information generated by nearby Scoil Chronain in their mobility management plan:

53% travelled by car, with an additional 7% car-pooling, 31% walking, 3% travelled on the school bus, with nobody cycling, taking the 69 bus or the train.

Both figures indicate low figures cycling and taking public transport, with approximately 90% either walking or being brought by car.

The higher figure for car passenger than walking within the Scoil Chronain survey indicates a significant number of students accessing from distances of more than 3km

The modal splits derived for Scoil Chronain are therefore assumed to be an accurate reflection of those for the proposed Interim School, with car transport being the dominant mode, catering for approximately two-thirds of the pupils, with the one-third balance comprising local children from Rathcoole Village walking to school.

Figure 3-1 indicates the catchment areas that are permitted to attend the proposed interim school, as received by the Department of Education & Skills.

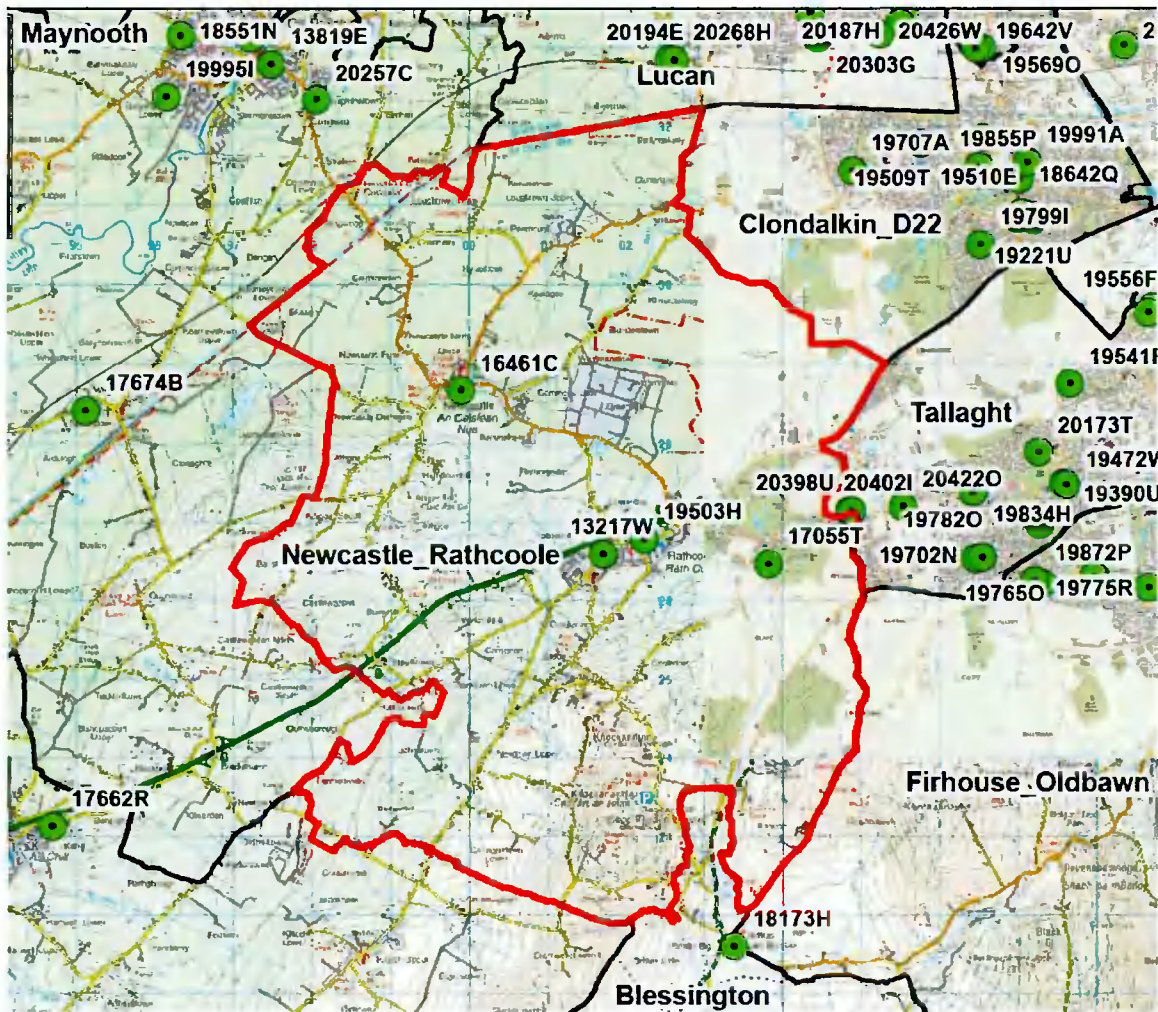


Figure 3-1: Catchments area for proposed interim school (red line boundary)

