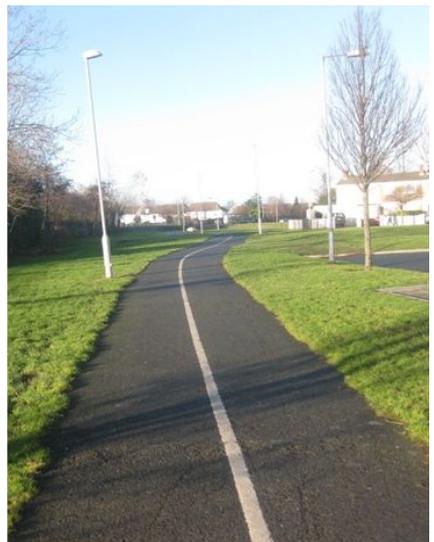
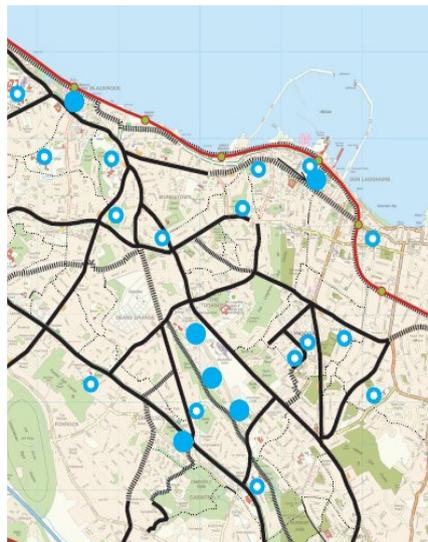


Dún Laoghaire - Rathdown County Council

# Cycle Network Review

Study Report | October 2012





# Contents

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	Page
<b>Executive Summary</b>	<b>i</b>
<b>1 Introduction</b>	<b>1</b>
1.1 Report Structure	1
<b>2 Primary Cycle Network</b>	<b>2</b>
2.1 Introduction	2
2.2 Radial Routes	4
2.3 Orbital Routes	10
2.4 Link Cycle Routes	18
2.5 Off-Road Cycle Routes	32
2.6 Summary of Demand Categories	37
<b>3 Quality of Service Assessment</b>	<b>38</b>
3.1 Assessment Criteria	38
3.2 Results of Quality of Service Assessment	43
3.3 Desired Quality of Service	47
<b>4 Demand versus Quality of Service Matrix</b>	<b>48</b>
4.1 Introduction	48
4.2 The Demand versus Quality of Service Matrix	48
<b>5 Cycle Network Maps</b>	<b>53</b>
5.1 Cycle Skills Network Assessment (CSNA)	54

## Appendices

### Appendix A

Quality of Service Calculations

### Appendix B

Figures

## Executive Summary

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In March 2009 Dún Laoghaire-Rathdown County Council (dlr) released its "Review of Cycling in Dún Laoghaire-Rathdown County Council". The purpose of this review was to assess all areas of cycling (policy, infrastructure and promotional) and to make recommendations to improve the facilities for cyclists throughout the County. One of the key recommendations in this review was that a County Wide Cycle Network Assessment would be carried out. A significant amount of work has been carried out in the provision of facilities for Cyclists in dlr (more than 200km of cycle facilities has been provided to date). This has been carried out by a number of different departments, at different times but not to an overall strategy. It is envisaged that preparing a Cycle Network will bring a formal approach to infrastructure provision in dlr.

A Cycle Network is defined as a collection of connected routes that follow logical corridors between zones or urban centres. Its purpose is to connect the main attractors within the County and to provide effective through-movement for cyclists. In short, it gets cyclists where they want to go along safe and attractive routes.

There are a number of benefits to creating a formal Cycle Network including:

- Generating an inventory of existing facilities and identifying the quality of these facilities
- Identifying barriers to cycling and accessibility
- Identify areas where infrastructure improvements will have the greatest benefit
- Assist in route planning
- Form the basis for softer measures e.g. maps, travel guides
- Inform the public of the facilities that are available to them
- Encourage more people to cycle as their primary mode in line with the objectives of the Government's Smarter Travel policies

Arup were employed by dlr to carry out the County Wide Cycle Network Assessment and the assessment process was broken down into a number of steps:

Firstly, the study identified a network of desire lines for cyclists (Section 2). This network of desire lines was generated by identifying the most convenient routes for cyclists between major attraction zones within the study area e.g. education centres, employment centres, towns etc. These desire lines formed the basis for the primary cycle network. It is envisaged that the primary network will carry the majority of the cycle traffic and the primary routes tend to follow the busier vehicular routes e.g. N11, Rock Road etc. In addition a secondary cycle network was also developed. These routes (which mainly run along residential roads) tend to have low traffic speeds and volumes. Generally these routes would not require any direct infrastructure provision i.e. cycle tracks, and have been integrated with the primary network to allow more permeable options for route planning.

The primary network was then further divided into a number of individual sections so that a Demand Category Grade and Quality of Service Assessment could be carried out on each route. The Demand Category Grade classifies the potential demand for cycling along a particular route, while the Quality of Service Assessment classifies the current standard of facilities along the route.

The Demand Category Grade is based on the population, employment and educational catchments along each route which allows routes to be compared i.e. densely populated areas would have a higher demand for cycle facilities than an area that is sparsely populated. The routes with the highest Demand Category Grade were those located closest to University College Dublin while the routes in areas of the County with lower housing densities or at the edge of the built up area tended to have lower Demand Category Grades.

Each section of the primary routes was assessed and a Quality of Service (QoS) was calculated for each section (Section 3). The QoS is a measure of the physical infrastructure and is based on a combination of its geometric characteristics (No. of adjacent cyclists, No. of conflicts, junction delays) and its travel environment (pavement condition, HGV Influence). In general, the QoS assessment identified that routes without cycle lanes on the main distributor roads had the lowest quality of service level (i.e. Dundrum Road) while those routes with cycle facilities that were off-road and away from traffic (i.e. Kilbogget Park) obtained the highest quality of service levels.

Section 4 in the report prioritises each section of the Network based on its Demand Category and its Quality of Service e.g. a section with high demand but poor quality of service ranked higher than a section with lower demand and better quality of service. This prioritisation list will assist in the allocation of funding of cycle facilities in the county over the coming years and will ensure that funding for infrastructure is directed to the schemes which will provide the greatest benefit to cyclists. It should be noted that the cost of the schemes on the prioritisation list will vary and that if any opportunity to install a scheme at a lesser cost further down the list arises it should be availed of.

As part of the assessments a number of maps representing the cycle network for the Dún Laoghaire – Rathdown area have also been prepared (Section 5). These maps include the proposed Cycle Network, the existing facilities and a number of other maps that represent the demand and quality of service visually.

# 1 Introduction

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Arup were employed by Dún Laoghaire – Rathdown County Council to carry out a review of their existing county wide cycle network with the objective to identify a cycle network to serve the county and to prioritise the various elements of this cycle network to be upgraded over the coming years. The prioritising of the various elements of the cycle network will ensure improvement measures are delivered at locations where the greatest demand exists and that currently have a low Quality of Service.

## 1.1 Report Structure

The report firstly identifies the primary desire lines for cyclists travelling within the Dún Laoghaire – Rathdown area. This network of desire lines is based on identifying the direct routes for cyclists between the major attraction zones within the study area. Establishing this cycle network will allow for direct cycle routes to be assessed both in terms of their demand category grade and their Quality of Service and will assist in identifying improvement measures on these routes. As part of this section, each assessed cycle route within the county is classified according to its Demand Category Grade. The Demand Category Grade was based on the population, employment and educational catchments of each route, as well as the employment and educational facilities provided by each route.

The second element includes a review of each of the routes forming the primary cycle network to establish the Quality of Service for each section of this cycle network. The Quality of Service assessment was carried out based on the methodology outlined in the National Cycle Manual (National Transport Authority).

The third element involved compiling the information under the Demand Category and the Quality of Service assessment and generating a matrix of Demand versus Quality of Service. This Matrix will assist in prioritising the various elements of the cycle network.

The final section includes a map of the future cycle network for the Dún Laoghaire – Rathdown area and also presents a map illustrating the elements of this future network which are existing and which elements are proposed. The final section of the report includes a Cycle Skills Network Assessment for the entire Dún Laoghaire - Rathdown cycle network.

## 2 Primary Cycle Network

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### 2.1 Introduction

This section identifies the primary cycle desire line network within the Dún Laoghaire – Rathdown County. The establishment of this cycle network will allow for direct cycle routes to be assessed both in terms of their demand category grade and their Quality of Service and will assist in identifying improvement measures on these routes. The development of the network is based on connecting the major attraction nodes in the county along the desire lines between the nodes. The primary attraction nodes used to develop the primary cycle network include the following:

- Major Employment Centres
- Major Retail Centres
- Education Facilities
- Public Transport Nodes (DART, LUAS)

The developing network has been divided up into various routes to allow for ease of assessment; however, it is worth noting that the cycle network will function as a system of interconnecting routes which will encourage both long and short distance trips by bicycle.

The presentation of the cycle network has been divided up into four main types of routes:

- Radial Routes (i.e. N11)
- Orbital Routes (i.e. Churchtown to Booterstown)
- Link Routes (i.e. Ballinteer to Dundrum)
- Off-Road Routes (i.e. Kilbogget Park)

A demand category grade will be established for each route of the cycle network. The demand category grade for all the routes in Dún Laoghaire – Rathdown was based on a combination of the following:

- the number of people who live on or close to each of the routes (origin)
- the number of people who work on or close to each of the routes (destination)
- the number of students (13 years and older) who live on or close to the route (origin)
- the number of students attending secondary level schools located on or close to the route (destination)
- the number of 3rd level students attending college and university on or close to the route (destination)

The demand category grade assessment will be biased towards routes which have a high number of students who live nearby and also where students attend schools and institutions. It is envisaged that students are more likely to transfer to the bicycle compared to the general population and stay cycling

when they enter the workforce. For the purpose of this assessment students were given a weighting of 2, while the general population and workers were assigned a weighting of 1.

The demand category grades were assessed on a per kilometre basis with the highest demand grade assigned Grade A1 and the lowest grade assigned Grade F2.

Grade A1	>10,000 persons (including weighting) per kilometre
Grade A2	>9,500 persons (including weighting) per kilometre
Grade B1	>9,000 persons (including weighting) per kilometre
Grade B2	>8,500 persons (including weighting) per kilometre
Grade C1	>8,000 persons (including weighting) per kilometre
Grade C2	>7,500 persons (including weighting) per kilometre
Grade D1	>7,000 persons (including weighting) per kilometre
Grade D2	>6,500 persons (including weighting) per kilometre
Grade E1	>6,000 persons (including weighting) per kilometre
Grade E2	>5,500 persons (including weighting) per kilometre
Grade F1	>5,000 persons (including weighting) per kilometre
Grade F2	>4,500 persons (including weighting) per kilometre

As an example, a cycle route which is 5.0 kilometres in length, with a population catchment of 25,000 persons, an employment catchment of 3,000 persons, student catchment of 1,500 and with 1,000 students attending school or a third level institution in the locality, would have a Grade D2 Demand Category.

$$25000 + 3000 + (1500*2) + (1000*2) = 33,000/5$$

$$= 6,600 \text{ persons per kilometre}$$

The Demand Category grade assessment was carried out using Accession, a Geographical Information System, which allows for Census data (and other data) to be interrogated with a greater degree of accuracy and flexibility.

From the Accession model of the Dún Laoghaire – Rathdown area, the number of persons living and working within 500 metres of each route was calculated along with the number of students who either lived or attended school within 500 metres of each route. Based on a combination of the above data, it was possible to calculate a Demand Category Grade for each route.

## 2.2 Radial Routes

Five Primary Radial routes were established as part of the overall Cycle Network for the Dún Laoghaire – Rathdown County. The Radial Routes described below are major routes travelling between the Dun Laoghaire – Rathdown area into and out of Dublin City Centre and include the following:

- **The Dún Laoghaire Radial Cycle Route**

Trimleston Avenue to Mount Merrion Avenue

Mount Merrion Avenue to Temple Crescent

Temple Crescent to York Road

York Road to Lower Glenageary Road

Lower Glenageary Road to Harbour Road

- **The N11 Radial Cycle Route**

- N11 North

- Entrance to UCD to Mount Merrion Avenue

- Mount Merrion Avenue to Leopardstown Road

- Leopardstown Road to Johnstown Road

- N11 South

- Johnstown Road to Wyattville Road

- Wyattville Road to Corbawn Lane

- Corbawn Lane to Allies River Road

- **The Goatstown Radial Cycle Route**

Clonskeagh Road to Roebuck Road

Roebuck Road to Mount Anville Road

Mount Anville Road to Blackthorn Drive

Blackthorn Drive to Ballyogan Road

Ballyogan Road to Carrickmines Interchange

- **The Dundrum Radial Cycle Route**

Milltown Road to Taney Road

Taney Road to Wyckham Way

Wyckham Way to Blackthorn Drive

Blackthorn Drive to Hillcrest Road

Hillcrest Road to Stepside Village

- **The Nutgrove Radial Cycle Route**

Grange Road to Barton Road East

Barton Road East to Nutgrove Avenue

Nutgrove Avenue to Braemor Road

Each cycle route has been divided into smaller sections to assist in the assessment of the Quality of Service of each route.

### 2.2.1 The Dún Laoghaire Radial Cycle Route

The above cycle route serves as one of the radial routes into Dublin City Centre and also serves the commercial areas of Dún Laoghaire and Blackrock. The route serves a number of schools including:

- Dún Laoghaire College of Further Education
- Dún Laoghaire School of Music
- CBC Monkstown Primary School
- Rosemount Secondary School for Girls
- Blackrock College
- Comhaltas Ceoltóirí na h-Éireann

In addition, the Dún Laoghaire Radial Cycle Route connects with a number of DART Stations including, Sandycove and Glasthule, Dún Laoghaire, Salthill and Monkstown, Seapoint, Blackrock, Booterstown and the network of Dublin Bus Routes including routes No. 4, 7, 8, and 45A.

### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Dún Laoghaire Radial Cycle Route and was used to calculate the Demand Category grade.

Length	7587 metres
Population Catchment (500 metre catchment)	20911 persons
Employment Catchment (500 metre catchment)	12010 persons
12 – 18 years Catchment	1662 persons
Secondary School Catchment	4795 persons
3 <sup>rd</sup> Level Institution Catchment	4300 persons
Weighted Demand per kilometre	7175 persons
<b>Demand Category Grade</b>	<b>D1</b>



**Section 1**  
Trimleston Avenue to Mount Merrion Avenue

**Section 2**  
Mount Merrion Avenue to Temple Crescent

**Section 3**  
Temple Crescent to York Road

**Section 4**  
York Road to Lower Glenageary Road

**Section 5**  
Lower Glenageary Road to Harbour Road

**DÚN LAOGHAIRE**  
**Radial**  
**Cycle Route**

## 2.2.2 The N11 Radial Cycle Route

The above cycle route serves as one of the radial routes into Dublin City Centre. The route is heavily trafficked and provides access to a number of important attraction points including Cornelscourt Shopping Centre, Stillorgan Shopping Centre and University College Dublin. In addition, this route serves many schools.

The N11 Radial Cycle Route also connects with the network of Dublin Bus routes including No's 46A, 63, 84, 117 and 145.

### Demand Category

For the purpose of calculating a more realistic demand category grade, the N11 Radial Cycle Route has been split into a northern and southern sub-route, with 3 sections in each sub-route. Based on the Census 2006 data the following information has been obtained for the N11 Radial Route and was used to calculate the demand category grades for both the northern and southern sub-routes.

#### N11 North:

Length	7430 metres
Population Catchment (500 metre catchment)	21806 persons
Employment Catchment (500 metre catchment)	6673 persons
12 – 18 years Catchment	2088 persons
Secondary School Catchment	4302 persons
3 <sup>rd</sup> Level Institution Catchment	18000 persons
Weighted Demand per kilometre	10398 persons
<b>Demand Category Grade</b>	<b>A1</b>

#### N11 South:

Length	4987 metres
Population Catchment (500 metre catchment)	8341 persons
Employment Catchment (500 metre catchment)	1275 persons
12 – 18 years Catchment	922 persons
Secondary School Catchment	477 persons
3 <sup>rd</sup> Level Institution Catchment	0 persons
Weighted Demand per kilometre	2489 persons
<b>Demand Category Grade</b>	<b>F2</b>



**North Sections 1-3**

**Section 1**

Entrance to UCD to Mount Merrion Avenue

**Section 2**

Mount Merrion Avenue to Leopardstown Road

**Section 3**

Leopardstown Road to Johnstown Road

**South Sections 4-6**

**Section 4**

Johnstown Road to Wyattville Road

**Section 5**

Wyattville Road to Corbawn Lane

**Section 6**

Corbawn Lane to Allies River Road

**N 11**

**Radial  
Cycle Route**

### 2.2.3 The Goatstown Radial Cycle Route

The above cycle route serves as one of the radial routes into Dublin City Centre connecting the suburban districts of Leopardstown, Sandyford and Goatstown with the city centre. The route also serves a number of important attraction points in the Dún Laoghaire – Rathdown area including, University College Dublin as well as the Sandyford & Stillorgan Business Park. The route serves a number of schools including:

- St. Benildus Boys Secondary School
- Mount Anville School

In addition, the Goatstown Radial Cycle Route connects with the Dublin Bus route No. 11. As well as the LUAS stop at Kilmacud, the Goatstown Radial Cycle Route will now connect with the following new LUAS stops on Ballyogan Road:

- The Gallops
- Leopardstown Valley
- Ballyogan Wood

These new stops form part of the Sandyford to Cherrywood LUAS extension which opened in 2010.

### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Goatstown Radial Cycle Route and was used to calculate the Demand Category grade.

Length	8270 metres
Population Catchment (500 metre catchment)	16153 persons
Employment Catchment (500 metre catchment)	12288 persons
12 – 18 years Catchment	1379 persons
Secondary School Catchment	1702 persons
3rd Level Institution Catchment	18000 persons
Weighted Demand per kilometre	8537 persons
<b>Demand Category Grade</b>	<b>B2</b>

Dun Laoghaire-Rathdown County Council are currently investigating a number of different options to improve both pedestrian and cyclist linkage across the M50. It is envisaged that the recommendations from this study will ultimately form part of the Goatstown Radial Cycle Route.



**Section 1**  
Clonskeagh Road to Roebuck Road

**Section 2**  
Roebuck Road to Mount Anville Road

**Section 3**  
Mount Anville Road to Blackthorn Drive

**Section 4**  
Blackthorn Drive to Ballyogan Road

**Section 5**  
Ballyogan Road to Carrickmines Interchange

**GOATSTOWN**  
**Radial**  
**Cycle Route**

## 2.2.4 The Dundrum Radial Cycle Route

The above cycle route serves as one of the radial routes into Dublin City Centre and also serves the commercial area of Dundrum. The route serves a number of schools including:

- St. Tiernan's Community School

In addition, the Dundrum Radial Cycle Route connects with a number of Dublin Bus routes including No. 44b, 16, 17 and the LUAS station in Dundrum and Balally

### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Dundrum Radial Cycle Route and was used to calculate its Demand Category grade. The additional employment demand generated by the Dundrum Town Centre has been added to the figures below, as the employment has increased significantly since the 2006 Census.

Length	5800 metres
Population Catchment (500 metre catchment)	16384 persons
Employment Catchment (500 metre catchment)	11652 persons
12 – 18 years Catchment	1328 persons
Secondary School Catchment	805 persons
3 <sup>rd</sup> Level Institution Catchment	Zero persons
Weighted Demand per kilometre	5832 persons
<b>Demand Category Grade</b>	<b>E2</b>

The Demand Category Grade for the Dundrum Radial Cycle Route excluded Section 5 from the assessment process. Section 5 of the Cycle Route serves a large undeveloped part of Dun Laoghaire Rathdown County Council and its inclusion in the assessment would have resulted in unrealistic low Demand Category Grade for the Route as a whole.



- Section 1**  
Milltown Road to Taney Road
- Section 2**  
Taney Road to Wyckham Way
- Section 3**  
Wyckham Way to Blackthorn Drive
- Section 4**  
Blackthorn Drive to Hillcrest Road
- Section 5**  
Hillcrest Road to Stepside Village

**DUNDRUM**  
**Radial**  
**Cycle Route**

### 2.2.5 The Nutgrove Radial Cycle Route

The above cycle route serves as a localised radial route into Dublin City Centre and also serves the commercial area around the Nutgrove Shopping Centre. The route is near the following schools:

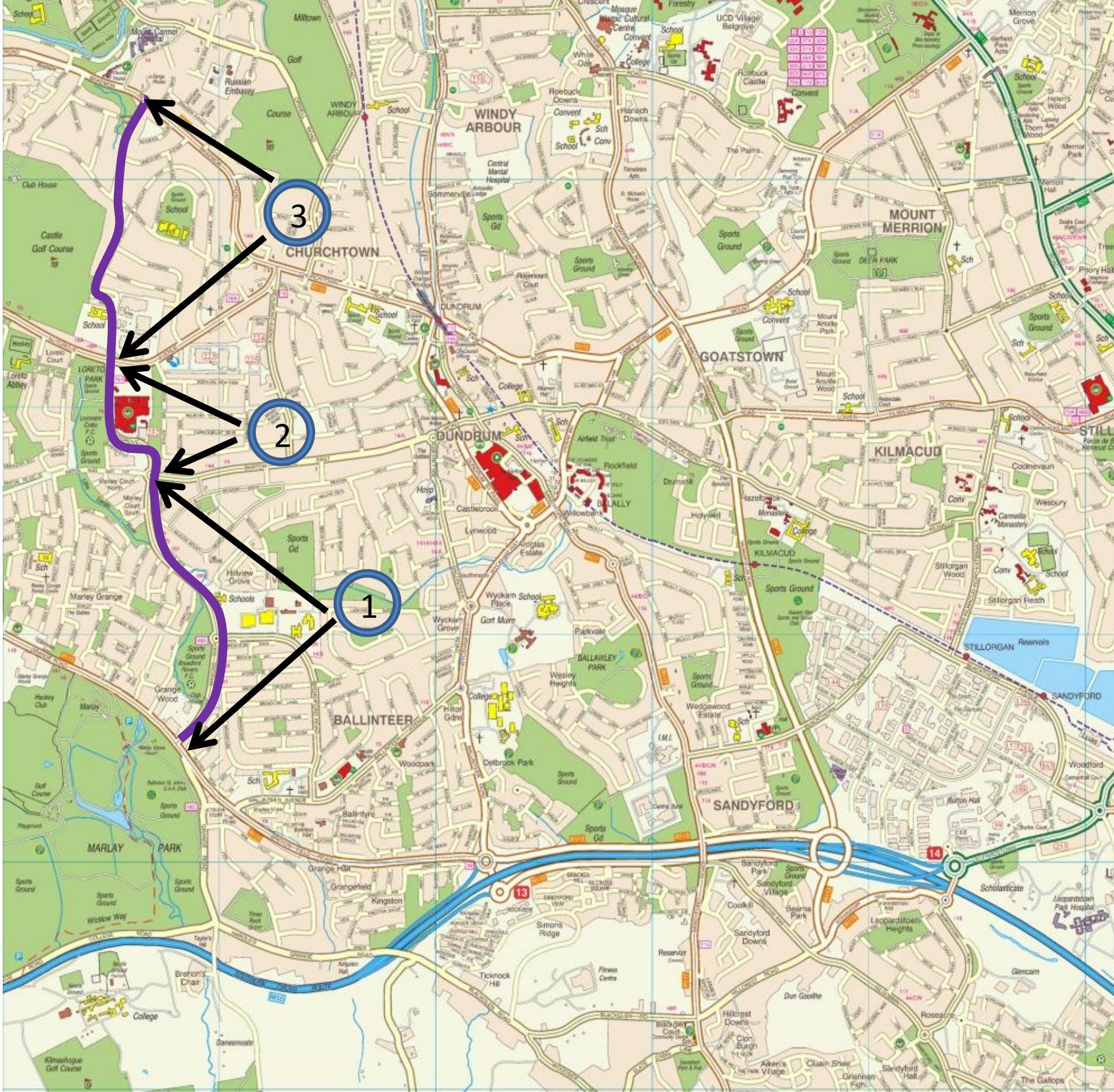
- Rathfarnham National School
- De La Salle College, Churchtown

In addition, the Nutgrove Radial Cycle Route connects with a number of Dublin Bus routes including No. 16A, 17, 75 and 161.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Dundrum Radial Cycle Route and was used to calculate its Demand Category grade.

Length	3189 metres
Population Catchment (500 metre catchment)	11501 persons
Employment Catchment (500 metre catchment)	2130 persons
12 – 18 years Catchment	1125 persons
Secondary School Catchment	627 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	5373 persons
<b>Demand Category Grade</b>	<b>F1</b>



**Section 1**  
Grange Road to Barton Road East

**Section 2**  
Barton Road East to Nutgrove Avenue

**Section 3**  
Nutmgrove Avenue to Braemor Road

**NUTGROVE**  
**Radial**  
**Cycle Route**

## 2.3 Orbital Routes

Six Primary Orbital Routes were established as part of the overall Cycle Network for the Dún Laoghaire – Rathdown County. The Orbital Routes described below are major routes travelling across the Dun Laoghaire-Rathdown area and include the following:

- **Churchtown to Booterstown Orbital Cycle Route**

Braemor Road to Dundrum Road

Dundrum Road to Goatstown Road

Goatstown Road to N11

N11 to Rock Road

- **Dundrum to Dún Laoghaire Orbital Cycle Route**

Nutgrove Way to Main Street (Dundrum)

Main Street (Dundrum) to Drummartin Road

Drummartin Road to N11

N11 to Deans Grange Road

Deans Grange Road to York Road

- **Ballinteer to Stillorgan Orbital Cycle Route**

Grange Road to Brehon Field Road Roundabout

Brehon Field Road Roundabout to Blackthorn Drive

Blackthorn Drive to Lower Kilmacud Road

- **Leopardstown to Blackrock Orbital Cycle Route**

Hillcrest Road to N11

N11 to Stradbroke Road

- **Carrickmines to Dún Laoghaire Orbital Cycle Route**

Ballyogan Road to Brighton Road

Brighton Road to N11

N11 to Clonkeen Road

Clonkeen Road to Rochestown Avenue (Bakers Corner)

Rochestown Avenue (Bakers Corner) to Lower Georges Street

- **Cherrywood to Dún Laoghaire Orbital Cycle Route**

Glenamuck Road to Wyattville Road

Wyattville Road to Church Road

Church Road to Graduate Roundabout

Graduate Roundabout to Upper Glenageary Road

Upper Glenageary Road to Summerhill Road

As with the radial routes, each orbital cycle route has been divided into smaller sections to assist in the assessment of the Quality of Service of each route.

### 2.3.1 The Churchtown to Booterstown Orbital Cycle Route

The above cycle route serves as an orbital route in the Dún Laoghaire – Rathdown area and serves the two primary attraction nodes of Dundrum and University College Dublin. The route serves a number of schools including:

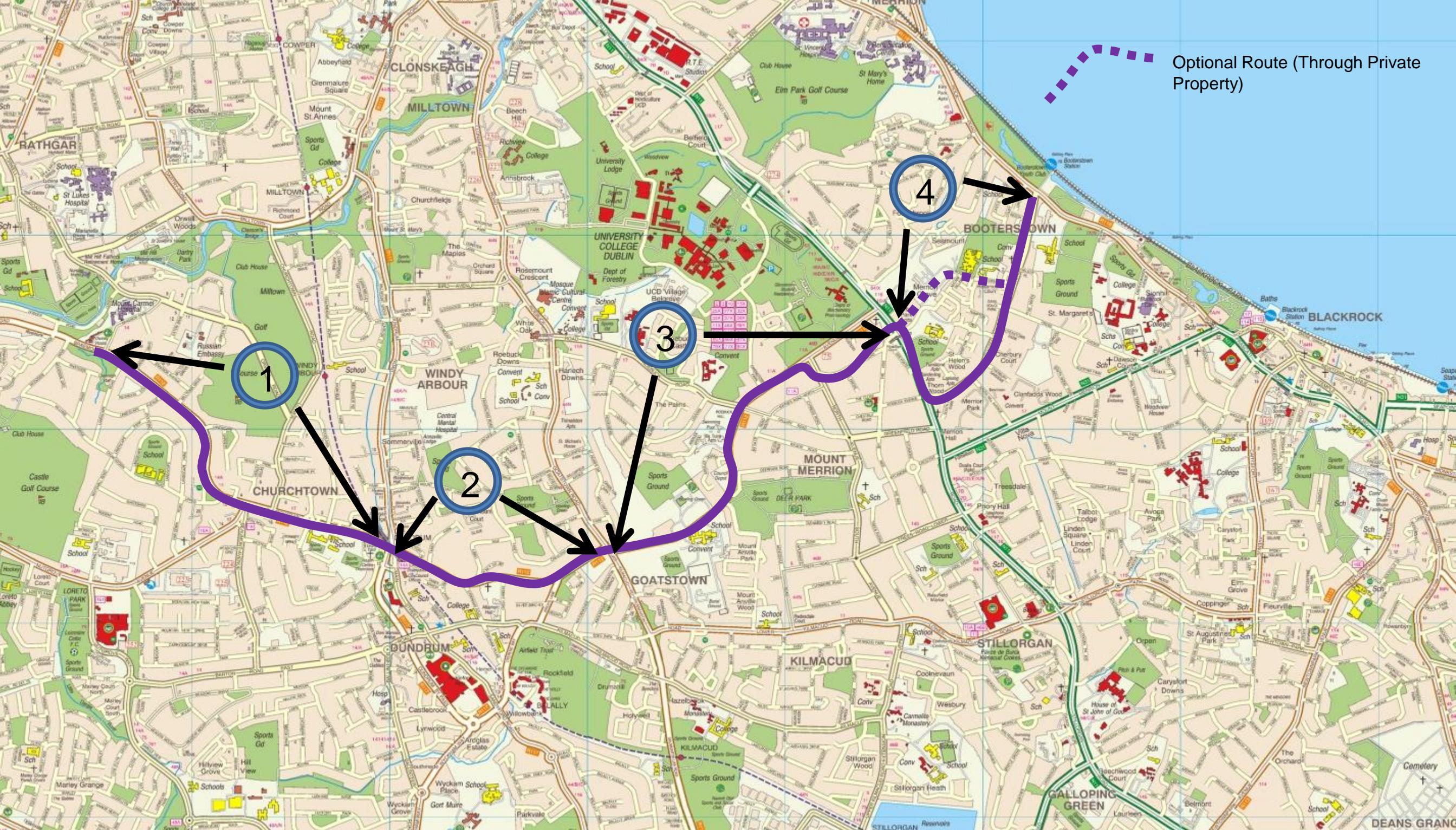
- Churchtown School of Music
- Notre Dame des Missions Primary and Secondary Girls School (Upper Churchtown Rd)
- Mount Anville Girls Secondary School

In addition, the Churchtown to Booterstown Orbital Cycle Route connects with a large number of Dublin Bus routes including No. 5, 14, 17, 44B, 45A, 75, 84, and connects with the DART Station in Booterstown and the LUAS Station in Dundrum.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Churchtown to Booterstown Orbital Cycle Route and was used to calculate its Demand Category grade.

