



Allensbank Primary School

Transport Assessment



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1. Introduction

1.1. Introduction

Opus International Consultants (UK) have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for Allensbank Primary School, a community primary school located in Cathays, Cardiff. The school hosts a 16-20 place Specialist Resource Base (SRB) designated for pupils with speech and communication needs.

The proposal is to phase out the SRB and open an 8-place early intervention class for children with speech and language needs.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

The report has been prepared in response to a request by the client and the report will evaluate the impacts of the extension works on the surrounding highway network. The report has been based on Opus' understanding of Cardiff Council's requirements and our specialist experience of undertaking TAs for similar developments.

1.2. Report Structure

The TA investigates the highway and transportation issues associated with the proposed changes, the report will be structured in the following way:

- Chapter 2: will summarise the relevant national and local planning policy;
- Chapter 3: presents the existing site conditions;
- Chapter 4: focuses on the accessibility of the site by different travel modes;
- Chapter 5: presents the proposed changes to the school; and
- Chapter 6: summarises and concludes the report.

2. Planning and Policy Context

Relevant national and local planning policy documents have been reviewed and adopted within the Transport Assessment.

2.1. Legislation

2.1.1. *Town and Country Planning Act, 1990*

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2. National Planning Policy

2.2.1. *Planning Policy Wales, Edition 8 (2016)*

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, which is supplemented by a series of Technical Advice Notes (TANs). PPW sets out Wales' commitment to sustainable development, ensuring it plays an appropriate role in the planning system.

The Welsh Government aims to extend transportation choices in a way that supports sustainable development and helps tackle the causes of climate change. The Welsh Government is committed to enabling more people to undertake and enjoy the benefits of active travel.

It is stated that the proposed access to a development is likely to reflect the travel patterns that are involved. People should be able to reach the development by walking, cycling and public transport as well as by car. Walking and cycling should be promoted for shorter trips and as a substitute for shorter car journeys.

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Technical Advice Note 18 (TAN18) was published in March 2007 and is a supplement of Planning Policy Wales. TAN18 provides advice on transport related issues when planning for new development, such as the integration between land use planning and transport, parking and the design of the development.

The importance of new developments promoting walking is highlighted in TAN18. It is stated that new developments should be situated close to main footways, public transport stops and pedestrian desire lines. Cycling also has the potential to act as a substitute for shorter car journeys. Cycling can be encouraged through the provision of secure cycle parking that is easy to access for everyday use.

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The Wales National Transport Plan was published in March 2010 and establishes a framework for the creation of an integrated transport system. By joining together proposals for road, rail and public transport, people will be able to move more efficiently and sustainably throughout the country.

2.3. Local Planning Policy

2.3.1. *Cardiff Local Development Plan (LDP) 2006-2026*

The adopted LDP provides the statutory framework for the development and use of land within Cardiff over the Plan period (2006-2026). This fulfils the requirements of The Planning and Compulsory Purchase Act 2004 which requires the Council to prepare a LDP. It replaces existing Structure Plans and Local Plans relating to Cardiff and will be used by the Council to guide and control development and provide the statutory local policy context for determining planning applications.

In terms of transport the LDP highlights the following key points and objectives:

- The overall approach seeks to minimise travel demand and provide a range of measures and opportunities which reduce reliance on the car.
- New development in Cardiff must be integrated with the provision of new transport infrastructure which can help contribute to this objective by putting in place sustainable transport solutions which also provide improved travel choices for the wider community.
- This approach is fully consistent with on-going work at a city-region scale which seeks to develop a more effective public transport network across the region as a whole, helping people travel from where they live to work and thereby helping to spread prosperity around the entire city-region.

The LDP also highlights the key transportation trends and issues, including the following:

- Traffic on Cardiff's roads grew by 9% between 2002 and 2012.
- 56% of Cardiff's residents travel to work by car.
- Nearly 77,900 people commute into Cardiff each day by all modes (37% of Cardiff's workforce). The 2001 Census indicates that approximately 80% of commuters travel to Cardiff by car.
- Travel on rail services has increased considerably - the use of Cardiff Central and Queen Street Stations has risen by 82% between 2001 and 2011.
- Cycle use has increased 10% between 2001 and 2011 but bus use has fallen slightly over the same period.

3. Existing Conditions

3.1. Site Location

The site is located to the north of Llanishen Street, in the Cathays area of Cardiff. Llanishen Street and the other streets in the vicinity of the site are of residential nature. Whitchurch Road is located approximately 200m to the south of the site and provides access to a range of services and facilities. Cardiff City Centre is located approximately 2km to the south of the site and Cardiff Railway Station is approximately 3km to the south.

The location of the site is shown in Figure 1, and is also contained in **Appendix A**.

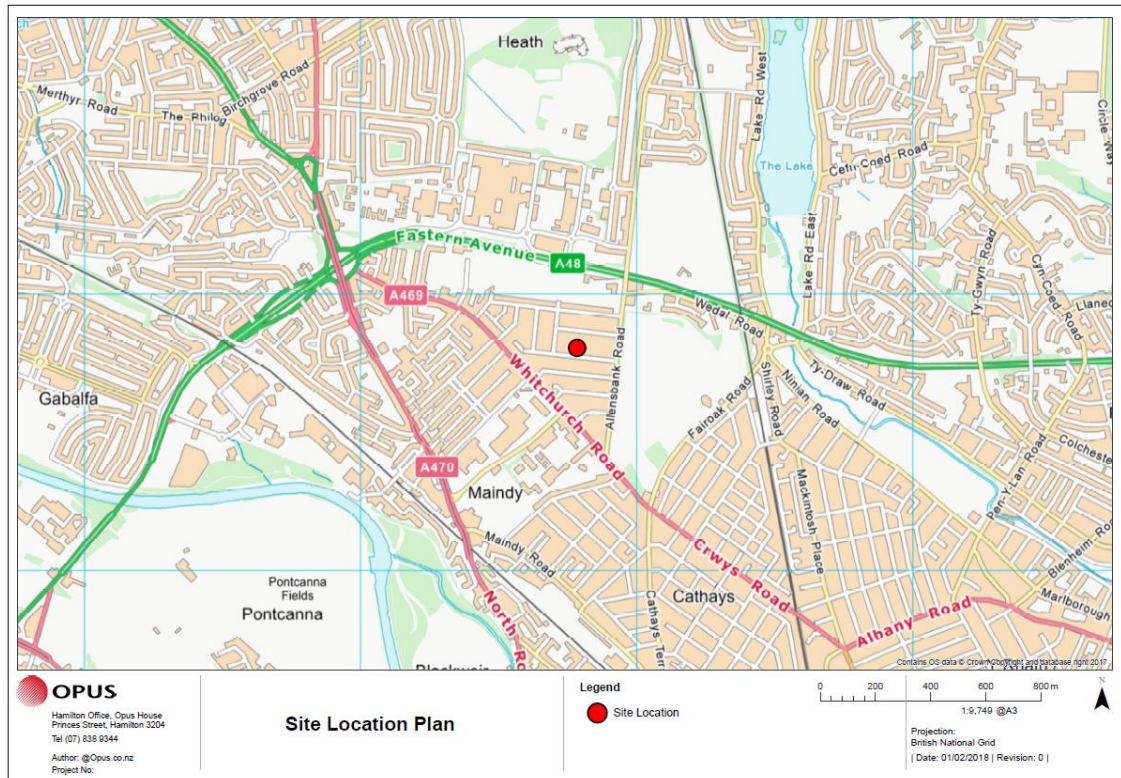


Figure 1 – Site Location Plan

3.2. Existing Site

The existing school site covers an area of approximately 5,500m². There are two separate school buildings, a single storey building to the west and a two-storey building to the east. There is a staff car park along the eastern border of the site which is accessed from Llanishen Street. The rear (north) of the site is allocated as an outdoor playing area for the pupils. There are currently 210 students enrolled at Allensbank Primary School.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 – Planning History

Application Reference	Proposal	Decision	Date
99/01404/W	Removal of existing brickwork chimney / installation of new flue	Granted	15/10/1999
A/13/00187/DCI	Installation of 2 no. flagpoles	Granted	16/12/2013

3.3. Local Highway Network

3.3.1. *Llanishen Street*

Llanishen Street runs along the southern boundary of the site from east to west for approximately 350m, it connects to Allensbank Road to the east via a non-signalised priority junction. It is a single carriageway road with an approximate width of 8.5m, however there is residential parking on both sides of the highway which significantly reduces width. The majority of this on-street parking provision is for permit holders only, however there are some sections of unrestricted parking and there is an area directly outside the school gate that is to be kept clear for school buses etc.

There are footways provided along both sides of Llanishen Street, with an approximate width of 2m, however the width is impacted in areas due to street clutter such as signage and bins. Street lighting is provided along both sides of the highway, dropped kerbs and tactile paving are provided at crossing points, however, some of the tactile paving is in need of upgrading. Llanishen Street provides the sole pedestrian and vehicular access to the site, a speed limit of 20mph has recently been introduced on Llanishen Street. The highway surface is in good condition generally, however, there were some defects noted in places, road markings and signage are also in reasonable condition.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2 kilometres (1.24 miles). Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

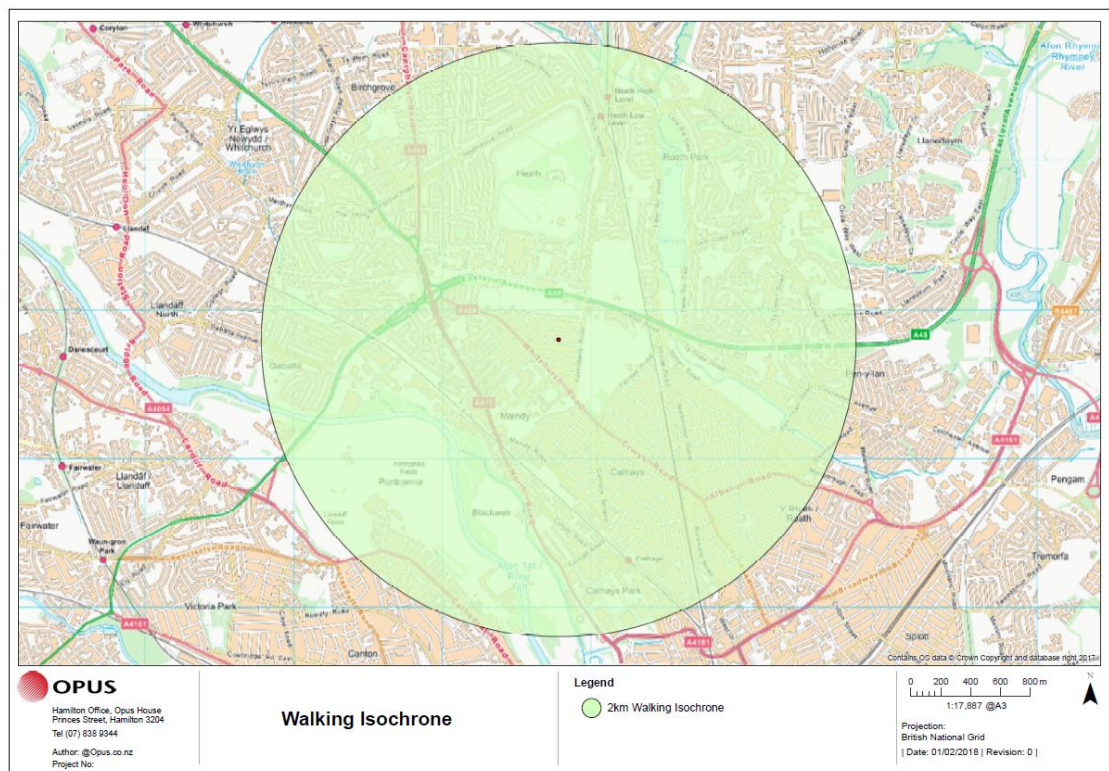


Figure 2 – Walking Isochrone

The isochrone shows that the site is within walking distance of nearby residential areas such as Maindy, Roath and Heath. Cardiff City Centre is also within walking distance and provides access to a range of services and facilities, Whitchurch Road to the south of the site also offers access to local services and facilities. Cardiff Railway Station is located just beyond the realistic walking distance; however, Cathays Railway Station is within the 2km distance.

In the vicinity of the site there are footways provided as well as pedestrian crossing facilities and street lighting, this along with factors such as the generally level gradient results in an environment which is conducive to walking.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site, this revealed that there are no PROWs in the vicinity of the site.

4.1.2. Cycling

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

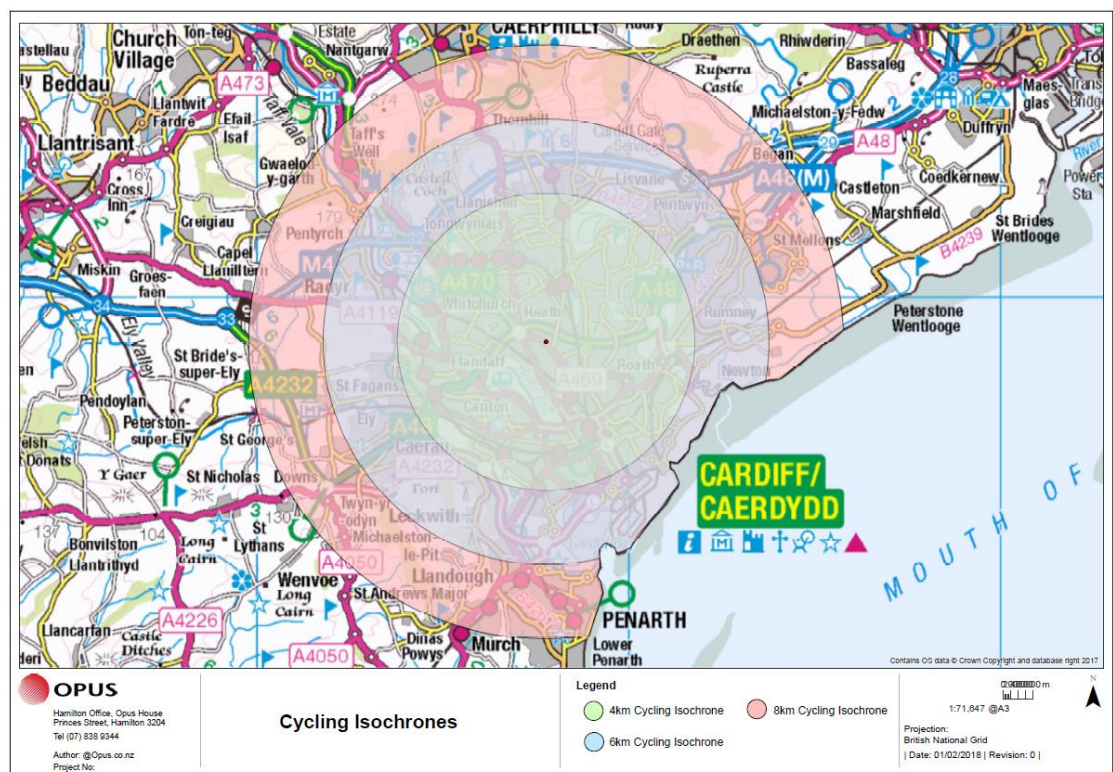


Figure 3 – Cycling Isochrones

The isochrones show that the entire city is accessible via bicycle, as well as commuter settlements located on the outskirts such as Caerphilly to the north, St Mellons to the east and Radyr to the west.

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling.

National Cycle Network Route 8 is located approximately 1km to the south west of the site, the fully open and signed route connects Cardiff to Holyhead, via Brecon, Builth Wells, Machynlleth, Porthmadog and Bangor. The route is a combination of traffic-free and on-road sections.

4.1.3. Public Transport – Bus Services

The closest bus stops to the site are located on Allensbank Road east of the site, near its junctions with Llanishen Street and Inglefield Avenue. The route to the southbound stop is

190m (2-minute walk) and the stop consists of a shelter, flagpole, timetable and easy access kerbing. The route to the northbound stop is 260m (3-minute walk) and the stop consists of a flagpole, timetable and easy access kerbing.

Table 2 provides a summary of the services that can be accessed from these stops.

Table 2 – Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
1 Clockwise	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	2 per hour
2 Anti-Clockwise	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	2 per hour
51	Capital Links	Churchill Way	Pentwyn	Less than 1 per hour
53	Capital Links	Greyfriars Road	Pentwyn	Less than 1 per hour
86	Capital Links	Greyfriars Road	Lisvane	Less than 1 per hour
95	Cardiff Bus	Winston Square	Heath Hospital	2 per hour
M1	Cardiff Bus	Cardiff MET Cyncoed Campus	Plas Gwyn	1 per hour

Table 2 shows that there are a variety of regular services available from these stops which provide access throughout the city.

4.1.4. Public Transport – Rail Services

Cardiff Central Railway Station is located to the south of the site, the quickest route is approximately 4km (44-minute walk or 13-minute cycle). The station includes facilities such as a shop, café, toilets, waiting rooms and cycle parking. The station is managed by Arriva Trains Wales and provides regular services to popular destinations such as London to the east and Swansea to the west. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

Cathays Railway Station is located closer to the site, the route is approximately 1.7km (21-minute walk or 6-minute cycle). This station provides regular services to Cardiff Central via Cardiff Queen Street, as well as residential areas such as Llandaff and Radyr. It is also managed by Arriva Trains Wales and includes facilities such as a shelter and cycle parking.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that the public transport provision is adequate and provides a variety of regular services throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops located nearby on Allensbank Road within comfortable walking distance, Cathays Railway Station is also within a comfortable walking distance and Cardiff Central Railway Station is within a comfortable cycling distance. There are no PROW in the vicinity of the site.