It can be seen that, at a distance of 2 - 3km, areas such as Newcastle and Saggart become viable catchment areas for the proposed interim school if accessed by car.



## 4.0 ACCESS ISSUES ASSOCIATED WITH THE SITE AND PROPOSED SCHOOL BUS SERVICE

### 4.1 ACCESS ISSUES

The modal splits assume all children will either walk or be driven to school at the site of the proposed development. However, pedestrian access to the school does need to be upgraded in order to accommodate the modal share for walking envisaged at the proposed development.

It is therefore proposed to create an uncontrolled crossing and extend the existing footpath up to the entrance to the site (shown below in Figure 4-1). A pedestrian access gate is proposed to the western boundary of the site to reduce walk/distance to the school. In tandem with this, and as per the mobility plan for the adjacent Scoil Chronain, in order to ensure safe crossing of the existing access road, the management at the proposed interim school will ensure that a teacher and caretaker escorts the pupils across this access road, with a meeting area for the pupils to walk to the proposed school, located at the nearby community centre. Staff will then escort the school kids across the access road and up to the school via the new extended footpath detailed within Figure 4-1 below.

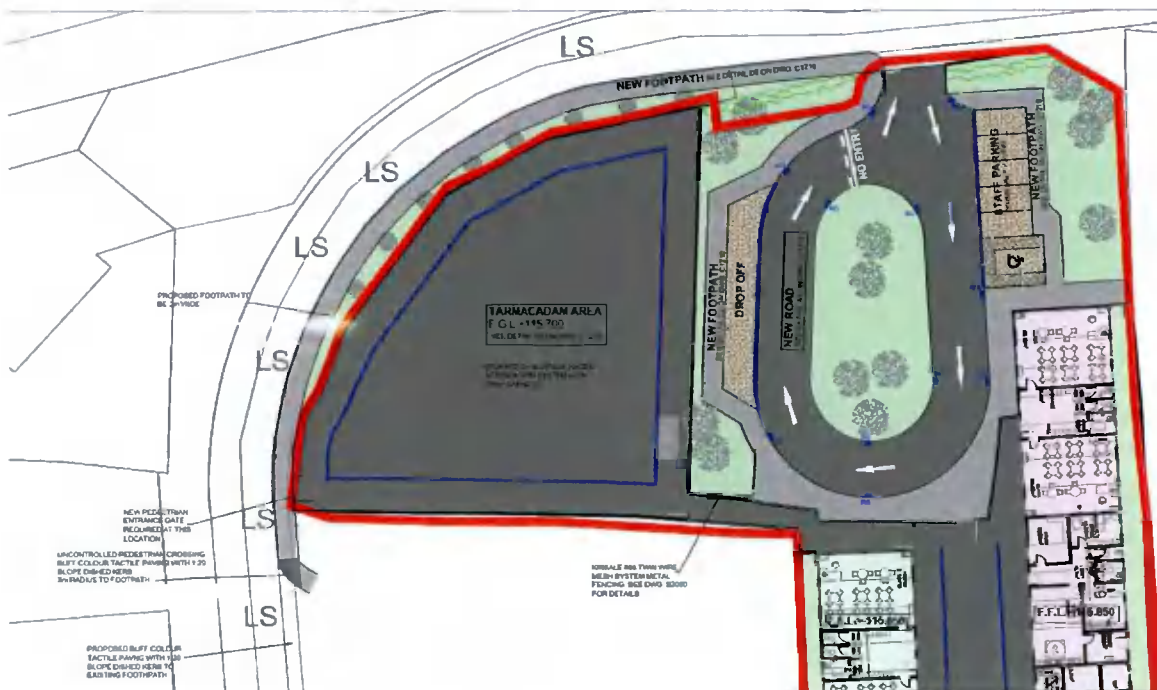


Figure 4-1: Proposed footpath extension at access to proposed interim school

For children being driven to school by private car, there is a drop off area proposed within the school grounds.