Length	6617 metres
Population Catchment (500 metre catchment)	19525 persons
Employment Catchment (500 metre catchment)	6247 persons
12 – 18 years Catchment	1637 persons
Secondary School Catchment	4944 persons
3 <sup>rd</sup> Level Institution Catchment	18000 persons
Weighted Demand per kilometre	11324 persons
<b>Demand Category Grade</b>	<b>A1</b>



Optional Route (Through Private Property)

1

2

3

4

**Section 1**  
Braemor Road to Dundrum Road

**Section 2**  
Dundrum Road to Goatstown Road

**Section 3**  
Goatstown Road to the N11

**Section 4**  
N11 to Rock Road

**CHURCHTOWN TO BOOTERSTOWN**  
**Orbital**  
**Cycle Route**

### 2.3.2 The Dundrum to Dún Laoghaire Orbital Cycle Route

The above cycle route serves as an orbital route in the Dún Laoghaire – Rathdown area and serves four primary attraction nodes, i.e. Nutgrove Shopping Centre, Dundrum Town Centre, Stillorgan Shopping Centre and Dún Laoghaire Town Centre. The route serves a number of schools including:

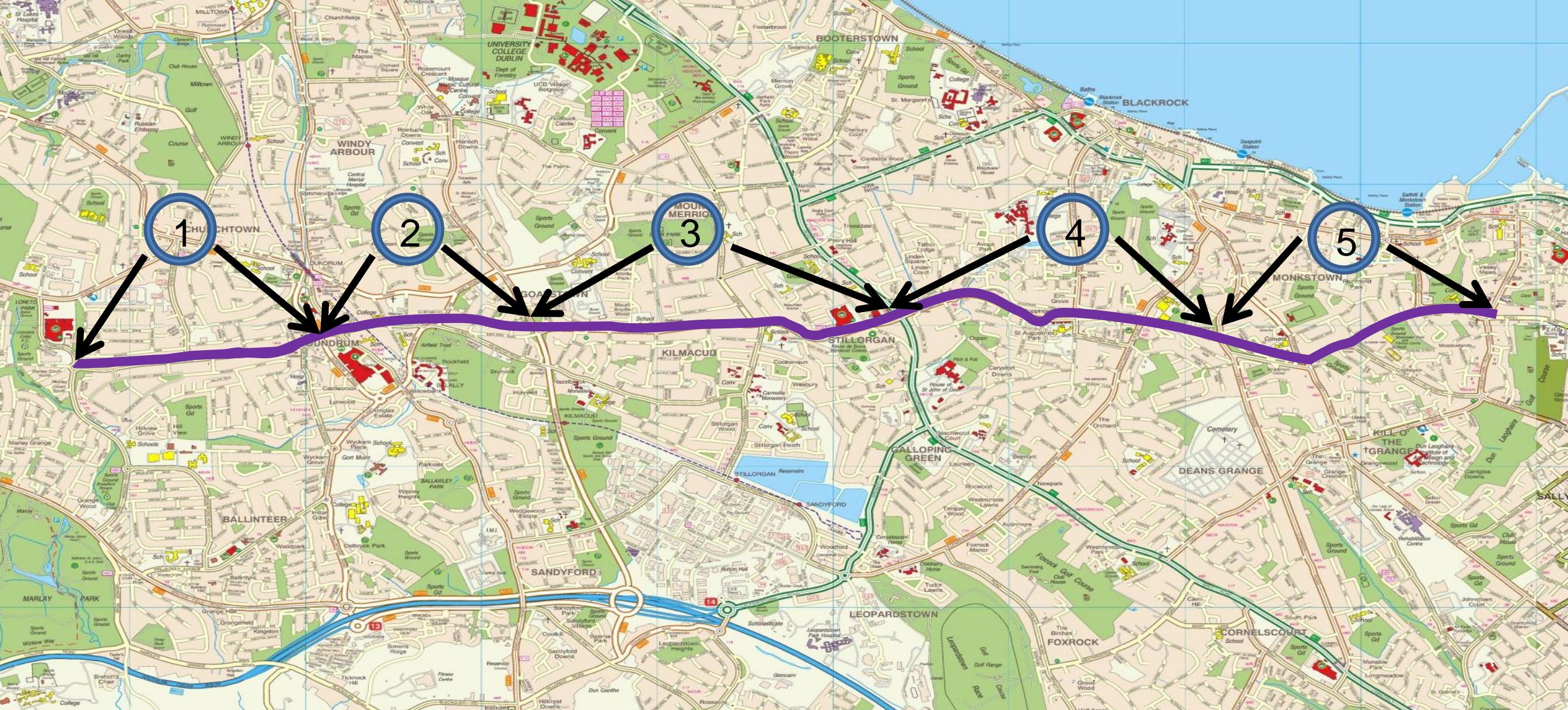
- St. Laurence's B.N.S
- Oatlands School
- Mount Anville Girls Primary School
- St. Augustine's Primary and Secondary Schools
- Newpark Comprehensive School
- Rockford Manor Presentation Secondary School
- Monkstown Educate Together National School
- CBC Monkstown
- Dún Laoghaire School of Music

In addition, the Dundrum to Dún Laoghaire Orbital Cycle Route connects with a significant number of Dublin bus services.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Dundrum to Dún Laoghaire Orbital Cycle Route and was used to calculate its Demand Category grade.

Length	8429 metres
Population Catchment (500 metre catchment)	34501 persons
Employment Catchment (500 metre catchment)	11370 persons
12 – 18 years Catchment	2992 persons
Secondary School Catchment	3895 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	7076 persons
<b>Demand Category Grade</b>	<b>D1</b>



**Section 1**  
Nutgrove Way to Main Street (Dundrum)

**Section 2**  
Main Street (Dundrum) to Drummartin Road

**Section 3**  
Drummartin Road to the N11

**Section 4**  
N11 to Deans Grange Road

**Section 5**  
Deans Grange Road to York Road

**DUNDRUM TO DÚN LAOGHAIRE**  
**Orbital**  
**Cycle Route**

### 2.3.3 The Ballinteer to Stillorgan Orbital Cycle Route

The above cycle route serves as an orbital route in the Dún Laoghaire – Rathdown area and serves three primary attraction nodes at Sandyford & Stillorgan Business Park and Stillorgan Shopping Centre along with Marley Park. The route serves a number of schools including:

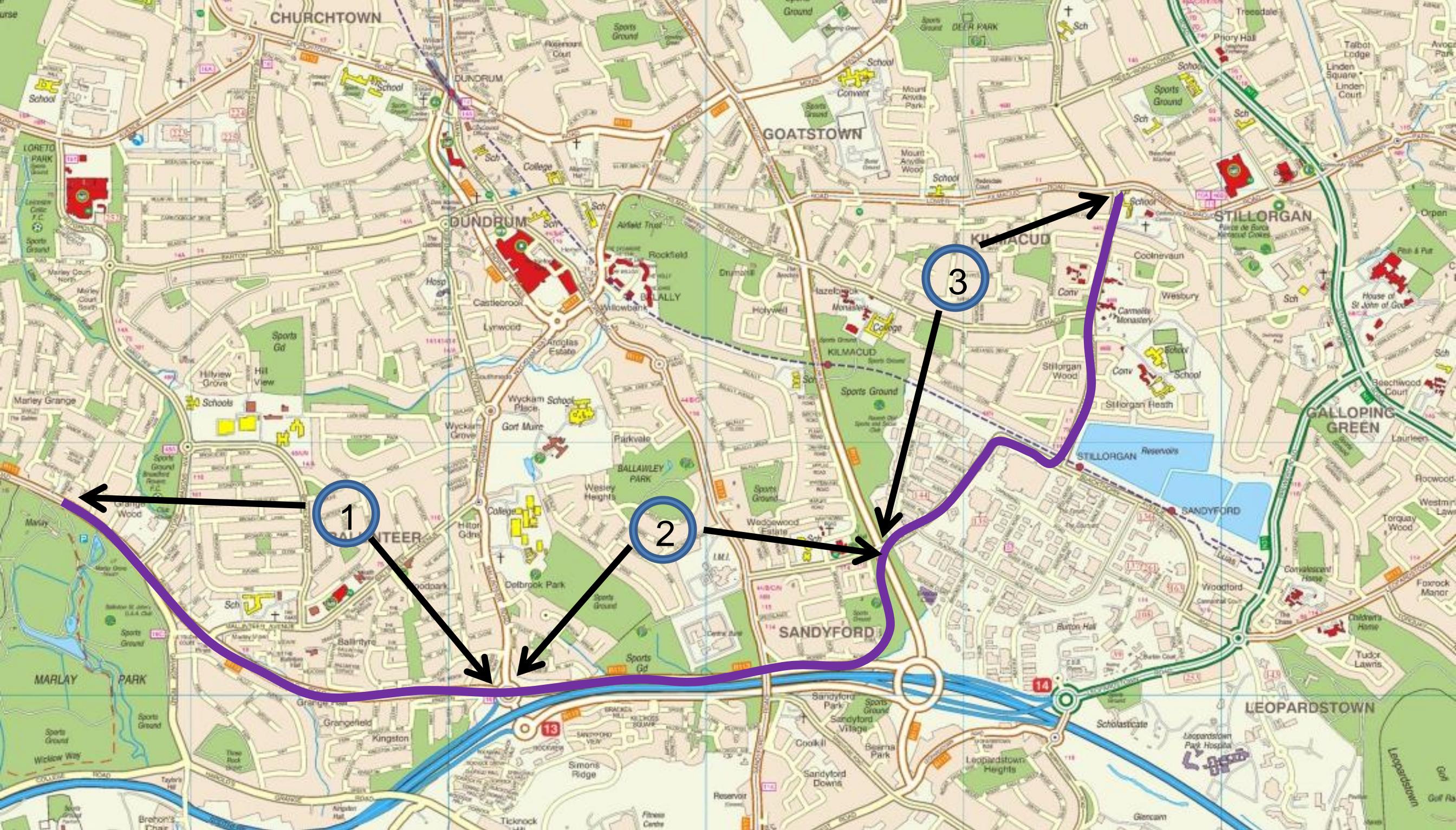
- St. Paul’s Primary Schools
- Queen of Angels National School
- St. Raphael’s Primary School
- St. Laurence’s Boys National School

In addition, the Ballinteer to Stillorgan Orbital Cycle Route connects with the LUAS Station in Stillorgan along with a number of Dublin Bus services including the 48a and the 116.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Ballinteer to Stillorgan Orbital Cycle Route and was used to calculate its Demand Category grade.

Length	5925 metres
Population Catchment (500 metre catchment)	18245 persons
Employment Catchment (500 metre catchment)	9560 persons
12 – 18 years Catchment	1768 persons
Secondary School Catchment	859 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	5580 persons
<b>Demand Category Grade</b>	<b>E2</b>



- Section 1**  
Grange Road to Brehon Field Road Roundabout
- Section 2**  
Brehon Field Road Roundabout to Blackthorn Drive
- Section 3**  
Blackthorn Drive to Lower Kilmacud Road

**BALLINATER TO STILLORGAN**  
**Orbital**  
**Cycle Route**

### 2.3.4 The Leopardstown to Blackrock Orbital Cycle Route

The above cycle route serves as an orbital route in the Dún Laoghaire – Rathdown area and connects the proposed Goatstown, N11 and Dún Laoghaire Radial Cycle Routes. It also serves two primary attraction nodes at Central Park, Leopardstown and Sandyford Industrial Estate. The route serves a number of schools including:

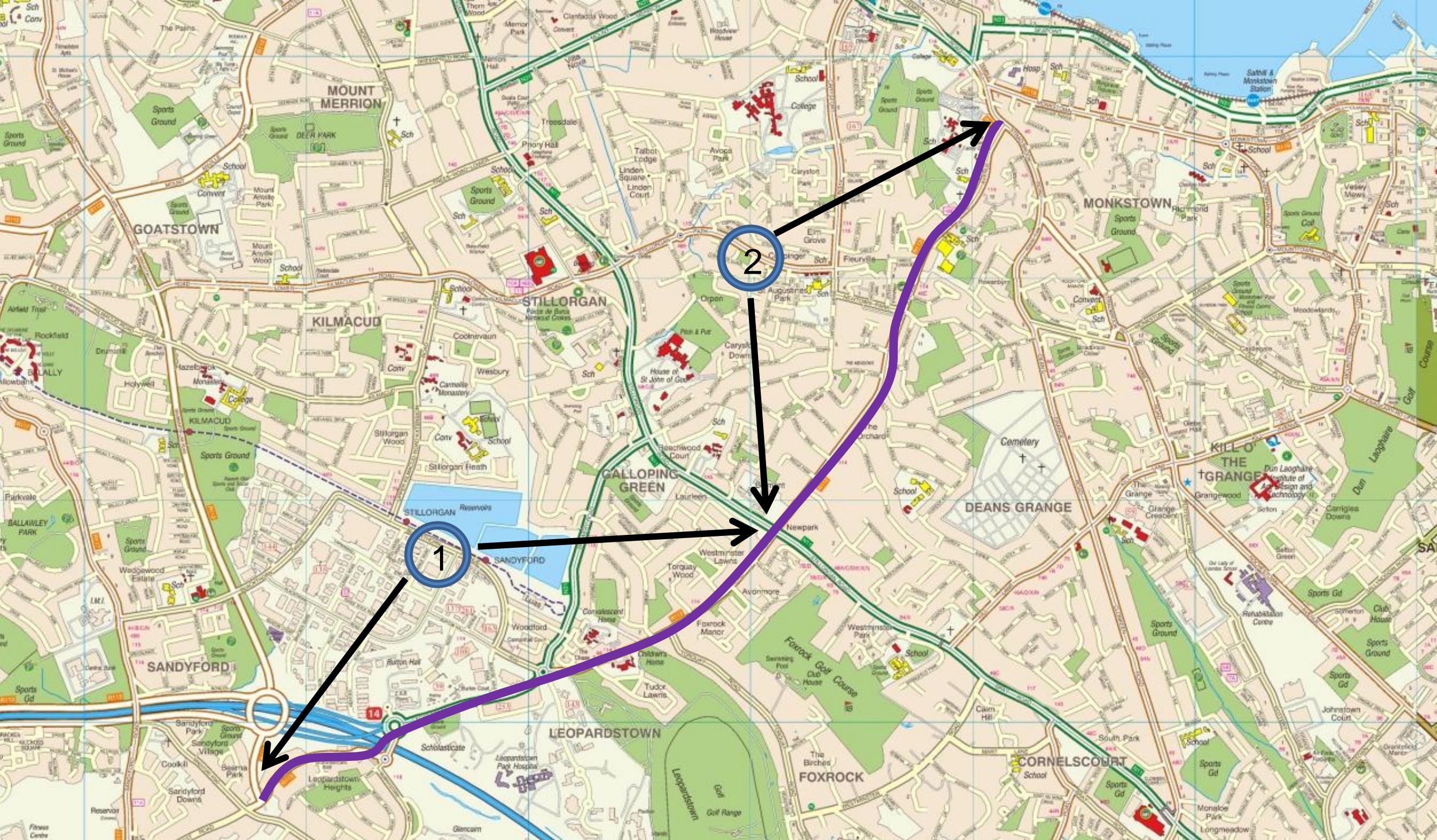
- Oakhill Junior School
- Newpark Comprehensive School

In addition, the Leopardstown to Blackrock Orbital Cycle Route now connects with the new LUAS stop at Central Park in Leopardstown, which forms part of the Sandyford to Cherrywood LUAS extension which opened in 2010.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Leopardstown to Blackrock Orbital Cycle Route and was used to calculate its Demand Category grade.

Length	4829 metres
Population Catchment (500 metre catchment)	14310 persons
Employment Catchment (500 metre catchment)	6968 persons
12 – 18 years Catchment	1314 persons
Secondary School Catchment	785 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	5276 persons
<b>Demand Category Grade</b>	<b>F1</b>



**Section 1**  
Hillcrest Road to N11

**Section 2**  
N11 to Stradbroke Road

**LEOPARDSTOWN TO BLACKROCK**  
**Orbital**  
**Cycle Route**

### 2.3.5 The Carrickmines to Dún Laoghaire Orbital Cycle Route

The above cycle route serves as an orbital route in the Dún Laoghaire – Rathdown area and connects the proposed Goatstown, N11 and Dún Laoghaire Radial Cycle Routes. It also serves the primary attraction node at Cornelscourt Shopping Centre. The route serves a number of schools including:

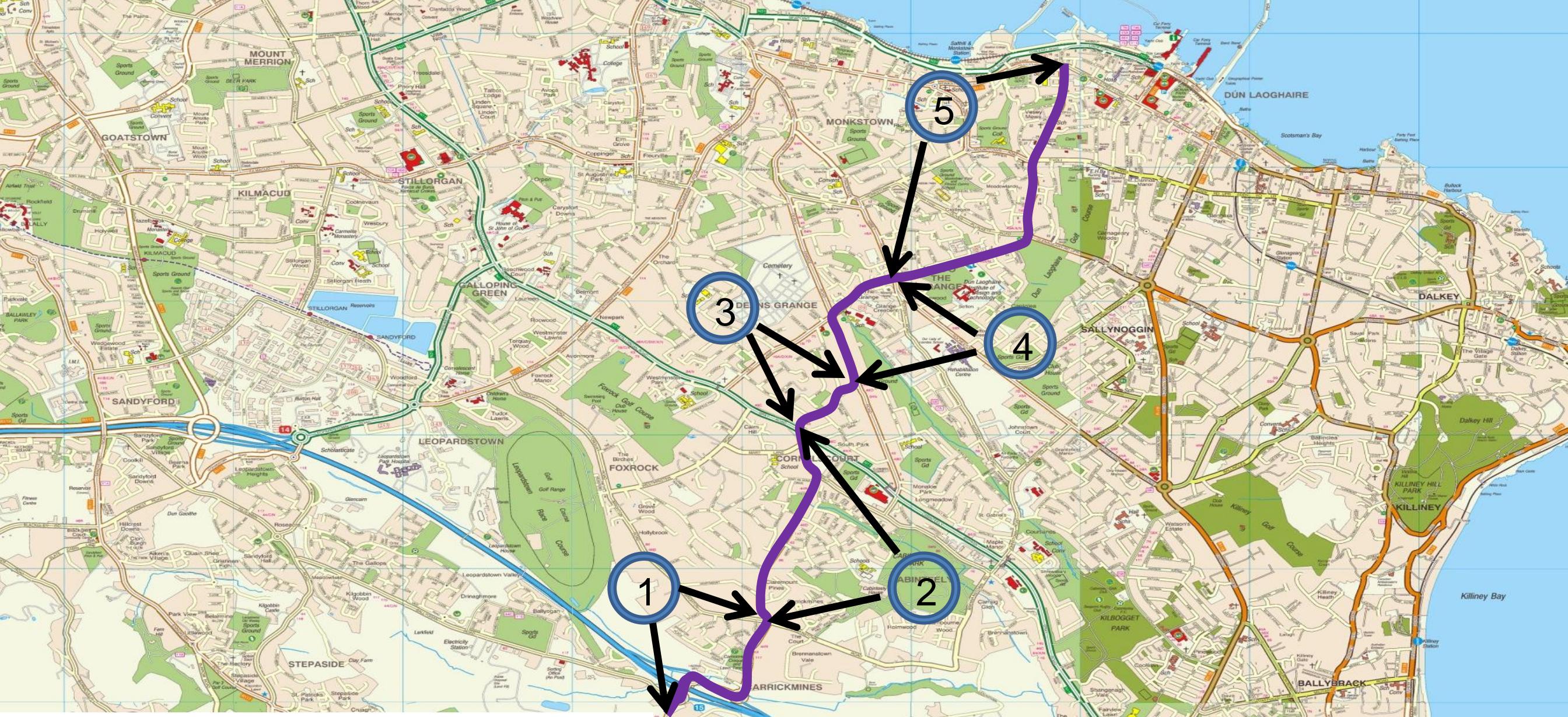
- St Brigid’s Boys and Girls National School
- Dún Laoghaire Institute of Art and Design
- Clonkeen College
- Kill O’ The Grange National School
- Monkstown Educate Together School

In addition, the Carrickmines to Dún Laoghaire Orbital Cycle Route connects with the new Sandyford to Cherrywood LUAS line extension at Carrickmines, which opened in 2010.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Carrickmines to Dún Laoghaire Orbital Cycle Route and was used to calculate its Demand Category grade.

Length	6144 metres
Population Catchment (500 metre catchment)	17956 persons
Employment Catchment (500 metre catchment)	7752 persons
12 – 18 years Catchment	1162 persons
Secondary School Catchment	2044 persons
3 <sup>rd</sup> Level Institution Catchment	4300 persons
Weighted Demand per kilometre	6628 persons
<b>Demand Category Grade</b>	<b>D2</b>



**Section 1**  
Ballyogan Road to Brighton Road

**Section 2**  
Brighton Road to N11

**Section 3**  
N11 to Clonkeen Road

**Section 4**  
Clonkeen Road to Rochestown Avenue (Bakers Corner)

**Section 5**  
Rochestown Avenue (Bakers Corner) to Lower Georges Street

**CARRICKMINES TO DÚN LAOGHAIRE**  
**Orbital**  
**Cycle Route**

### 2.3.6 The Cherrywood to Dún Laoghaire Orbital Cycle Route

The above cycle route serves as an orbital route in the Dún Laoghaire – Rathdown area and connects the proposed N11 and Dún Laoghaire Radial Cycle Routes. The route serves a number of schools including:

- Johnstown Boys National School
- Rathdown School
- Sallynoggin School of Further Education
- Dalkey National School

In addition, the Cherrywood to Dún Laoghaire Orbital Cycle Route connects with the new extension to the Sandymount LUAS line at Cherrywood and the Sandycove-Glasthule DART Station. This route will also serve the growing Cherrywood area and it is envisaged that this route will tie into the Carrickmines M50 Interchange (which forms part of the proposed Goatstown Radial Cycle Route) along the line of the primary access road serving the Cherrywood SDZ.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Cherrywood to Dún Laoghaire Orbital Cycle Route and was used to calculate its Demand Category grade. Section 1 of the Cherrywood to Dun Laoghaire Orbital Cycle Route was not been included in the assessment below.

Length	5500 metres
Population Catchment (500 metre catchment)	19478 persons
Employment Catchment (500 metre catchment)	5908 persons
12 – 18 years Catchment	1882 persons
Secondary School Catchment	1741 persons
3 <sup>rd</sup> Level Institution Catchment	830 persons
Weighted Demand per kilometre	6235 persons
<b>Demand Category Grade</b>	<b>E1</b>



**Section 1**  
Glenamuck Road to Wyattville Road

**Section 2**  
Wyattville Road to Church Road

**Section 3**  
Church Road to Graduate Roundabout

**Section 4**  
Graduate Roundabout to Upper  
Glenageary Road

**Section 5**  
Upper Glenageary Road to Summerhill  
Road

**CHERRYWOOD TO**  
**DÚN LAOGHAIRE**  
**Orbital**  
**Cycle Route**

## 2.4 Link Cycle Routes

A total of twelve primary cycle routes were identified as part of the overall Cycle Network for the Dún Laoghaire – Rathdown County. Link routes are important local routes which either provide connections between radial and orbital routes or provide direct access to important attraction nodes in the area. The following is a list of the 12 Link Cycle Routes assessed as part of this study.

- **Nutgrove to Milltown Link Cycle Route**

Nutgrove Avenue to Churchtown Road Upper

Churchtown Road Upper to Milltown Road

- **Windy Arbour to Blackrock Link Cycle Route**

Dundrum Road to Clonskeagh Road

Clonskeagh Road to Mount Anville Road

Mount Anville Road to N11

N11 to Rock Road

- **Ballinteer to Dundrum Link Cycle Route**

Grange Road to Gort Mhuire Roundabout

Gort Mhuire Roundabout to Sandyford Road

Sandyford Road to Taney Road

- **Blackthorn Avenue Link Cycle Route**

Blackthorn Avenue (Upper Kilmacud Rd Extension to Leopardstown Rd)

- **Leopardstown to Deans Grange Link Cycle Route**

Leopardstown Road to N11

N11 to Newtownpark Avenue

Newtownpark Avenue to Deans Grange Road

- **Foxrock Church to Monkstown Link Cycle Route**

N11 (Foxrock Church) to Clonkeen Road

Clonkeen Road to Stradbroke Road

- **Killiney to Monkstown Link Cycle Route**  
Rowan Park to Pottery Road  
Pottery Road to Graduate Roundabout
  
- **Cabinteely to Sallynoggin Link Cycle Route**  
N11 to Rochestown Avenue  
Rochestown Avenue to Upper Glenageary Road
  
- **Killiney to Glasthule Link Cycle Route**  
Rochestown Avenue (Graduate Roundabout) to Upper Glenageary Road  
Upper Glenageary Road to Glasthule Road
  
- **Monkstown to Dalkey Link Cycle Route**  
Monkstown Avenue to Kill Avenue  
Kill Avenue to Albert Road Upper (Killiney Towers)  
Albert Road Upper (Killiney Towers) to Dalkey
  
- **Ballybrack to Shankill Link Cycle Route**  
Corbawn Lane to Wyattville Road
  
- **Carrickmines to Cabinteely Link Cycle Route**  
Brennanstown Road to N11 (Cornelscourt Shopping Centre)  
N11 to Clonkeen Road Junction with Beech Park Road

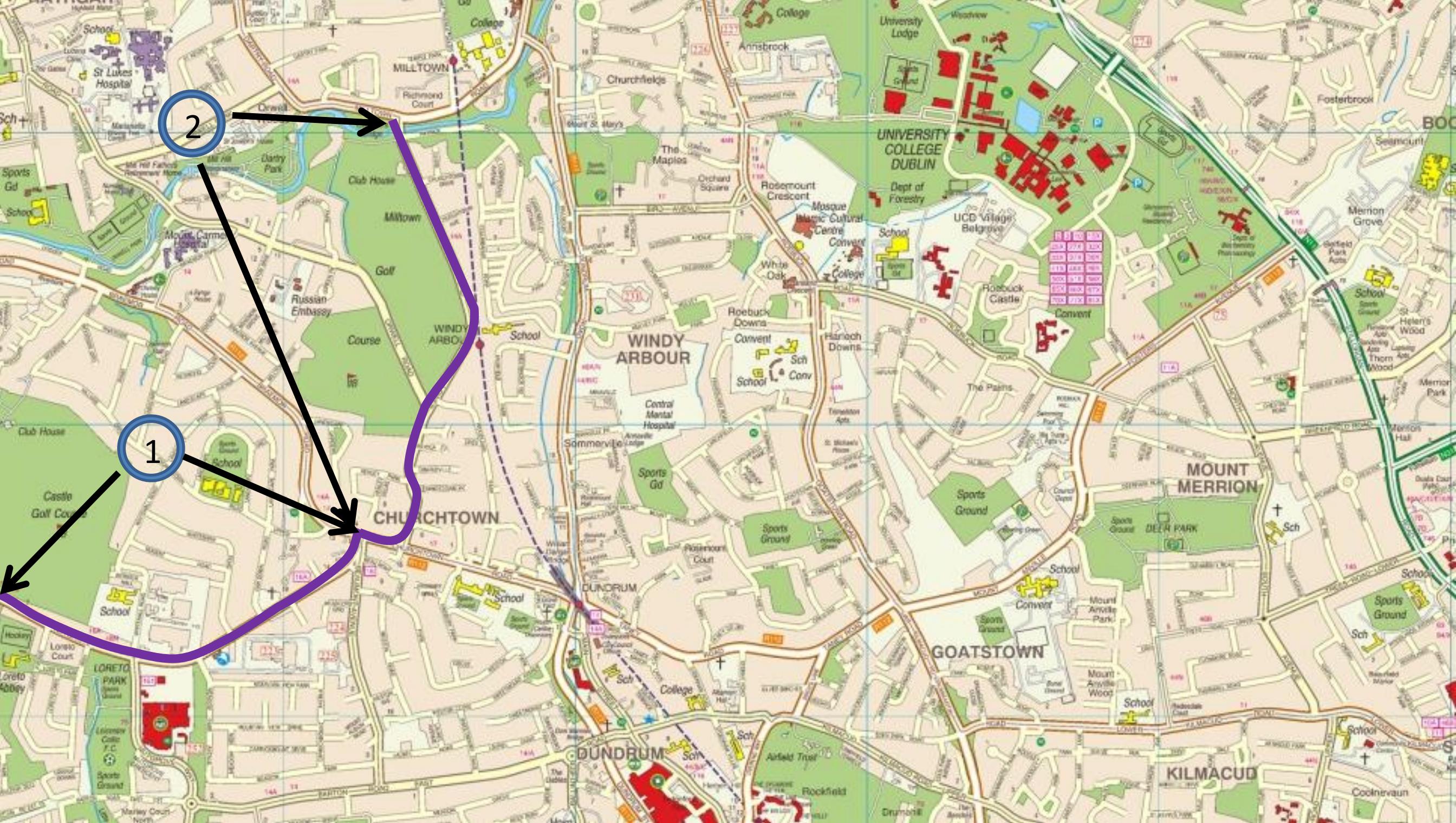
### 2.4.1 Nutgrove to Milltown Link Cycle Route

The above cycle route connects the Nutgrove Radial Cycle Route with one of the main orbital routes traversing the county, the Churchtown to Booterstown Orbital Cycle Route. The route serves De La Salle College in Churchtown along with the Nutgrove Shopping Centre.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Nutgrove to Milltown Link Cycle Route and was used to calculate its Demand Category grade.