4.2. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. No collisions have been reported on Llanishen Street or within the immediate vicinity of the site. A number of incidents have been reported along Whitchurch Road, however, these are all slight in severity. There were no obvious trends or clusters of incidents which suggests that there aren't any fundamental issues with the highway network. No serious or fatal incidents have been reported within the vicinity of the site.

5. Proposed Changes

This chapter aims to summarise the proposed changes to Allensbank Primary School, as well as its impact on the highway network.

5.1. Proposed Changes to Allensbank Primary School

To meet the need for early intervention places for speech and language needs it is proposed to:

- Phase out the Specialist Resource Base (SRB) at Allensbank Primary School, closing the class in July 2020, or when all current pupils have completed their primary placement, if earlier.
- Open an 8-place early intervention class for children with speech and language needs at Allensbank Primary School, admitting the first cohort in September 2019.

5.2. Impact on Highway Network

Due to the proposed reduction in pupil numbers, from a 16-20 place SRB to an 8-place early intervention class, it is considered that the proposals will not have a material impact on the operation of the local highway network.

5.3. Recommendations

This section aims to provide high-level recommendations that promote active travel and sustainable transport options. The recommendations are as follows:

- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed changes to the provision at Allensbank Primary School, a community primary school located in Cathays, Cardiff.

The proposal is to phase out the SRB and open an 8-place early intervention class for children with speech and language needs.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

The site location is described as well as an assessment of the existing site conditions and Llanishen Street. The planning history of the site is also summarised, only two planning applications have been made on the site, both were for minor works.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances, the environment is also conducive to walking and cycling.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. No collisions have been reported on Llanishen Street or within the immediate vicinity of the site. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed changes to Allensbank Primary School will not impact on the surrounding highway network. The uptake of sustainable travel can be monitored and encouraged through the measures set out in Section 5.

Appendix A – Site Location Plan



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Hamilton Office, Opus House
Princes Street, Hamilton 3204
Tel (07) 838 9344

Author: @Opus.co.nz
Project No:

Site Location Plan

Legend

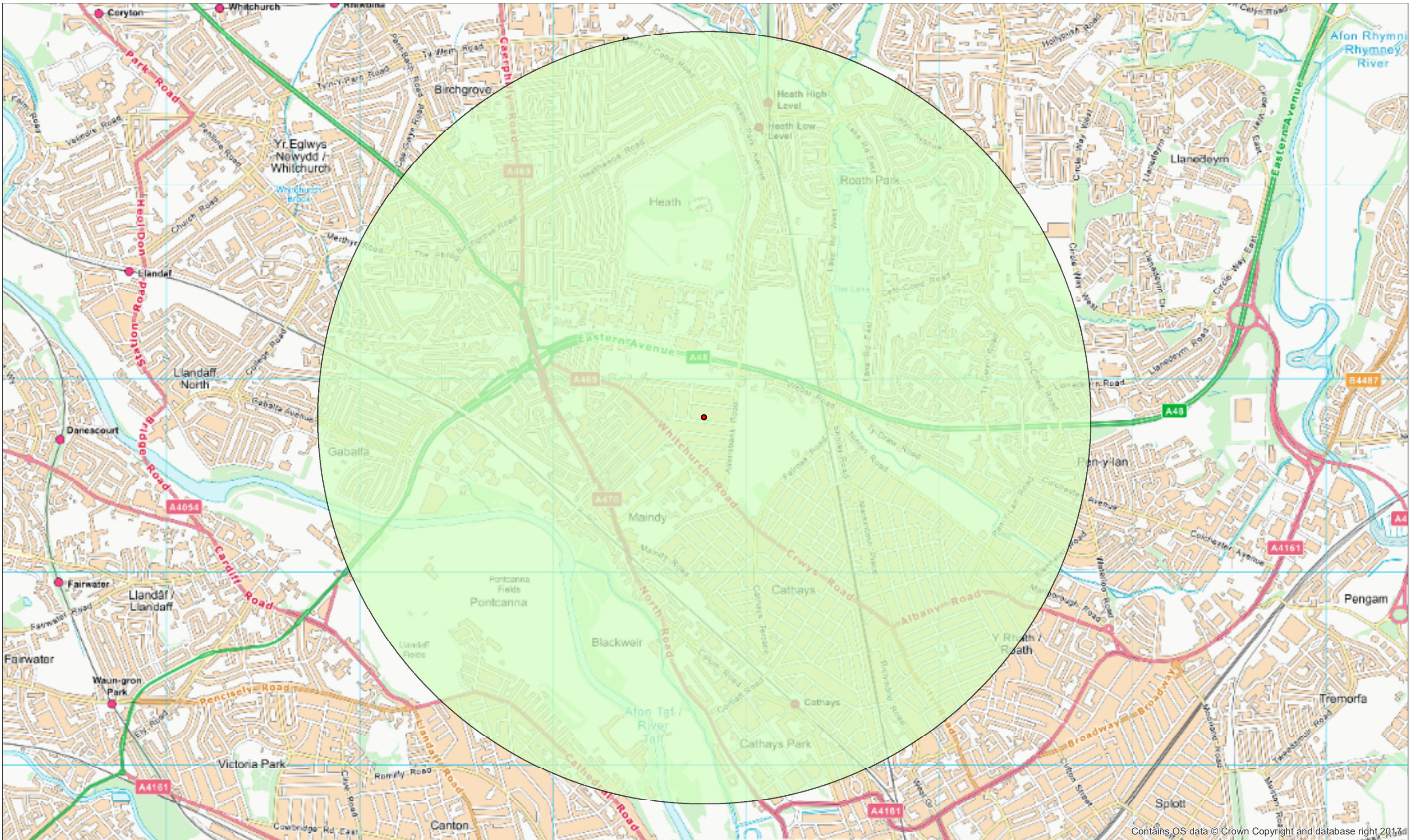
 Site Location

0 200 400 600 800 m

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Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

Appendix B – Walking Isochrone



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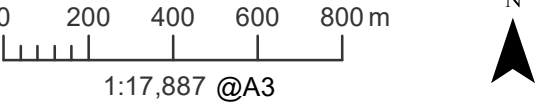
Hamilton Office, Opus House
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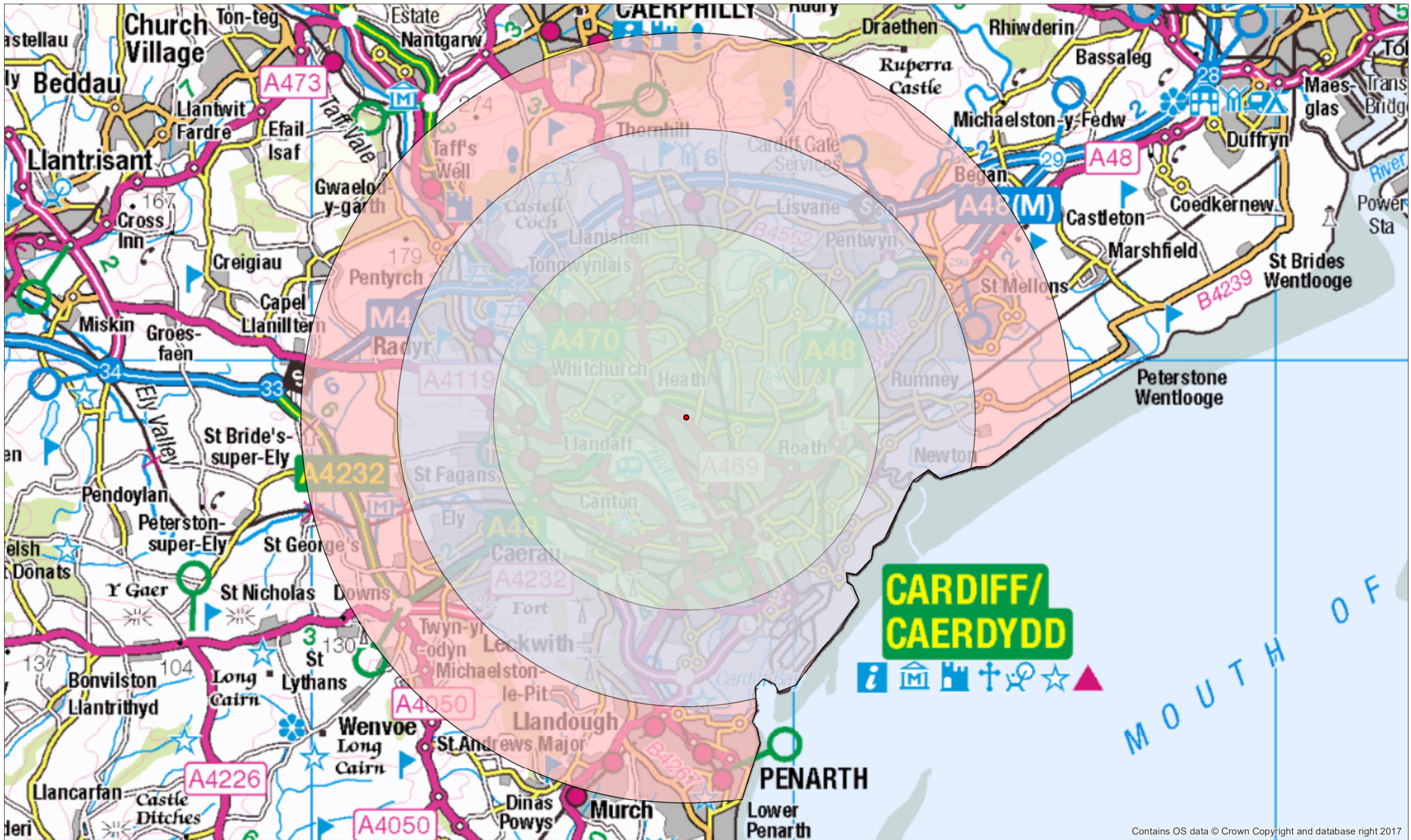
Legend

 2km Walking Isochrone



Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

Appendix C – Cycling Isochrones



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Author: @Opus.co.nz
Project No:

Cycling Isochrones

Legend

- 4km Cycling Isochrone
- 6km Cycling Isochrone
- 8km Cycling Isochrone

0 1000 2000 m

1:71,647 @A3

Projection:
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www.opusinternational.co.uk



Greenhill Special School

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1. Introduction

1.1. Introduction

Opus International Consultants (UK) have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for Greenhill Special School, located in Rhiwbina, Cardiff. It is a school for pupils with emotional, health and wellbeing needs aged 11-16.

The proposal is to extend the age range of the school from 11-16 to 11-19 and increase its capacity to allow for a maximum of 8 additional students.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

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3. Existing Conditions

3.1. Site Location

The site is located to the west of Rhiwbina Hill / Heol-y-Deri, in the Rhiwbina area of Cardiff. Rhiwbina Hill / Heol-y-Deri and the other streets in the vicinity of the site are of residential nature. There are a range of local services and facilities available on Heol-y-Deri approximately 800m to the south of the site. Cardiff City Centre is located approximately 5km to the south of the site and Cardiff Central Railway Station is approximately 6km to the south.

The location of the site is shown in Figure 1, and is also contained in **Appendix A**.

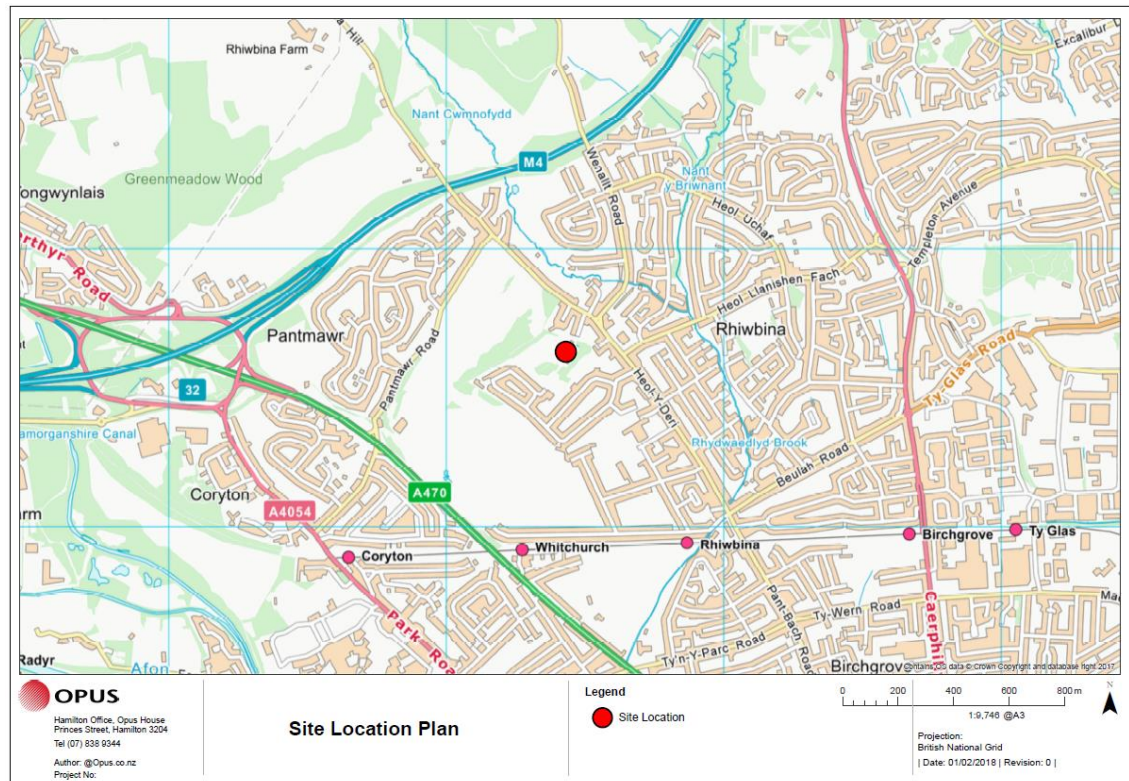


Figure 1 – Site Location Plan

3.2. Existing Site

The existing school site covers an area of approximately 23,800m². The school consists of one single storey building with two additional cabins located at the south and the caretaker's house at the north of the site. There is a small car park north of the main school building and a taxi pick up / drop off point to the south, immediately adjacent the main school building. The land west of the site is allocated as playing fields and there is also a concrete football and basketball court. There are currently 56 students enrolled at Greenhill Special School.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 – Planning History

Application Reference	Proposal	Decision	Date
96/00041/N	Change of use from residential to social work team base	Granted	13/02/1996
96/00575/N	Change of use from residential to mental health team base	Withdrawn	07/05/1996
08/01721/W	Replacement of existing metal framed windows with new UPVC units	Granted	29/08/2008

3.3. Local Highway Network

3.3.1. Heol Brynglas

Heol Brynglas provides the sole vehicular and pedestrian entrance to the school, it runs north to south for approximately 90m and connects to Rhiwbina Hill / Heol-y-Deri to the north via a non-signalised priority junction. As well as providing access to the school, it provides access for four residential units. It is a narrow lane with a width of approximately 5m, some residential parking was also noted along the lane, further impacting its width in places. There are no parking restrictions in place along Heol Brynglas.

There are no footways along Heol Brynglas, and at the crossing point at its connection with Rhiwbina Hill / Heol-y-Deri there are dropped kerbs and tactile paving, however, the tactile paving is in need of upgrading. A speed limit of 30mph is in place and street lighting is also provided. The highway surface is in good condition generally, as are the road markings and signage. The gradient is steep in places which makes Heol Brynglas less suitable for some users with mobility issues.