It is noted the use of the existing access road by a high volume of cars carrying students would result in congestion within the access road itself and at its intersection with Main Street. It is noted that the existing Scoil Chronain uses the community centre car park as a drop off for their pupils, therefore the access road at peak times will already have significant traffic volumes.

### 4.2 PROPOSED SCHOOL BUS

To overcome these issues, it is proposed that all pupils travelling from outside the immediate Rathcoole Village area would be brought to school via a shuttle bus strategy which would transport children to the school from areas such as Newcastle and Saggart and areas in between.

There will be a drop-off area provided for this shuttle bus within the site of the proposed Interim School (see Appendix 1).

## 5.0 PARKING REQUIREMENTS, PARKING PROVISION AND SETDOWN ARRANGEMENTS AT THE SUBJECT SITE

### 5.1 CAR PARKING REQUIREMENTS UNDER SOUTH DUBLIN DEVELOPMENT PLAN

Figure 5-1 details the car parking requirements for different development types as stated within the South Dublin Development Plan 2016-2022 (Table 11.23, Chapter 11):

Table 11.23: Maximum Parking Rates (Non Residential)

CATEGORY	LAND USE	ZONE 1	ZONE 2
<b>Accommodation<sup>6</sup></b>	Hotel <sup>7</sup>	1 per bedroom	0.5 per bedroom
	Mobile Home Park <sup>8</sup>	1 per unit	1 per unit
	Nursing Home, Retirement Home	1 per 4 residents	1 per 8 residents
	Student Accommodation	1 per 10 bed spaces	1 per 20 bed spaces
<b>Civic, Community and Religious</b>	Bank Community Centre Library Public Institution	1 per 25 sqm GFA	1 per 50 sqm GFA
	Place of worship	1 per 6 seats	1 per 12 seats
	Funeral Home	1 per 20 sqm GFA	1 per 20 sqm GFA
<b>Education</b>	College of Higher Education	1 per staff + 1 per 15 students	1 per 2 staff + 1 per 30 students
	Crèche School <sup>9</sup>	1 per classroom	0.5 per classroom
<b>Medical</b>	Clinics and Group Practices	2 per consulting room	1.5 per consulting room
	Hospital	1 per 100 sqm GFA	1 per 150 sqm GFA
<b>Retail and retail Service</b>	Café Restaurant	1 per 15 sqm GFA	1 per 20 sqm GFA
	Bar Club <sup>10</sup>	1 per 30 sqm	1 per 40 sqm
	Retail Convenience	1 per 15 sqm	1 per 25 sqm
	Retail Comparison	1 per 25 sqm	1 per 35 sqm
	Retail Warehousing	1 per 50 sqm	1 per 50 sqm
	Vehicle Service Station	1 per 250 GFA	1 per 250 GFA
<b>Enterprise and Employment</b>	Offices <sup>11</sup> Manufacturing	1 per 50 sqm GFA	1 per 75 sqm GFA
	Warehousing	1 per 100 sqm GFA	1 per 200 sqm GFA

Figure 5-1: South Dublin County Council Parking Requirements (extract)

The site is assumed to be within Zone 1, therefore the Development Plan requires that 5 No. car parking spaces be provided as part of the development (1.0 spaces per classroom).

### 5.2 PROPOSED CAR PARKING PROVISION AND SET-DOWN ARRANGEMENTS

In compliance with the Development Plan requirements, 5 No. spaces will be provided on site, plus a set-down area for the shuttle bus.