Length	3044 metres
Population Catchment (500 metre catchment)	8873 persons
Employment Catchment (500 metre catchment)	2486 persons
12 – 18 years Catchment	687 persons
Secondary School Catchment	1762 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	5341 persons
<b>Demand Category Grade</b>	<b>F1</b>



**Section 1**  
Nutgrove Avenue to Churchtown Road Upper

**Section 2**  
Churchtown Road Upper to Milltown Road

**NUTGROVE TO MILLTOWN**  
**Link**  
**Cycle Route**

## 2.4.2 Windy Arbour to Blackrock Link Cycle Route

The above cycle route connects Dundrum Road to the Rock Road in Blackrock via Mount Merrion. This route serves a number of educational facilities including:

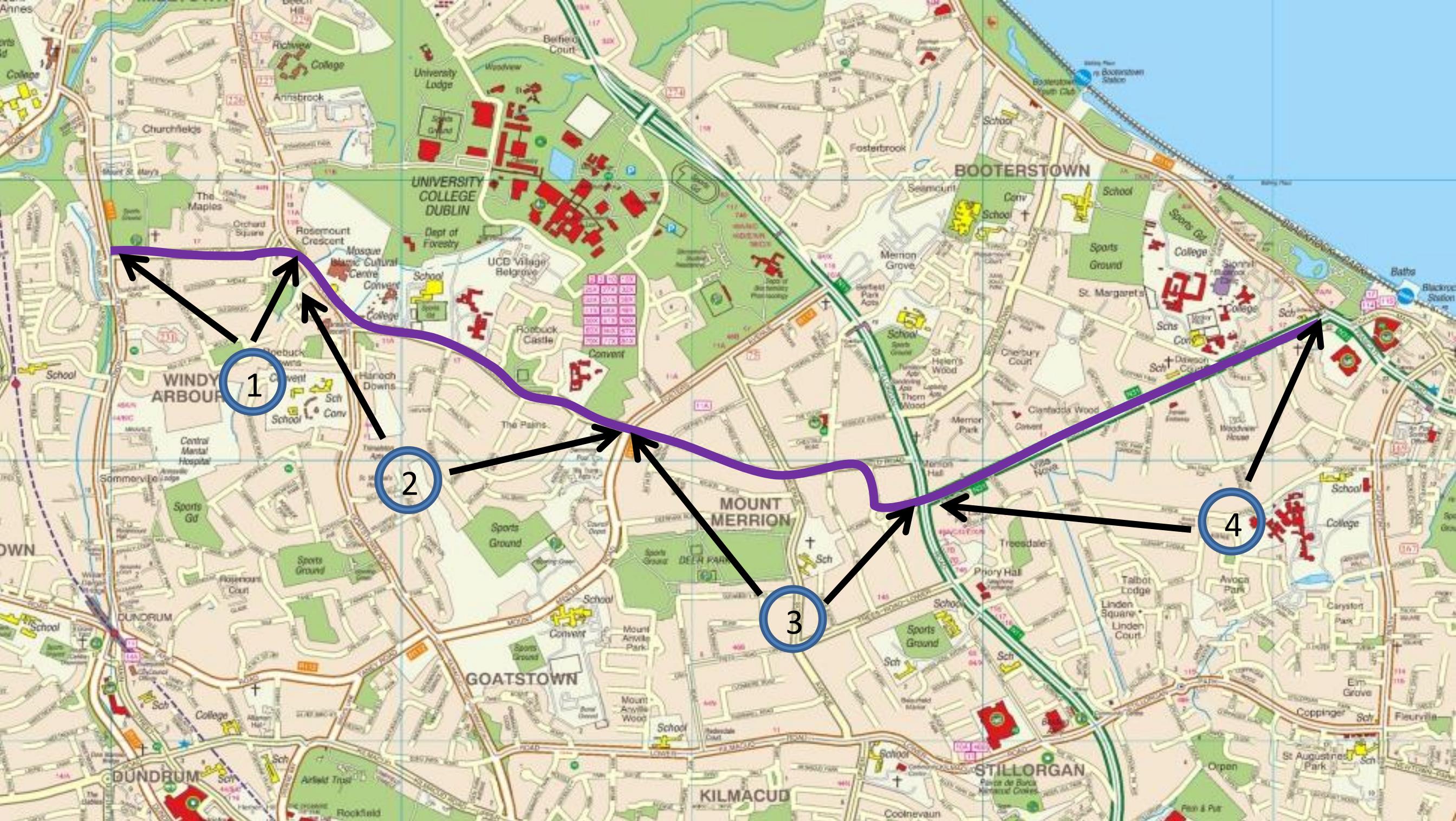
- University College Dublin
- Islamic Cultural Centre of Ireland
- Froebel College of Education
- Dominican College Sion Hill

The Windy Arbour to Blackrock Link Cycle Route also serves the Blackrock Shopping Centre in addition to a number of Dublin Bus public transport services, including the No. 11 and No. 17.

### Demand Category

Based on the Census 2006 data, the following information has been obtained for the above Cycle Route and was used to calculate its Demand Category grade.

Length	4740 metres
Population Catchment (500 metre catchment)	14637 persons
Employment Catchment (500 metre catchment)	6985 persons
12 – 18 years Catchment	1272 persons
Secondary School Catchment	3116 persons
3 <sup>rd</sup> Level Institution Catchment	18000 persons
Weighted Demand per kilometre	14008 persons
<b>Demand Category Grade</b>	<b>A1</b>



- Section 1**  
Dundrum Road to Clonskeagh Road
- Section 2**  
Clonskeagh Road to Mount Anville Road
- Section 3**  
Mount Anville Road to the N11
- Section 4**  
N11 to Rock Road

**WINDY ARBOUR TO BLACKROCK**  
**Link**  
**Cycle Route**

### 2.4.3 Ballinteer to Dundrum Link Cycle Route

The above cycle route connects the suburban area of Ballinteer with Dundrum town centre and provides an important link between a number of the proposed radial and orbital cycle routes including; the Churchtown to Booterstown Orbital Cycle Route, the Dundrum to Dún Laoghaire Orbital Cycle Route, the Ballinteer to Stillorgan Orbital Cycle Route and the Dundrum Radial Cycle Route.

The route serves the following educational facilities:

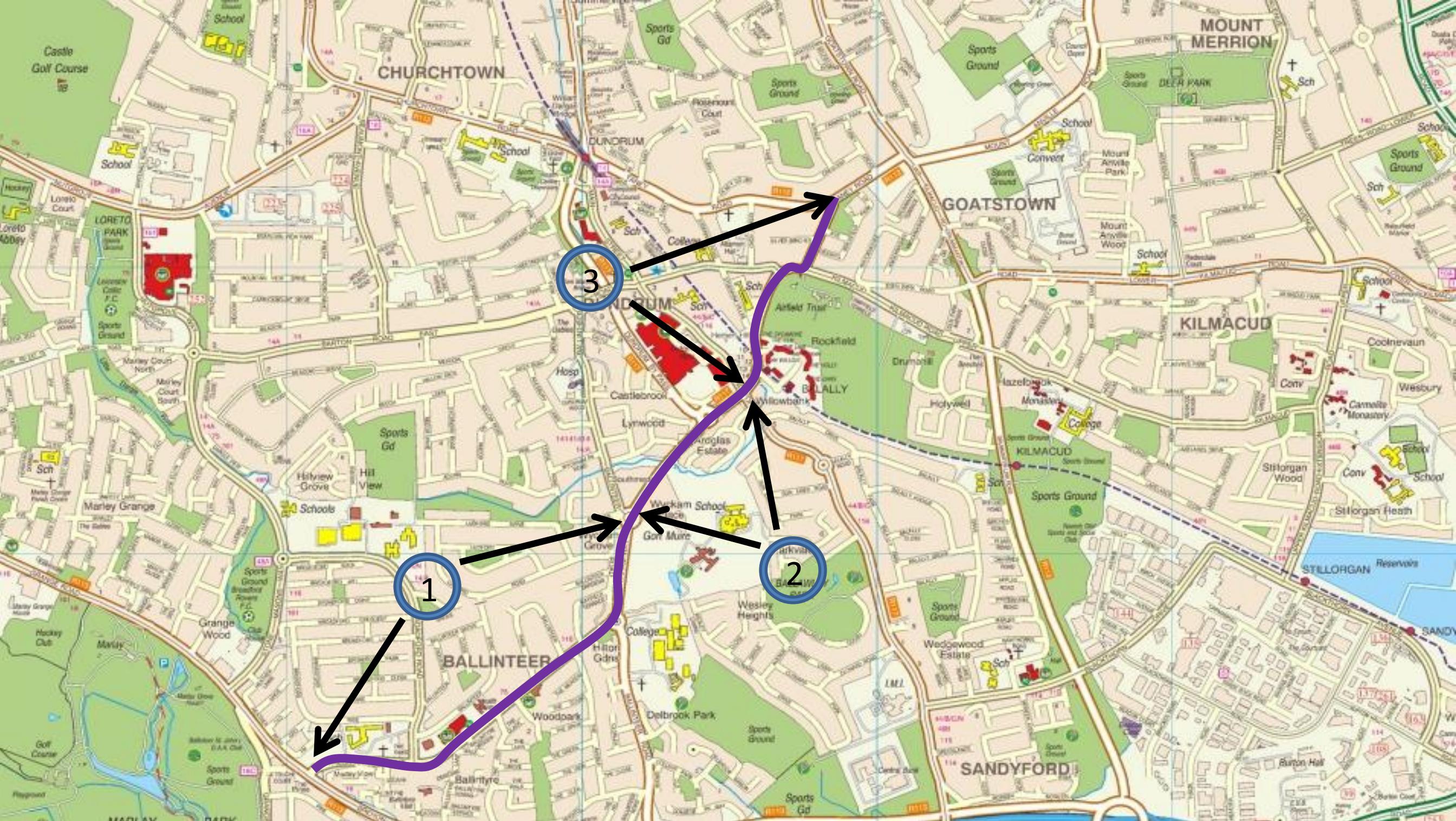
- Our Lady's Primary School
- Wesley College

In addition the route serves Ballinteer Shopping Centre, Dundrum Town Centre and the LUAS stop at Balally along with a number of Dublin bus routes including the No. 14, No 48A, No 75 and No. 116.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Ballinteer to Dundrum Link Cycle Route and was used to calculate its Demand Category grade.

Length	2972 metres
Population Catchment (500 metre catchment)	13510 persons
Employment Catchment (500 metre catchment)	7211 persons
12 – 18 years Catchment	1220 persons
Secondary School Catchment	1232 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	8622 persons
<b>Demand Category Grade</b>	<b>B2</b>



**Section 1**  
Grange Road to Gort Mhuire Roundabout

**Section 2**  
Gort Mhuire Roundabout to Sandyford Road

**Section 3**  
Sandyford Road to Taney Road

**BALLINTEER TO DUNDRUM**  
**Link**  
**Cycle Route**

### 2.4.4 Blackthorn Avenue Link Cycle Route

The above cycle route connects the Ballinteer to Stillorgan Orbital Cycle Route with the Leopardstown to Blackrock Orbital Cycle Route. The cycle route lies within the Sandyford & Stillorgan Business Parks and serves both the Stillorgan and the Sandyford LUAS stops.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Blackthorn Avenue Cycle Route and was used to calculate its Demand Category grade.

Length	1120 metres
Population Catchment (500 metre catchment)	3845 persons
Employment Catchment (500 metre catchment)	4011 persons
12 – 18 years Catchment	349 persons
Secondary School Catchment	401 persons
3rd Level Institution Catchment	zero persons
Weighted Demand per kilometre	8354 persons
<b>Demand Category Grade</b>	<b>C1</b>



**Section 1**  
Blackthorn Avenue (Upper Kilmacud Road Extension to Leopardstown Road)

**BLACKTHORN AVENUE**  
**Link**  
**Cycle Route**

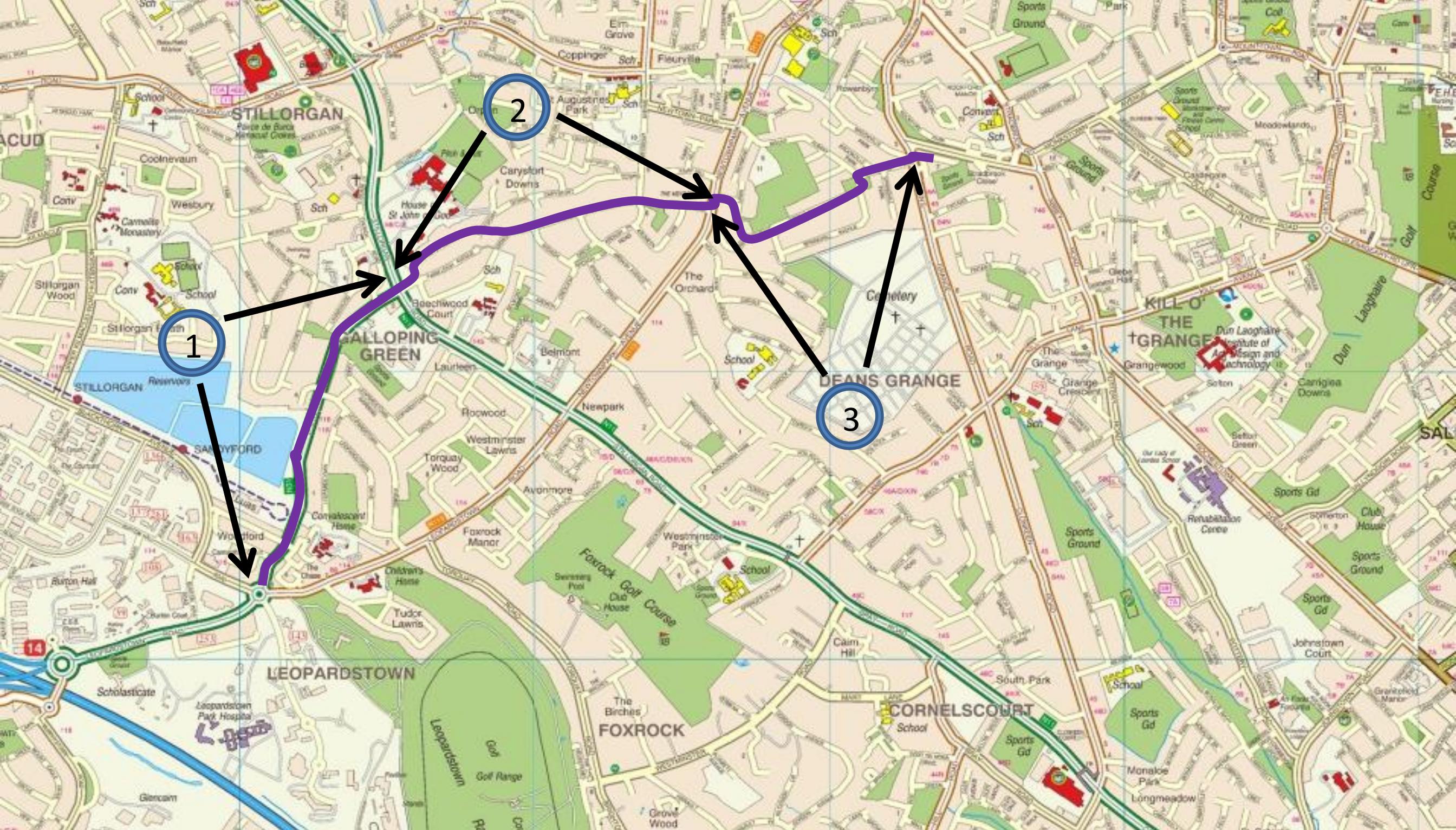
### 2.4.5 Leopardstown to Deans Grange Link Cycle Route

The above cycle route connects the Leopardstown to Blackrock Orbital Cycle Route to the Dundrum to Dún Laoghaire Orbital cycle Route via Galloping Green. The route also provides a connection to the N11 Radial Cycle Route.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Leopardstown to Deans Grange Link Cycle Route and was used to calculate its Demand Category grade.

Length	3237 metres
Population Catchment (500 metre catchment)	12871 persons
Employment Catchment (500 metre catchment)	2893 persons
12 – 18 years Catchment	1162 persons
Secondary School Catchment	1221 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	6342 persons
<b>Demand Category Grade</b>	<b>E1</b>



- Section 1**  
Leopardstown Road to N11
- Section 2**  
N11 to Newtownpark Avenue
- Section 3**  
Newtownpark Avenue to Dean's Grange Road

**LEOPARDSTOWN TO DEANS GRANGE**  
**Link**  
**Cycle Route**

## 2.4.6 Foxrock Church to Monkstown Link Cycle Route

The above cycle route connects the N11 at Foxrock Church with Monkstown Road at Blackrock. The route serves the suburban districts of Deans Grange and Monkstown. In addition, the above cycle route connects with the N11 Radial Cycle Route, the Dundrum to Dún Laoghaire Orbital Cycle Route and the Carrickmines to Dún Laoghaire Orbital Cycle Route. This route serves Loreto College along with the commercial centre at Kill of the Grange. In addition the route serves a number of public transport routes including the Dublin Bus No. 45 and No. 46A Route.

### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Foxrock Church to Monkstown Link Cycle Route and was used to calculate its Demand Category grade.

Length	3017 metres
Population Catchment (500 metre catchment)	12639 persons
Employment Catchment (500 metre catchment)	2935 persons
12 – 18 years Catchment	1141 persons
Secondary School Catchment	1901 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	7179 persons
<b>Demand Category Grade</b>	<b>D1</b>



**Section 1**  
N11 (Foxrock Church) to Clonkeen Road

**Section 2**  
Clonkeen Road to Stradbroke Road

**FOXROCK CHURCH TO MONKSTOWN**  
**Link**  
**Cycle Route**

### 2.4.7 Killiney to Monkstown Link Cycle Route

The above cycle route connects Rochestown Avenue with Stradbroke Road via Kill O' the Grange. The route connects with the following cycle routes:

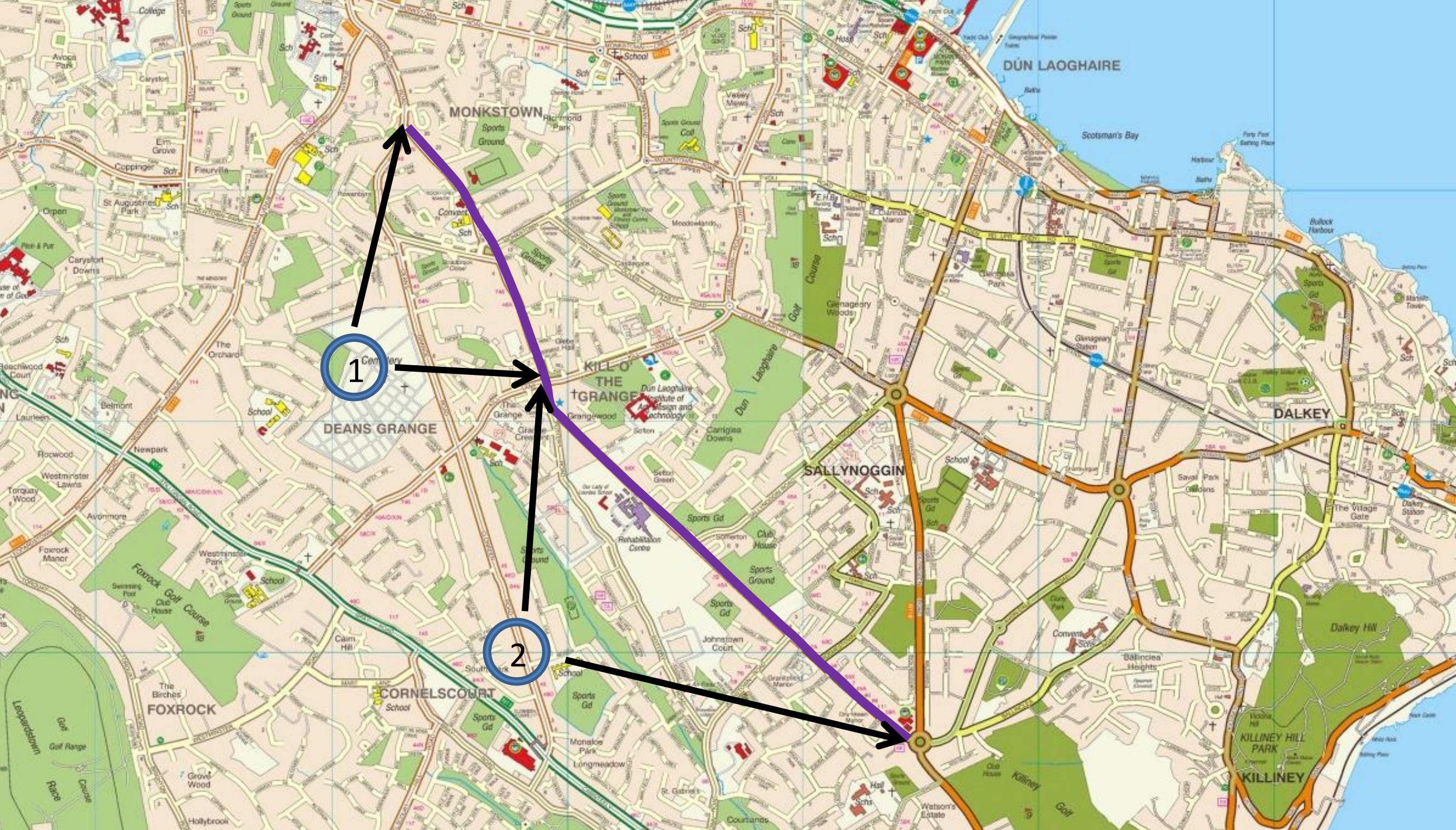
- Dundrum to Dún Laoghaire Orbital Cycle Route
- Carrickmines to Dún Laoghaire Orbital Cycle Route
- Cherrywood to Dún Laoghaire Orbital Cycle Route

The route serves the Dún Laoghaire Institute of Art and Design and Rockford Manor School along with the commercial centre at Kill of the Grange. The cycle route connects with a number of Dublin Bus services including the No. 7B, the 46A and the 58C.

### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Killiney to Monkstown Link Cycle Route and was used to calculate its Demand Category grade.

Length	3521 metres
Population Catchment (500 metre catchment)	16079 persons
Employment Catchment (500 metre catchment)	3385 persons
12 – 18 years Catchment	1413 persons
Secondary School Catchment	1647 persons
3 <sup>rd</sup> Level Institution Catchment	2680 persons
Weighted Demand per kilometre	8788 persons
<b>Demand Category Grade</b>	<b>B2</b>



**Section 1**  
Rowan Park to Kill Lane

**Section 2**  
Kill Lane to Graduate Roundabout

**KILLINEY TO MONKSTOWN**  
**Link**  
**Cycle Route**

### 2.4.8 Cabinteely to Sallynoggin Link Cycle Route

The above cycle route connects the N11 at Cabinteely with the Upper Glenageary Road via Sallynoggin and connects with both the N11 Radial Cycle Route and the Monkstown to Dalkey Link Cycle Route. The above cycle route serves a number of educational facilities including:

- Cabinteely Community School
- Sallynoggin College of Further Education
- Holy Child Community School

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Cabinteely to Sallynoggin Link Cycle Route and was used to calculate its Demand Category grade.

Length	3086 metres
Population Catchment (500 metre catchment)	11215 persons
Employment Catchment (500 metre catchment)	2623 persons
12 – 18 years Catchment	1133 persons
Secondary School Catchment	1720 persons
3 <sup>rd</sup> Level Institution Catchment	680 persons
Weighted Demand per kilometre	6774 persons
<b>Demand Category Grade</b>	<b>D2</b>



**Section 1**  
N11 to Rochestown Avenue

**Section 2**  
Rochestown Avenue to Upper Glenageary Road

**CABINTEELY TO SALLYNOGGIN**  
**Link**  
**Cycle Route**

### 2.4.9 Killiney to Glasthule Link Cycle Route

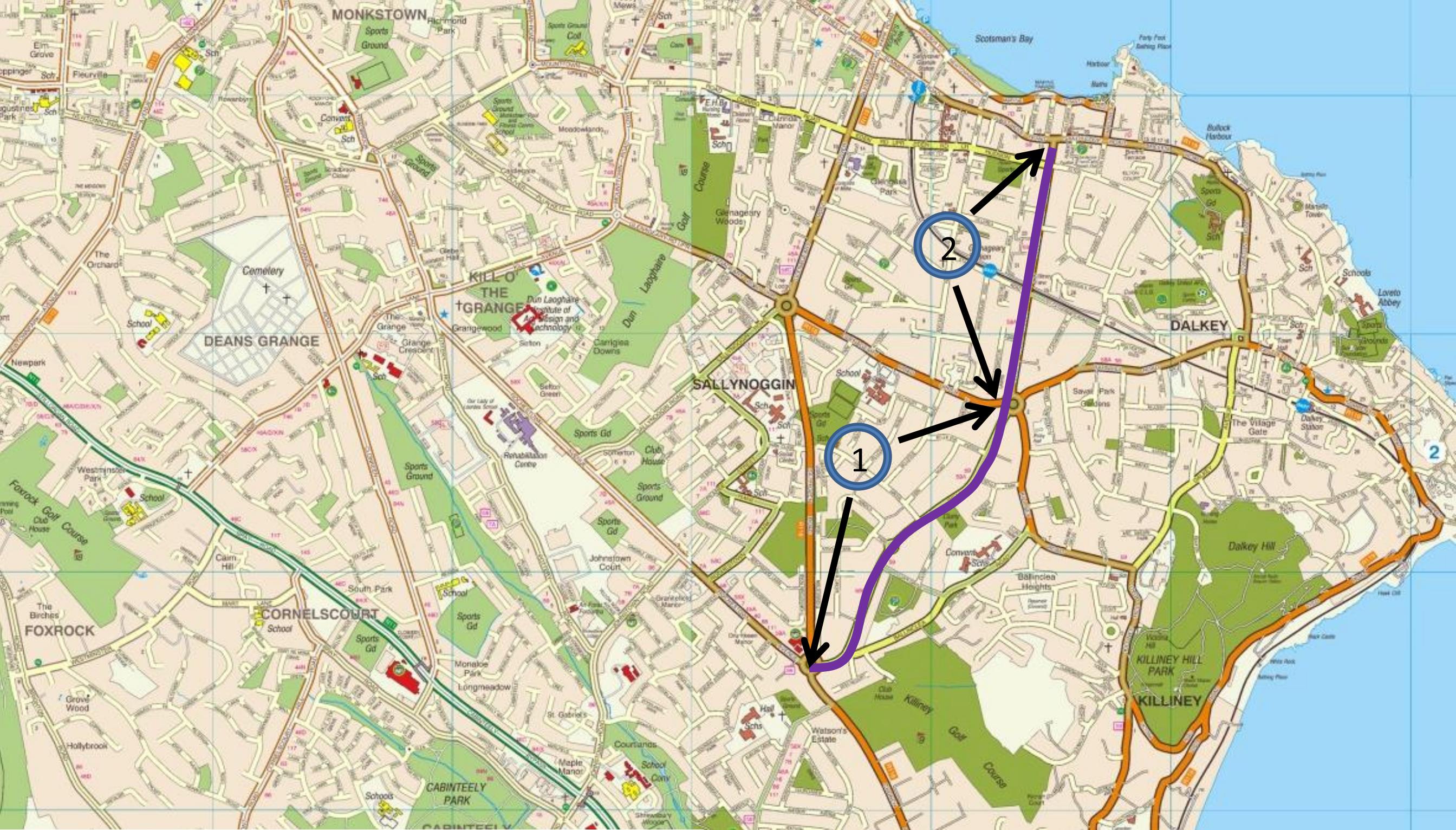
The above cycle route connects Rochestown Avenue with Glasthule Road. This cycle route connects the Cherrywood to Dún Laoghaire Orbital Cycle Route with the Dún Laoghaire Radial Cycle Route. The cycle route serves the Sister of St Joseph of Cluny Secondary School on the Ballinclea Road and the commercial centre in Sandycove.