3.3.2. Rhiwbina Hill / Heol-y-Deri

Rhiwbina Hill becomes Heol-y-Deri at its junction with Heol Brynglas. It is a single carriageway road with an approximate width of 7m. There are footways provided along both sides of the highway, with an approximate width of 2m. Pedestrian refuse islands are located near to the junction with Heol Brynglas, these are complete with dropped kerbs and tactile paving, the tactile paving requires upgrading. Street lighting is provided along both sides of the highway and a speed limit of 30mph is in place. The highway surface is in good condition generally; however, there were some defects noted in places, road markings and signage are also in reasonable condition. The gradient is steep in places, particularly near Heol Brynglas, making it less suitable for some users with mobility issues.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2 kilometres (1.24 miles). Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

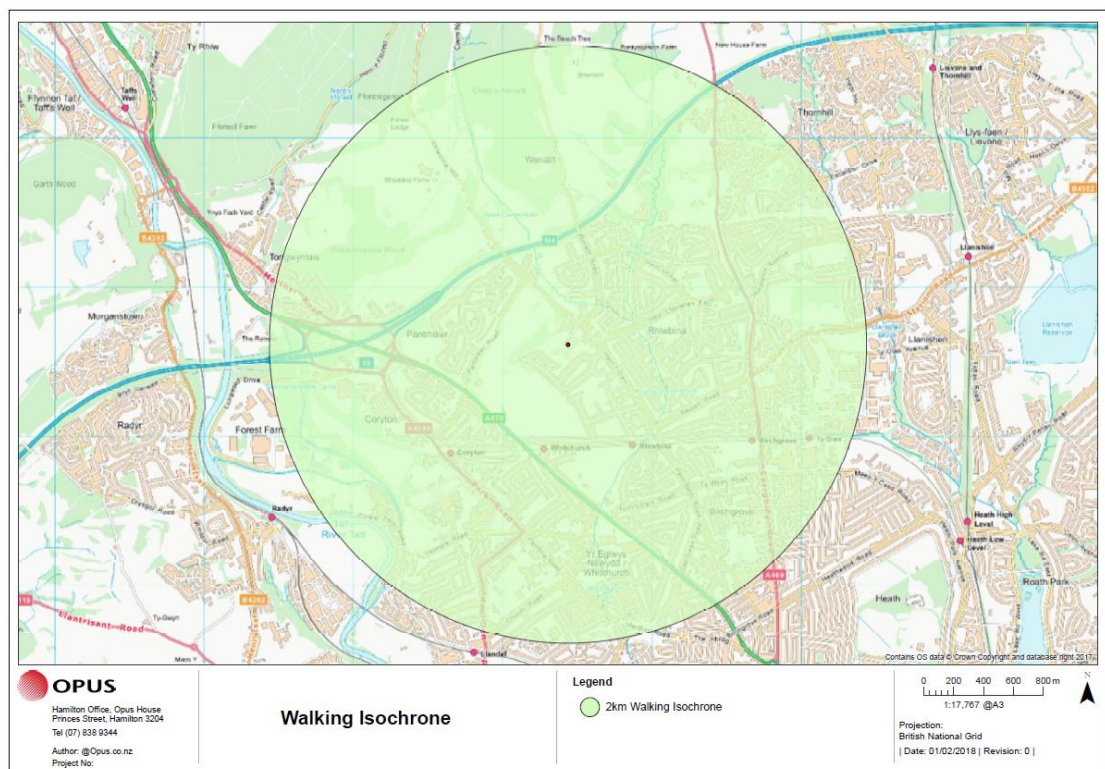


Figure 2 – Walking Isochrone

The isochrone shows that the site is within walking distance of residential areas such as Whitchurch and Coryton. Cardiff city centre is located beyond the recommended walking distance, as is Cardiff Central Railway Station. However, more local centres, in Rhiwbina and Whitchurch for example, are within comfortable walking distance and provide access to a range of services and facilities. A number of smaller, local railway stations are also within walking distance and can be used to provide access to Cardiff Central Railway Station.

In the vicinity of the site there are footways provided as well as pedestrian crossing facilities, this along with factors such as street lighting and an overlooked, residential environment, results in a network which is conducive to walking. There is, however, a steep gradient in places, making it less suitable for some users with mobility issues.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site, this revealed that there is a footpath which runs near the northern boundary of the site and connects to Northern Avenue through Whitchurch Golf Club, which is allocated as a PROW.

4.1.2. Cycling

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

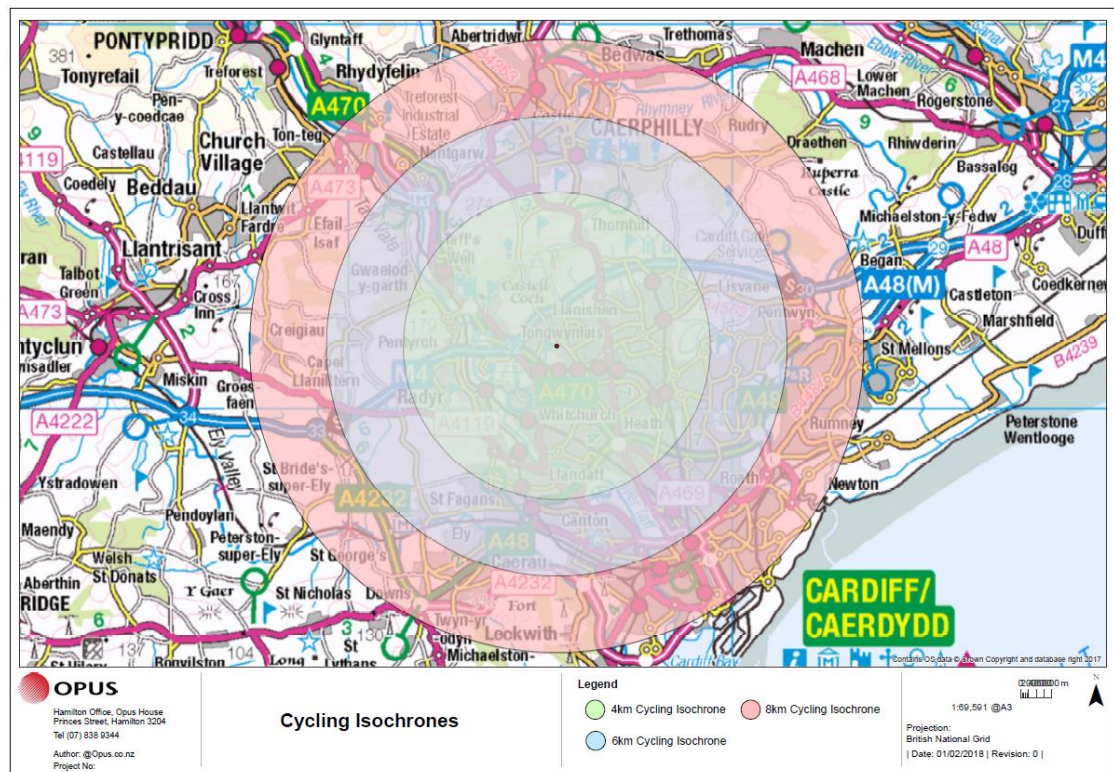


Figure 3 – Cycling Isochrones

The isochrones show that the entire city is accessible via bicycle, as well as commuter settlements located on the outskirts such as Caerphilly to the north, Rumney to the east and Radyr to the west.

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling.

National Cycle Network Route 8 is located approximately 2km to the west of the site, the fully open and signed route connects Cardiff to Holyhead, via Brecon, Builth Wells, Machynlleth, Porthmadog and Bangor. The route is a combination of traffic-free and on-road sections.

4.1.3. Public Transport – Bus Services

The closest bus stops to the site are located on Heol Llanishen Fach. The route to these stops is 300m (3-minute walk) via Heol-y-Deri. Both the eastbound and westbound stops consist of a flagpole, timetable and easy access kerbing.

Table 2 provides a summary of the services that can be accessed from these stops.

Table 2 – Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
21	Cardiff Bus	City Centre	Rhiwbina	3 per hour
23	Cardiff Bus	City Centre	Rhiwbina	3 per hour
801	NAT Group	Llanishen	Bishop of Llandaff School	1 per day
804	NAT Group	Gabalfa	Corpus Christi High School	1 per day
813	NAT Group	Llanishen	Ysgol Glantaf	1 per day

Table 2 shows that there are a variety of regular services available from these stops which provide access throughout the city.

4.1.4. Public Transport – Rail Services

Cardiff Central Railway Station is located to the south of the site, the quickest route is approximately 7km (22-minute cycle). The station includes facilities such as a shop, café, toilets, waiting rooms and cycle parking. The station is managed by Arriva Trains Wales and provides regular services to popular destinations such as London to the east and Swansea to the west. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

Rhiwbina Railway Station is located closer to the site, the route is approximately 1km (14-minute walk or 4-minute cycle), this station provides regular services to Cardiff Central via Cardiff Queen Street, as well as residential areas such as Coryton and Heath. It is also managed by Arriva Trains Wales and includes facilities such as a shelter.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that the public transport provision is adequate and provides a variety of regular services throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops located nearby on Heol Llanishen Fach within comfortable walking distance, Rhiwbina Railway Station is also within a comfortable walking distance and provides access to Cardiff Central Railway Station. There is a PROW footpath towards the northern boundary of the site which connects to Northern Avenue through Whitchurch Golf Club.

4.2. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. No collisions have been reported on Heol Brynglas or within the immediate vicinity of the site. A number of incidents have been reported along Rhiwbina Hill / Heol-y-Deri, however, the majority are slight in severity. Table 3 summarises the three serious incidents which have been reported on Rhiwbina Hill / Heol-

y-Deri, none of the three occurred within a 750m radius of the school. No fatal injuries have occurred on Rhiwbina Hill / Heol-y-Deri in the past five years.

Table 3 – Summary of Serious Incidents

Date	Number of Vehicles	Number of Casualties
26/09/2016	2	1
14/10/2016	1	1
04/02/2017	2	1

5. Proposed Changes

This chapter aims to summarise the proposed changes to Greenhill Special School, as well as its impact on the highway network.

5.1. Proposed Changes to Greenhill Special School

To meet the need for post-16 places for emotional health and wellbeing needs it is proposed to:

- Extend the age range of the school from 11-16 to 11-19.
- Increase the capacity of the school to allow for up to 64 places.

In order to achieve this, it is proposed to adapt the unused caretaker house on the site. Post-16 pupils would attend some classes on-site, but would also be supported to access appropriate educational opportunities off-site, as part of a supported transition to college or employment. The increase in pupils could result in a worst-case scenario of 8 additional trips assuming all pupils travel individually by private vehicle.

The existing internal site layout and access arrangements, including the drop-off / pick-up space and turning area is expected to comfortably accommodate the additional pupils and the associated increase in vehicles accessing the site.

5.2. Impact on Highway Network

Due to the scale of the proposed increase in pupil numbers from 56 to 64, it is considered that the proposals will not have a material impact on the operation of the local highway network. In the context of existing operations at Greenhill Special School, the increase in vehicle movements is expected to have a negligible impact.

5.3. Limitations

This section will summarise the limitations of the school site in terms of transport and accessibility, and these are as follows:

- Access to public transport facilities on foot or by bicycle is poor, there are no footways alongside Heol Brynglas and there is a steep gradient in places along Heol Brynglas and Heol-y-Deri.
- Limited bus services available from the closest stops on Heol Llanishen Fach, in terms of their regularity.

5.4. Recommendations

This section aims to provide high-level recommendations to counteract some of the site's limitations and promote active travel and sustainable transport options. This will help mitigate the limited impact which is expected to arise as a result of the proposals. The recommendations are as follows:

- Promote the use of Rhiwbina Railway Station as a viable means of transport to the city centre and neighbouring residential areas. The station can be reached comfortably on foot and will allow pupils to develop their life skills.
- Investigate the possibility of implementing supported travel training with pupils arriving at a central meeting point before being transported to the school.
- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed changes to the provision at Greenhill Special School, located in Rhiwbina, Cardiff.

The proposal is to extend the age range of the school and increase the capacity to allow for up to 64 pupils.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

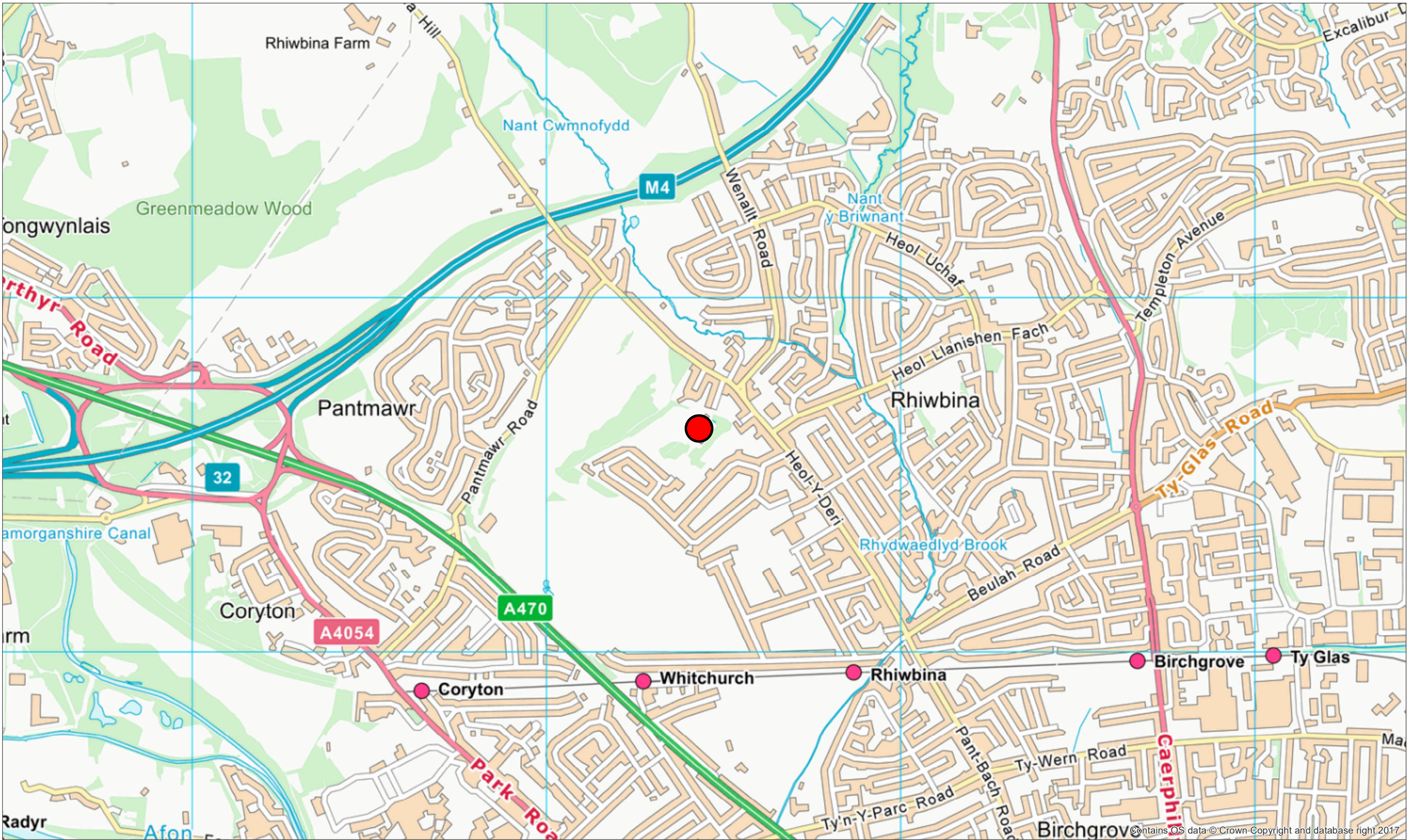
The site location is described as well as an assessment of the existing site conditions and Heol Brynglas and Rhiwbina Hill / Heol-y-Deri. The planning history of the site is also summarised, three planning applications have been made on the site, two for changes of use and one for upgrading windows.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. No collisions have been reported on Heol Brynglas or within the immediate vicinity of the site. A number of incidents have been reported along Rhiwbina Hill / Heol-y-Deri, however, the majority are slight in severity. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed changes at Greenhill Special School will not have a severe impact on the surrounding highway network. This is due mainly to the minimal increase in pupil numbers. The uptake of sustainable travel can be encouraged and monitored through the recommendations set out in Chapter 5.

Appendix A – Site Location Plan



Site Location Plan

Legend

 Site Location

0 200 400 600 800 m

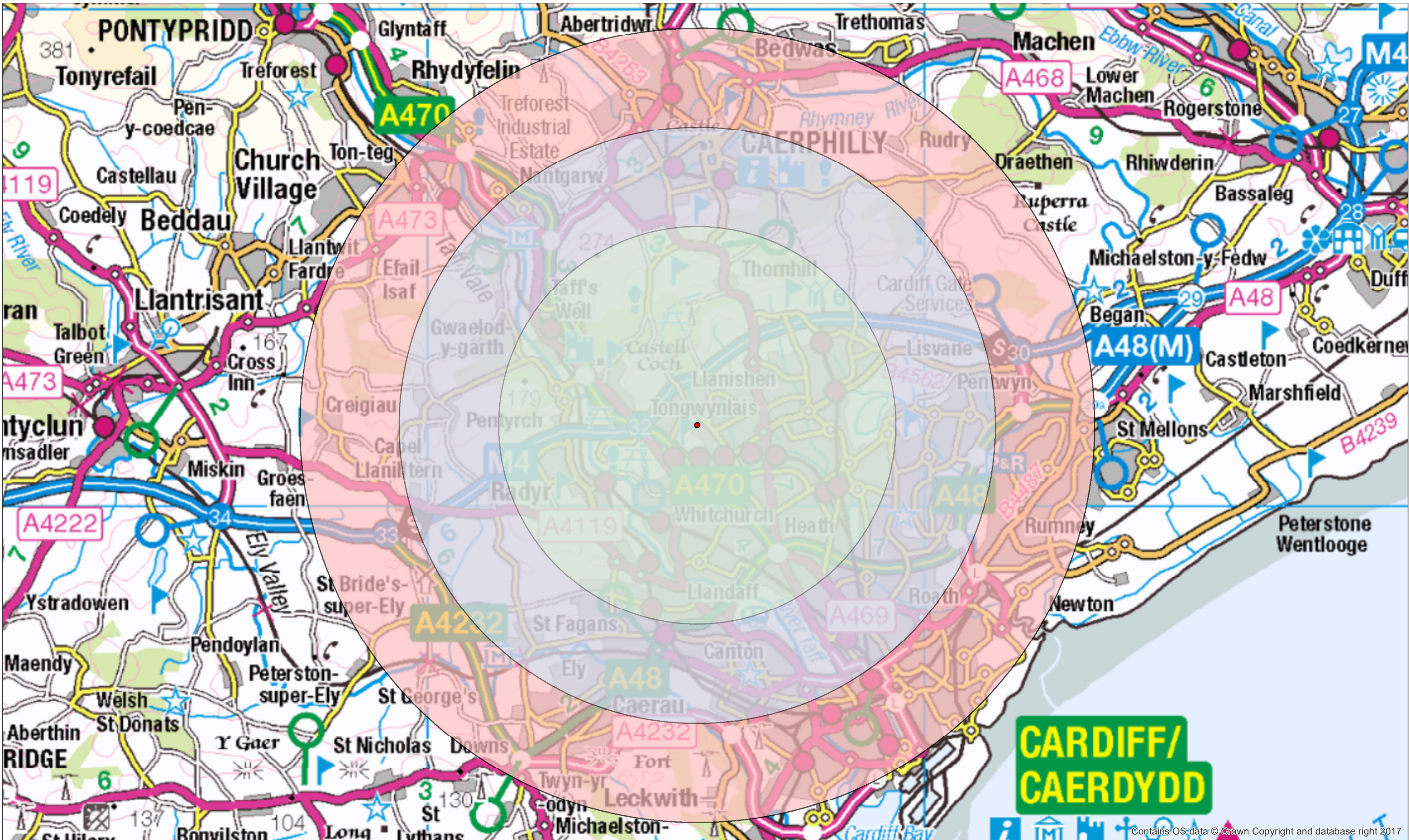
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Appendix B – Walking Isochrone

Appendix C – Cycling Isochrones



Cycling Isochrones

- Legend**
-  4km Cycling Isochrone
 -  6km Cycling Isochrone
 -  8km Cycling Isochrone



www.opusinternational.co.uk



Meadowbank Special School

Transport Assessment



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1. Introduction

1.1. Introduction

Opus International Consultants (UK) Ltd have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for Meadowbank Special School, which is a special school for pupils with specific language impairments. The school is located in Gabalfa, Cardiff. Meadowbank Special School has capacity for 40 pupils aged between 4 and 11 years, however there are currently 15 pupils enrolled at the school.