### 5.3 CYCLE PARKING REQUIREMENTS UNDER CORK COUNTY DEVELOPMENT PLAN

Figure 5-2 details the cycle parking requirements for different development types as stated within the South Dublin Development Plan 2016-2022 (Table 11.22, Chapter 11):

Table 11.22: Minimum Bicycle Parking Rates

CATEGORY	LAND USE	LONG TERM	SHORT STAY
Accommodation	Hotel	1 per 5 staff	1 per 10 bedrooms
	Nursing Home	1 per 5 staff	1 per 10 residents
	Residential Apartment	1 per 5 apartments	1 per 10 apartments
	Student Accommodation	1 per bedroom	1 per 5 bedrooms
Civic, Community and Religious	Bank	1 per 5 staff	1 per 100 sqm GFA
	Community Centre Library		
	Public Institution		
	Place of Worship		1 per 10 seats
Education	College of Higher Education	1 per 5 staff 1 per 2 students	
	Crèche	1 per 5 staff	1 per 10 children
	Primary Schools	1 per 5 staff 1 per 5 students	
	Post Primary Schools	1 per 5 staff 1 per 2 students	
Medical	Clinics and Group Practices	1 per 5 staff	0.5 per consulting room
	Hospital	1 per 5 staff	1 per 10 beds
Retail and retail Service	Café	1 per 5 staff	1 per 10 seats
	Restaurant		
	Bar	1 per 5 staff	1 per 150 sqm GFA
	Club		
	Retail Convenience	1 per 5 staff	1 per 50 sqm GFA
	Retail Comparison	1 per 5 staff	1 per 50 sqm GFA
	Retail Warehousing	1 per 5 staff	1 per 100 sqm GFA
Vehicle Service Station	1 per 5 staff		

Figure 5-2: South Dublin County Council Cycle Parking Requirements (extract)

Thus, the Development Plan requires 2 No. cycle parking spaces be provided for staff and 20 No. for pupils.

#### 5.4 PROPOSED CYCLE PARKING PROVISION

Given the poor cycling facilities locally and the modal split information provided within section 3, it has been decided and agreed with Mr. John Hegarty that 10 no. covered cycle spaces will be initially provided, with a review at the end of the school year, increasing to 25 no. if deemed necessary.

## 6.0 MOBILITY MANAGEMENT STRATEGY

### 6.1 PREDICTED SCHOOL TRAVEL PATTERNS AT THE SUBJECT SITE.

The modal split information within section 3 of this report, based on the travel survey carried out by nearby Scoil Chronain, assumes that, without intervention, two-thirds of pupils will travel as car passengers, with one-third commuting on foot.

However, it will be the aim of the strategy that all students will ultimately use the shuttle bus provided, with children being delivered safely and efficiently to the door of the proposed school.

Initially, on the day of opening, it is reasonable to assume that, despite the provision of the shuttle bus, some local children will choose to walk to school, with this figure estimated at 20% (before the school opens, parents will be strongly advised to use the shuttle bus, even if travelling locally).

Table 6-1 below sets these modal splits as the target profile for the future occupants of the proposed Interim Primary School:

Transport Mode	Commuter Usage (%) - 2020 (year-of-opening)
Shuttle Bus	80%
Pedestrians	20%

Table 6-1– Future student occupants at Interim School - Target Modal Splits

### 6.2 OBJECTIVES OF SCHOOL TRAVEL PLAN

Mobility Management is a tool that brings together site management issues relating to transport in a coordinated manner. This section of the document puts in place the objectives of the mobility management strategy for the subject site and the specific measures designed to achieve these objectives.

This strategy aims to provide sustainable transport choices for pupils travelling to the proposed Interim Primary School, thus aiming zero use of the private car for delivery of pupils to the school and 80% use of the shuttle bus provided with 20% walking.

Specific measures for achieving effective modal shift towards maximising use of the shuttle bus will be detailed.

The objectives of the School Travel Plan in order to meet the targets detailed within Table 6-1 for the subject site are as follows:

- To integrate mobility management into the development decisions, policies and practices; working closely with the Department of Education and Skills on matters of access to and use of transport services in the vicinity of the subject site (Objective No. 1);
- To encourage pupils and the parents of pupils to use the shuttle bus system, by providing information on all services available (Objective No. 2);
- To ensure that pupils walking to school do so safely (Objective No. 3).

### 6.3 FUTURE MEASURES TO ENSURE TARGET MODAL SPLITS WILL BE ACHIEVED

#### 6.3.1 Introduction

Meeting the 3 No. objectives listed above will ensure that the modal splits for the proposed Interim School stated within Table 6-1 are achieved.