In addition, the cycle route connects with the DART station at Glenageary and the No. 59 Dublin Bus service.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Killiney to Glasthule Link Cycle Route and was used to calculate its Demand Category grade.

Length	2552 metres
Population Catchment (500 metre catchment)	10736 persons
Employment Catchment (500 metre catchment)	1276 persons
12 – 18 years Catchment	1042 persons
Secondary School Catchment	934 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	6255 persons
<b>Demand Category Grade</b>	<b>E1</b>



**Section 1**  
Rochestown Avenue (Graduate Roundabout) to Upper Glenageary Road

**Section 2**  
Upper Glenageary Road to Glasthule Road

**KILLINEY TO GLASTHULE**  
**Link**  
**Cycle Route**

### 2.4.10 Monkstown to Dalkey Link Cycle Route

The above cycle route connects Monkstown Avenue to Dalkey Village along Upper Glenageary Road. The route serves the suburban districts of Monkstown and Dalkey and connects with the following cycle routes:

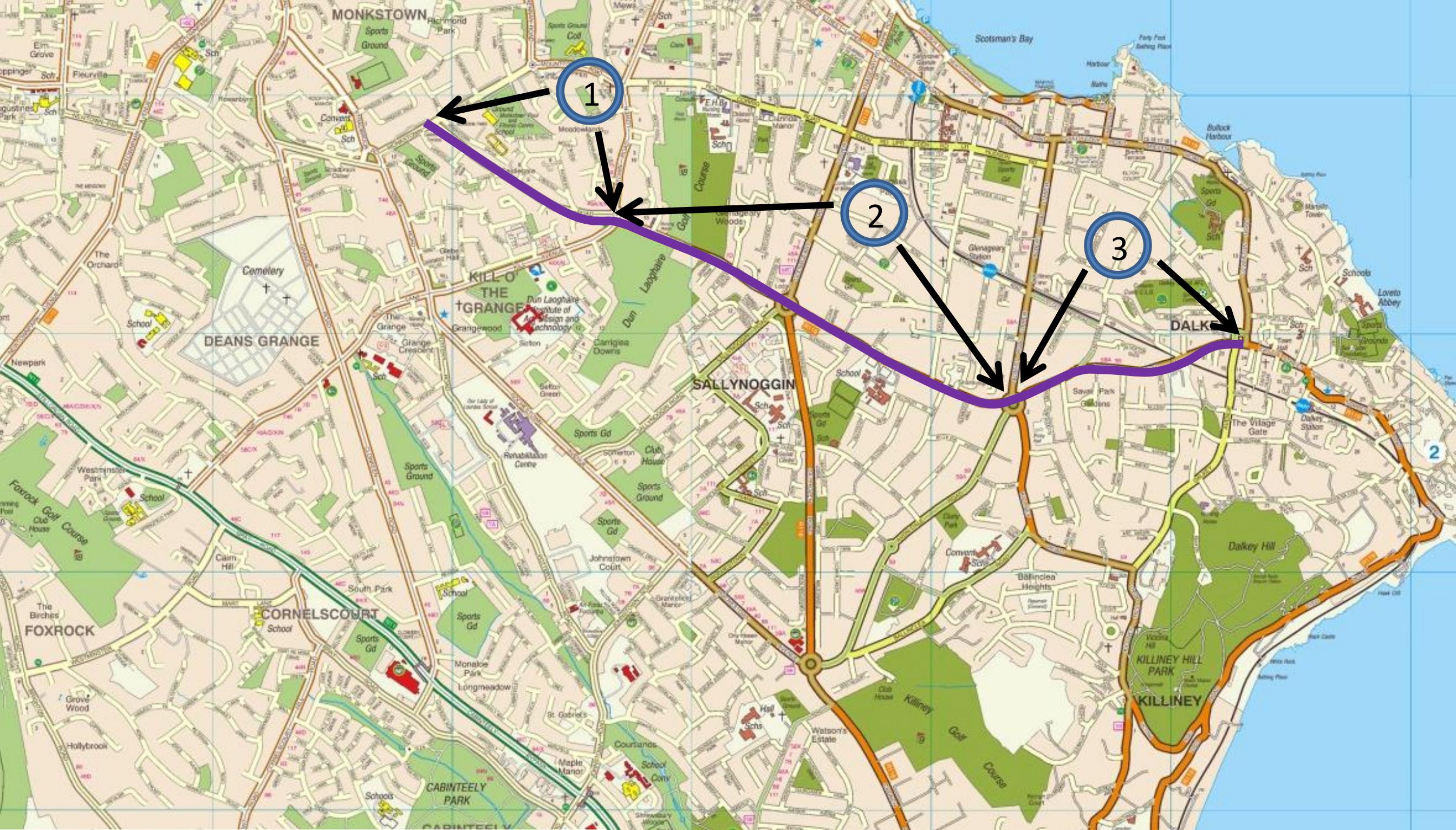
- Dundrum to Dún Laoghaire Orbital Cycle Route
- Carrickmines to Dún Laoghaire Orbital Cycle Route
- Cherrywood to Dún Laoghaire Orbital Cycle Route

The route serves the Rathdown School on Upper Glenageary road as well as the commercial centre within Dalkey Village.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Monkstown to Dalkey Link Cycle Route and was used to calculate its Demand Category grade.

Length	3713 metres
Population Catchment (500 metre catchment)	16484 persons
Employment Catchment (500 metre catchment)	2463 persons
12 – 18 years Catchment	1566 persons
Secondary School Catchment	1595 persons
3 <sup>rd</sup> Level Institution Catchment	2000 persons
Weighted Demand per kilometre	7883 persons
<b>Demand Category Grade</b>	<b>C2</b>



**Section 1**  
Monkstown Avenue to Kill Avenue

**Section 2**  
Kill Avenue to Albert Road Upper (Killiney Towers)

**Section 3**  
Albert Road Upper (Killiney Towers) to Dalkey

**MONKSTOWN TO DALKEY**  
**Link**  
**Cycle Route**

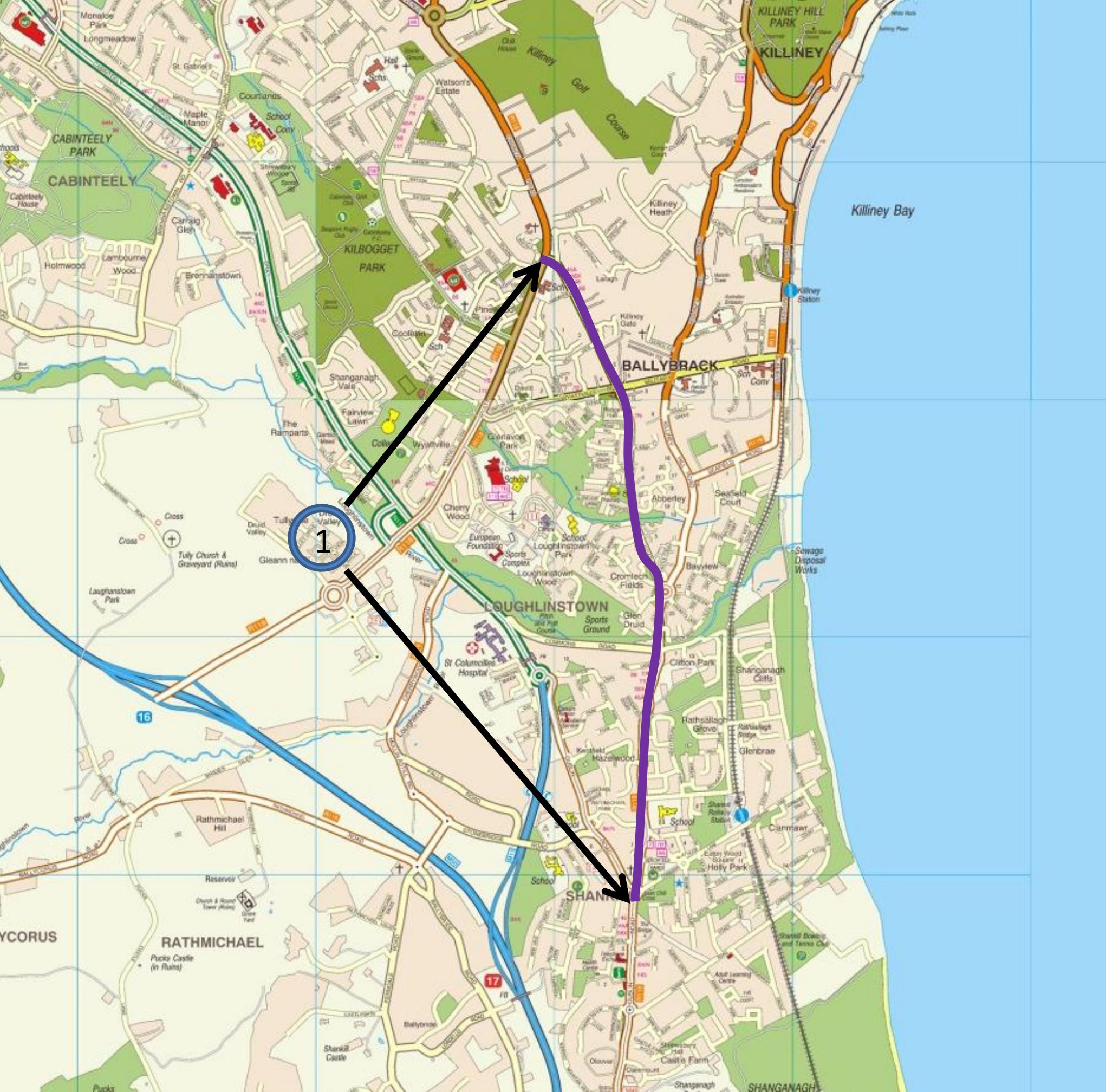
### 2.4.11 Ballybrack to Shankill Link Cycle Route

The above cycle route connects the Dublin Road in Shankill with Wyattville Road via Church Road and Shanganagh Road. The cycle route connects the suburban areas of Shankill, Loughlinstown and Ballybrack with the Cherrywood to Dún Laoghaire Orbital Cycle Route. The cycle route serves the national schools of St Anne's, Rathmichael, Scoil Mhuire and Gaelscoil Phadraig and connects with the DART station at Shankill along with the Dublin Bus services No. 45A.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Ballybrack to Shankill Link Cycle Route and was used to calculate its Demand Category grade.

Length	2805 metres
Population Catchment (500 metre catchment)	10863 persons
Employment Catchment (500 metre catchment)	1303 persons
12 – 18 years Catchment	1228 persons
Secondary School Catchment	342 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	5457 persons
<b>Demand Category Grade</b>	<b>F1</b>



**Section 1**  
Corbawn Lane to Wyattville Road

**BALLYBRACK TO**  
**SHANKILL**  
**Link**  
**Cycle Route**

### 2.4.12 Carrickmines to Cabinteely Link Cycle Route

The above cycle route connects Carrickmines Woods with Clonkeen Road via Cabinteely. The route connects with the N11 Radial Cycle Route and directly serves Cornelscourt Shopping Centre and St Brigid's National School. The route connects with the bus services on the N11 including the No. 46, No 44 and No 63.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Carrickmines to Cabinteely Link Cycle Route and was used to calculate its Demand Category grade.

Length	2497 metres
Population Catchment (500 metre catchment)	7008 persons
Employment Catchment (500 metre catchment)	2397 persons
12 – 18 years Catchment	764 persons
Secondary School Catchment	508 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	4785 persons
<b>Demand Category Grade</b>	<b>F2</b>



**Section 1**  
Brennanstown Road to N11 (Cornelscourt Shopping Centre)

**Section 2**  
N11 to Clonkeen Road Junction with Beech Park Road

**CARRICKMINES TO CABINTEELY**  
**Link**  
**Cycle Route**

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## 2.5 Off-Road Cycle Routes

Four suburban off-road routes have been identified for the Dún Laoghaire – Rathdown area. These off-road routes are designed to combine two functions:

- to facilitate leisure cycling trips; that is, cycle trips whose main purpose is the act of cycling and not the arriving at a particular destination, and
- to allow cyclists travel through the Dún Laoghaire – Rathdown area on cycle routes that have low traffic speeds and traffic volumes.

These four suburban off-road routes will supplement other off-road cycle routes identified by Dun Laoghaire Rathdown County Council within their Strategic Greenway Program, including the Dodder Valley Linear Cycle Route and the Sutton to Sandycove Cycle Route. It is worth noting that many of the Cycle Routes identified as part of this project align with the proposals presented under the Strategic Greenway project.

The provision of off-road cycle routes will allow local children and adults to learn how to cycle in a secure and safe environment and are considered an important element of an integrated cycle network.

The proposed off-road cycle routes are generally shared with pedestrians and the speed of cyclists is low during periods when there are heavy pedestrian flows. However, during off peak periods, the routes can also be used by commuter cyclists if they align with desired destination nodes.

The four primary cycle routes identified are:

- **Boosterstown to Dalkey Off-Road Cycle Route**  
Boosterstown Avenue to Blackrock DART Station  
Blackrock DART Station to Seapoint Avenue  
Seapoint Avenue to West Pier  
West Pier to Queens Road  
Queens Road to Dalkey
- **Kilbogget Park Off-Road Cycle Route**  
Kill Lane to Johnstown Road  
Johnstown Road to Wyattville Road  
Wyattville Road to Shanganagh Road
- **Ballinteer Off-Road Cycle Route**  
Grange Road to Stonemasons Way  
Stonemasons Way to Ballinteer Road  
Ballinteer Road to Sandycove Road
- **Loughlinstown River Off-Road Cycle Route**  
Carrickmines to Druids Valley  
Druids Valley to N11  
N11 to Shanganagh Road

### 2.5.1 The Booterstown to Dalkey Off-Road Cycle Route

The Booterstown to Dalkey Off-Road Cycle Route will connect Booterstown with Dalkey via Blackrock and Dún Laoghaire and runs parallel to the proposed Sutton to Sandycove Cycle Route. The route primarily avails of existing cycle paths through Blackrock Park, along the DART line between Blackrock and Dún Laoghaire and along the Metals through Glenageary.

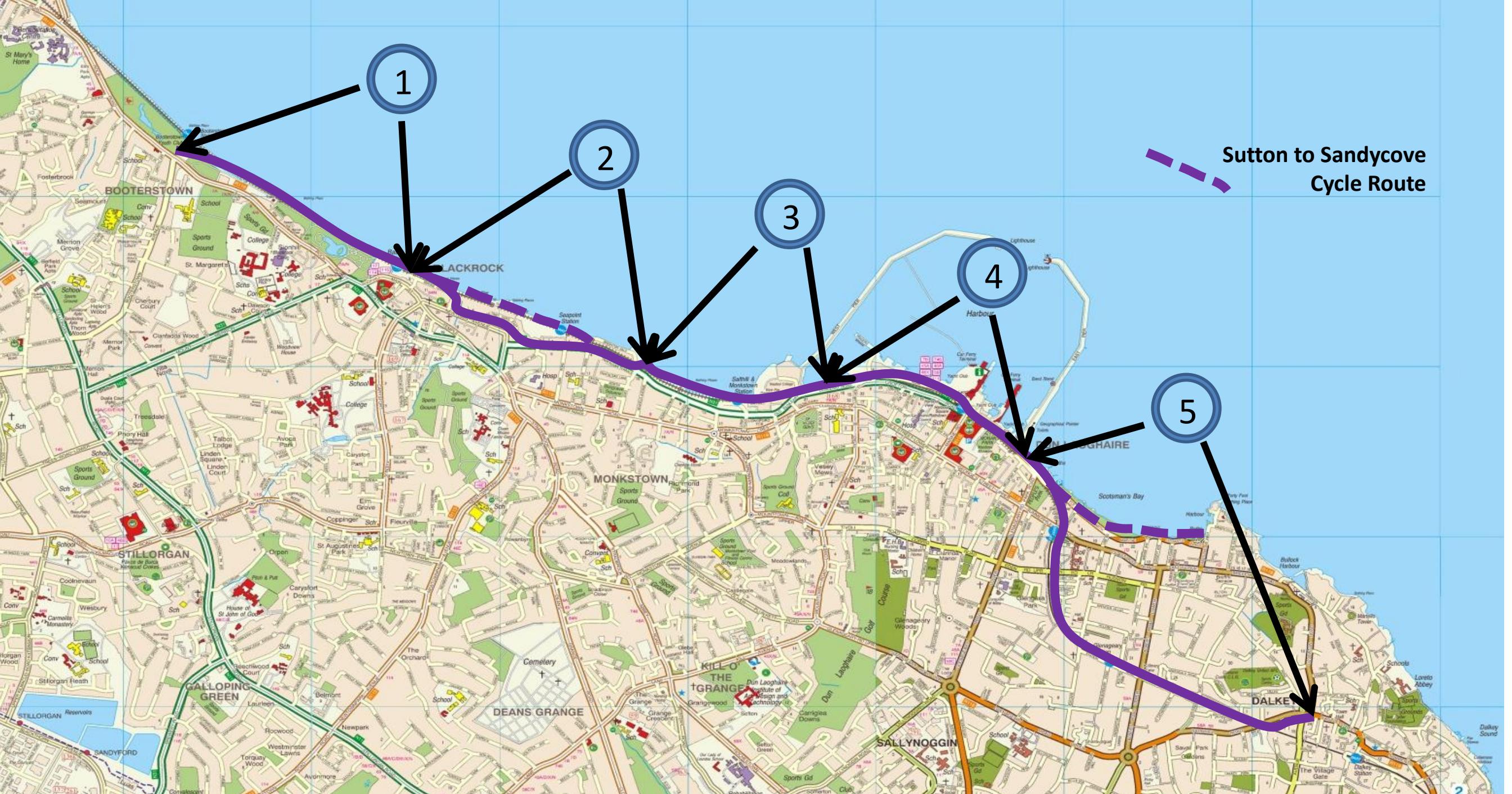
This cycle route will serve the residents of Booterstown, Blackrock, Monkstown, Dún Laoghaire and Dalkey. In addition the route could act as an important tourist cycle route along Dublin Bay and would act to supplement the proposed Sutton to Sandycove Cycle Route.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Booterstown to Dalkey Off-Road Cycle Route and was used to calculate its Demand Category grade.

Length	7613 metres
Population Catchment (500 metre catchment)	20194 persons
Employment Catchment (500 metre catchment)	10186 persons
12 – 18 years Catchment	1656 persons
Secondary School Catchment	4895 persons
3rd Level Institution Catchment	2750 persons
Weighted Demand per kilometre	6434 persons

#### 2.5.2 Demand Category Grade **E1**



Sutton to Sandycove  
Cycle Route

**Section 1**  
Booterstown Avenue to Blackrock DART Station

**Section 2**  
Blackrock DART Station to Seapoint Avenue

**Section 3**  
Seapoint Avenue to West Pier

**Section 4**  
West Pier to Queens Road

**Section 5**  
Queens Road to Dalkey

**BOOTERSTOWN TO DALKEY**  
**Off-Road**  
**Cycle Route**

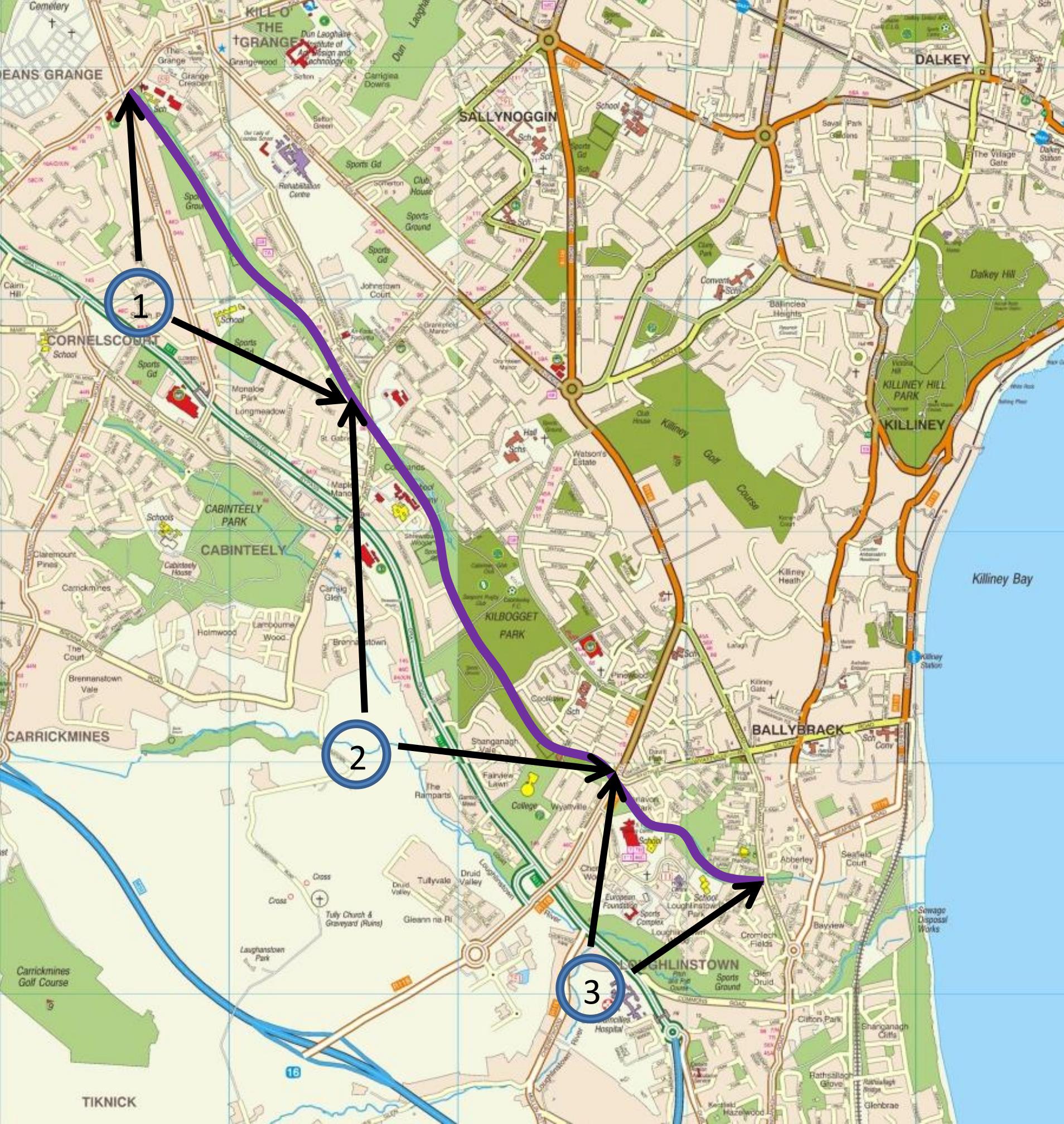
### 2.5.3 Kilbogget Park Off-Road Cycle Route

The Kilbogget Park Cycle Route connects Ballybrack with Deans Grange. The route primarily avails of existing cycle paths through Kilbogget Park. This cycle route will serve the neighbouring catchments of Deans Grange, Sallynoggin, Cabinteely and Ballybrack and it connects directly with a number of sporting facilities including Seapoint Rugby Club, Cabinteely GAA Club and Cabinteely Soccer club.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Kilbogget Park Off-Road Cycle Route and was used to calculate its Demand Category grade.

Length	4594 metres
Population Catchment (500 metre catchment)	17663 persons
Employment Catchment (500 metre catchment)	3938 persons
12 – 18 years Catchment	1853 persons
Secondary School Catchment	1542 persons
3rd Level Institution Catchment	zero persons
Weighted Demand per kilometre	6186 persons
<b>Demand Category Grade</b>	<b>E1</b>



**Section 1**  
Kill Lane to Johnstown Road

**Section 2**  
Johnstown Road to Wyattville Road

**Section 3**  
Wyattville Road to Shanganagh Road

**KILBOGGET PARK**  
**Off-Road**  
**Cycle Route**

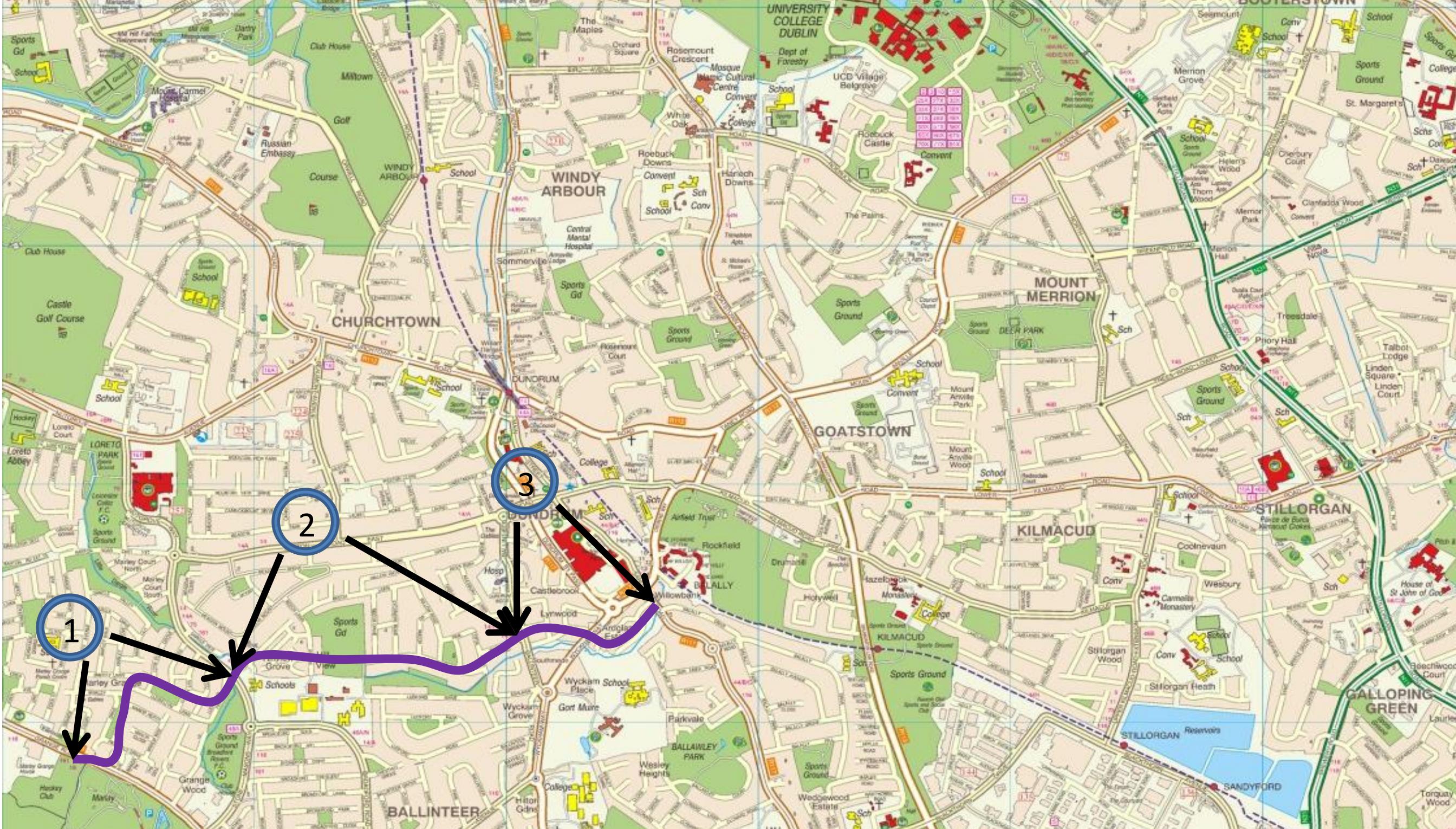
### 2.5.4 Ballinteer Off-Road Cycle Route

The Ballinteer Off-Road Cycle Route connects the Grange Road to Sandyford Road near Dundrum using mostly off-road cycle facilities. This cycle route passes through Marley Grange and crosses Stonemasons Way and travels along the existing cycle route running along the back of the houses on Acorn Road. This cycle route would provide access to Dundrum Town Centre and the LUAS station at Balally in addition to providing access to the various schools located on Broadford Road.

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Ballinteer Off-Road Cycle Route and was used to calculate its Demand Category grade.