It is proposed that the type of special educational need that the school provides is changed from 'specific language impairments' to 'speech language and communication needs and complex learning disabilities'. To accommodate the change in learning provision, some adaptations to the existing school buildings and its accessibility are required. The proposals seek to bring the number of pupils enrolled at the school up to its capacity of 40.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

The report has been prepared in response to a request by the client and the report will evaluate the impacts of the extension works on the surrounding highway network. The report has been based on Opus' understanding of Cardiff Council's requirements and our specialist experience of undertaking TAs for similar developments.

1.2. Report Structure

The TA investigates the highway and transportation issues associated with the development proposals, the report will be structured in the following way:

- Chapter 2: will summarise the relevant national and local planning policy;
- Chapter 3: discusses the existing site conditions;
- Chapter 4: focuses on the accessibility of the site by different travel modes;
- Chapter 5: presents the proposed changes to the school; and
- Chapter 6: summarises and concludes the TA.

2. Planning and Policy Context

Relevant national and local planning policy documents have been reviewed and adopted within the Transport Assessment.

2.1.1. *Town and Country Planning Act, 1990*

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2. National Planning Policy

2.2.1. *Planning Policy Wales, Edition 8 (2016)*

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, which is supplemented by a series of Technical Advice Notes (TANs). PPW sets out Wales' commitment to sustainable development, ensuring it plays an appropriate role in the planning system.

The Welsh Government aims to extend transportation choices in a way that supports sustainable development and helps tackle the causes of climate change. The Welsh Government is committed to enabling more people to undertake and enjoy the benefits of active travel.

It is stated that the proposed access to a development is likely to reflect the travel patterns that are involved. People should be able to reach the development by walking, cycling and public transport as well as by car. Walking and cycling should be promoted for shorter trips and as a substitute for shorter car journeys.

2.2.2. *Planning Policy Wales Technical Advice Note 18: Transport (March 2007)*

Technical Advice Note 18 (TAN18) was published in March 2007 and is a supplement of Planning Policy Wales. TAN18 provides advice on transport related issues when planning for new development, such as the integration between land use planning and transport, parking and the design of the development.

The importance of new developments promoting walking is highlighted in TAN18. It is stated that new developments should be situated close to main footways, public transport stops and pedestrian desire lines. Cycling also has the potential to act as a substitute for shorter car journeys. Cycling can be encouraged through the provision of secure cycle parking that is easy to access for everyday use.

2.2.3. *Active Travel (Wales) Act, 2013*

The Active Travel Act was adopted in 2013 and makes provision for maps of existing active travel routes and related facilities in a local authority's area. The Act requires Welsh Ministers and local authorities to take reasonable steps to enhance the provisions made for walking and cycling.

2.2.4. *Wales National Transport Plan (March 2010)*

The Wales National Transport Plan was published in March 2010 and establishes a framework for the creation of an integrated transport system. By joining together proposals for road, rail and public transport, people will be able to move more efficiently and sustainably throughout the country.

2.3. Local Planning Policy

2.3.1. Cardiff Local Development Plan (LDP) 2006-2026

The adopted LDP provides the statutory framework for the development and use of land within Cardiff over the Plan period (2006-2026). This fulfils the requirements of The Planning and Compulsory Purchase Act 2004 which requires the Council to prepare a LDP. It replaces existing Structure Plans and Local Plans relating to Cardiff and will be used by the Council to guide and control development and provide the statutory local policy context for determining planning applications.

In terms of transport the LDP highlights the following key points and objectives:

- The overall approach seeks to minimise travel demand and provide a range of measures and opportunities which reduce reliance on the car.
- New development in Cardiff must be integrated with the provision of new transport infrastructure which can help contribute to this objective by putting in place sustainable transport solutions which also provide improved travel choices for the wider community.
- This approach is fully consistent with on-going work at a city-region scale which seeks to develop a more effective public transport network across the region as a whole, helping people travel from where they live to work and thereby helping to spread prosperity around the entire city-region.

The LDP also highlights the key transportation trends and issues, including the following:

- Traffic on Cardiff's roads grew by 9% between 2002 and 2012.
- 56% of Cardiff's residents travel to work by car.
- Nearly 77,900 people commute into Cardiff each day by all modes (37% of Cardiff's workforce). The 2001 Census indicates that approximately 80% of commuters travel to Cardiff by car.
- Travel on rail services has increased considerably - the use of Cardiff Central and Queen Street Stations has risen by 82% between 2001 and 2011.
- Cycle use has increased 10% between 2001 and 2011 but bus use has fallen slightly over the same period.

3. Existing Conditions

3.1. Site Location

Meadowbank Special School is located to the east of Colwill Road, in the Gabalfa area of Cardiff. While Colwill Road is predominantly residential in nature, it also provides access to Gabalfa Primary School and Ysgol Glan Ceubal, which share a site to the north of Meadowbank Special School. Cardiff City Centre is located approximately 3.8km to the south-east of the site and Llandaff Railway Station is approximately 1km to the north west.

The location of the site is shown in Figure 1, which is also contained in **Appendix A**.

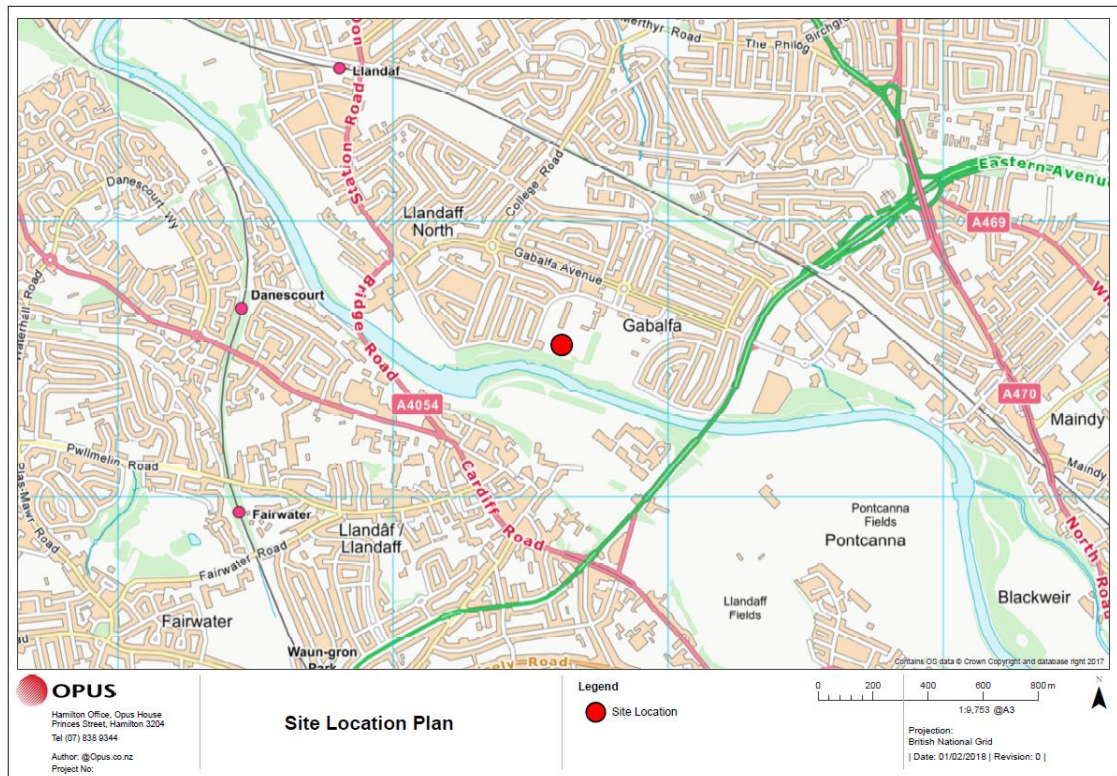


Figure 1 – Site Location Plan

3.2. Existing Site

The existing school site covers an area of approximately 16,684m² which comprises the main school building, car park, access road and playing field. The car park is located to the immediate east of the vehicular entrance to the school on Colwill Road. A gated pedestrian access point is located to the immediate south of the vehicular access. A one-way circulatory road is provided within the school grounds, which enables pupils to be dropped off and picked up adjacent to the main entrance.

There are currently 15 pupils enrolled at Meadowbank Special School, however the school has capacity for up to 40 pupils.

Meadowbank Special School is located within close proximity of two other primary schools, namely Ysgol Gan Ceubal and Gabalfa Primary School. The two schools share a site, which is located to the immediate north of Meadowbank Special School. The vehicular access point to the schools is located approximately 43 metres north of the access to Meadowbank Special School on Colwill Road. The playing fields associated with the three schools are connected. The Gabalfa Primary School foundation phase building is located north-east of Meadowbank Special School and is accessed from Llanidloes Road.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 - Planning History

Application Reference	Proposal	Decision	Date
02/00094/W	New access, terrace and hard play area to the rear of the school	Granted	25/02/2002

3.3. Local Highway Network

3.3.1. Colwill Road

Colwill Road runs along the western boundary of the site from north to south for approximately 281 metres. At the Colwill Road / Heol Pencareg junction, Colwill Road becomes Llanidloes Road which continues in a south-eastbound direction. Colwill Road is a single highway road with an approximate width of 5.6 metres, however there is residential parking on the west side of the highway which reduces the available width. The speed limit along Colwill Road in the vicinity of the school is 20mph. 'Keep clear' road markings are provided across the access to Meadowbank Special School. Signage is provided stating that there is no stopping on the keep clear markings between 08:00 and 16:30 from Monday to Friday.

Footways are provided along both sides Colwill Road with an approximate width of 3 metres, the available width of the footways is reduced in places by trees. Street lighting is provided on both sides of the highway. There are no formal crossing facilities along Colwill Road, however dropped kerbs are provided intermittently along the footways. The highway surface was observed to be in a poor condition and significant defects were noted along both the highway and footways.

Highway improvements are due to be delivered as part of the redevelopment of the adjacent Gabalfa Primary School and Ysgol Glan Ceubal. These improvements will include the provision of two new tabled zebra crossings on Colwill Road.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2 kilometres (1.24 miles). Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

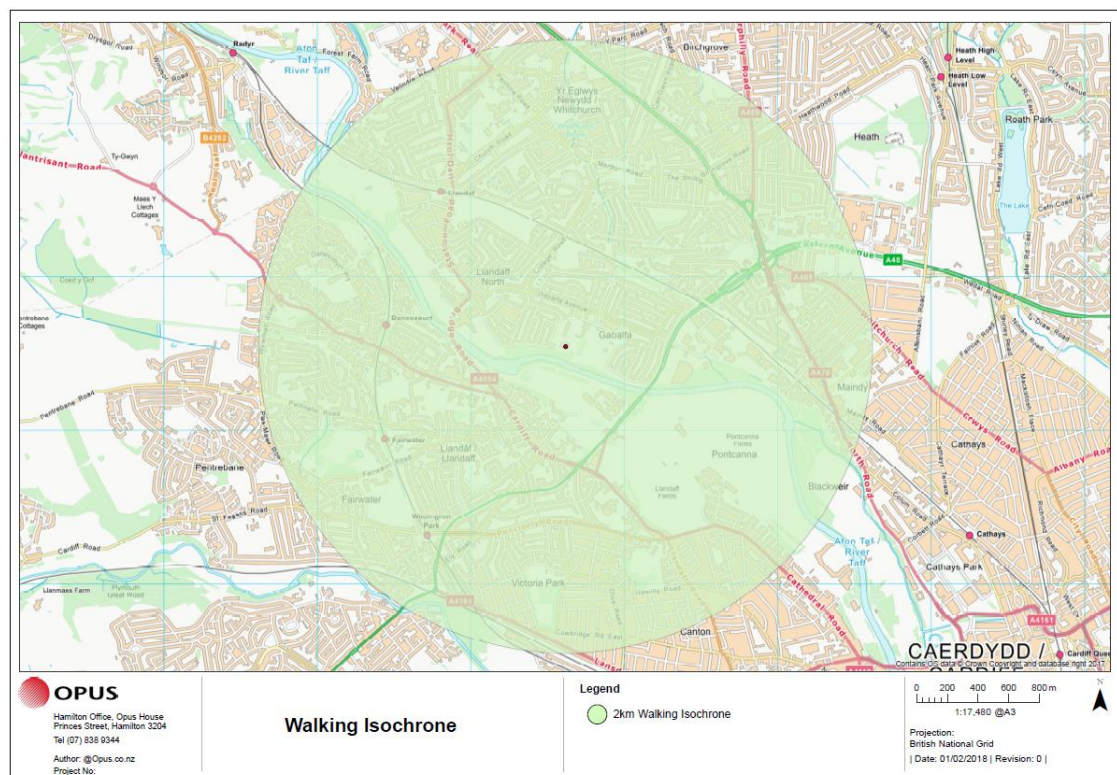


Figure 2 – Walking Isochrone

The isochrone shows that Meadowbank Special School is within walking distance of several residential areas, including Gabalfa, Llandaff and Llandaff North. Several services and facilities are provided along High Street, which is located to the south of the school and is within walking distance. The site is also within walking distance of Llandaff Railway Station.

Footways are provided within the vicinity of the site. The gradient is generally level in the area, which is conducive to walking.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site, this revealed that there are no PROW in the vicinity of the site.

4.1.2. Cycling

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

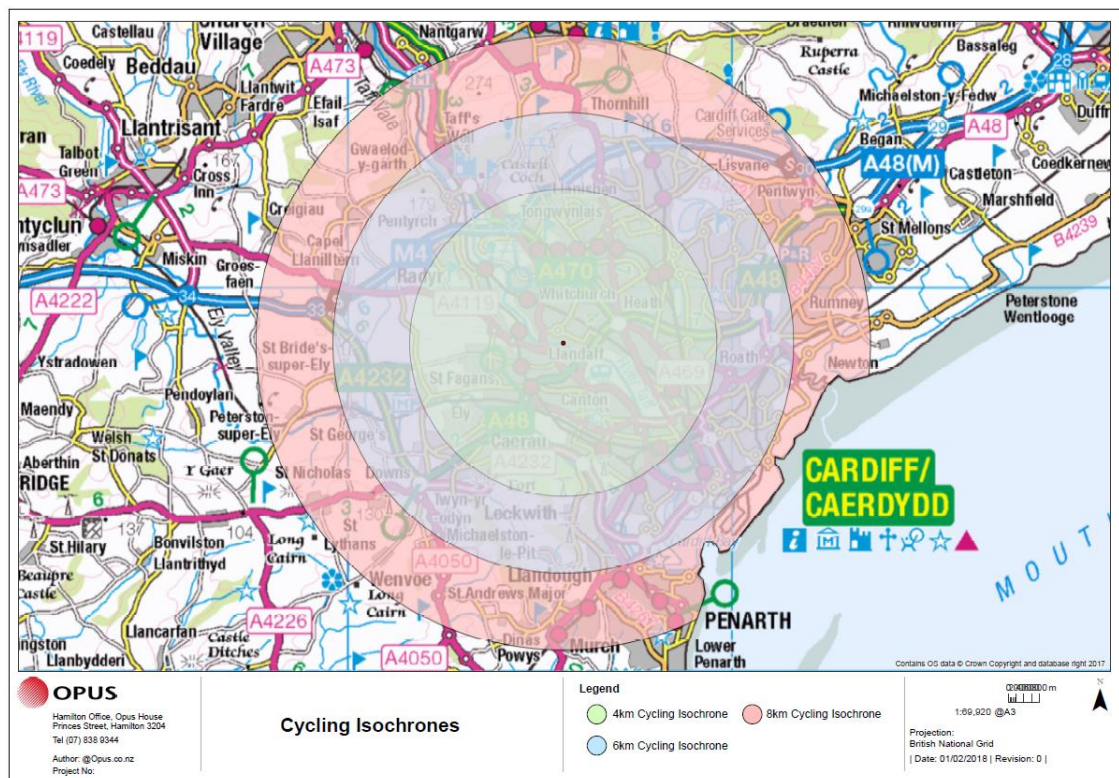


Figure 3 – Cycling Isochrones

The isochrones show that the entire city is accessible via bicycle, as well as commuter settlements located on the outskirts of Cardiff including Llandough to the south and Fairwater to the west.