A number of the proposals listed to achieve these objectives and hence the associated target modal splits are easy and inexpensive to implement. Other measures require initial co-operation and co-ordination both within and between organisations or require an initial investment where this outlay is greatly outweighed by the subsequent benefits both to commuters and the environment.



### 6.3.2 Achieving Objective No. 1 – Appointment of Mobility Management Coordinator

The appointment of a mobility management coordinator will ensure that Mobility Management / the School Travel Plan is actively integrated into decisions, policies and practices at the proposed facility, with the designated person working closely with government bodies on matters of access to and use of transport services in the vicinity of the subject site.

The appointment of a mobility management coordinator will also ensure that Mobility Management / the School Travel Plan is not addressed in isolation but as part of a more general approach to the development of a sustainable organisation within the school, capable of delivering significant benefits to the community.

The designated person, an employee of the school, will communicate regularly with the local authority (South Dublin County Council) and government departments, with the aim of further improving sustainable transport facilities in the area and establishing good policies and practices when implementing measures detailed within the mobility plan. This communication might also relate to the staggering of start and finish times at the school.

### 6.3.3 Achieving Objective No. 2 – Measures encouraging Shuttle Bus Travel

On the day of opening of the development, it is predicted that 80% will travel by shuttle bus at the proposed Interim Primary School.

It is vital that timetable information is available to parents and pupils in order to encourage maximum usage of the bus system. Timetables for the shuttle bus service and the stop off points near their place of residence should be posted on the facility's notice boards and / or the school's web site.

### 6.3.4 Achieving Objective No. 3 – Ensuring the safety of children walking to the proposed school

On the day of opening of the development, it is predicted that 20% will walk to the proposed Interim Primary School.

It is vital that information on safe walking practices is available to parents and pupils in order to encourage best practice. Information regarding the meeting area for pupils walking to the proposed school, located at the nearby community centre, should be posted on the facility's notice boards and / or the school's web site. Details of how staff will then escort the children across the road towards the school via the new extended footpath should also be contained within the notice.

## 6.4 ROLE OF THE MOBILITY MANAGEMENT COORDINATOR AT THE PROPOSED DEVELOPMENT

### 6.4.1 Mobility Plan Administration

It is the applicant's intention that a mobility management coordinator be appointed to administer, implement, monitor and review mobility management issues within the primary school development. As stated above, the manager will also liaise with the local authority on issues relevant to the maximisation of shuttle bus usage at the proposed Interim Primary School.

### 6.4.2 Duties of the Mobility Management Coordinator

#### General

There are a range of measures that will be undertaken by the facility manager in order to aid in the continuing elimination of car-based journeys to the proposed Interim Primary School.

The manager will have a vital role in encouraging and enabling pupils and their parents at the proposed Interim Primary School to adopt the measures listed within the document to achieve the objectives listed above. The duties of the manager are detailed below under the following headings:

- Promoting shuttle bus travel
- Promoting safe walking to school
- Monitoring the modal splits for students at the school

Promoting shuttle bus travel

The mobility management coordinator will promote a bus-usage culture among both pupils and parents. The manager can use the newsletter and website to provide information on the shuttle bus system, in particular timetable information, costs, and stop locations for pupils and parents.

Promoting safe walking to school

The mobility management coordinator will ensure that a teacher and caretaker escorts the pupils across the existing access road, with a meeting area for the pupils to walk to the proposed school, located at the nearby community centre. Staff will then escort the children across the access road and up to the school via the new extended footpath as detailed within Figure 4-1.

Monitoring the modal splits for the student occupants

In order to maximise the effectiveness of the School Travel Plan, the mobility management coordinator should be responsible for the ongoing monitoring of the modal splits within the plan, including the carrying out on a regular basis of pupil travel surveys.

## **7.0 OVERALL CONCLUSIONS**

Given the site location and the existing traffic volumes on the Main Street junction, it is proposed to provide a shuttle bus system for pupils at the proposed Interim School.