Length	2429 metres
Population Catchment (500 metre catchment)	11145 persons
Employment Catchment (500 metre catchment)	6336 persons
12 – 18 years Catchment	1060 persons
Secondary School Catchment	664 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	8615 persons
<b>Demand Category Grade</b>	<b>B2</b>



**Section 1**  
Grange Road to Stonemasons Way

**Section 2**  
Stonemasons Way to Ballinater Road

**Section 3**  
Ballinater Road to Sandyford Road

**BALLINATER**  
**Off-Road**  
**Cycle Route**

### 2.5.5 Loughlinstown River Off-Road Cycle Route

The Loughlinstown River Off-Road Cycle Route connects Loughlinstown with the expanding Cherrywood district. The route will run adjacent to the Loughlinstown River on the eastern side of the N11. The route then crosses the N11 near the junction of Cherrywood Road with the N11. The cycle route will then run adjacent to the Loughlinstown River and connect with the Carrickmines Interchange with the M50. The cycle route will serve the expanding Cherrywood area and will run parallel to and connect with the following LUAS stations constructed as part of the Sandyford to Cherrywood extension to the LUAS:

- Carrickmines
- Brennanstown
- Laughanstown
- Cherrywood
- Brides Glen

#### Demand Category

Based on the Census 2006 data, the following information has been obtained for the Loughlinstown River Off-Road Cycle Route and was used to calculate its Demand Category grade.

Length	1800 metres
Population Catchment (500 metre catchment)	7505 persons
Employment Catchment (500 metre catchment)	1815 persons
12 – 18 years Catchment	816 persons
Secondary School Catchment	477 persons
3 <sup>rd</sup> Level Institution Catchment	zero persons
Weighted Demand per kilometre	6614 persons
<b>Demand Category Grade</b>	<b>D2</b>



**Section 1**  
Carrickmines to Druids Valley

**Section 2**  
Druids Valley to N11

**Section 3**  
N11 to Shanganagh Road

**LOUGHLINSTOWN RIVER**  
**Off-Road**  
**Cycle Route**

## 2.6 Summary of Demand Categories

The following list presents the cycle routes with the greatest potential cycle demand based on the criteria presented in Sections 2.2 to 2.5.

<b>Cycle Route</b>	<b>Demand Category Grade</b>	<b>Persons(weighted) per kilometre</b>
Windy Arbour to Blackrock Link Cycle Route	A1	14008
Churchtown to Booterstown Orbital Cycle Route	A1	11324
N11 Radial Cycle Route (North Sections 1-3)	A1	10398
Killiney to Monkstown Link Cycle Route	B2	8788
Ballinteer to Dundrum Link Cycle Route	B2	8622
Ballinteer Off-Road Cycle Route	B2	8615
Goatstown Radial Cycle Route	B2	8537
Blackthorn Avenue Link Cycle Route	C1	8354
Monkstown to Dalkey Link Cycle Route	C2	7883
Foxrock Church to Monkstown Link Cycle Route	D1	7179
Dún Laoghaire Radial Cycle Route	D1	7175
Dundrum to Dún Laoghaire Orbital Cycle Route	D1	7076
Cabinteely to Sallynoggin Link Cycle Route	D2	6774
Carrickmines to Dún Laoghaire Orbital Cycle Route	D2	6628
Loughlinstown River Off-Road Cycle Route	D2	6614
Booterstown to Dalkey Off-Road Cycle Route	E1	6434
Leopardstown to Deans Grange Link Cycle Route	E1	6342
Killiney to Glasthule Link Cycle Route	E1	6255
Cherrywood to Dún Laoghaire Orbital Cycle Route	E1	6235
Kilbogget Park Off-Road Cycle Route	E1	6180
Ballinteer to Stillorgan Orbital Cycle Route	E2	5580
Dundrum Radial Cycle Route	E2	5569
Ballybrack to Shankill Link Cycle Route	F1	5457
Nutgrove Radial Cycle Route	F1	5373
Nutgrove to Milltown Link Cycle Route	F1	5341
Leopardstown to Blackrock Orbital Cycle Route	F1	5276
Carrickmines to Cabinteely Link Cycle Route	F2	4785
N11 Radial Cycle Route (South Sections 4-6)	F2	2489

## 3 Quality of Service Assessment

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This section details the current Quality of Service of each of the cycle routes noted in Section 2. The Quality of Service assessment has been based on the National Transport Authority's National Cycle Manual.

### 3.1 Assessment Criteria

The National Transport Authority has presented a methodology to quantify the attributes and needs of cyclists along a particular route. The assessment is based on identifying the quality of the cycling environment and the following five criteria are recorded to identify the Quality of Service of each route:

- Pavement Condition
- Number of Adjacent Cyclists
- Number of Conflicts
- Junction Time Delay
- HGV Influence

Each route is assessed under the five criteria noted above and a QOS level for each criteria is assigned depending on the characteristic of route (i.e. routes with *excellent pavement condition, no junction delay, etc.* are assigned QOS Level A+ while routes with *poor pavement condition, a high number of traffic signal controlled junctions, etc.* are assigned QOS Level D).

A final QOS rating is assigned to each route when 4 of the 5 criteria are achieved. As an additional requirement the final QOS rating can only be one level above the lowest QOS level assigned to any of the criteria noted above.

As an example if Route 1 received QOS Level A for Pavement Condition, Number of Adjacent Cyclists, Number of Conflicts, Junction Time Delay and QOS Level B for HGV Influence then the Final QOS rating is QOS A (*4 of the 5 criteria are achieved*). However, if the HGV Influence was assigned a rating of QOS C then the Final QOS rating is QOS B (*the final QOS rating can only be one level above the lowest QOS assigned to each criteria*).

### 3.1.1 Pavement Condition

Pavement Condition is a measure of the physical integrity of the cycling surface. The Pavement Condition was based on a visual inspection of the routes and a score was assigned based on the quality of the riding surface. A score of 100 was assigned to a perfect riding surface and a score of 0 assigned to a very poor riding surface. The following QOS values have been assigned to the Pavement Condition assessment:

Quality of Service Level	Pavement Condition
Level A+	86 – 100
Level A	66 – 85
Level B	51 – 65
Level C	41 – 50
Level D	20 – 40

**Good Riding Surface  
(Quality of Service A)**



**Poor Riding Surface  
(Quality of Service D)**



### 3.1.2 Number of Adjacent Cyclists

Number of Adjacent Cyclists is a measure of the capacity of the roadway to accommodate cyclists safely. Roadways with wide cycle lanes and streets/ roads with low speeds and volumes are assigned the highest Quality of Service, while streets/ roads which have no direct cycling facilities and also carry high traffic volumes and support high speed traffic are assigned the lowest Quality of Service levels. The following QOS values have been assigned to the Number of Adjacent Cyclists:

Quality of Service Level	Number of Adjacent Cyclists
Level A+	2+1
Level A	1+1
Level B	1+1
Level C	1+0
Level D	1+0

In general, where cycle lanes/ tracks have been provided they have been assigned a QOS Level A, however along some sections of the routes assessed a QOS Level B has been applied. A QOS Level B has been applied to cycle facilities that are either narrow, advisory in nature or not complete over the entire section assessed.

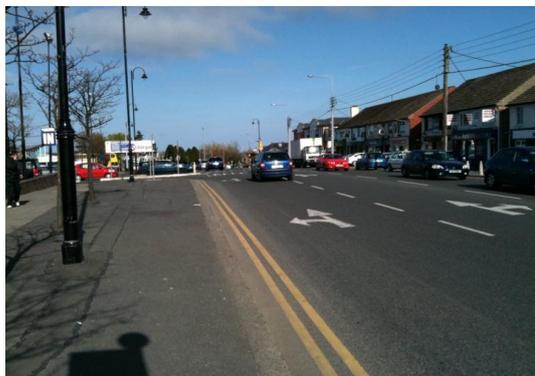
In addition, along sections of roadway where no direct facilities are provided a Quality of Service Level D was been applied. However on occasion a Quality of Service Level C has been applied where the cycling environment is not as onerous as noted under QOS Level D (i.e. Main Street Dundrum). Finally, as noted earlier along sections of the route that has both low traffic speeds and flows a Quality of Service Level A has been applied.

#### Streets with Cycle Lanes /Low Trafficked Streets

##### (Quality of Service A)



## Streets with High Speeds/Volumes with No Cycle Facilities (Quality of Service D)



### 3.1.3 Number of Conflicts (along the route)

Number of Conflicts is a measure of the potential interruptions to a cyclist per 100 metres. The Number of Conflicts has been assessed by noting the potential conflicts along the length of each section of route and dividing it by the length of that section. For the purpose of this assignment the following were noted as conflicts along the cycle route:

- Junctions (including give-way, traffic signal controlled and roundabout)
- Bus stops
- Pedestrian Crossings
- Groups of On-street Parking/ Loading Bays
- Entrances to Apartment Blocks, Commercial/Retail Premises

Individual drive-ways or individual parked cars were not included in the calculation of the above. The following QOS values have been assigned to the Number of Conflicts:

Quality of Service Level	Number of Conflicts
Level A+	0 - 1 conflicts
Level A	0 - 1 conflicts
Level B	1 - 3 conflicts
Level C	4 - 10 conflicts
Level D	> 10 conflicts

### 3.1.4 Junction Time Delay

Junction Time Delay is a measure of the actual time delay at junctions as a percentage of the overall journey time. The Junction Time Delay has been calculated by noting the journey time along each section of the route based on a cycle speed of 15 km/hr and then estimating the potential delay due to junctions based on the following criteria:

- Each Traffic Signal Controlled Junction - 40 seconds delay
- Each Pedestrian Crossing – 10 seconds delay
- Each Roundabout Junction – 20 seconds delay
- Each Side Road Junction – 20 seconds delay (from side road only)

The following QOS values have been assigned to the Junction Time Delay:

Quality of Service Level	Junction Time Delay
Level A+	0 – 5%
Level A	6% - 10%
Level B	11% – 25%
Level C	26% - 50%
Level D	> 50%

### 3.1.5 HGV Influence

HGV influence is a measure of the number of HGVs and buses adjacent to cyclists as a percentage of the total traffic. The HGV influence was calculated by recording the percentage of HGV traffic along typical links within the network of routes assessed. In general, off-road facilities and roadways with low speeds and traffic were assigned the highest Quality of Service, while the majority of the suburban road network which supports public transport services was noted at Level B, with some important bus routes recording a Quality of Service Level C. The following QOS values have been assigned to the HGV Influence:

Quality of Service Level	HGV Influence
Level A+	0 – 1%
Level A	0% - 1%
Level B	2% – 5%
Level C	6% - 10%
Level D	> 10%

## 3.2 Results of Quality of Service Assessment

The following tables summaries the Quality of Service for each section of the Dún Laoghaire – Rathdown cycle network. The data used to calculate each Quality of Service Level is included in **Appendix A**.

### 3.2.1 Radial Routes

<b>The Dún Laoghaire Radial Cycle Route</b>	<b>Quality of Service</b>
Trimleston Avenue to Mount Merrion Avenue	<b>C</b>
Mount Merrion Avenue to Temple Crescent	<b>D</b>
Temple Crescent to York Road	<b>C</b>
York Road to Lower Glenageary Road	<b>C</b>
Lower Glenageary Road to Harbour Road	<b>C</b>
<b>The N11 Radial Cycle Route</b>	
Entrance to UCD to Mount Merrion Avenue	<b>C</b>
Mount Merrion Avenue to Leopardstown Road	<b>C</b>
Leopardstown Road to Johnstown Road	<b>C</b>
Johnstown Road to Wyattville Road	<b>C</b>
Wyattville Road to Corbawn Lane	<b>C</b>
Corbawn Lane to Allies River Road	<b>B</b>
<b>The Goatstown Radial Cycle Route</b>	
Clonskeagh Road to Roebuck Road	<b>B</b>
Roebuck Road to Mount Anville Road	<b>B</b>
Mount Anville Road to Blackthorn Drive	<b>B</b>
Blackthorn Drive to Ballyogan Road	<b>C</b>
Ballyogan Road to Carrickmines Interchange	<b>B</b>
<b>The Dundrum Radial Cycle Route</b>	
Milltown Road to Taney Road	<b>C</b>
Taney Road to Wyckham Way	<b>C</b>
Wyckham Way to Blackthorn Drive	<b>C</b>
Blackthorn Drive to Hillcrest Road	<b>B</b>
Hillcrest Road to Stepside Village	<b>B</b>
<b>The Nutgrove Radial Cycle Route</b>	
Grange Road to Barton Road East	<b>B</b>
Barton Road East to Nutgrove Avenue	<b>C</b>
Nutgrove Avenue to Braemor Road	<b>B</b>

### 3.2.2 Orbital Routes

<b>Churchtown to Booterstown Orbital Cycle Route</b>	<b>Quality of Service</b>
Braemor Road to Dundrum Road	C
Dundrum Road to Goatstown Road	C
Goatstown Road to N11	C
N11 to Rock Road	C
<b>Dundrum to Dún Laoghaire Orbital Cycle Route</b>	
Nutgrove Way to Main Street (Dundrum)	B
Main Street (Dundrum) to Drummartin Road	C
Drummartin Road to N11	C
N11 to Deans Grange Road	B
Deans Grange Road to York Road	C
<b>Ballinteer to Stillorgan Orbital Cycle Route</b>	
Grange Road to Brehon Field Road Roundabout	B
Brehon Field Road Roundabout to Blackthorn Drive	A
Blackthorn Drive to Lower Kilmacud Road	C
<b>Leopardstown to Blackrock Orbital Cycle Route</b>	
Hillcrest Road to N11	B
N11 to Stradbroke Road	C
<b>Carrickmines to Dún Laoghaire Orbital Cycle Route</b>	
Ballyogan Road to Brighton Road	B
Brighton Road to N11	C
N11 to Clonkeen Road	A
Clonkeen Road to Rochestown Ave (Baker's Corner)	B
Rochestown Ave (Baker's Corner) to Lr. Georges St.	C
<b>Cherrywood to Dún Laoghaire Orbital Cycle Route</b>	
Glenamuck Road to Wyattville Road	N/A
Wyattville Road to Church Road	C
Church Road to Graduate Roundabout	B
Graduate Roundabout to Upper Glenageary Road	B
Upper Glenageary Road to Summerhill Road	C

### 3.2.3 Link Cycle Routes

	Quality of Service
<b>Nutgrove to Milltown Link Cycle Route</b>	
Nutgrove Avenue to Churchtown Road Upper	C
Churchtown Road Upper to Milltown Road	C
<b>Windy Arbour to Blackrock Link Cycle Route</b>	
Dundrum Rd to Clonskeagh Road	C
Clonskeagh Road to Mount Anville Road	B
Mount Anville Road to N11	B
N11 to Rock Road	B
<b>Ballinteer to Dundrum Link Cycle Route</b>	
Grange Road to Gort Mhuire Roundabout	C
Gort Mhuire Roundabout to Sandyford Road	B
Sandyford Road to Taney Road	C
<b>Blackthorn Avenue Link Cycle Route</b>	
Upper Kilmacud Road Extension to Leopardstown Road	C
<b>Leopardstown to Deans Grange Link Cycle Route</b>	
Leopardstown Road to N11	B
N11 to Newtownpark Avenue	B
Newtownpark Avenue to Deans Grange Road	A
<b>Foxrock Church to Monkstown Link Cycle Route</b>	
N11 (Foxrock Church) to Clonkeen Road	B
Clonkeen Road to Stradbrook Road	C
<b>Killiney to Monkstown Link Cycle Route</b>	
Rowan Park to Pottery Road	C
Pottery Road to Graduate Roundabout	C
<b>Cabinteely to Sallynoggin Link Cycle Route</b>	
N11 to Rochestown Avenue	C
Rochestown Avenue to Upper Glenageary Road	B
<b>Killiney to Glasthule Link Cycle Route</b>	
Graduate Roundabout to Upper Glenageary Road	B
Upper Glenageary Road to Glasthule Road	C
<b>Monkstown to Dalkey Link Cycle Route</b>	

Monkstown Avenue to Kill Avenue	<b>B</b>
Kill Avenue to Albert Road Upper	<b>B</b>
Albert Road Upper to Hyde Road	<b>C</b>
<b>Ballybrack to Shankill Link Cycle Route</b>	
Corbawn Lane to Wyattville Road	<b>C</b>
<b>Carrickmines to Cabinteely Link Cycle Route</b>	
Brennanstown Road to N11	<b>B</b>
N11 to Clonkeen Road Junction with Beech Park Road	<b>B</b>

### 3.2.4 Off-Road Cycle Routes

<b>Boosterstown to Dalkey Off-Road Cycle Route</b>	<b>Quality of Service</b>
Boosterstown Avenue to Blackrock DART Station	<b>A+</b>
Blackrock DART Station to Seapoint Avenue	<b>B</b>
Seapoint Avenue to West Pier	<b>A</b>
West pier to Queens Road	<b>B</b>
Queens Road to the Old Quarry (The Metals)	<b>C</b>
<b>Kilbogget Park Off-Road Cycle Route</b>	
Kill Lane to Johnstown Road	<b>A+</b>
Johnstown Road to Wyattville Road	<b>A+</b>
Wyattville Road and Shanganagh Road	<b>A</b>
<b>Ballinteer Off-Road Cycle Route</b>	
Grange Road to Stonemasons Way	<b>A</b>
Stonemasons Way to Ballinteer Road	<b>A+</b>
Ballinteer Road to Sandyford Road	<b>A</b>
<b>Loughlinstown River Off-Road Cycle Route</b>	
Carrickmines to Valley Drive	<b>N/A</b>
Valley Drive to N11	<b>A</b>
N11 to Shanganagh Road	<b>C</b>

The findings from the above assessment indicate that the sections of the cycle network which have no cycle lanes generally have a Quality of Service Level C. Parts of the cycle network with cycle lanes adjacent to the road carriageway, generally have a higher Quality of Service with the majority assigned Level B. Finally, off-road cycle tracks away from roadways with low traffic flows have the highest Quality of Service Level A.

### 3.3 Desired Quality of Service

The Cycle Manual recommends that the highest Quality of Service grades should be provided in the immediate vicinity of the following attractions:

- City and town centres
- Public transport hubs – railway, metro, tram and bus stations
- Employment zones
- Second-level schools and higher education institutions
- Leisure and sports facilities (football fields, parks, cinema, etc.)
- Tourism and recreational centres (hub towns and villages, scenic amenities, cycle trails, etc.).

The Primary Cycle Network has been developed by connecting the above key attractors within the county and it is an objective of this study that the Primary Cycle Routes noted above are to provide a Quality of Service Grade of QOS B or greater.

## 4 Demand versus Quality of Service Matrix

### 4.1 Introduction

To inform the prioritisation of investment in cycle facilities in the county, a matrix comparing the demand category grade and the quality of service for each route assessed as part of this study was carried out. The sections of the cycle network which have both the highest Demand Category grade and the lowest Quality of Service will generally be ranked higher on the priority list.

### 4.2 The Demand versus Quality of Service Matrix

To develop the Demand versus the Quality of Service matrix, it was necessary to convert the existing grades of the Demand Categories and the Quality of Service to numerical points by apportioning specific values to the grades to develop a combined score for both. The following tables show the values assigned to the various grades of both the Demand Categories and the Quality of Service Categories.

Demand Category Grade	Points
A1	12
A2	11
B1	10
B2	9
C1	8
C2	7
D1	6
D2	5
E1	4
E2	3
F1	2
F2	1

Quality of Service	Points
A+	0
A	3
B	6
C	9
D	12

On occasion, where two sections of the cycle network receive the same number points, the routes will be further ranked based on their calculated Demand Category value.

The following table ranks the sections of the cycle network which have a high potential demand for cycling and whose Quality of Service is currently low:

<b>Rank</b>	<b>Cycle Route</b>	<b>Section</b>	<b>Total</b>
<b>1</b>	Windy Arbour to Blackrock Link Cycle Route	Dundrum Road to Clonskeagh Road	21
<b>2</b>	Churchtown to Booterstown Orbital Cycle Route	Dundrum Road to Goatstown Road	21
<b>3</b>	Churchtown to Booterstown Orbital Cycle Route	Goatstown Road to N11	21
<b>4</b>	Churchtown to Booterstown Orbital Cycle Route	N11 to Rock Road	21
<b>5</b>	Churchtown to Booterstown Orbital Cycle Route	Braemor Road to Dundrum Road	21
<b>6</b>	N11 Radial Cycle Route	Entrance to UCD to Mount Merrion Avenue	21
<b>7</b>	N11 Radial Cycle Route	Mount Merrion Avenue to Leopardstown Road	21
<b>8</b>	N11 Radial Cycle Route	Leopardstown Road to Johnstown Road	21
<b>9</b>	Windy Arbour to Blackrock Link Cycle Route	Clonskeagh Road to Mount Anville Road	18
<b>10</b>	Windy Arbour to Blackrock Link Cycle Route	Mount Anville Road to N11	18
<b>11</b>	Windy Arbour to Blackrock Link Cycle Route	N11 to Rock Road	18
<b>12</b>	Killiney to Monkstown Link Cycle Route	Rowan Park to Pottery Road	18
<b>13</b>	Killiney to Monkstown Link Cycle Route	Pottery Road to Graduate Roundabout	18
<b>14</b>	Ballinteer to Dundrum Link Cycle Route	Grange Road to Gort Mhuire Roundabout	18
<b>15</b>	Ballinteer to Dundrum Link Cycle Route	Sandyford Road to Taney Road	18
<b>16</b>	Goatstown Radial Cycle Route	Roebuck Road to Mount Anville Road	18
<b>17</b>	Goatstown Radial Cycle Route	Mount Anville Road to Blackthorn Drive	18
<b>18</b>	Goatstown Radial Cycle Route	Blackthorn Drive to Ballyogan Road	18
<b>19</b>	Dún Laoghaire Radial Cycle Route	Mount Merrion Avenue to Temple Crescent	18
<b>20</b>	Blackthorn Avenue Link Cycle Route	Upr. Kilmacud Road Extension to Leopardstown Road	17
<b>21</b>	Monkstown to Dalkey Link Cycle Route	Albert Road Upper to Hyde Road	16
<b>22</b>	Ballinteer to Dundrum Link Cycle Route	Gort Mhuire Roundabout to Sandyford Road	15
<b>23</b>	Goatstown Radial Cycle Route	Clonskeagh Road to Roebuck Road	15
<b>24</b>	Goatstown Radial Cycle Route	Ballyogan Road to Carrickmines Interchange	15
<b>25</b>	Foxrock Church to	Clonkeen Road to Stradbroom	15

<b>Rank</b>	<b>Cycle Route</b>	<b>Section</b>	<b>Total</b>
	Monkstown Link Cycle Route	Road	
<b>26</b>	Dún Laoghaire Radial Cycle Route	Trimleston Avenue to Mount Merrion Avenue	15
<b>27</b>	Dún Laoghaire Radial Cycle Route	Temple Crescent to York Road	15
<b>28</b>	Dún Laoghaire Radial Cycle Route	York Road to Lower Glenageary Road	15
<b>29</b>	Dún Laoghaire Radial Cycle Route	Lower Glenageary Road to Harbour Road	15
<b>30</b>	Dundrum to Dún Laoghaire Orbital Cycle Route	Main Street (Dundrum) to Drummartin Road	15
<b>31</b>	Dundrum to Dún Laoghaire Orbital Cycle Route	Drummartin Road to N11	15
<b>32</b>	Dundrum to Dún Laoghaire Orbital Cycle Route	Deans Grange Road to York Road	15
<b>33</b>	Cabinteely to Sallynoggin Link Cycle Route	N11 to Rochestown Avenue	14
<b>34</b>	Carrickmines to Dún Laoghaire Orbital Cycle Route	Brighton Road to N11	14
<b>35</b>	Carrickmines to Dún Laoghaire Orbital Cycle Route	Rochestown Ave (Bakers Corner) to Lower Georges Street	14
<b>36</b>	Loughlinstown River Off-Road Cycle Route	N11 to Shanganagh Road	14
<b>37</b>	Monkstown to Dalkey Link Cycle Route	Monkstown Avenue to Kill Avenue	13
<b>38</b>	Monkstown to Dalkey Link Cycle Route	Kill Avenue to Albert Road Upper	13
<b>39</b>	Boaterstown to Dalkey Off-Road Cycle Route	Queens Road to Old Quarry (The Metals)	13
<b>40</b>	Killiney to Glasthule Link Cycle Route	Upper Glenageary Road to Glasthule Road	13
<b>41</b>	Cherrywood to Dún Laoghaire Orbital Cycle Route	Wyattville Road to Church Road	13
<b>42</b>	Cherrywood to Dún Laoghaire Orbital Cycle Route	Upper Glenageary Road to Summerhill Road	13
<b>43</b>	Ballinteer Off-Road Cycle Route	Grange Road to Stonemasons Way	13
<b>44</b>	Ballinteer Off-Road Cycle Route	Ballinteer Road to Sandyford Road	12
<b>45</b>	Foxrock Church to Monkstown Link Cycle Route	N11 to Clonkeen Road	12
<b>46</b>	Dundrum to Dún Laoghaire Orbital Cycle Route	Nutgrove Way to Main Street (Dundrum)	12
<b>47</b>	Dundrum to Dún Laoghaire Orbital Cycle Route	N11 to Deans Grange Road	12

<b>Rank</b>	<b>Cycle Route</b>	<b>Section</b>	<b>Total</b>
<b>48</b>	Ballinteer to Stillorgan Orbital Cycle Route	Blackthorn Drive to Lower Kilmacud Road	12
<b>49</b>	Dundrum Radial Cycle Route	Milltown Road to Taney Road	12
<b>50</b>	Dundrum Radial Cycle Route	Taney Road to Wyckham Way	12
<b>51</b>	Dundrum Radial Cycle Route	Wyckham Way to Blackthorn Drive	12
<b>52</b>	Cherrywood to Dún Laoghaire Orbital Cycle Route	Graduate Roundabout to Upper Glenageary Road	11
<b>53</b>	Carrickmines to Dún Laoghaire Orbital Cycle Route	Clonkeen Road to Rochestown Avenue	11
<b>54</b>	Ballybrack to Shankill Link Cycle Route	Corbawn Lane to Wyattville Road	11
<b>55</b>	Nutgrove Radial Cycle Route	Barton Road East to Nutgrove Avenue	11
<b>56</b>	Nutgrove Radial Cycle Route	Nutgrove Avenue to Braemor Road	11
<b>57</b>	Nutgrove to Milltown Link Cycle Route	Churchtown Road Upper to Milltown Road	11
<b>58</b>	Leopardstown to Blackrock Orbital Cycle Route	N11 to Stradbroke Road	11
<b>59</b>	Carrickmines to Dún Laoghaire Orbital Cycle Route	Ballyogan Road to Brighton Road	11
<b>60</b>	Boaterstown to Dalkey Off-Road Cycle Route	West Pier to Queens Road	10
<b>61</b>	Leopardstown to Deans Grange Link Cycle Route	Leopardstown Road to N11	10
<b>62</b>	Leopardstown to Deans Grange Link Cycle Route	N11 to Newtownpark Avenue	10
<b>63</b>	Cherrywood to Dún Laoghaire Orbital Cycle Route	Church Road to Graduate Roundabout	10
<b>64</b>	Cabinteely to Sallynoggin Link Cycle Route	Graduate Roundabout to Upper Glenageary Road	10
<b>65</b>	Kilbogget Park Off-Road Cycle Route	Wyattville Road and Shanganagh Road	10
<b>66</b>	Kilbogget Park Off-Road Cycle Route	Johnstown Road to Wyattville Road	10
<b>67</b>	N11 Radial Cycle Route	Wyattville Road to Corbawn Lane	10
<b>68</b>	Ballinteer Off-Road Cycle Route	Stonemasons Way to Ballinteer Road	9
<b>69</b>	Ballinteer to Stillorgan Orbital Cycle Route	Grange Road to Brehon Field Road Roundabout	9
<b>70</b>	Dundrum Radial Cycle Route	Blackthorn Drive to Hillcrest Road	9

<b>Rank</b>	<b>Cycle Route</b>	<b>Section</b>	<b>Total</b>
<b>71</b>	Dundrum Radial Cycle Route	Hillcrest Road to Stepside Village	9
<b>72</b>	Carrickmines to Dún Laoghaire Orbital Cycle Route	N11 to Clonkeen Road	9
<b>73</b>	Loughlinstown River Off-Road Cycle Route	Off-Road Cycle Path (near Valley Drive) to N11	8
<b>74</b>	Nutgrove Radial Cycle Route	Grange Road to Barton Road East	8
<b>75</b>	Leopardstown to Blackrock Orbital Cycle Route	Hillcrest Road to N11	8
<b>76</b>	Nutgrove to Milltown Link Cycle Route	Nutgrove Avenue to Churchtown Road Upper	8
<b>77</b>	Boosterstown to Dalkey Off-Road Cycle Route	Boosterstown Avenue to Blackrock DART Station	8
<b>78</b>	Boosterstown to Dalkey Off-Road Cycle Route	Blackrock DART Station to Seapoint Avenue	7
<b>79</b>	Boosterstown to Dalkey Off-Road Cycle Route	Seapoint Avenue to West Pier	7
<b>80</b>	Leopardstown to Deans Grange Link Cycle Route	Newtownpark Avenue to Deans Grange Road	7
<b>81</b>	Kilbogget Park Off-Road Cycle Route	Kill Lane to Johnstown Road	7
<b>82</b>	N11 Radial Cycle Route	Johnstown Road to Wyattville Road	7
<b>83</b>	Killiney to Glashule Link Cycle Route	Graduate Roundabout to Upper Glenageary Road	7
<b>84</b>	Carrickmines to Cabinteely Link Cycle Route	Brennanstown Road to N11	7
<b>85</b>	Carrickmines to Cabinteely Link Cycle Route	N11 to Clonkeen Road	7
<b>86</b>	N11 Radial Cycle Route	Corbawn Lane to Allies River Road	7
<b>87</b>	Ballinteer to Stillorgan Orbital Cycle Route	Brehon Field Road Roundabout to Blackthorn Drive	6
<b>88</b>	Loughlinstown River Off-Road Cycle Route	Carrickmines Interchange to Off-Road Cycle Path (near Valley Drive)	5
<b>89</b>	Cherrywood to Dún Laoghaire Orbital Cycle Route	Glenamuck Road to Wyattville Road	4

## 5 Cycle Network Maps

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Maps of the proposed cycle network have been prepared and can be seen in the accompanying Appendix.