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling.

National Cycle Network Route 8 can be accessed from approximately 53 metres south of the access to the school on Colwill Road. Route 8 runs in an east – west direction along the banks of the River Taff. The route is predominantly traffic free in the vicinity of the site and can be used to reach Cardiff city centre. The route is also known as 'Lôn Las Cymru' and is fully signed between Cardiff and Holyhead.

4.1.3. Public Transport – Bus Services

The closest bus stops to the site are located on Gabalfa Avenue, approximately 300m north of the site, this equates to a four-minute walk. Both the eastbound and westbound bus stops comprise a flagpole and timetable information.

Table 2 provides a summary of the bus services that are available from these stops.

Table 2 - Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
8	Cardiff Bus	Cardiff Bay	UHW Heath Hospital	Every 20 minutes
35	Cardiff Bus	Cardiff City Centre	Gabalfa Estate	Every 30 minutes
823	NAT Group	Newport Road	Ysgol Glantaf	One service daily

Table 2 shows that services 8 and 35 provide a regular service throughout the day, which can be used to reach Cardiff city centre and other local areas.

4.1.4. Public Transport – Rail Services

Cardiff Central Railway Station is located to the south of the site, the quickest route is approximately 4km. This equates to a 44-minute walk or 13-minute cycle. The station includes facilities such as a shop, café, toilets, waiting rooms and cycle parking. The station is managed by Arriva Trains Wales and provides regular services to popular destinations such as London to the east and Swansea to the west. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

Llandaff Railway Station is located within closer proximity of Meadowbank Special School. The station is located approximately 1km to the north west of the school, which equates to a 19-minute walk. The Station is managed by Arriva Trains Wales and has a limited range of facilities, however ticket machines and step free access is available. Two services per hour to Cardiff Queen Street Railway Station and Radyr Railway Station are available from Llandaff Railway Station.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that a good range of public transport services are available in the vicinity of Meadowbank Special School. These services can be used to reach Cardiff and beyond. The site is within walking distance of the bus stops on Gabalfa Avenue and Llandaff Railway Station is also located within a reasonable distance. While there are no PROW within the vicinity of the site, it is within close proximity of National Cycle Network Route 8.

4.2. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. One collision of slight severity occurred on Colwill Road, approximately 40m south of the Meadowbank Special School access. No other collisions have occurred in the vicinity of the school.

There were no obvious trends or clusters of incidents which suggests that there aren't any fundamental issues with the highway network. No fatal incidents have been reported within the vicinity of the site.

5. Proposed Changes

This chapter aims to summarise the proposed changes to Meadowbank Special School, as well as its impact on the highway network.

5.1. Proposed Changes to Meadowbank Special School

To meet demand for primary school places for complex learning disabilities, it is proposed to:

- Change the type of special educational need that the school provides for from 'specific language impairments' to 'speech language and communication needs and complex learning disabilities'.

The existing infrastructure at Meadowbank Special School is considered to be in a good condition. As a result, significant changes would not be required in order for the development to proceed. Some adaptations to the existing school building would be necessary, including improvements to the building's accessibility and the provision of a changing space.

The proposals do not seek to increase the capacity of the school; however, the existing school has a current enrolment of 15 pupils, despite its capacity of 40. The proposals aim to facilitate an increase in the number of pupils enrolled, which will ultimately bring the school up to capacity. This may bring about opportunities to appoint new staff at the school.

The existing internal site layout and access arrangements, including space for pick-up / drop-off and one-way system, is expected to comfortably accommodate any increase in pupils and vehicles accessing the site. The car park near the site entrance was observed as operating well under its capacity and could comfortably accommodate any additional staff parking requirements.

5.2. Impact on Highway Network

It is anticipated that the resultant increase in trips to and from the site can be accommodated and will not have a material impact on the operation of the surrounding highway network. The existing turning area and one-way system within the school grounds will be retained, which aides to reduce the impact of drop offs and pickups on Colwill Road. In the context of existing operations at Meadowbank Special School and neighbouring sites, the increase in vehicle movements is expected to have a negligible impact.

5.3. Limitations

This section will summarise the limitations of the school site in terms of transport and accessibility and these are as follows:

- There are a number of schools located within close proximity; Meadowbank Special School, Ysgol Glan Ceubal and Gabalfa Primary School. All of which are accessed from Colwill Road / Llanidloes Road. This results in a large concentration of movements within the area around the start and end of the school day.

5.4. Recommendations

This section aims to provide high-level recommendations to counteract some of the site's limitations and promote active travel and sustainable transport options. This will help mitigate the limited impact which is expected to arise as a result of the proposals. The recommendations are as follows:

- Consult other schools in the vicinity of the site and stagger the start times for pupils in order to minimise stress on the highway during peak times.
- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) Ltd have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed changes to the provision at Meadowbank Special School, which is a special school for pupils with specific language impairments.

The proposals are to change the type of special educational needs the school provides from 'specific language impairments' to 'speech language and communication needs and complex learning disabilities'. While the proposals do not seek to increase the capacity of the school, the current enrolment is low and the aim is to increase enrolment up to the capacity of 40 pupils. This will result in up to 25 additional pupils at Meadowbank Special School.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

The site location has been described as well as an assessment of the existing site conditions and highway conditions, including Colwill Road. The planning history of the site has also been reviewed. Several planning applications have been submitted and granted for the site, the most notable being from 2002 when the construction of the access point was permitted. The consented redevelopment of the adjacent Ysgol Gan Ceubal and Gabalfa Primary School has also been considered.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances, the environment is also conducive to walking and cycling.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site over the last five years. One collision of slight severity occurred approximately 42 metres south of the Meadowbank Special School access. No other collisions have occurred in the vicinity of the school. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed changes to Meadowbank Special School will not have a severe impact on the surrounding highway network. This is due mainly to the minimal increase in pupil numbers. The uptake of sustainable travel can be encouraged and monitored through the recommendations set out in Chapter 5.

Appendix A – Site Location Plan



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Hamilton Office, Opus House
Princes Street, Hamilton 3204
Tel (07) 838 9344

Author: @Opus.co.nz
Project No:

Site Location Plan

Legend

 Site Location

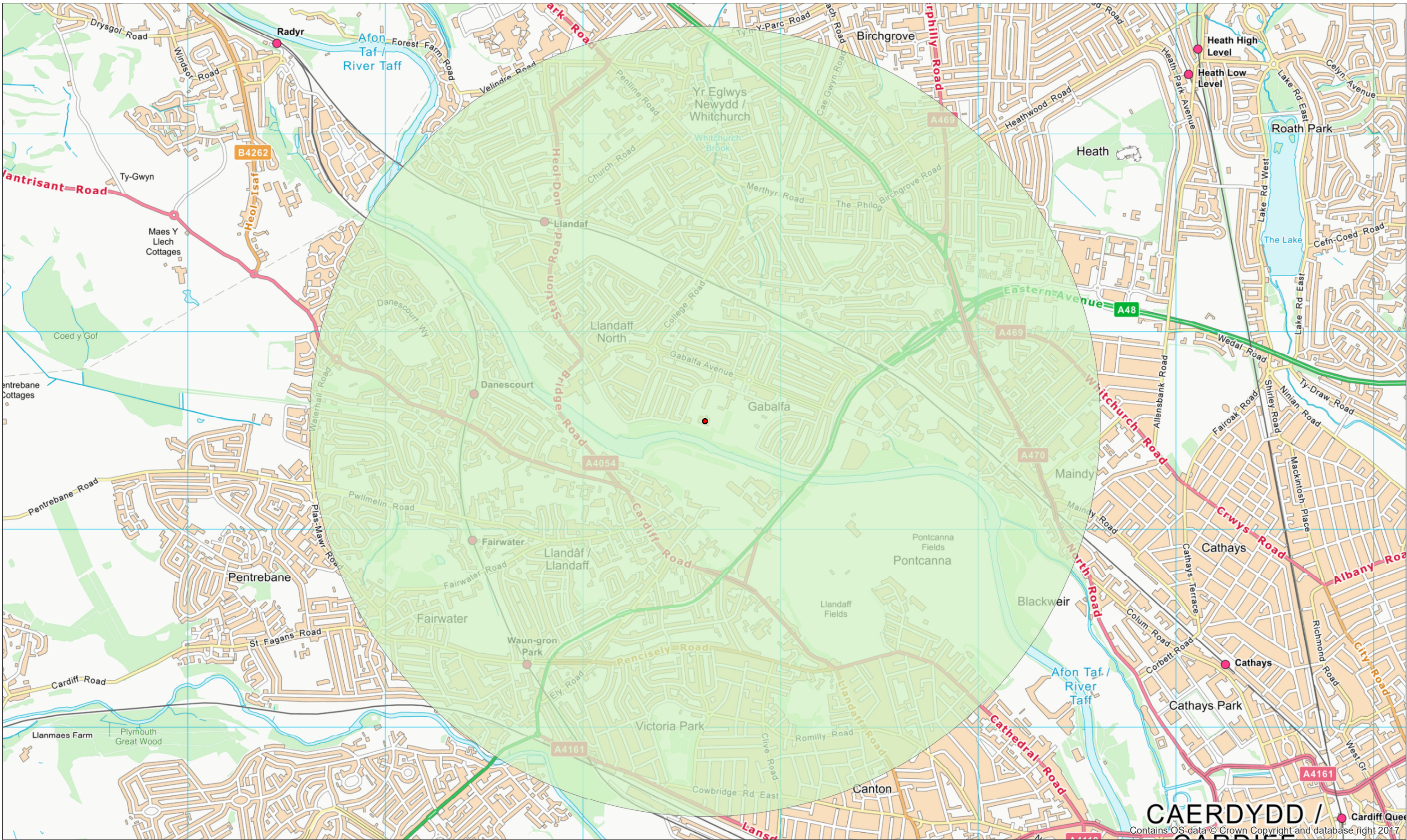
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British National Grid
| Date: 01/02/2018 | Revision: 0 |



Appendix B – Walking Isochrone



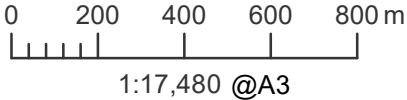
Hamilton Office, Opus House
Princes Street, Hamilton 3204
Tel (07) 838 9344

Author: @Opus.co.nz
Project No:

Walking Isochrone

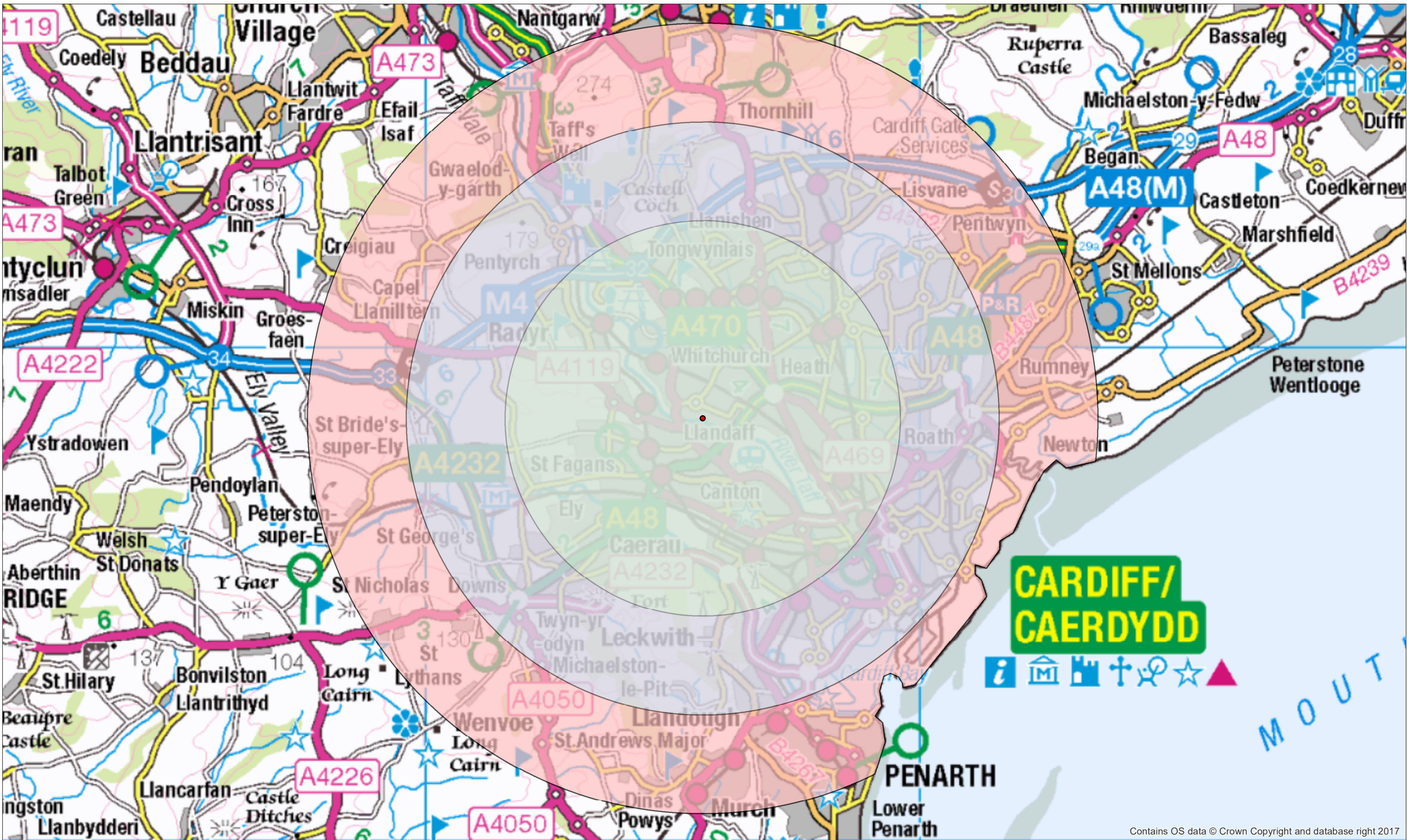
Legend

 2km Walking Isochrone



Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

Appendix C – Cycling Isochrones



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Tel (07) 838 9344

Author: @Opus.co.nz
Project No:

Cycling Isochrones

Legend

- 4km Cycling Isochrone
- 6km Cycling Isochrone
- 8km Cycling Isochrone

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Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |



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Tŷ Gwyn Special School

Transport Assessment



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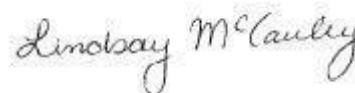
Status: Final

Prepared by:



Elis Phillips | Assistant Transport Planner

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Approved for Release by:



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1. Introduction

1.1. Introduction

Opus International Consultants (UK) have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for Tŷ Gwyn Special School, located in Ely, Cardiff. It provides special school places for learners aged 3-19 with complex learning disabilities and autism spectrum conditions (ASC).

The proposal is to increase the capacity of the school from 173 to 198 in order to meet demand for primary and secondary special school places for learners with complex learning disabilities or ASC.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

The report has been prepared in response to a request by the client and the report will evaluate the impacts of the extension works on the surrounding highway network. The report has been based on Opus' understanding of Cardiff Council's requirements and our specialist experience of undertaking TAs for similar developments.

1.2. Report Structure

The TA investigates the highway and transportation issues associated with the development proposals, the report will be structured in the following way:

- Chapter 2: will summarise the relevant national and local planning policy;
- Chapter 3: presents the existing site conditions;
- Chapter 4: focuses on the accessibility of the site by different travel modes;
- Chapter 5: presents the proposed changes to the school; and
- Chapter 6: summarises and concludes the report.

2. Planning and Policy Context

Relevant national and local planning policy documents have been reviewed and adopted within the Transport Assessment.

2.1. Legislation

2.1.1. *Town and Country Planning Act, 1990*

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2. National Planning Policy

2.2.1. *Planning Policy Wales, Edition 8 (2016)*

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, which is supplemented by a series of Technical Advice Notes (TANs). PPW sets out Wales' commitment to sustainable development, ensuring it plays an appropriate role in the planning system.

The Welsh Government aims to extend transportation choices in a way that supports sustainable development and helps tackle the causes of climate change. The Welsh Government is committed to enabling more people to undertake and enjoy the benefits of active travel.