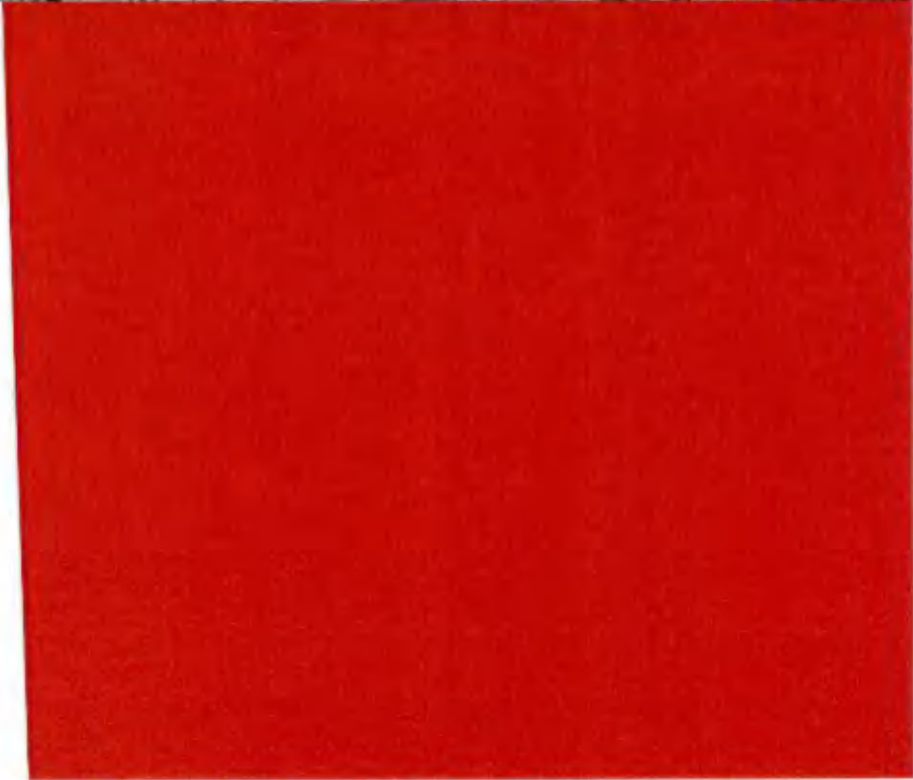
The strategy will have the target of 4 out of 5 pupils using the shuttle bus on the day of opening, with 20% walking or arriving by private car.

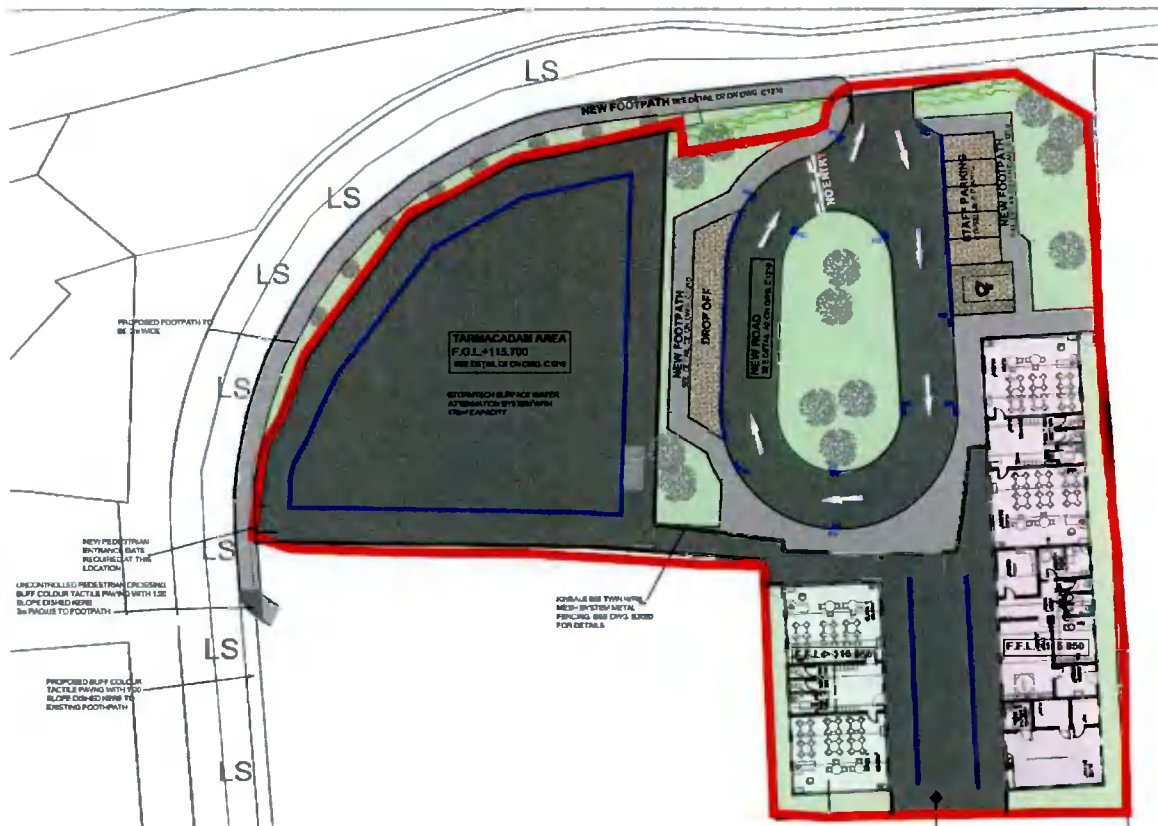
A mobility management co-ordinator at the school will help promote and maximise the use of the shuttle bus service to the site, while also overseeing the implementation of the School Travel Plan proposals.