**Figure 1** shows the proposed cycle network illustrating the following items:

- The primary attraction nodes in the county
- The primary cycle network in the county along with a map showing cycle facilities on these routes. The network is divided into two broad categories, routes with direct provision (i.e. cycle lanes, cycle tracks etc..) and routes with passive provision (i.e. traffic free routes, residential streets, etc..)
- The secondary cycle network in the county along with a map showing cycle facilities on these routes, again the cycle network is divided into two broad categories, routes with direct provision and routes with passive provision. The secondary cycle network includes routes which connect the Primary Cycle Network via the existing street network and take advantage of no and low trafficked routes.

In addition, the cycle network includes the Strategic Greenway Program along with the cycle routes recommended as part of the Sandyford Urban Framework. Finally, the recommendations with respect to the provision of additional pedestrian/cycle crossings of the M50 have been included within the overall Cycle Network.

**Figure 2** shows the same cycle network as in Figure 1 and illustrates which elements of the network are existing and which elements are proposed.

**Figure 3** shows the Demand Category Grade for each of the assessed routes within Dun Laoghaire-Rathdown County Council.

**Figure 4** shows the results of the Quality of Service assessment for each of the primary routes.

## 5.1 Cycle Skills Network Assessment (CSNA)

### Introduction

Transport Initiatives (TI) was commissioned by Dún Laoghaire-Rathdown County Council to carry out a review of the council's cycle strategy in June 2008 and as part of this review, a pilot Cycle Skills Network Audit was carried out. A Cycle Skills Network Audit is a survey of an area's cycle network to assess the skill level needed to cycle on them.

The Transport Initiatives study adopted a classification system for the pilot area in Dún Laoghaire – Rathdown based on the three core levels of the UK National Standard for Cycle Training (Bikeability).

There are three Bikeability Levels:

**Level 1 – Beginner:** The cyclist has the skills and understanding to be able to make a trip and undertake activities safely in a motor traffic-free environment and as a pre-requisite to a road trip.

**Level 2 – Introduction to Riding on the Road:** The cyclist has the skills and understanding to be able to make a trip safely to school, work or for leisure on quiet roads.

**Level 3 – Advanced:** The cyclist has the skills and understanding to be able to make a trip safely to school, work or leisure on busy roads and using complex junctions and road features.

For the study carried out by Transport Initiatives, these levels have been redefined into 5 levels of classification.

**Level 1** Motor traffic-free, off-carriageway routes where cycling is permitted and some streets with minimal, calmed traffic. In identifying these on Cycle Skills Network Assessment plans we have further defined Level 1 tracks, splitting them into tracks which can be cycled now and those that have potential for converting to cycle use.

**Level 2** Roads or lengths of a road that a cyclist who has achieved Bikeability Level 2 can cycle on and carry out all manoeuvres.

**Level 2.5** Roads or lengths of a road that a cyclist who has achieved Bikeability Level 2 can cycle on and carry out all manoeuvres except turning across traffic (i.e. turning right onto or off the road).

**Level 3** Roads or lengths of a road that a cyclist who has achieved Bikeability Level 3 can cycle on and carry out all manoeuvres.

**Level 3.5** Roads or lengths of a road where the level of risk is currently a barrier to even the most competent cyclist.

## Bikeability Assessment

A bikeability assessment of each section of the cycle routes identified as part of the cycle network has been carried out and is shown in **Figure 5** of the Appendix to this report. From the assessment, it can be seen that the majority of the cycle network requires a bikeability skill grade of 3, however, lower skill grades are sufficient to avail of the off-road tracks provided for within the Dún Laoghaire – Rathdown County.

## Appendix A

### Quality of Service Calculations



Dún Laoghaire - Rathdown  
Cycle Network Review



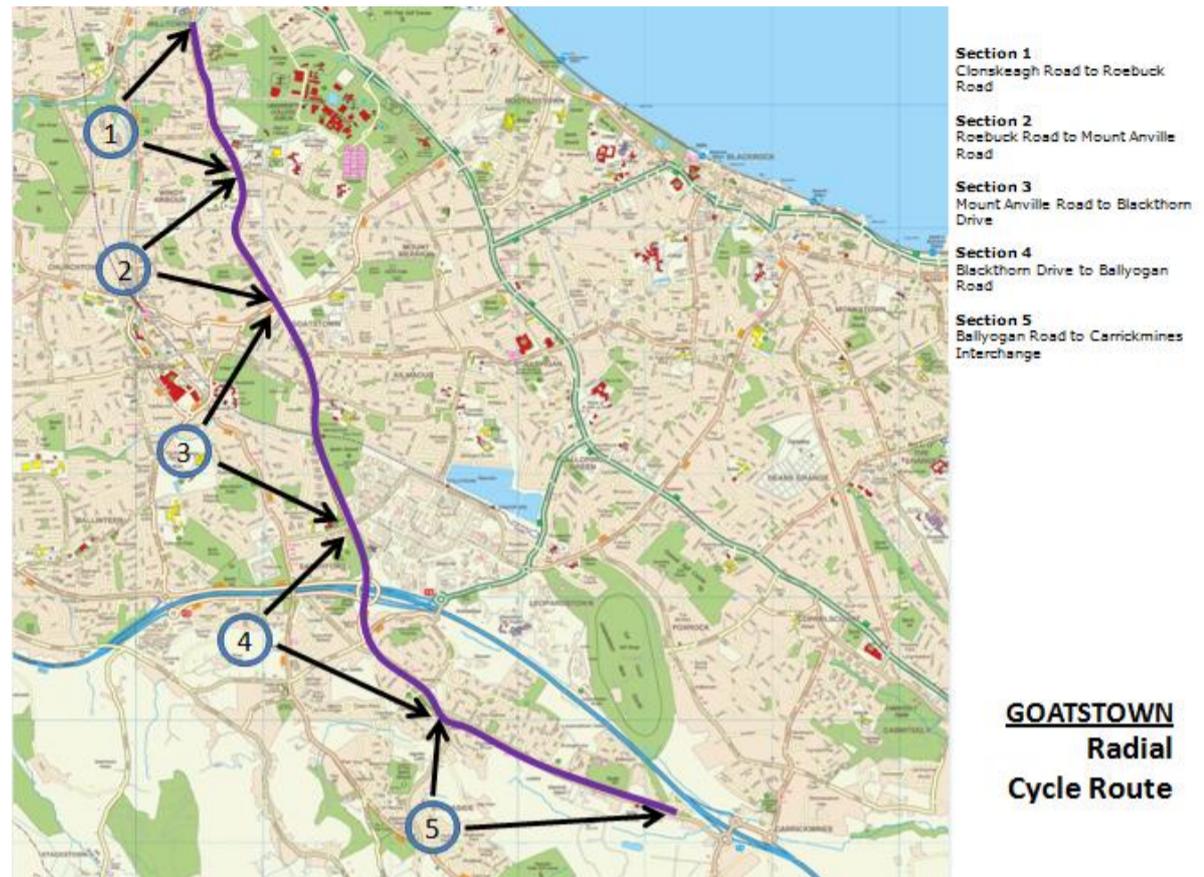
	Section 1	Section 2	Section 3	Section 4	Section 5
Distance (km)	1.60	1.20	2.00	1.00	1.50
<b>Pavement Condition</b>	70 A	60 B	60 B	60 B	60 B
<b>Number of Adjacent Cyclist</b>	1+1 A	- D	- D	- C	- D
<b>Conflicts</b>					
Total Conflicts	17	11	23	19	21
<b>Number of conflicts per 100m</b>	1.1 B	0.9 A	1.2 B	1.9 B	1.4 B
Journey Time Delay					
Journey Time (Sec)	384.01	288	480.01	240	360.01
Delay (Sec)	200	210	70	90	80
<b>% of Journey time</b>	52% D	73% D	15% B	37% C	22% B
<b>HGV Influence</b>	2-5% B	2-5% B	2-5% B	6-10% C	2-5% B
<b>QUALITY OF SERVICE</b>	<b>C</b>	<b>D</b>	<b>C</b>	<b>C</b>	<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



	Section 1		Section 2		Section 3		Section 4		Section 5		Section 6	
Distance (km)	1.7		1.5		3.0		2.3		1.9		1.3	
<b>Pavement Condition</b>	50	C	50	C	70	A	80	A	80	A	80	A
<b>Number of Adjacent Cyclist</b>	1+1	A	1+1	A	1+1	A	1+1	A	1+1	A	1+1	A
<b>Conflicts</b>												
Total Conflicts	11		23		19		12		13		13	
<b>Number of conflicts per 100m</b>	0.6	A	1.5	B	0.6	A	0.5	A+	0.7	A	1	A
Journey Time Delay												
Journey Time (Sec)	408		360		720		552		456		312	
Delay (Sec)	240		200		240		170		130		10	
<b>% of Journey time</b>	59%	D	56%	D	33%	C	31%	C	29%	C	3%	A+
<b>HGV Influence</b>	6-10%	C	6-10%	C	6-10%	C	6-10%	C	6-10%	C	6-10%	C
<b>QUALITY OF SERVICE</b>		C		C		C		C		C		B

Dún Laoghaire - Rathdown  
Cycle Network Review



	Section 1		Section 2		Section 3		Section 4		Section 5	
Distance (km)	1.2		1.2		1.8		2.0		1.4	
<b>Pavement Condition</b>	70	A	60	B	70	A	80	A	90	A+
<b>Number of Adjacent Cyclist</b>	1+1	A	1+1	A	1+1	A	-	D	1+1	A
<b>Conflicts</b>										
Total Conflicts	13		19		11		9		16	
<b>Number of conflicts per 100m</b>	1.1	B	1.6	B	0.6	A	0.5	A+	1.1	B
Journey Time Delay										
Journey Time (Sec)	288		288		432		480		274	
Delay (Sec)	140		60		130		40		40	
<b>% of Journey time</b>	49%	C	21%	B	30%	C	8%	A	15%	B
<b>HGV Influence</b>	2-5%	B								
<b>QUALITY OF SERVICE</b>		<b>B</b>		<b>B</b>		<b>B</b>		<b>C</b>		<b>B</b>

Dún Laoghaire - Rathdown  
Cycle Network Review

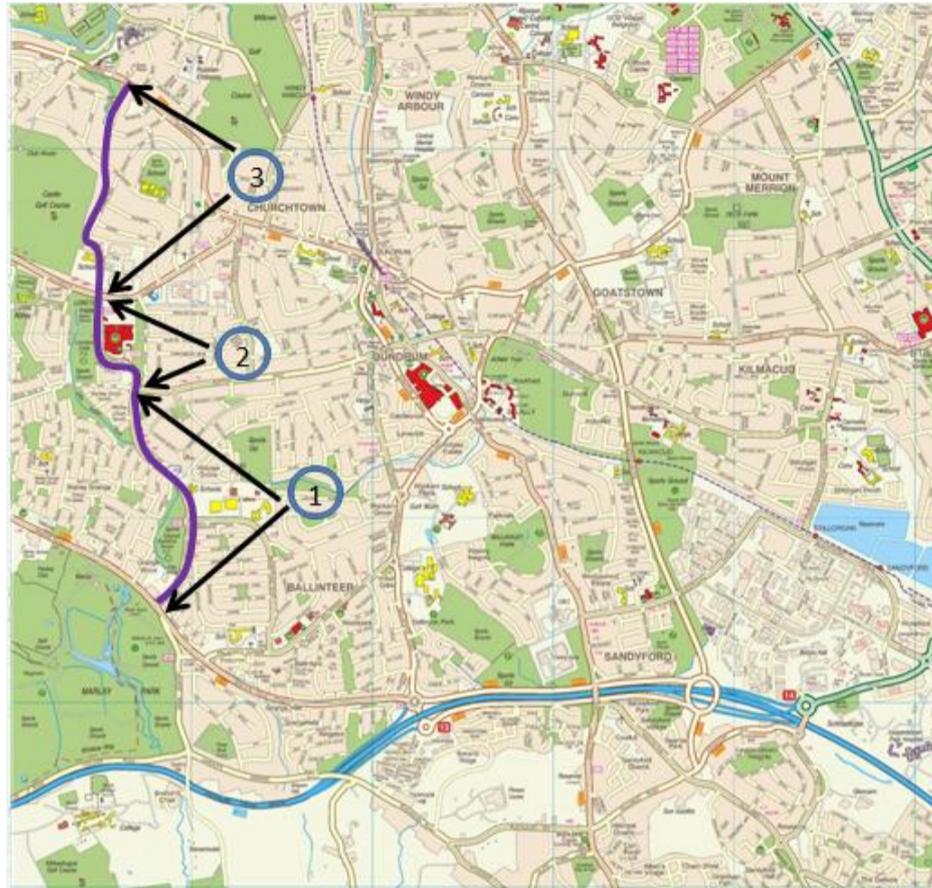


- Section 1**  
Milltown Road to Taney Road
- Section 2**  
Taney Road to Wyckham Way
- Section 3**  
Wyckham Way to Blackthorn Drive
- Section 4**  
Blackthorn Drive to Hillcrest Road
- Section 5**  
Hillcrest Road to Stepside Village

**DUNDRUM**  
**Radial**  
**Cycle Route**

	Section 1	Section 2	Section 3	Section 4	Section 5
Distance (km)	2.0	1.1	1.4	1.2	3.7
Pavement Condition	80 A	40 D	80 A	60 B	80 A
Number of Adjacent Cyclist	- D	- C	1+1 A	1+1 A	1+1 B
Conflicts					
Total Conflicts	53	13	26	16	39
Number of conflicts per 100m	2.7 B	1.2 B	1.9 B	1.3 B	1.1 B
Journey Time Delay					
Journey Time (Sec)	480	264	336	288	888
Delay (Sec)	150	120	180	80	110
% of Journey time	31% C	45% C	54% D	28% C	12% B
HGV Influence	2-5% B				
<b>QUALITY OF SERVICE</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>B</b>	<b>B</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Grange Road to Barton Road East

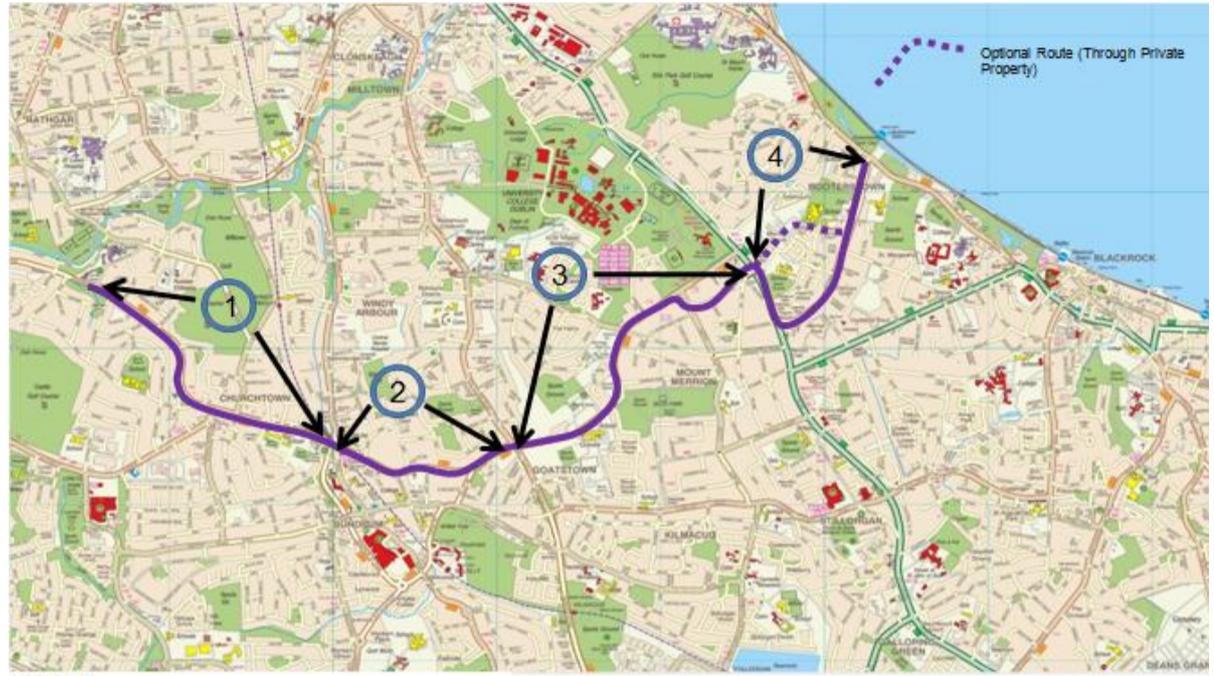
**Section 2**  
Barton Road East to Nutgrove Avenue

**Section 3**  
Nutgrove Avenue to Braemor Road

**NUTGROVE**  
**Radial**  
**Cycle Route**

	Section 1		Section 2		Section 3	
Distance (km)	1.4		0.6		1.3	
<b>Pavement Condition</b>	70	A	70	A	60	B
<b>Number of Adjacent Cyclist</b>	1+1	A	-	D	-	C
<b>Conflicts</b>						
Total Conflicts	22		9		16	
<b>Number of conflicts per 100m</b>	1.6	B	1.5	B	1.2	B
Journey Time Delay						
Journey Time (Sec)	336		144		312	
Delay (Sec)	70		50		30	
<b>% of Journey time</b>	21%	B	35%	C	10%	A
<b>HGV Influence</b>	2-5%	B	2-5%	B	0-1%	A
<b>QUALITY OF SERVICE</b>		<b>B</b>		<b>C</b>		<b>B</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



- Section 1**  
Braemar Road to Dundrum Road
- Section 2**  
Dundrum Road to Goatstown Road
- Section 3**  
Goatstown Road to the N11
- Section 4**  
N11 to Rock Road

**CHURCHTOWN TO BOOTERSTOWN**  
**Orbital**  
**Cycle Route**

	Section 1		Section 2		Section 3		Section 4	
Distance (km)	1.8		1.2		2.0		1.8	
<b>Pavement Condition</b>	50	C	60	B	80	A	70	A
<b>Number of Adjacent Cyclist</b>	1+1	A	-	D	-	D	-	C
<b>Conflicts</b>								
Total Conflicts	36		19		21		21	
<b>Number of conflicts per 100m</b>	2.0	B	1.6	B	1.1	B	1.2	B
Journey Time Delay								
Journey Time (Sec)	432		288		480		432	
Delay (Sec)	190		100		130		170	
<b>% of Journey time</b>	44%	C	35%	C	27%	C	39%	C
<b>HGV Influence</b>	2-5%	B	2-5%	B	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>		C		C		C		C

Dún Laoghaire - Rathdown  
Cycle Network Review

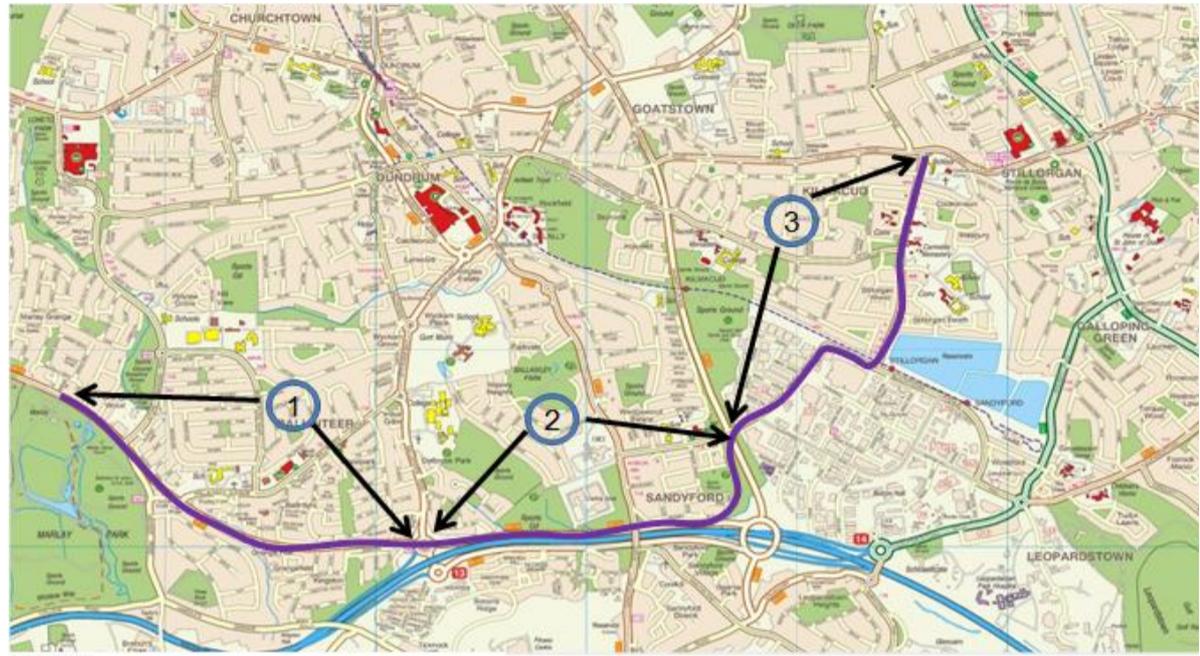


- Section 1**  
Nutgrove Way to Main Street (Dundrum)
- Section 2**  
Main Street (Dundrum) to Drummartin Road
- Section 3**  
Drummartin Road to the N11
- Section 4**  
N11 to Deans Grange Road
- Section 5**  
Deans Grange Road to York Road

**DUNDRUM TO DÚN LAOGHAIRE**  
**Orbital**  
**Cycle Route**

	Section 1		Section 2		Section 3		Section 4		Section 5	
Distance (km)	1.4		1.3		2.1		2.1		1.7	
<b>Pavement Condition</b>	70	A	60	B	60	B	80	A	60	B
<b>Number of Adjacent Cyclist</b>	1+1	B	-	C	-	D	1+1	A	-	D
<b>Conflicts</b>										
Total Conflicts	18		17		22		16		29	
<b>Number of conflicts per 100m</b>	1.3	B	1.3	B	1.0	A	0.8	A	1.7	B
Journey Time Delay										
Journey Time (Sec)	336		312		504		504		408	
Delay (Sec)	110		160		200		100		140	
<b>% of Journey time</b>	33%	C	51%	D	40%	C	20%	B	34%	C
<b>HGV Influence</b>	2-5%	B								
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>C</b>		<b>C</b>		<b>B</b>		<b>C</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Grange Road to Brehon Field Road Roundabout

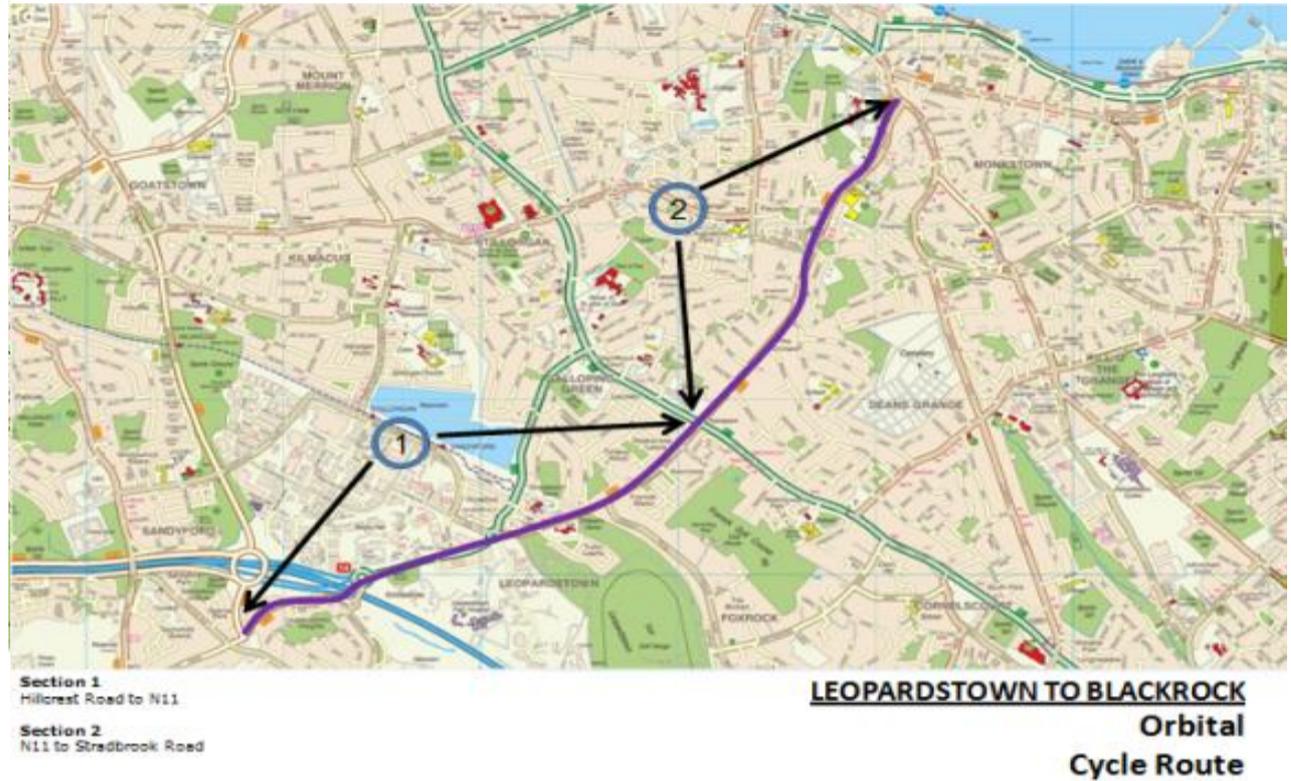
**Section 2**  
Brehon Field Road Roundabout to Blackthorn Drive

**Section 3**  
Blackthorn Drive to Lower Kilmacud Road

**BALLINTEER TO STILLORGAN**  
**Orbital**  
**Cycle Route**

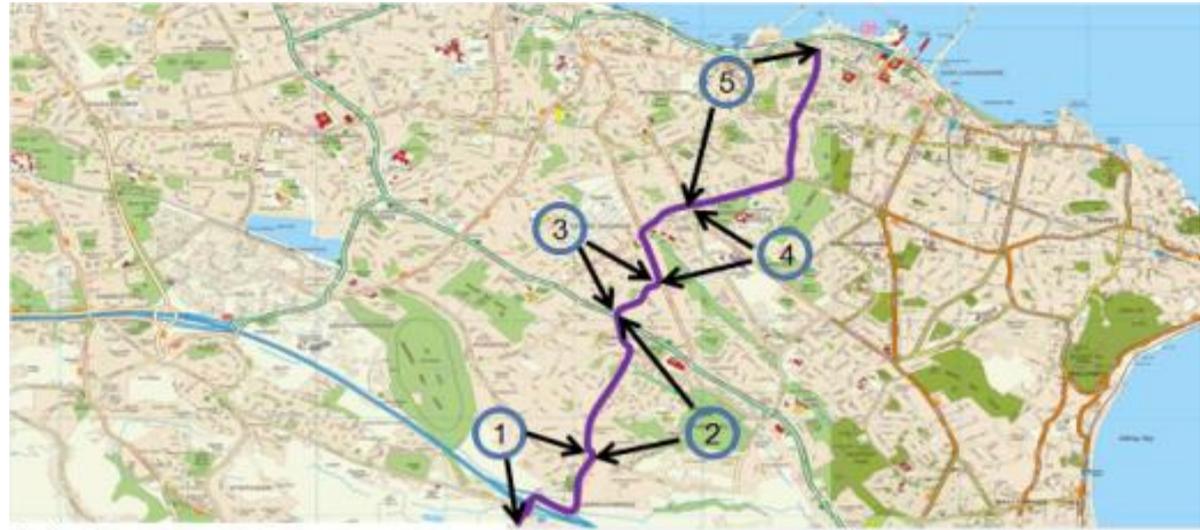
	Section 1		Section 2		Section 3	
Distance (km)	2.1		1.8		1.9	
<b>Pavement Condition</b>	70	A	80	A	70	A
<b>Number of Adjacent Cyclist</b>	1+1	A	2+1	A+	1+1	A
<b>Conflicts</b>						
Total Conflicts	15		0		27	
<b>Number of conflicts per 100m</b>	0.7	A	0.0	A+	1.4	B
Journey Time Delay						
Journey Time (Sec)	504		432		456	
Delay (Sec)	180		0		300	
<b>% of Journey time</b>	36%	C	0%	A+	66%	D
<b>HGV Influence</b>	2-5%	B	1-0%	A	2-5%	B
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>A</b>		<b>C</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review