It is stated that the proposed access to a development is likely to reflect the travel patterns that are involved. People should be able to reach the development by walking, cycling and public transport as well as by car. Walking and cycling should be promoted for shorter trips and as a substitute for shorter car journeys.

2.2.2. *Planning Policy Wales Technical Advice Note 18: Transport (March 2007)*

Technical Advice Note 18 (TAN18) was published in March 2007 and is a supplement of Planning Policy Wales. TAN18 provides advice on transport related issues when planning for new development, such as the integration between land use planning and transport, parking and the design of the development.

The importance of new developments promoting walking is highlighted in TAN18. It is stated that new developments should be situated close to main footways, public transport stops and pedestrian desire lines. Cycling also has the potential to act as a substitute for shorter car journeys. Cycling can be encouraged through the provision of secure cycle parking that is easy to access for everyday use.

2.2.3. *Active Travel (Wales) Act, 2013*

The Active Travel Act was adopted in 2013 and makes provision for maps of existing active travel routes and related facilities in a local authority's area. The Act requires Welsh Ministers and local authorities to take reasonable steps to enhance the provisions made for walking and cycling.

2.2.4. *Wales National Transport Plan (March 2010)*

The Wales National Transport Plan was published in March 2010 and establishes a framework for the creation of an integrated transport system. By joining together proposals for road, rail and public transport, people will be able to move more efficiently and sustainably throughout the country.

2.3. Local Planning Policy

2.3.1. *Cardiff Local Development Plan (LDP) 2006-2026*

The adopted LDP provides the statutory framework for the development and use of land within Cardiff over the Plan period (2006-2026). This fulfils the requirements of The Planning and Compulsory Purchase Act 2004 which requires the Council to prepare a LDP. It replaces existing Structure Plans and Local Plans relating to Cardiff and will be used by the Council to guide and control development and provide the statutory local policy context for determining planning applications.

In terms of transport the LDP highlights the following key points and objectives:

- The overall approach seeks to minimise travel demand and provide a range of measures and opportunities which reduce reliance on the car.
- New development in Cardiff must be integrated with the provision of new transport infrastructure which can help contribute to this objective by putting in place sustainable transport solutions which also provide improved travel choices for the wider community.
- This approach is fully consistent with on-going work at a city-region scale which seeks to develop a more effective public transport network across the region as a whole, helping people travel from where they live to work and thereby helping to spread prosperity around the entire city-region.

The LDP also highlights the key transportation trends and issues, including the following:

- Traffic on Cardiff's roads grew by 9% between 2002 and 2012.
- 56% of Cardiff's residents travel to work by car.
- Nearly 77,900 people commute into Cardiff each day by all modes (37% of Cardiff's workforce). The 2001 Census indicates that approximately 80% of commuters travel to Cardiff by car.
- Travel on rail services has increased considerably - the use of Cardiff Central and Queen Street Stations has risen by 82% between 2001 and 2011.
- Cycle use has increased 10% between 2001 and 2011 but bus use has fallen slightly over the same period.

3. Existing Conditions

3.1. Site Location

The site is located to the west of Vincent Road, in the Ely area of Cardiff. Vincent Road and the other streets in the vicinity of the site are of residential nature. Cowbridge Road West is located approximately 350m to the north of the site and provides access to a range of services and facilities. Cardiff City Centre is located approximately 3.5km to the east of the site and Cardiff Central Railway Station is approximately 4km to the east.

The location of the site is shown in Figure 1, and is also contained in **Appendix A**.

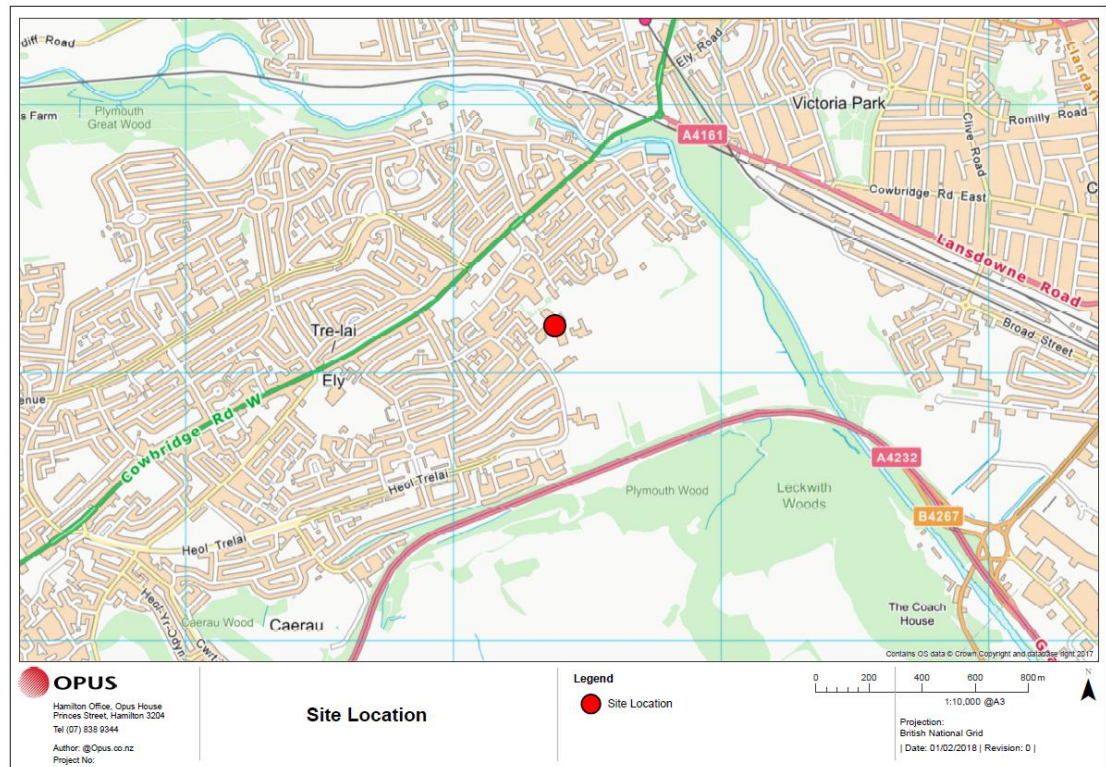


Figure 1 – Site Location Plan

3.2. Existing Site

The existing school site covers an area of approximately 23,800m². The main school building is located in the centre of the site and extends from the northern to the southern boundary. There are outdoor playing areas at the north west and south west of the site. The south east of the site consists of smaller school buildings and cabins and the north east of the site is allocated as a car park at present. There are currently 173 students enrolled at Tŷ Gwyn Special School.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 – Planning History

Application Reference	Proposal	Decision	Date
07/02715/W	New special school and respite care accommodation including minibus garage with modifications to access	Granted	27/03/2008
11/00206/DCO	Demolition of two demountable units and installation of three units and retention of one existing unit	Granted	25/03/2011
17/02621/MNR	Retention of 4 no. single storey portacabin buildings to be used as replacement classroom accommodation. To be hired for a period of 156 weeks	Granted	27/12/2017

3.3. Local Highway Network

3.3.1. Vincent Road

Vincent Road provides the sole vehicular access to the school at the north-eastern boundary of the site, Vincent Road runs from north to south for approximately 300m and connects to Cowbridge Road West to the north via a signal controlled junction. It is a single carriageway road with an approximate width of 5.5m. There are parking restrictions along the majority of its length in the form of double yellow lines. A section of the highway adjacent to Riverbank School is identified as a no stopping zone for the purposes of discouraging pick-up / drop-off at the school. The residential streets with access from Vincent Road, such as Morris Finer Close, have unrestricted on-street parking.

There are footways provided along both sides of Vincent Road, with an approximate width of 2m. Street lighting is provided along both sides of the highway. Dropped kerbs and tactile paving are provided at crossing points; however, the tactile paving is in need of upgrading. A speed limit of 30mph is in place on Vincent Road. The highway and footway provisions are in a reasonable condition, with some defects noted in places. Road markings and signage are also in reasonable condition.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2 kilometres (1.24 miles). Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

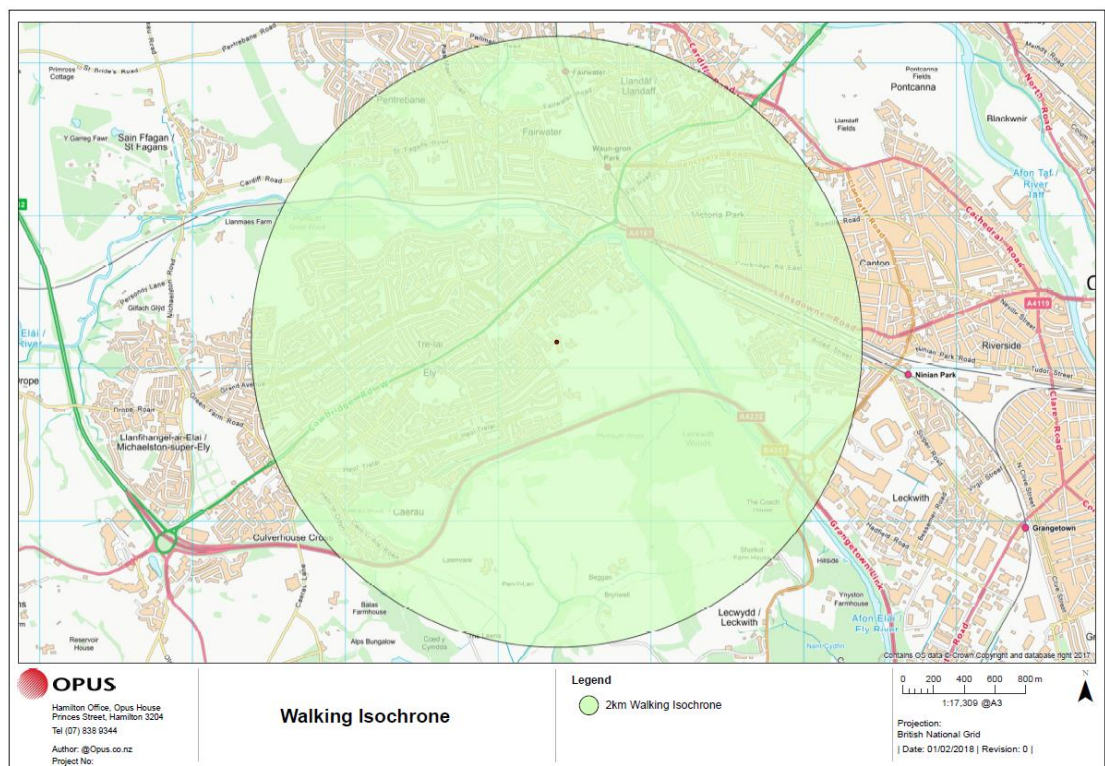


Figure 2 – Walking Isochrone

The isochrone shows that the site is within walking distance of nearby residential areas such as Caerau, Fairwater and Llandaff. Cardiff City Centre is located beyond the 2km recommended walking distance; however, local centres such as Ely provide access to a range of services and facilities. Cardiff Central Railway is located outside the 2km walking distance; however, Waun-gron Park Railway Station is located comfortably within the 2km walking distance.

In the vicinity of the site there are footways provided as well as pedestrian crossing facilities and street lighting, this along with factors such as the generally level gradient results in an environment which is conducive to walking.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site, this revealed that there are no PROWs in the vicinity of the site.

4.1.2. Cycling

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

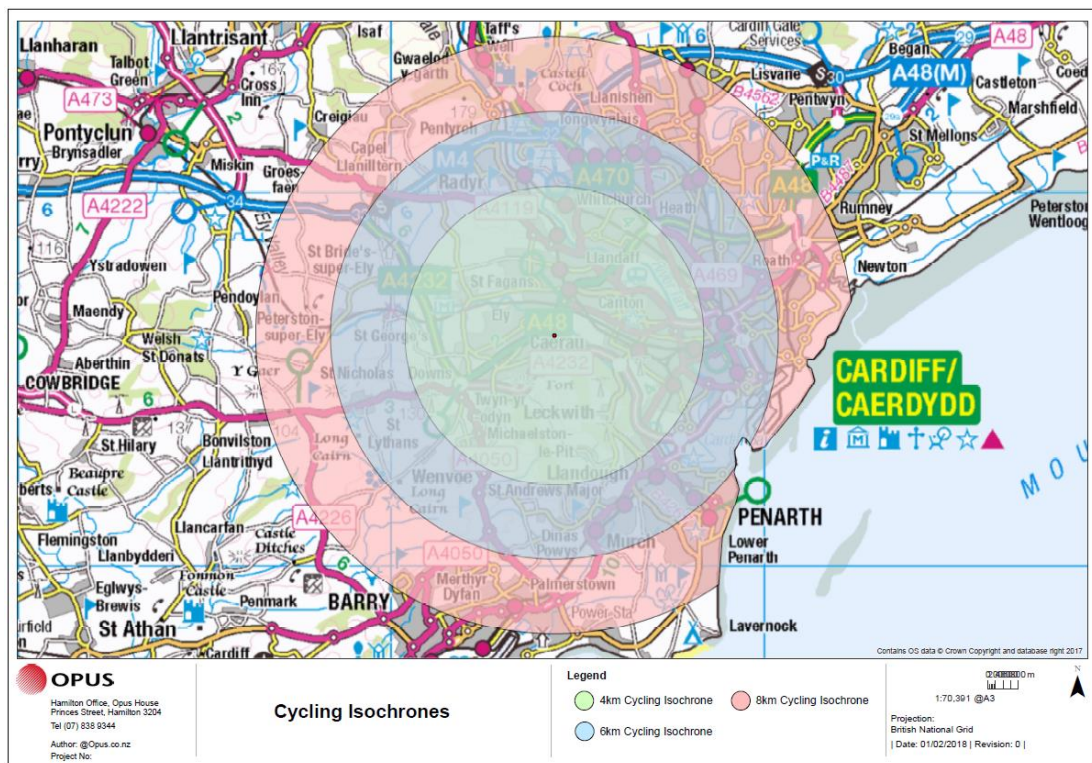


Figure 3 – Cycling Isochrones

The isochrones show that the majority of the city is accessible via bicycle, as well as commuter settlements located on the outskirts such as Radyr to the north, and Dinas Powys to the south.

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling.

National Cycle Network Route 8 is located approximately 3km to the east of the site, the fully open and signed route connects Cardiff to Holyhead, via Brecon, Builth Wells, Machynlleth, Porthmadog and Bangor. The route is a combination of traffic-free and on-road sections.

4.1.3. Public Transport – Bus Services

The closest bus stops to the school are located approximately 100m south west of the site on Bishopston Road. However, these stops only provide access to service number 15 which connects the city centre to Heath Hospital via Ely, there are 6 services per day.

The closest stops which provide access to a number of services are located on Cowbridge Road West north of the site. The route to these stops is 500m (6-minute walk), the eastbound and westbound stops both consist of a shelter, flagpole and timetable. The westbound stop also features easy access kerbing.

Table 2 provides a summary of the services that can be accessed from these stops.

Table 2 – Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
12	Cardiff Bus	Leckwith Retail Park	Drope	1 per hour
15	Cardiff Bus	City Centre	Heath Hospital	6 per day
17/18	Cardiff Bus	City Centre	Ely	12 per hour
96/96A/96S	Cardiff Bus	City Centre	Barry	2 per hour
802	NAT Group	Ely	Bishop of Llandaff and Ysgol Plasmawr	1 per day
807	NAT Group	Ely	Bishop of Llandaff and Ysgol Plasmawr	1 per day
809	NAT Group	Ely	Bishop of Llandaff and Ysgol Plasmawr	1 per day
X1	NAT Group	Culverhouse Cross	Pontprennau	4 per hour
X2	First	Porthcawl	City Centre	2 per hour

Table 2 shows that there are a variety of regular services available from these stops which provide access throughout the city and beyond.

4.1.4. Public Transport – Rail Services

Cardiff Central Railway Station is located to the east of the site, the quickest route is approximately 5km (19-minute cycle). The station includes facilities such as a shop, café, toilets, waiting rooms and cycle parking. The station is managed by Arriva Trains Wales and provides regular services to popular destinations such as London to the east and Swansea to the west. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

Waun-gron Park Railway Station is located to the north and is closer to the site than Cardiff Central Railway Station. The route from the site to the station is approximately 1.6km (20-minute walk or 5-minute cycle). This station provides regular services to Cardiff Central, as well as residential areas such as Fairwater and Danescourt. It is also managed by Arriva Trains Wales and includes facilities such as a shelter and cycle parking.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that the public transport provision is adequate and provides a variety of regular services throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops located nearby on Cowbridge Road West within comfortable walking distance, Waun-gron Park Railway Station is also within a comfortable walking distance and Cardiff Central Railway Station is within a comfortable cycling distance. There are no PROW in the vicinity of the site.

4.2. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. One collision has been reported on Vincent Road; however, it was slight in nature and included one vehicle and one casualty. Four serious incidents have occurred in the vicinity of the site. Table 3 provides a summary of the serious incidents.

Table 3 – Summary of Serious Incidents

Date	Location	Number of Vehicles	Number of Casualties
14/09/2013	Amroth Road	1	1
11/06/2014	Cowbridge Road West	1	1
04/08/2014	Bromley Drive	1	1
04/08/2015	Cowbridge Road West	1	1

There were no obvious trends or clusters of incidents which suggests that there aren't any fundamental issues with the highway network. No fatal incidents have been reported within the vicinity of the site.