APPENDIX

1

SITE LAYOUT PLAN





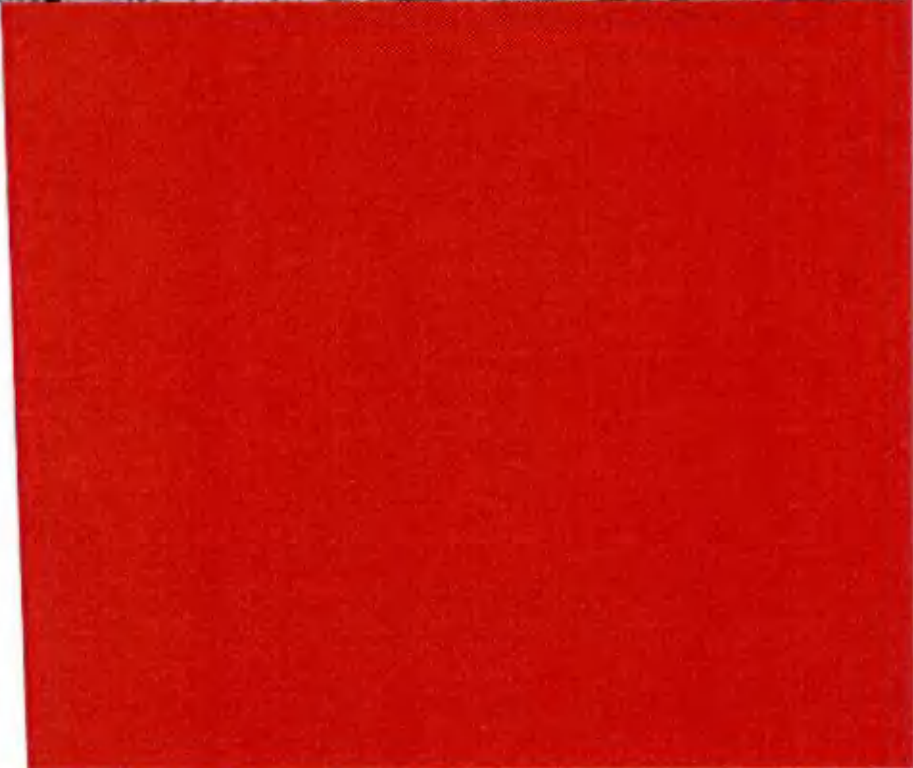
SITE LAYOUT PLAN

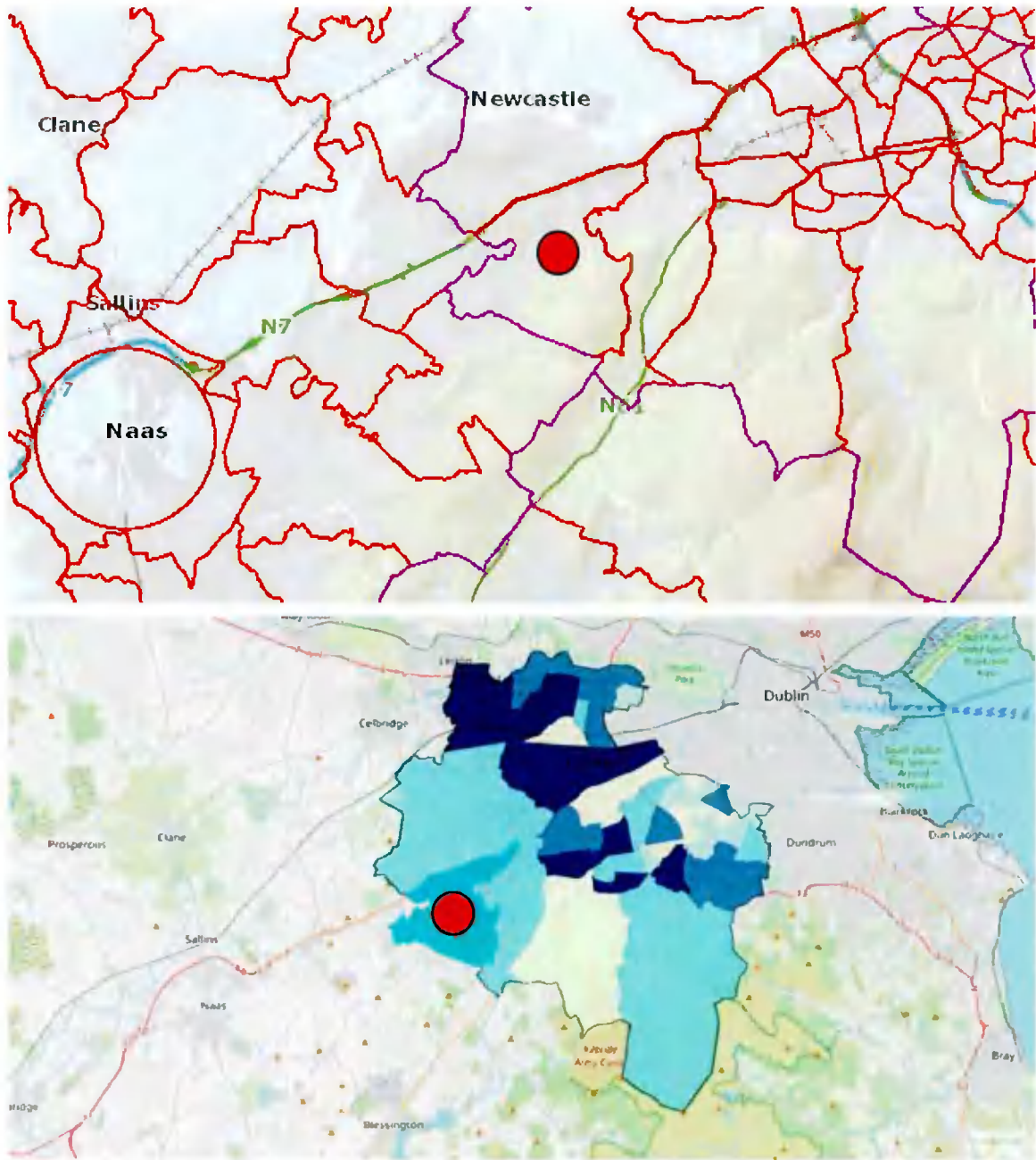


APPENDIX

2

CENSUS DATA:  
RATHCOOLE  
ELECTORAL DISTRICT





RATHOOLE ED

<b>2016 CENSUS – MODE OF TRANSPORT FOR TRAVEL TO SCHOOL OR COLLEGE</b>	
Pedestrian	400
Cyclist	3
Bus	90
Train	17
Motorcycle	0
Car Driver	54
Car passenger	270
Van	2
Home	2
Not stated	34
<b>TOTAL</b>	<b>872</b>

**MODAL SPLIT DATA – RATHCOOLE ED**