	Section 1		Section 2	
Distance (km)	2.9		2.1	
<b>Pavement Condition</b>	60	B	80	A
<b>Number of Adjacent Cyclist</b>	1+1	A	-	D
<b>Conflicts</b>				
Total Conflicts	25		32	
<b>Number of conflicts per 100m</b>	0.9	A	1.5	B
Journey Time Delay				
Journey Time (Sec)	696		504	
Delay (Sec)	200		100	
<b>% of Journey time</b>	29%	C	20%	B
<b>HGV Influence</b>	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>		<b>B</b>		<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



- Section 1**  
Ballyogan Road to Brighton Road
- Section 2**  
Brighton Road to N11
- Section 3**  
N11 to Clonkeen Road
- Section 4**  
Clonkeen Road to Rochestown Avenue (Bakers Corner)
- Section 5**  
Rochestown Avenue (Bakers Corner) to Lower Georges Street

**CARRICKMINES TO DÚN LAOGHAIRE**  
**Orbital**  
**Cycle Route**

	Section 1		Section 2		Section 3		Section 4		Section 5	
Distance (km)	1.1		1.5		0.5		1.0		2.2	
<b>Pavement Condition</b>	90	A+	60	B	70	A	70	A	60	B
<b>Number of Adjacent Cyclist</b>	1+1	A	-	C	-	A	1+1	A	-	D
<b>Conflicts</b>										
Total Conflicts	12		25		4		19		46	
<b>Number of conflicts per 100m</b>	1.1	B	1.7	B	0.8	A	1.9	B	2.1	B
Journey Time Delay										
Journey Time (Sec)	264		360		120		240		528	
Delay (Sec)	80		180		20		80		120	
<b>% of Journey time</b>	30%	C	50%	D	17%	B	33%	C	23%	B
<b>HGV Influence</b>	2-5%	B	2-5%	B	0-1%	A	2-5%	B	6-10%	C
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>C</b>		<b>A</b>		<b>B</b>		<b>C</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review

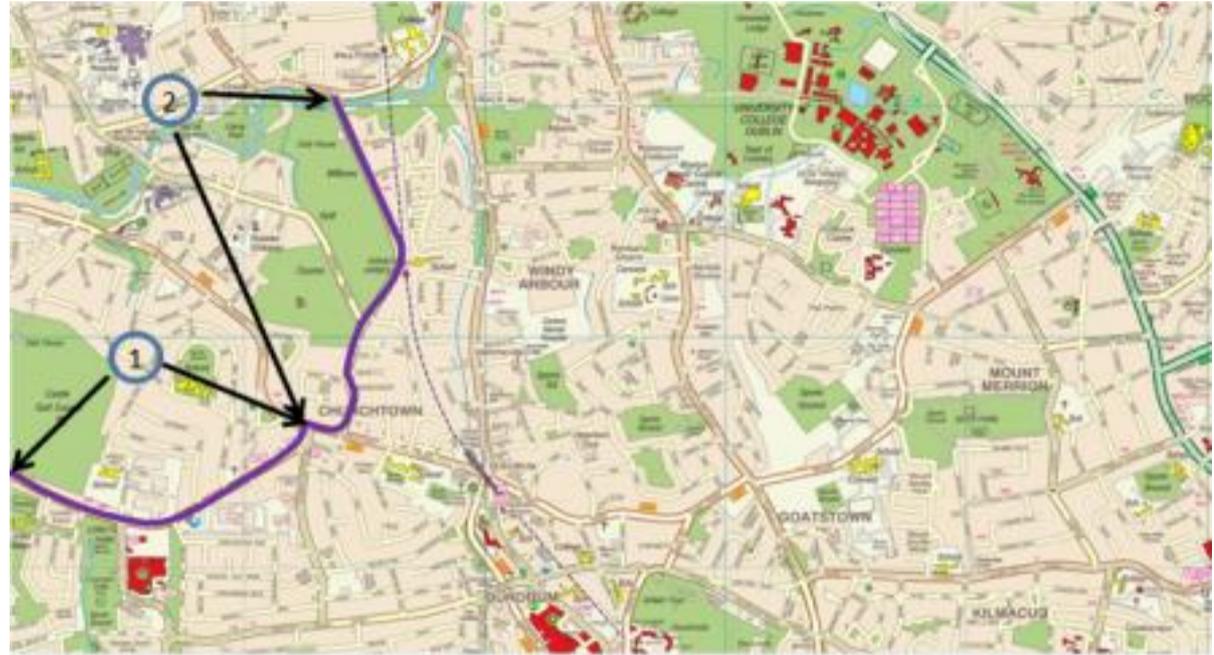


- Section 1**  
Glenamuck Road to Wyattville Road
- Section 2**  
Wyattville Road to Church Road
- Section 3**  
Church Road to Graduate Roundabout
- Section 4**  
Graduate Roundabout to Upper Glenageary Road
- Section 5**  
Upper Glenageary Road to Summerhill Road

**CHERRYWOOD TO  
DÚN LAOGHAIRE**  
Orbital  
Cycle Route

	Section 1	Section 2	Section 3	Section 4	Section 5
Distance (km)	-	1.4	1.2	1.5	1.1
<b>Pavement Condition</b>	-	80 A	80 A	80 A	70 A
<b>Number of Adjacent Cyclist</b>	-	1+1 B	1+1 A	2+1 A+	- D
<b>Conflicts</b>					
Total Conflicts	-	10	5	4	13
<b>Number of conflicts per 100m</b>	-	0.7 A	0.4 A+	0.3 A+	1.2 B
Journey Time Delay					
Journey Time (Sec)	-	336	288	360	264
Delay (Sec)	-	200	60	50	100
<b>% of Journey time</b>	-	60% D	21% B	14% B	38% C
<b>HGV Influence</b>	-	2-5% B	2-5% B	2-5% B	2-5% B
<b>QUALITY OF SERVICE</b>	<b>N/A</b>	<b>C</b>	<b>B</b>	<b>B</b>	<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review

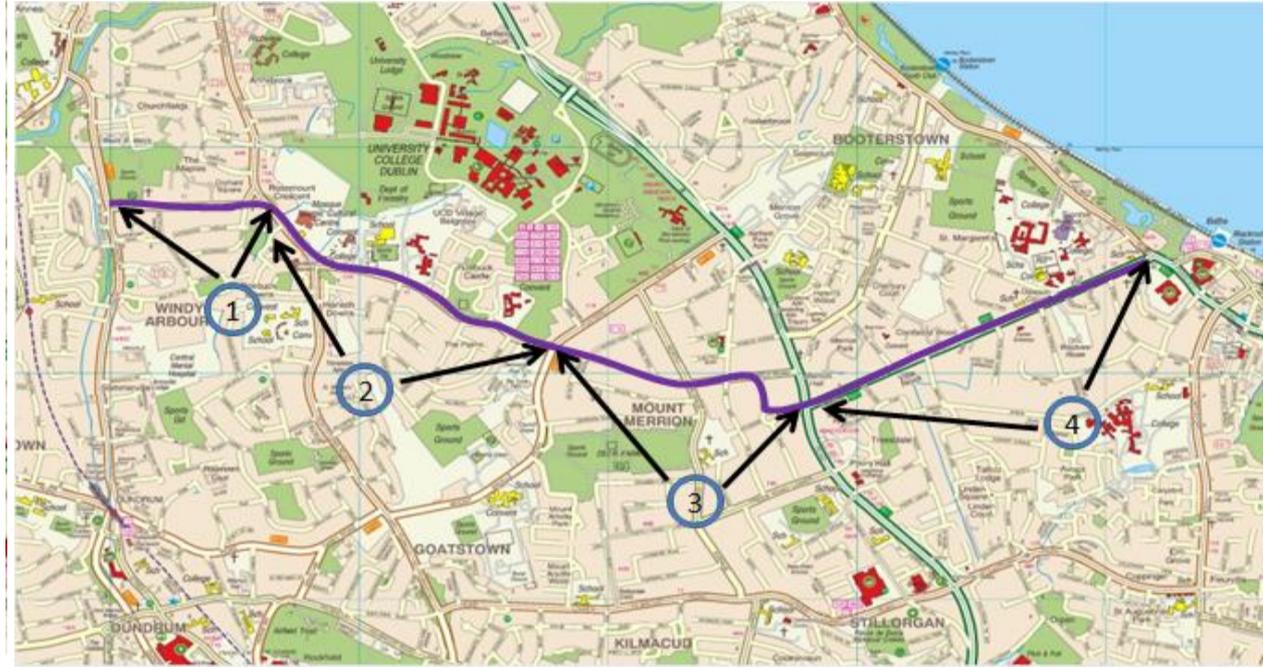


**Section 1**  
Nutgrove Avenue to Churchtown Road Upper  
**Section 2**  
Churchtown Road Upper to Milltown Road

**NUTGROVE TO MILLTOWN**  
**Link**  
**Cycle Route**

	Section 1		Section 2	
Distance (km)	1.3		1.7	
<b>Pavement Condition</b>	70	A	70	A
<b>Number of Adjacent Cyclist</b>	1+1	A	-	D
<b>Conflicts</b>				
Total Conflicts	27		27	
<b>Number of conflicts per 100m</b>	2.1	B	1.6	B
Journey Time Delay				
Journey Time (Sec)	312		408	
Delay (Sec)	190		120	
<b>% of Journey time</b>	61%	D	29%	C
<b>HGV Influence</b>	2-5%	B	0-1%	A
<b>QUALITY OF SERVICE</b>		<b>C</b>		<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



- Section 1**  
Dundrum Road to Clonskeagh Road
- Section 2**  
Clonskeagh Road to Mount Anville Road
- Section 3**  
Mount Anville Road to the N11
- Section 4**  
N11 to Rock Road

**WINDY ARBOUR TO BLACKROCK**  
**Link**  
**Cycle Route**

	Section 1		Section 2		Section 3		Section 4	
Distance (km)	0.7		1.4		1.2		1.6	
<b>Pavement Condition</b>	80	A	80	A	60	B	80	A
<b>Number of Adjacent Cyclist</b>	-	D	1+1	A	-	C	1+1	A
<b>Conflicts</b>								
Total Conflicts	11		31		7		31	
<b>Number of conflicts per 100m</b>	1.7	B	2.2	B	0.6	A	1.9	B
Journey Time Delay								
Journey Time (Sec)	156		336		288		384	
Delay (Sec)	50		100		40		150	
<b>% of Journey time</b>	32%	C	30%	C	14%	B	39%	C
<b>HGV Influence</b>	2-5%	B	2-5%	B	0-1%	A	2-5%	B
<b>QUALITY OF SERVICE</b>	C		B		B		B	

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Grange Road to Gort Mhuire Roundabout

**Section 2**  
Gort Mhuire Roundabout to Sandyford Road

**Section 3**  
Sandyford Road to Taney Road

**BALLINTEER TO DUNDRUM**  
**Link**  
**Cycle Route**

	Section 1		Section 2		Section 3	
Distance (km)	1.6		0.6		0.9	
Pavement Condition	70	A	80	A	80	A
Number of Adjacent Cyclist	-	D	2+1	A+	1+1	A
Conflicts						
Total Conflicts	25		4		11	
Number of conflicts per 100m	1.6	B	0.7	A	1.2	B
Journey Time Delay						
Journey Time (Sec)	384		144		216	
Delay (Sec)	100		30		220	
% of Journey time	26%	C	21%	B	102%	D
HGV Influence	2-5%	B	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>		<b>C</b>		<b>B</b>		<b>C</b>

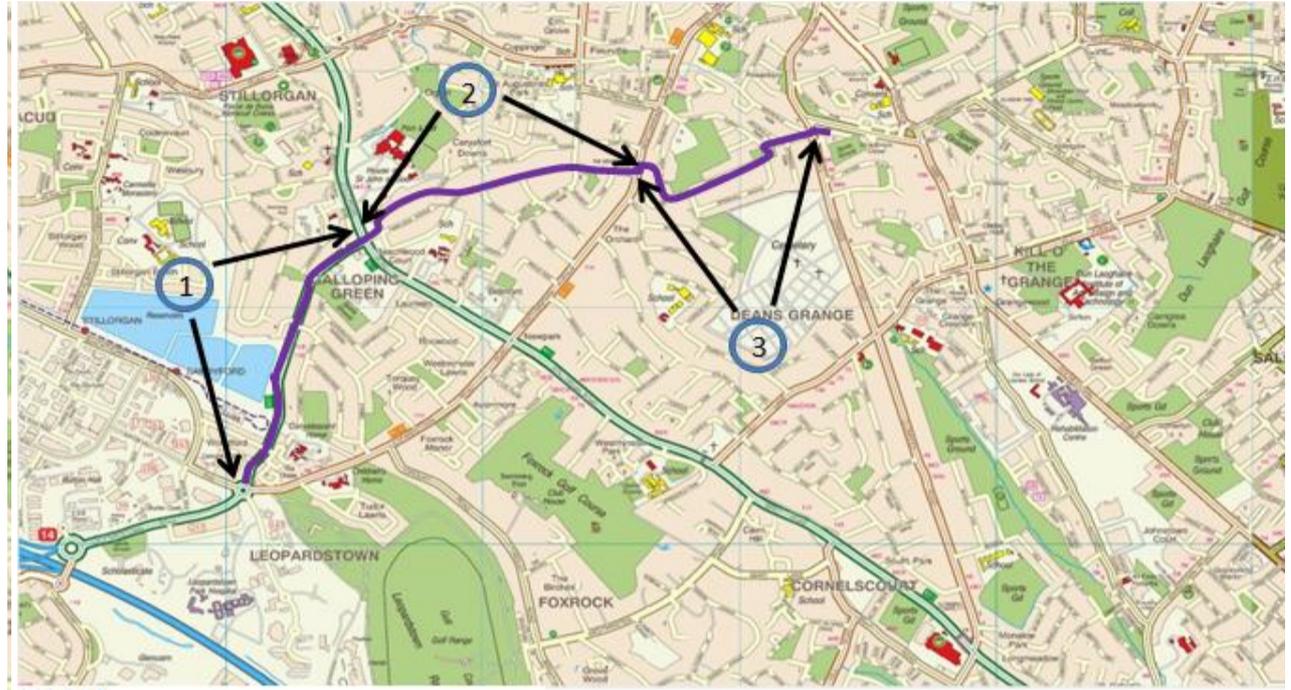


Section 1  
Blackthorn Avenue (Upper Kilmacud Road Extension to Leopardstown Road)

**BLACKTHORN AVENUE**  
Link  
Cycle Route

	Section 1	
Distance (km)	1.0	
Pavement Condition	60	B
Number of Adjacent Cyclist	-	D
Conflicts		
Total Conflicts	13	
Number of conflicts per 100m	1.3	B
Journey Time Delay		
Journey Time (Sec)	240	
Delay (Sec)	70	
% of Journey time	29%	C
HGV Influence	0-1%	A
<b>QUALITY OF SERVICE</b>		<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Leopardstown Road to N11  
**Section 2**  
N11 to Newtownpark Avenue  
**Section 3**  
Newtownpark Avenue to Dean's Grange Road

**LEOPARDSTOWN TO DEANS GRANGE**  
**Link**  
**Cycle Route**

	Section 1		Section 2		Section 3	
Distance (km)	1.2		1.0		0.8	
<b>Pavement Condition</b>	70	A	60	B	60	B
<b>Number of Adjacent Cyclist</b>	1+1	A	-	A+	-	A+
<b>Conflicts</b>						
Total Conflicts	12		7		8	
<b>Number of conflicts per 100m</b>	1.0	A	0.7	A	1.0	A
Journey Time Delay						
Journey Time (Sec)	288		240		192	
Delay (Sec)	120		40		20	
<b>% of Journey time</b>	42%	C	17%	B	10%	A
<b>HGV Influence</b>	2-5%	B	0-1%	A	0-1%	A
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>B</b>		<b>A</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review



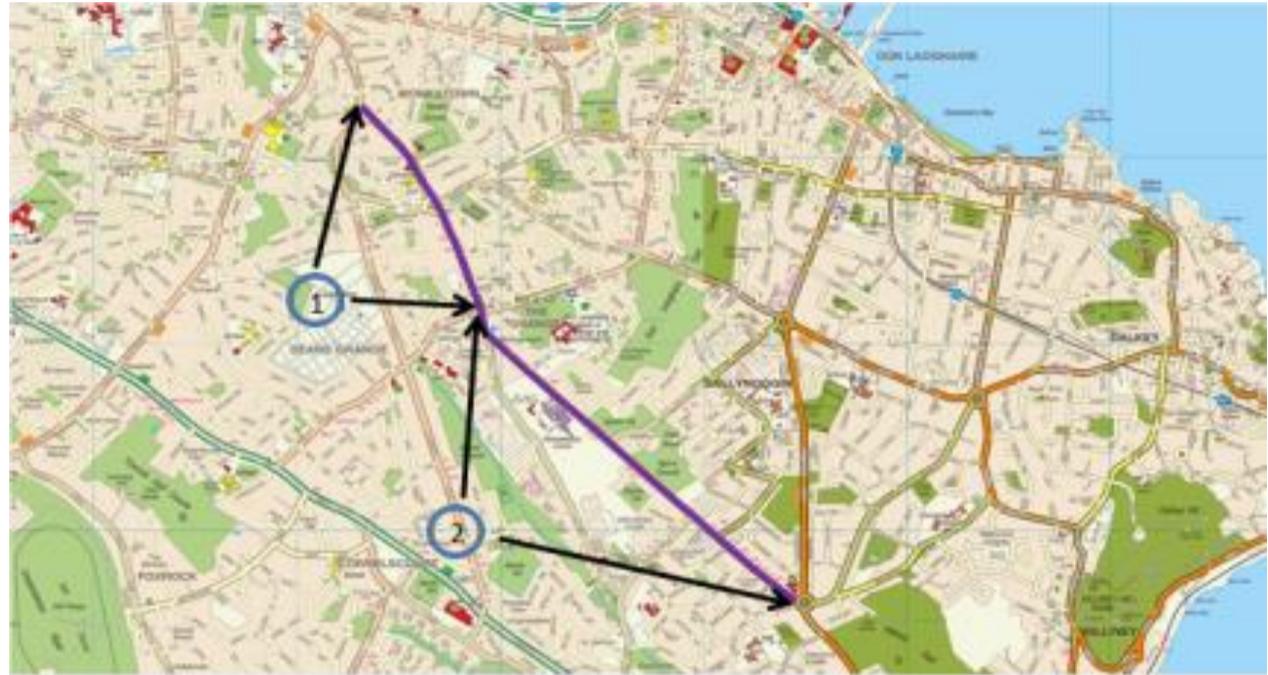
**Section 1**  
N11 (Foxrock Church) to Clonkeen Road

**Section 2**  
Clonkeen Road to Stradbroke Road

**FOXROCK CHURCH TO MONKSTOWN  
Link  
Cycle Route**

	Section 1		Section 2	
Distance (km)	0.9		2.1	
<b>Pavement Condition</b>	80	A	60	B
<b>Number of Adjacent Cyclist</b>	1+1	A	-	D
<b>Conflicts</b>				
Total Conflicts	17		35	
<b>Number of conflicts per 100m</b>	2.0	B	1.7	B
Journey Time Delay				
Journey Time (Sec)	204		504	
Delay (Sec)	80		130	
<b>% of Journey time</b>	39%	C	26%	B
<b>HGV Influence</b>	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>		<b>B</b>		<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



Section 1  
Rowan Park to Kill Lane  
Section 2  
Kill Lane to Graduate Roundabout

**KILLINEY TO MONKSTOWN**  
**Link**  
**Cycle Route**

	Section 1		Section 2	
Distance (km)	1.4		2.1	
Pavement Condition	60	B	60	B
Number of Adjacent Cyclist	-	D	-	D
Conflicts				
Total Conflicts	22		35	
Number of conflicts per 100m	1.6	B	1.7	B
Journey Time Delay				
Journey Time (Sec)	336		504	
Delay (Sec)	80		180	
% of Journey time	24%	B	36%	C
HGV Influence	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>		<b>C</b>		<b>C</b>

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Cycle Network Review

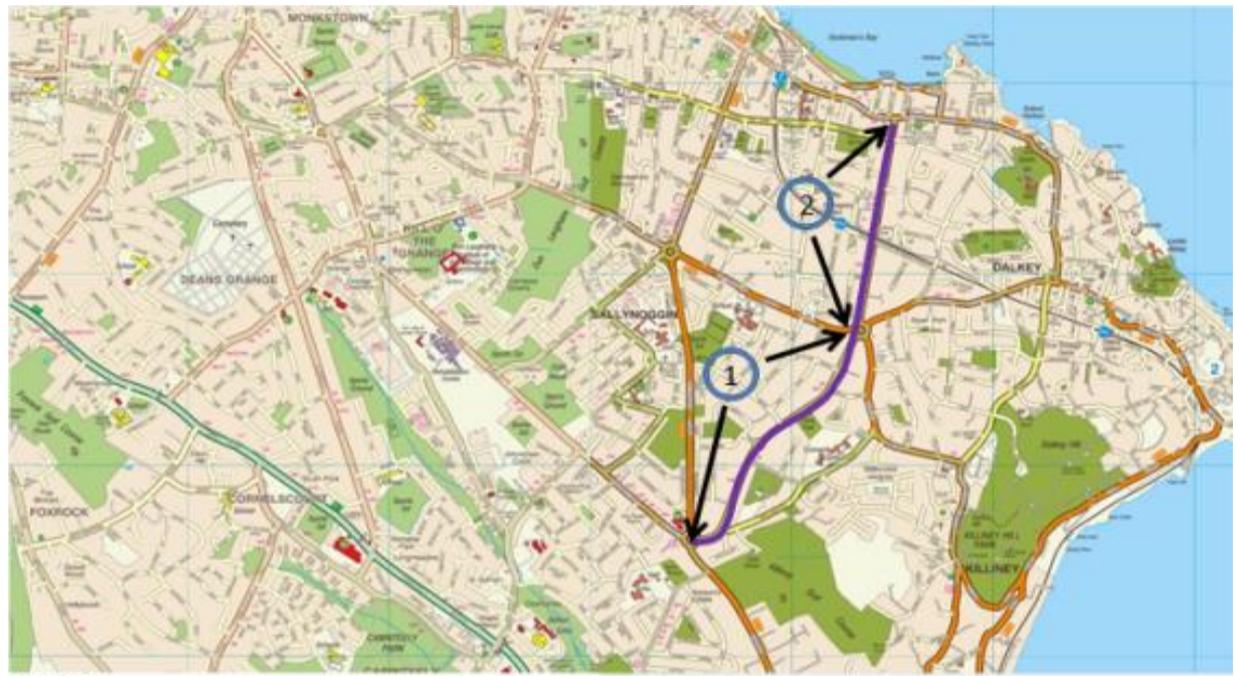


**Section 1**  
N11 to Rochestown Avenue  
**Section 2**  
Rochestown Avenue to Upper Glenageary Road

**CABINTEELY TO SALLYNOGGIN**  
**Link**  
**Cycle Route**

	Section 1		Section 2	
Distance (km)	1.3		1.8	
<b>Pavement Condition</b>	80	A	60	B
<b>Number of Adjacent Cyclist</b>	1+1	A	-	C
<b>Conflicts</b>				
Total Conflicts	17		40	
<b>Number of conflicts per 100m</b>	1.3	B	2.2	B
Journey Time Delay				
Journey Time (Sec)	312		432	
Delay (Sec)	160		110	
<b>% of Journey time</b>	51%	D	25%	B
<b>HGV Influence</b>	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>	<b>C</b>		<b>B</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review



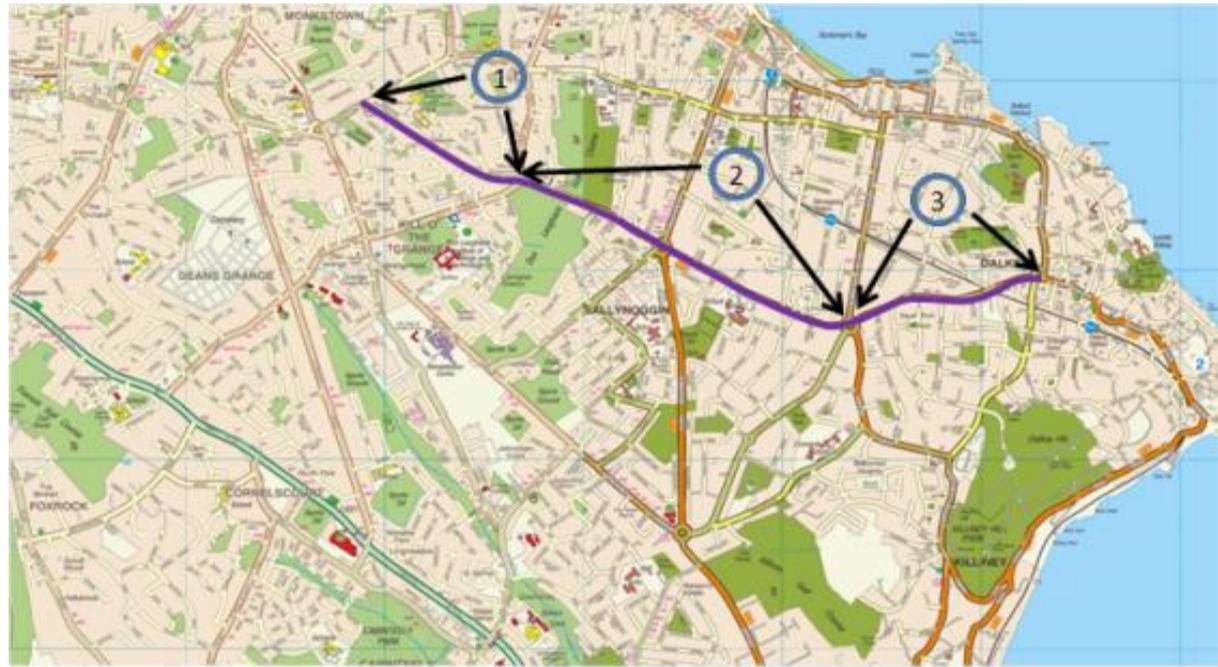
**Section 1**  
Rochestown Avenue (Graduate Roundabout) to Upper Glenageary Road

**Section 2**  
Upper Glenageary Road to Glasthule Road

**KILLINEY TO GLASTHULE**  
**Link**  
**Cycle Route**

	Section 1		Section 2	
Distance (km)	1.5		1.1	
<b>Pavement Condition</b>	60	B	60	B
<b>Number of Adjacent Cyclist</b>	1+1	A	-	D
<b>Conflicts</b>				
Total Conflicts	13		14	
<b>Number of conflicts per 100m</b>	0.9	A	1.3	B
Journey Time Delay				
Journey Time (Sec)	360		264	
Delay (Sec)	60		70	
<b>% of Journey time</b>	17%	B	27%	C
<b>HGV Influence</b>	0-1%	A	2-5%	B
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>C</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Monkstown Avenue to Kill Avenue

**Section 2**  
Kill Avenue to Albert Road Upper (Killiney Towers)

**Section 3**  
Albert Road Upper (Killiney Towers) to Dalkey

**MONKSTOWN TO DALKEY**  
**Link**  
**Cycle Route**

	Section 1		Section 2		Section 3	
Distance (km)	0.9		1.9		1.0	
<b>Pavement Condition</b>	70	A	80	A	60	B
<b>Number of Adjacent Cyclist</b>	-	C	1+1	A	-	D
<b>Conflicts</b>						
Total Conflicts	20		31		12	
<b>Number of conflicts per 100m</b>	2.4	B	1.6	B	1.2	B
Journey Time Delay						
Journey Time (Sec)	204		456		240	
Delay (Sec)	30		70		40	
<b>% of Journey time</b>	15%	B	15%	B	17%	B
<b>HGV Influence</b>	2-5%	B	2-5%	B	2-5%	B
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>B</b>		<b>C</b>	

Dún Laoghaire - Rathdown  
Cycle Network Review



	Section 1	
Distance (km)	2.8	
Pavement Condition	70	A
Number of Adjacent Cyclist	-	D
Conflicts		
Total Conflicts	44	
Number of conflicts per 100m	1.6	B
Journey Time Delay		
Journey Time (Sec)	672	
Delay (Sec)	180	
% of Journey time	27%	C
HGV Influence	2-5%	B
<b>QUALITY OF SERVICE</b>		<b>C</b>

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Brennanstown Road to N11 (Cornelscourt Shopping Centre)

**Section 2**  
N11 to Clonkeen Road Junction with Beech Park Road

**CARRICKMINES TO CABINTEELY**  
**Link**  
**Cycle Route**

	Section 1		Section 2	
Distance (km)	1.8		0.9	
<b>Pavement Condition</b>	80	A	80	A
<b>Number of Adjacent Cyclist</b>	-	A	1+1	A
<b>Conflicts</b>				
Total Conflicts	20		17	
<b>Number of conflicts per 100m</b>	1.1	B	2.0	B
Journey Time Delay				
Journey Time (Sec)	420		204	0
Delay (Sec)	100		10	
<b>% of Journey time</b>	24%	B	5%	A+
<b>HGV Influence</b>	0-1%	A	2-5%	B
<b>QUALITY OF SERVICE</b>	<b>B</b>		<b>B</b>	