5. Proposed Changes

This chapter aims to summarise the proposed changes to Tŷ Gwyn Special School, as well as its impact on the highway network.

5.1. Proposed Changes to Tŷ Gwyn Special School

To meet the demand for primary and secondary special school places for learners with complex learning disabilities or Autism Spectrum Conditions, it is proposed to increase the capacity of Tŷ Gwyn to allow for up to 198 places.

In order to achieve this, it is proposed to adapt part of the Trelai Youth Centre building to provide three new classrooms for Tŷ Gwyn School and to connect the school and youth centre buildings via an enclosed corridor, or covered walkway. There would be around eight pupils per class in the three new classrooms, as well as around fifteen extra staff. Resulting in a worst-case scenario of 39 additional trips assuming all pupils and staff travel individually by private vehicle.

5.2. Impact on Highway Network

Due to the proposed minimal increase in pupil numbers from 173 to 198, it is considered that the proposals will not have a material impact on the operation of the local highway network. In the context of existing operations at Tŷ Gwyn and neighbouring sites, the increase in vehicle movements which may be expected as a result of the proposals will be negligible.

5.3. Limitations

This section will summarise the limitations of the school site in terms of transport and accessibility and these are as follows:

- There are a number of schools and community facilities located within close proximity; Tŷ Gwyn Special School, Riverbank School, Woodlands High School, Trelai Youth Centre. Many of which are accessed from Vincent Road. This results in a large concentration of movements within the area around the start and end of the school day.
- The majority of students arrive via private taxi, meaning transport arrangements are not efficient.
- The signal controlled junction connecting Vincent Road to Cowbridge Road West delays traffic and taxis serving the school use the residential streets to the east to 'ratrun' and avoid any delay.

5.4. Recommendations

This section aims to provide high-level recommendations to counteract some of the site's limitations and promote active travel and sustainable transport options. This will help mitigate the limited impact which is expected to arise as a result of the proposals. The recommendations are as follows:

- Relocate staff parking to existing Trelai car park to the east of the school, in order to amend the internal site layout and clear space for a vehicle drop-off and turning area. The additional number of pupils will result in an increase in minibuses serving the site, the amended parking provision and internal site layout are expected to comfortably accommodate this minor increase. Pedestrian links between the Trelai car park and the school will need to be assessed, including lighting, security and crossing points.
- Consult the other schools in the vicinity of the site and stagger the start / end times for pupils in order to minimise stress on the highway during peak hours.
- Additional access to the school could be provided at the south west of the site near Trelai Youth Centre. This additional access could reduce stress on Vincent Road and provide a convenient point of access for pupils arriving from the Caerau area to the west.

- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed expansion of Tŷ Gwyn Special School, located in Ely, Cardiff, to accommodate additional pupils.

The proposal is to increase the capacity of Tŷ Gwyn Special School to allow for up to 198 places by adapting part of the Trelai Youth Centre building to provide three new classrooms.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

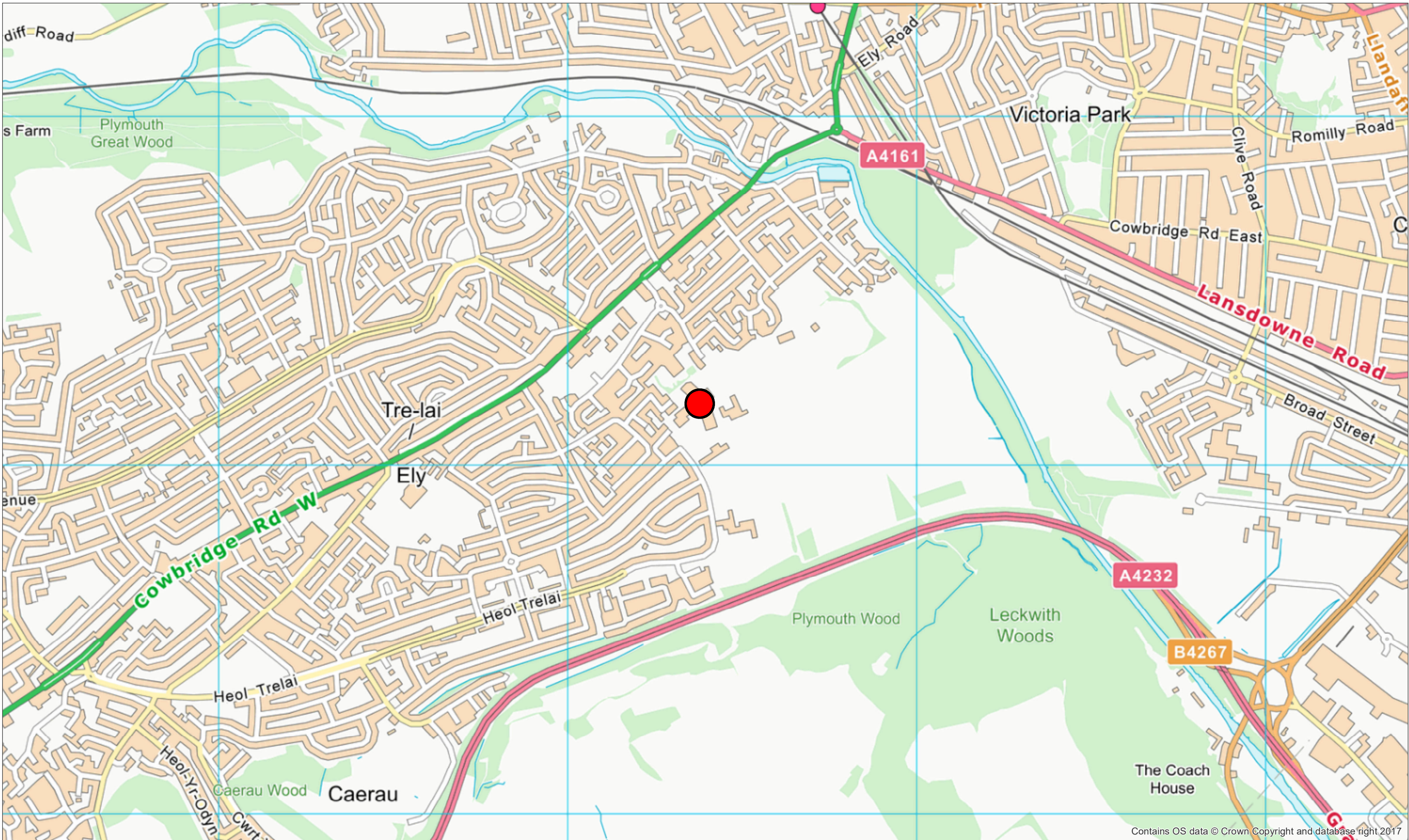
The site location is described as well as an assessment of the existing site conditions and Vincent Road. The planning history of the site is also summarised.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances, the environment is also conducive to walking and cycling.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. One collision was reported on Vincent Road that was slight in nature and four serious collisions have been reported in the vicinity of the site. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed extension to Tŷ Gwyn Special School will not have a severe impact on the surrounding highway network. This is due mainly to the minimal increase in pupil numbers. The uptake of sustainable travel can be encouraged and monitored through the recommendations set out in Chapter 5.

Appendix A – Site Location Plan



Site Location

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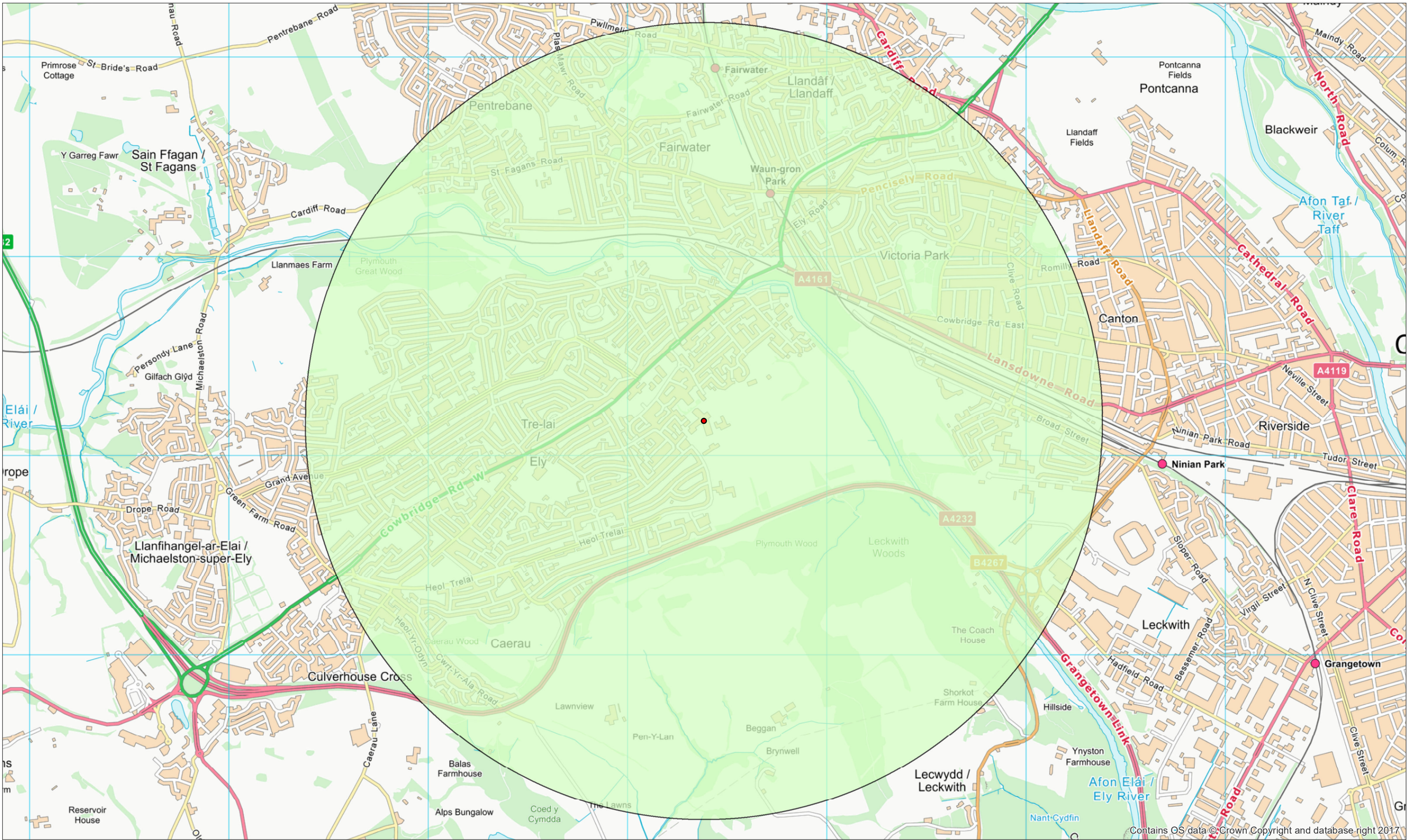
 Site Location

0 200 400 600 800 m
1:10,000 @A3

Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

N

Appendix B – Walking Isochrone



Hamilton Office, Opus House
Princes Street, Hamilton 3204
Tel (07) 838 9344

Author: @Opus.co.nz
Project No:

Walking Isochrone

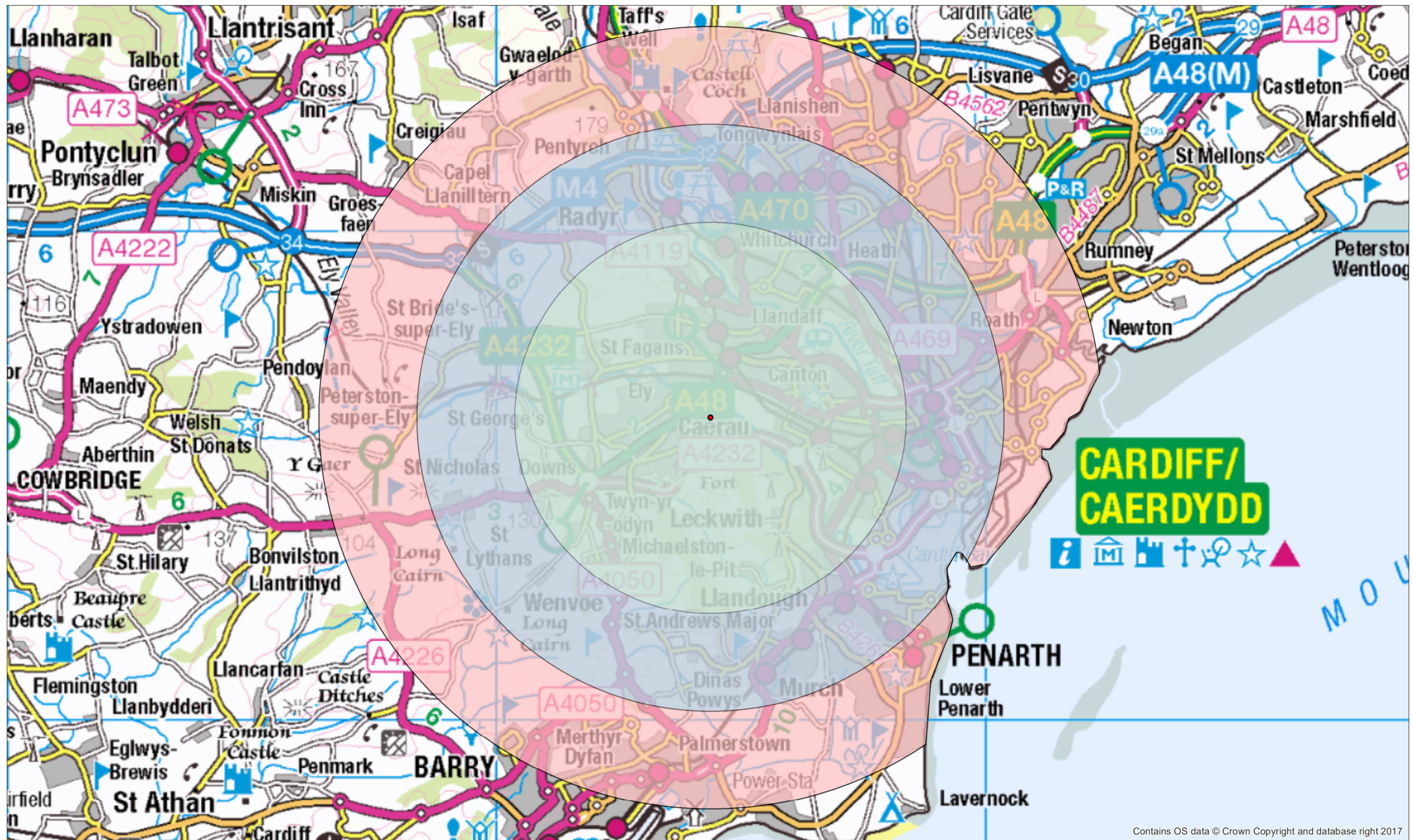
Legend

 2km Walking Isochrone

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1:17,309 @A3

Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

Appendix C – Cycling Isochrones



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Tel (07) 838 9344

Author: @Opus.co.nz
Project No:

Cycling Isochrones

Legend

-  4km Cycling Isochrone
-  6km Cycling Isochrone
-  8km Cycling Isochrone

0 200 400 600 800 1000 m

1:70,391 @A3

Projection:
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Ysgol Glan Morfa

Transport Assessment



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1. Introduction

1.1. Introduction

Opus International Consultants (UK) Ltd have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the refurbishment of Ysgol Glan Morfa to increase the capacity of The Hollies Special School from 90 pupils to 138. The age range of the school will also be extended from 4-11 to 4-14. The operation of The Hollies Special School will be split over the existing Hollies Special School Site and the refurbished Ysgol Glan Morfa. The existing operations of Ysgol Glan Morfa is due to transfer to a new build in August 2018.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

The report has been prepared in response to a request by the client and the report will evaluate the impacts of the proposed changes on the surrounding highway network. The report has been based on Opus' understanding of Cardiff Council's requirements and our specialist experience of undertaking TAs for similar developments.

1.2. Report Structure

The TA investigates the highway and transportation issues associated with the proposed changes, the report will be structured in the following way:

- Chapter 2: will summarise the relevant national and local planning policy;
- Chapter 3: presents the existing site conditions;
- Chapter 4: focuses on the accessibility of the site by different travel modes;
- Chapter 5: presents the proposed changes to the school; and
- Chapter 6: summarises and concludes the report.

2. Planning and Policy Context

Relevant national and local planning policy documents have been reviewed and adopted within the Transport Assessment.

2.1. Legislation

2.1.1. *Town and Country Planning Act, 1990*

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2. National Planning Policy

2.2.1. *Planning Policy Wales, Edition 8 (2016)*

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, which is supplemented by a series of Technical Advice Notes (TANs). PPW sets out Wales' commitment to sustainable development, ensuring it plays an appropriate role in the planning system.

The Welsh Government aims to extend transportation choices in a way that supports sustainable development and helps tackle the causes of climate change. The Welsh Government is committed to enabling more people to undertake and enjoy the benefits of active travel.