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Cycle Network Review

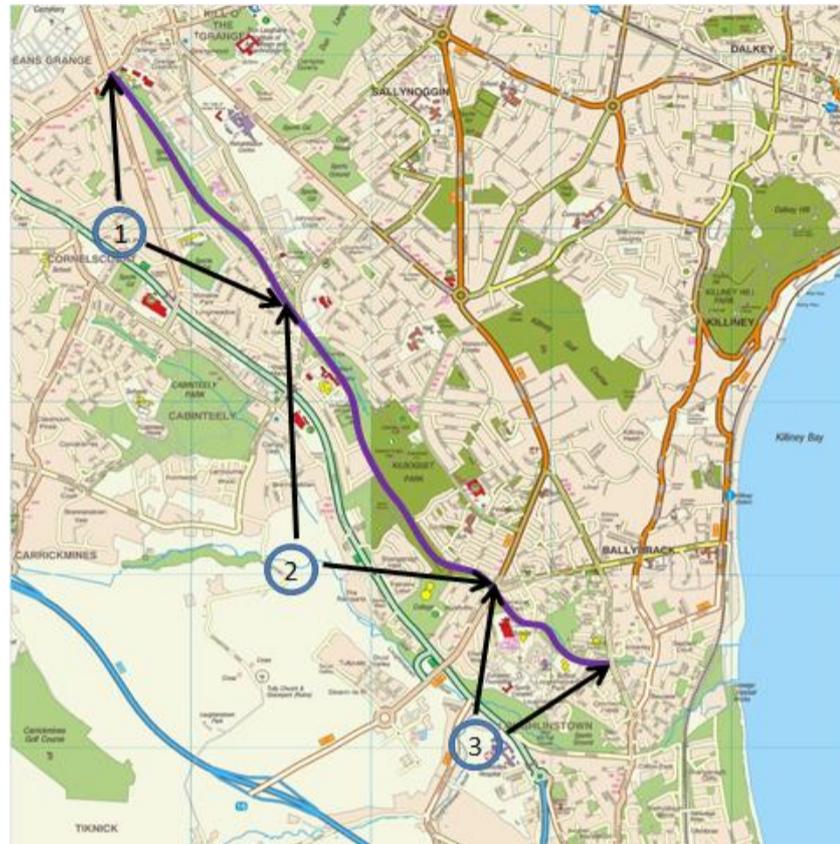


- Section 1**  
Booterstown Avenue to Blackrock DART Station
- Section 2**  
Blackrock DART Station to Seapoint Avenue
- Section 3**  
Seapoint Avenue to West Pier
- Section 4**  
West Pier to Queens Road
- Section 5**  
Queens Road to Dalkey

**BOOTERSTOWN TO DALKEY**  
**Off-Road**  
**Cycle Route**

	Section 1		Section 2		Section 3		Section 4		Section 5	
Distance (km)	1.5		1.2		1.3		1.9		3.3	
<b>Pavement Condition</b>	80	A	70	A	80	A	70	A	30	D
<b>Number of Adjacent Cyclist</b>	2+1	A+	-	C	2+1	A+	-	C	2+1	A+
<b>Conflicts</b>										
Total Conflicts	1		13		5		21		9	
<b>Number of conflicts per 100m</b>	0.1	A+	1.1	B	0.4	A+	1.1	B	0.3	A+
Journey Time Delay										
Journey Time (Sec)	360		288		312		456		792	
Delay (Sec)	20		20		20		60		80	
<b>% of Journey time</b>	6%	A+	7%	A	6%	A	13%	B	10%	A
<b>HGV Influence</b>	0-1%	A+	0-1%	B	0-1%	A+	0-1%	A	0-1%	A+
<b>QUALITY OF SERVICE</b>	<b>A+</b>		<b>B</b>		<b>A</b>		<b>B</b>		<b>C</b>	

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Cycle Network Review

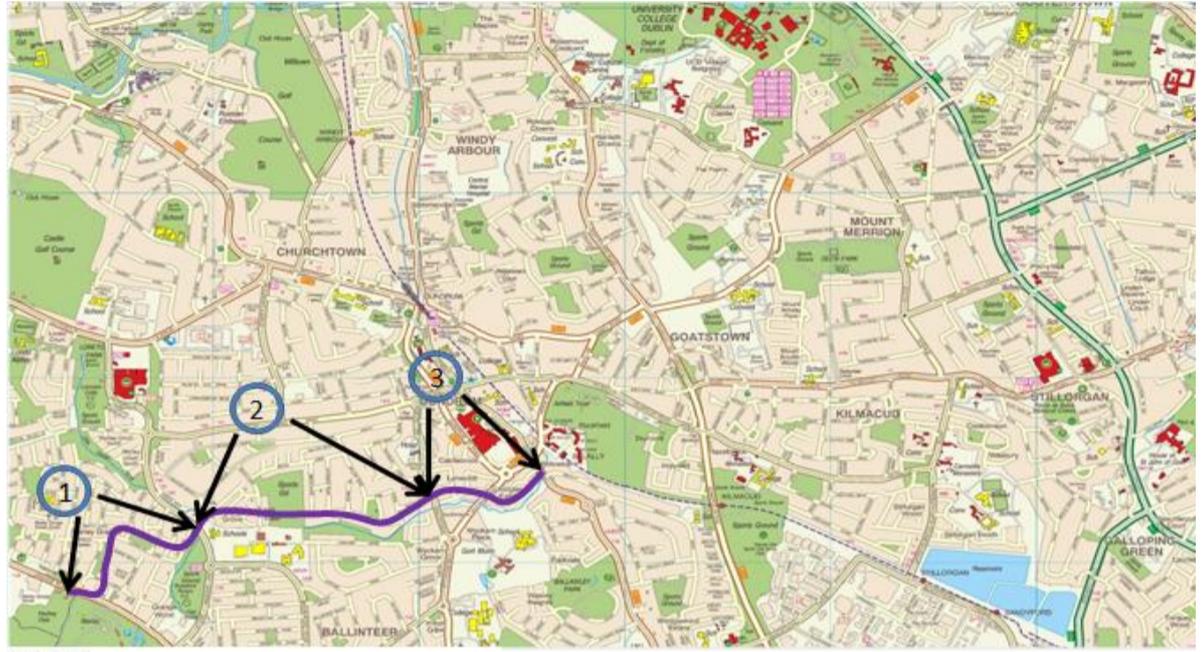


- Section 1**  
Kill Lane to Johnstown Road
- Section 2**  
Johnstown Road to Wyattville Road
- Section 3**  
Wyattville Road to Shanganagh Road

**KILBOGGET PARK  
Off-Road  
Cycle Route**

	Section 1		Section 2		Section 3	
Distance (km)	1.7		2.3		1.0	
<b>Pavement Condition</b>	90	A+	90	A+	90	A+
<b>Number of Adjacent Cyclist</b>	2+1	A+	2+1	A+	2+1	A+
<b>Conflicts</b>						
Total Conflicts	2		4		4	
<b>Number of conflicts per 100m</b>	0.1	A+	0.2	A+	0.4	A+
Journey Time Delay						
Journey Time (Sec)	408		552		240	
Delay (Sec)	40		40		40	
<b>% of Journey time</b>	10%	A	7%	A	17%	B
<b>HGV Influence</b>	0-1%	A+	0-1%	A+	0-1%	A+
<b>QUALITY OF SERVICE</b>	A+		A+		A	

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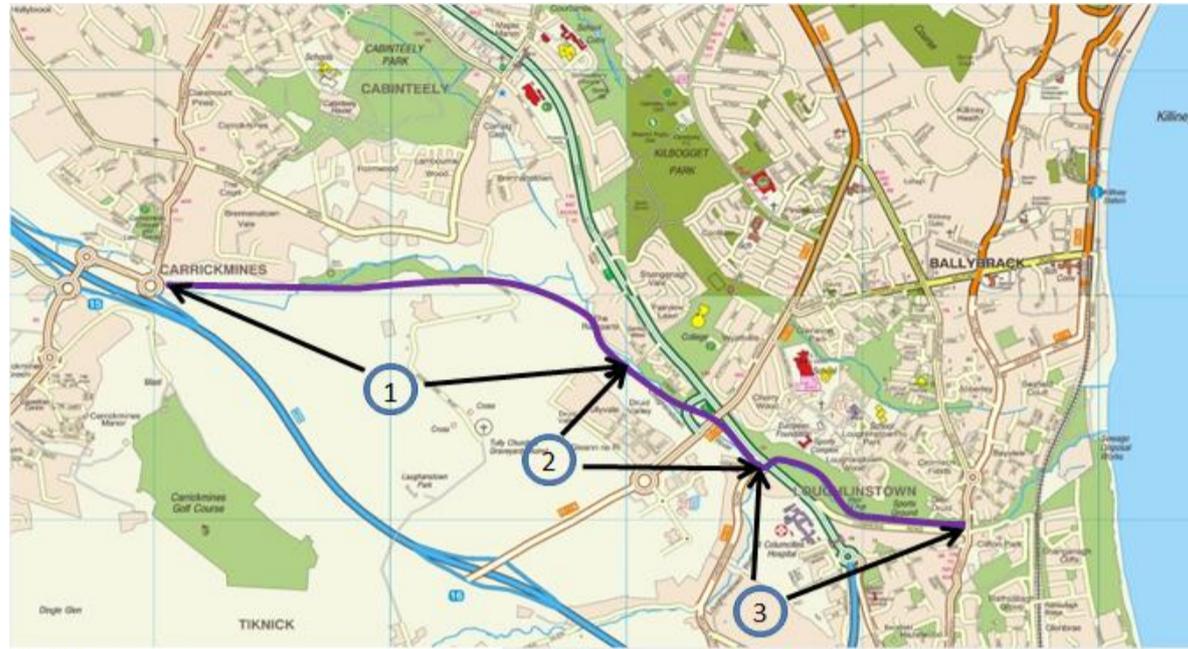


**Section 1**  
Grange Road to Stonemasons Way  
**Section 2**  
Stonemasons Way to Ballinteer Road  
**Section 3**  
Ballinteer Road to Sandyford Road

**BALLINTEER**  
**Off-Road**  
**Cycle Route**

	Section 1		Section 2		Section 3	
Distance (km)	0.6		1.8		1.0	
<b>Pavement Condition</b>	80	A	80	A	80	A
<b>Number of Adjacent Cyclist</b>	-	A	2+1	A+	2+1	A+
<b>Conflicts</b>						
Total Conflicts	1		2		2	
<b>Number of conflicts per 100m</b>	0.2	A+	0.1	A+	0.2	A+
Journey Time Delay						
Journey Time (Sec)	144		432		240	
Delay (Sec)	20		20		40	
<b>% of Journey time</b>	14%	B	5%	A+	17%	B
<b>HGV Influence</b>	0-1%	A	0-1%	A+	0-1%	A+
<b>QUALITY OF SERVICE</b>	A		A+		A	

Dún Laoghaire - Rathdown  
Cycle Network Review



**Section 1**  
Carrickmines to Druids Valley

**Section 2**  
Druids Valley to N11

**Section 3**  
N11 to Shanganagh Road

**LOUGHLINSTOWN RIVER**  
**Off-Road**  
**Cycle Route**

	Section 1	Section 2	Section 3		
Distance (km)		1.8	0.8		
Pavement Condition		70 A	30 D		
Number of Adjacent Cyclist		1+1 A	1+1 A		
Conflicts					
Total Conflicts		1	1		
Number of conflicts per 100m		0.1 A+	0.1 A+		
Journey Time Delay					
Journey Time (Sec)		432	192		
Delay (Sec)		0	40		
% of Journey time		0% A+	21% B		
HGV Influence		0-1% A	0-1% A+		
<b>QUALITY OF SERVICE</b>	<b>N/A</b>	<b>A</b>	<b>C</b>		



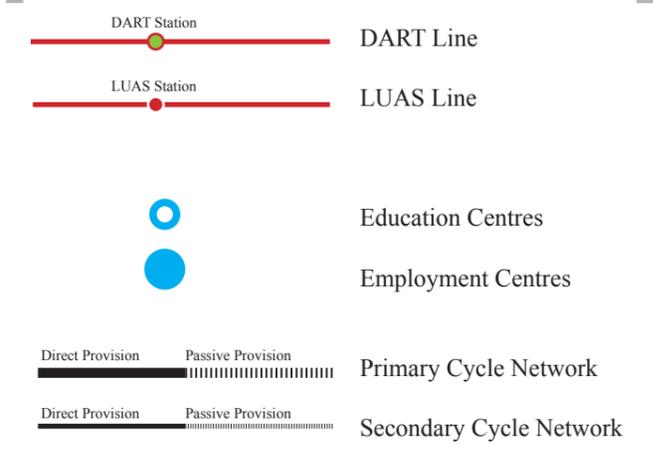
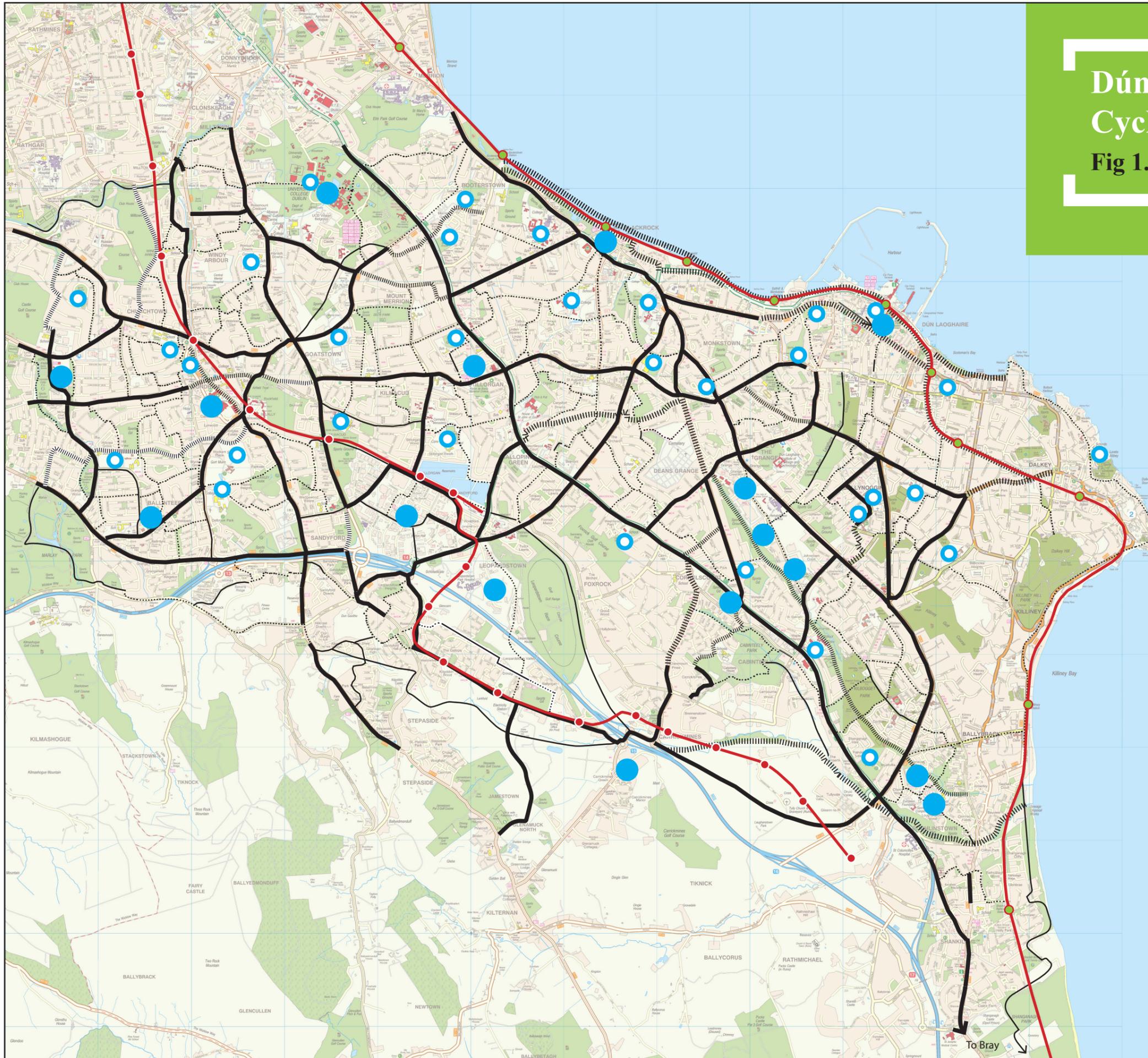
## Appendix B

### Figures



# Dún Laoghaire - Rathdown Cycle Network Review

## Fig 1. Proposed Cycle Network



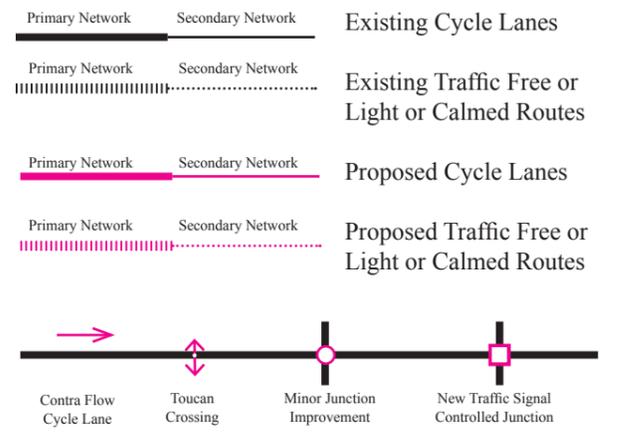
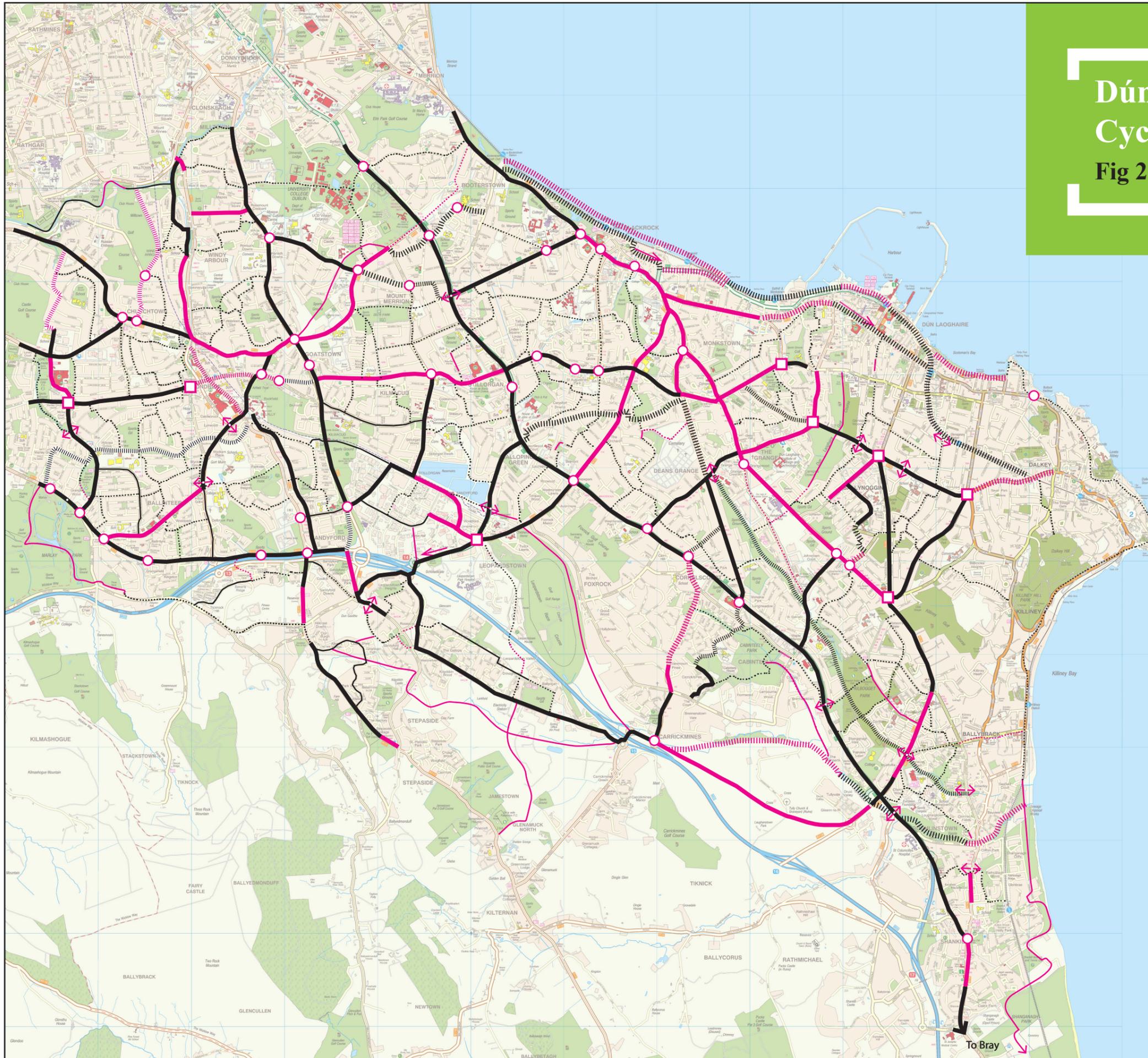
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## Fig 2. Existing/Proposed Measures



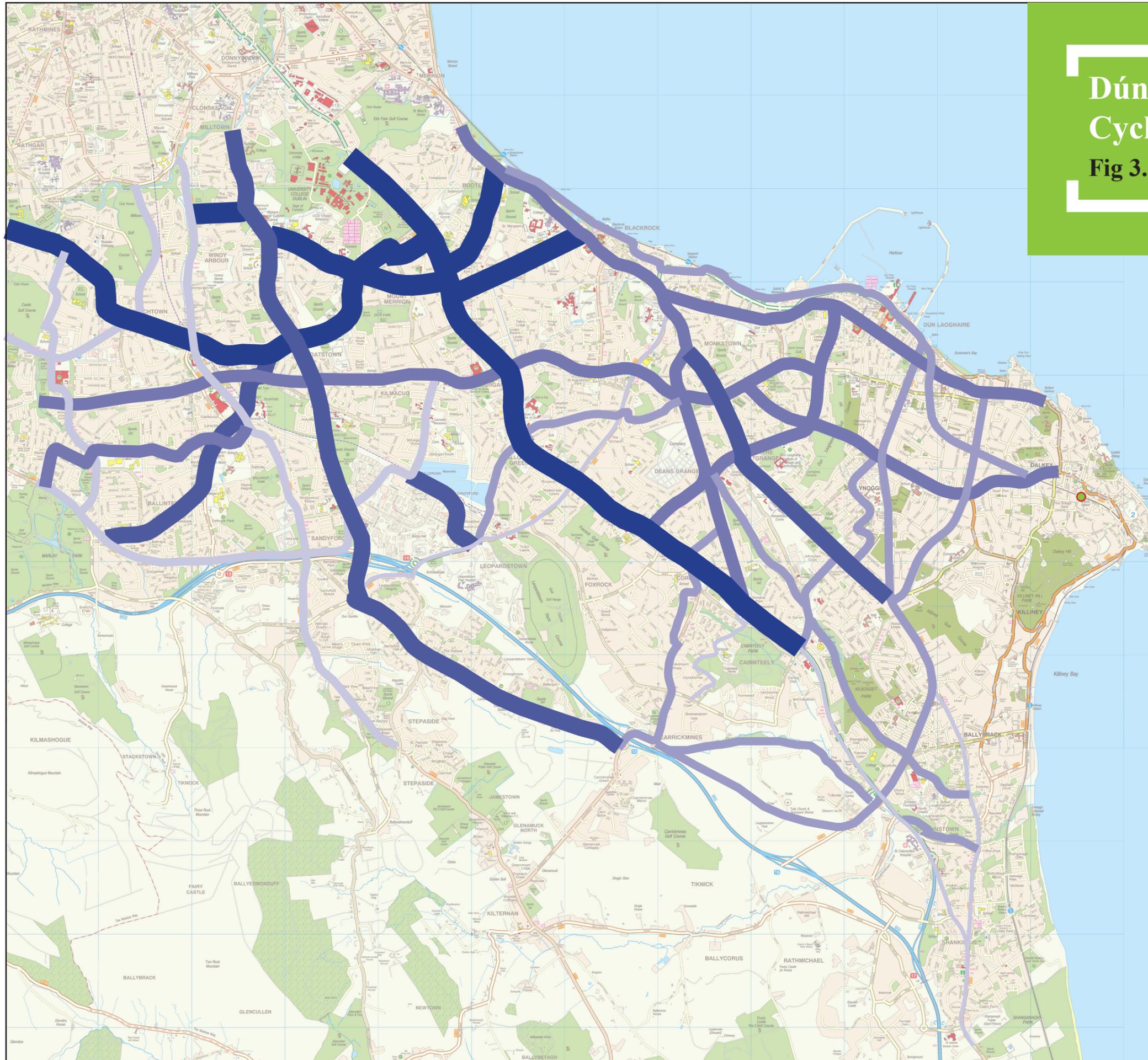
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## Fig 3. Cycle Route Demand



### Demand Grading

	10-12 High
	8-9
	6-7
	4-5
	1-3 Low

Scoring based on the demand grading results from chapter 2 of report

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## Fig 4. Quality of Service



### Quality of Service

-  Level A+
-  Level A
-  Level B
-  Level C
-  Level D

Scoring based on the level of service results from chapter 3 of report

 Demand Grading

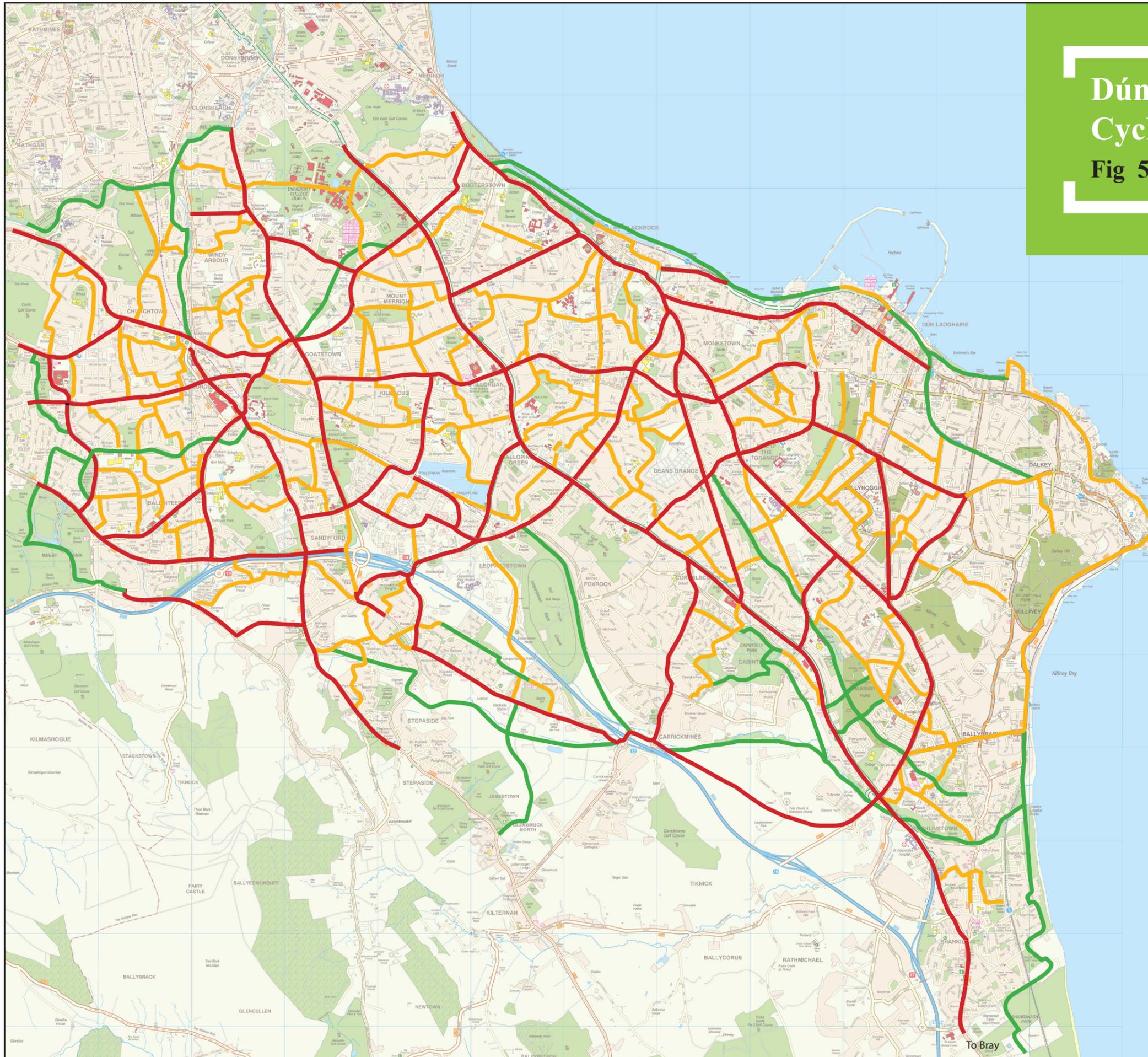
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# Dún Laoghaire - Rathdown Cycle Network Review

## Fig 5. Bikeability Assessment



-  Bikeability Level 1
-  Bikeability Level 2
-  Bikeability Level 3

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