It is stated that the proposed access to a development is likely to reflect the travel patterns that are involved. People should be able to reach the development by walking, cycling and public transport as well as by car. Walking and cycling should be promoted for shorter trips and as a substitute for shorter car journeys.

2.2.2. *Planning Policy Wales Technical Advice Note 18: Transport (March 2007)*

Technical Advice Note 18 (TAN18) was published in March 2007 and is a supplement of Planning Policy Wales. TAN18 provides advice on transport related issues when planning for new development, such as the integration between land use planning and transport, parking and the design of the development.

The importance of new developments promoting walking is highlighted in TAN18. It is stated that new developments should be situated close to main footways, public transport stops and pedestrian desire lines. Cycling also has the potential to act as a substitute for shorter car journeys. Cycling can be encouraged through the provision of secure cycle parking that is easy to access for everyday use.

2.2.3. *Active Travel (Wales) Act, 2013*

The Active Travel Act was adopted in 2013 and makes provision for maps of existing active travel routes and related facilities in a local authority's area. The Act requires Welsh Ministers and local authorities to take reasonable steps to enhance the provisions made for walking and cycling.

2.2.4. *Wales National Transport Plan (March 2010)*

The Wales National Transport Plan was published in March 2010 and establishes a framework for the creation of an integrated transport system. By joining together proposals for road, rail and public transport, people will be able to move more efficiently and sustainably throughout the country.

2.3. Local Planning Policy

2.3.1. *Cardiff Local Development Plan (LDP) 2006-2026*

The adopted LDP provides the statutory framework for the development and use of land within Cardiff over the Plan period (2006-2026). This fulfils the requirements of The Planning and Compulsory Purchase Act 2004 which requires the Council to prepare a LDP. It replaces existing Structure Plans and Local Plans relating to Cardiff and will be used by the Council to guide and control development and provide the statutory local policy context for determining planning applications.

In terms of transport the LDP highlights the following key points and objectives:

- The overall approach seeks to minimise travel demand and provide a range of measures and opportunities which reduce reliance on the car.
- New development in Cardiff must be integrated with the provision of new transport infrastructure which can help contribute to this objective by putting in place sustainable transport solutions which also provide improved travel choices for the wider community.
- This approach is fully consistent with on-going work at a city-region scale which seeks to develop a more effective public transport network across the region as a whole, helping people travel from where they live to work and thereby helping to spread prosperity around the entire city-region.

The LDP also highlights the key transportation trends and issues, including the following:

- Traffic on Cardiff's roads grew by 9% between 2002 and 2012.
- 56% of Cardiff's residents travel to work by car.
- Nearly 77,900 people commute into Cardiff each day by all modes (37% of Cardiff's workforce). The 2001 Census indicates that approximately 80% of commuters travel to Cardiff by car.
- Travel on rail services has increased considerably - the use of Cardiff Central and Queen Street Stations has risen by 82% between 2001 and 2011.
- Cycle use has increased 10% between 2001 and 2011 but bus use has fallen slightly over the same period.

3. Existing Conditions

3.1. Site Location

The existing Ysgol Glan Morfa site is located south of Hinton Street in the Splott area of Cardiff, approximately 2km east of Cardiff City Centre. The site is bordered by Hinton Street to the north, the 'Old Library' to the west, Moorland Street to the east and Moorland Primary School to the south. The surrounding roads and other streets are residential in nature with a large recreational area provided to the west of the site by 'Moorland Park'. The location of Ysgol Glan Morfa is shown in Figure 1 and is also provided in **Appendix A**.

The existing site of The Hollies Special School is approximately 5km north of Ysgol Glan Morfa.

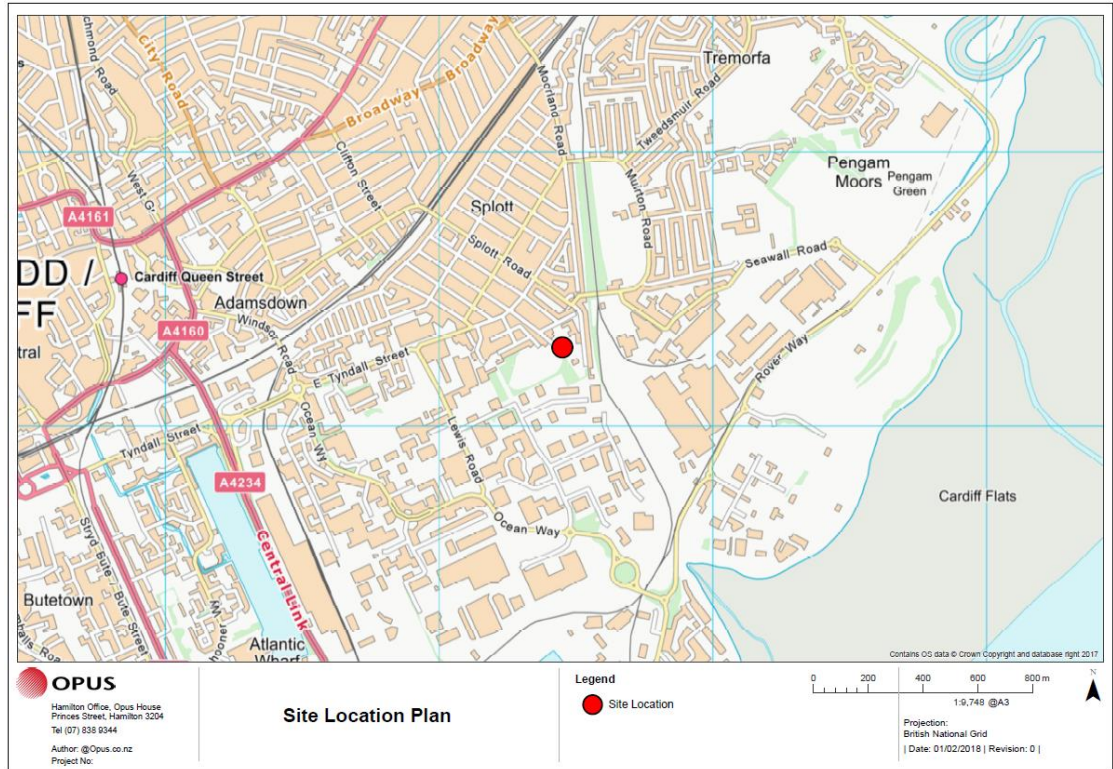


Figure 1 – Site Location Plan

3.2. Existing Site

Ysgol Glan Morfa is a single school building with pedestrian access from Hinton Street to the north. Separate access points are provided to the site, one access provides access directly to the school reception with the other located to the west providing access to the school playground. As of September 2017, the school had 230 children enrolled including 32 part-time nursery pupils. A total of 31 members of staff are employed at the school including support staff and caretakers.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 - Planning History

Application Reference	Proposal	Decision	Date
09/00613/E	Single Storey Extension	Granted	April 2009
10/011296/DCI	Flat to Pitch roof conversion	Granted	July 2010

The existing Hollies Special School site is located off Bryn Heulog in the Perntwyn Cardiff. Parking is provided on site. The school currently has 90 pupils aged 3-11.

3.3. Local Highway Network

3.3.1. *Hinton Street*

Hinton Street is a local access road subject to a 30mph speed limit. Hinton Street is a no through road with no access provided to Moorland Road to the east, bollards are in place to prevent vehicles driving over the footway to access Moorlands Road. Hinton Street forms a junction with Singleton Road to the west. Hinton Street has an approximate width of 7.5m and has no parking restrictions with the exception of a keep clear section marked outside the school and double yellow lines at the Hinton Street / Moorland Street and Hinton Street / Singleton Road junctions. The keep clear marking outside of the school prevent stopping between the hours of 08:00 and 16:30. A disabled / ambulance bay is provided opposite to the pedestrian access to Ysgol Glan Morfa reception.

Footways are provided on both sides of the carriageway and have a width of approximately 2m in most locations. The footways are of a good condition and lighting is provided for the extent of the street. Pedestrian access through to Moorland Street is available from the east end of the street.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2km (1.24 miles). Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

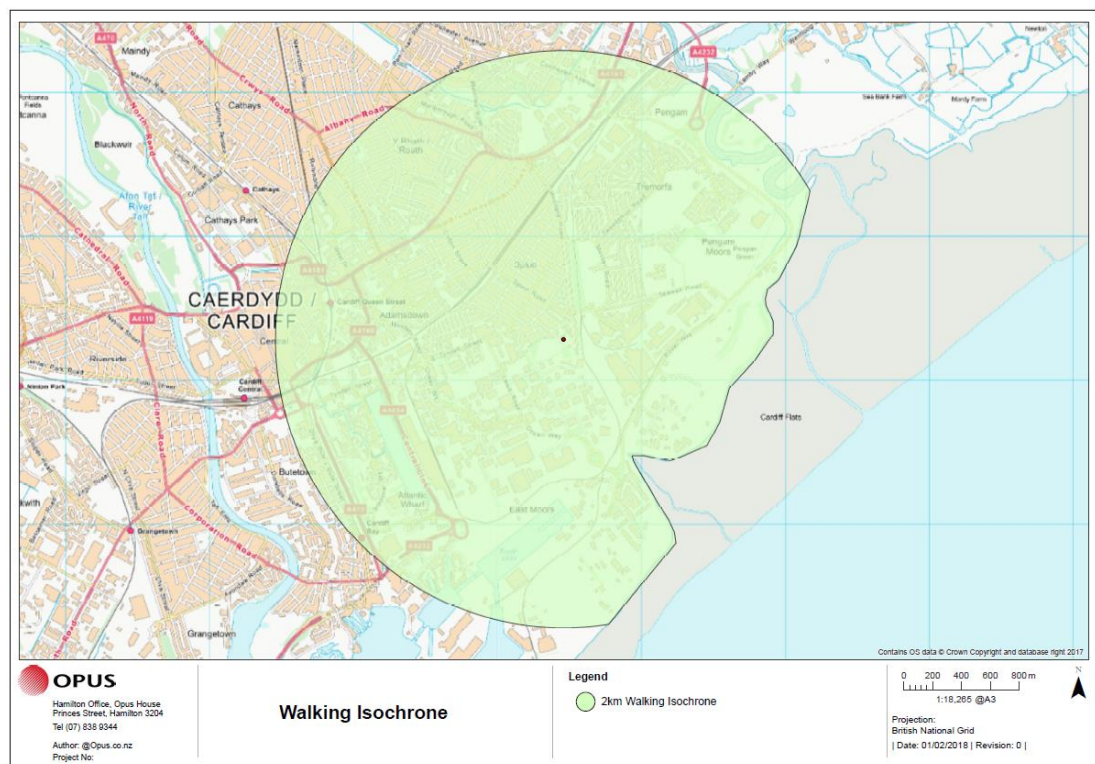


Figure 2 – Walking Isochrone

The isochrone shows that the site is within walking distance of nearby residential areas such as Splott, Tremorfa and Plasnewydd. Ysgol Glan Morfa is also within walking distance of Cardiff City Centre and the associated services and amenities. Cardiff Central Railway Station and Bus Station are slightly beyond comfortable walking distance of the site however the school is within walking distance of Cardiff Queen Street Railway Station.

Good quality footways are provided in the vicinity of the site with a dedicated pedestrian route provided through to Moorland Road. Footpaths are also provided through Moorland Park to the south west of the site. The surrounding area is also of a generally level gradient which along with the pedestrian infrastructure results in an environment which is conducive to walking.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site. This revealed that there are no PROW in the vicinity of the site.

4.1.2. Cycling

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

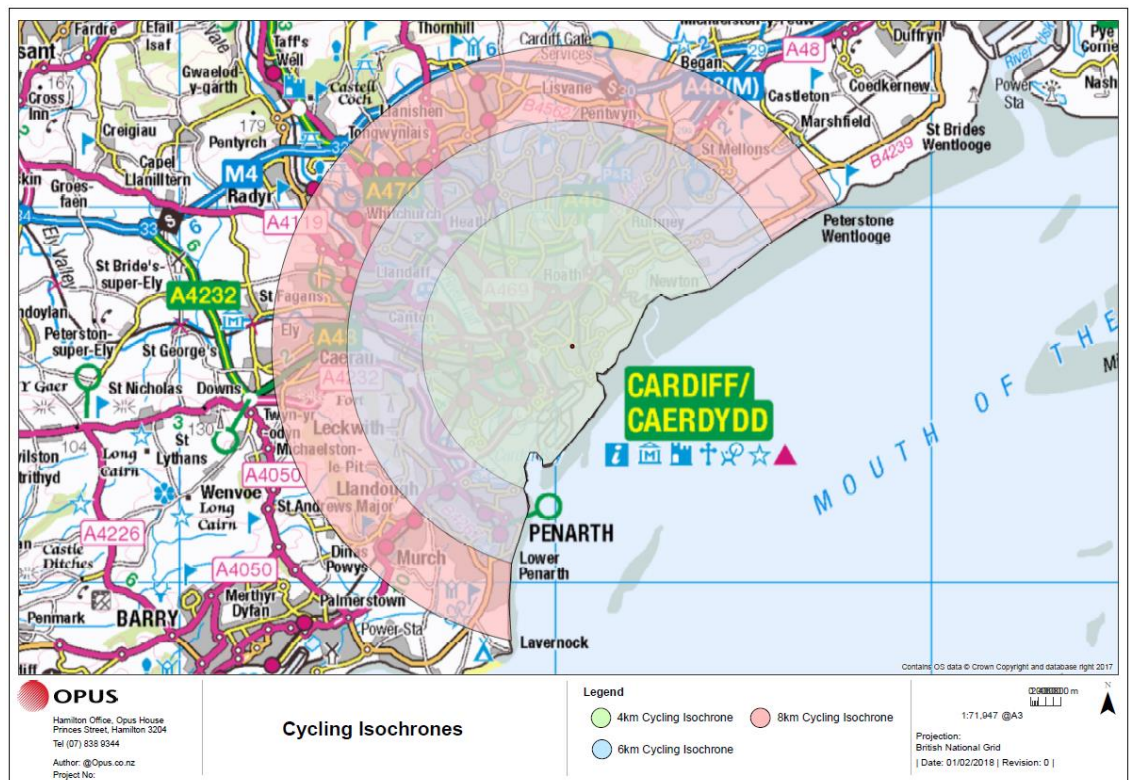


Figure 3 – Cycling Isochrones

The isochrones show that the entire city is accessible via bicycle, this included residential areas of Cardiff on the outskirts of the city such as Pontprennau and Llanrumney. The existing Hollies Special School site is also within walking distance of the proposed second site at Ysgol Glan Morfa.

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling.

The nearest National Cycle Route to the site is Route 8 approximately 2.5km to the west. The fully open and signed route connects Cardiff to Holyhead, via Brecon, Builth Wells, Machynlleth, Porthmadog and Bangor. The route is a combination of traffic-free and on-road sections.

4.1.3. Public Transport – Bus Services

The nearest bus stops to the site are located to the north of the site on Splott Road and South Park Road. The northbound stop is situated on Splott Road a 170m (1-minute) walk and consists of flagpole and timetable information and easy access kerbing. The stop on South Park Road provides east bound services and is a 150m (2-minute) walk from the site. The stop

consists of a flagpole, timetable information and easy access kerbing. Additional stops are available along Splott Road and Habershon Street to the north.

Table 2 provides a summary of the services that can be access from stops in the vicinity of the site.

Table 2 – Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
1 Clockwise	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	2 per hour
2 Anti-Clockwise	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	2 per hour
612	Cardiff Bus	Virgil Street	St Teilo's High School	Commences 07:39 from Virgil Street. Commences 15:05 from St Teilo's High School
613	Cardiff Bus	Adamsdown Square	St Teilo's High School	Commences 08:00 from Adamsdown Square Commences 15:05 from St Teilo's High School
61	Cardiff Bus	Pengham Green Tesco	Fors Avenue, Pentreban	Approximately every 10 minutes. More regular buses are provided at peak times.
805	NAT Group	Sanquhar Street	St Illtyds School	Commences at 07:35 from Sanquhar Street Commences at 14:55 from St Illtyds School

Table 2 shows that there are a variety of bus routes provided throughout Cardiff, accessible from stops in the vicinity of the site. Services are provided throughout the day with additional services available during peak times.

Services are provided to Cardiff City Centre in the vicinity of the existing Hollies Special School site. This would ensure that the proposed second site at Ysgol Glan Morfa is easily accessible for students and staff who may live in the vicinity of the existing Hollies Special School.

4.1.4. Public Transport – Rail Services

Cardiff Queen Street Railway Station is located to the west of the site. The station is an approximate 2km (28-minute) walk from the site or a 2.4km (9-minute) cycle from Ysgol Glan Morfa. The station includes facilities such as a shop, café, toilets, waiting rooms as well as cycle parking. The station is managed by Arriva Trains Wales and provides regular services to local destinations such as Barry Island, Penarth and Pontypridd.

Cardiff Central Railway Station is slightly further away from the site at an approximate 32-minute walk or 11-minute cycle. The station is also manged by Arriva Train Wales and provides services to popular destinations such as London and Swansea. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance

or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that the public transport provision in the vicinity of the site is of a good standard and provides a variety of regular services throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops located on Splott Road, South Park Road and Habershon Street within comfortable walking distance. Cardiff Queen Street Station is also within a comfortable walking distance and Cardiff Central Railway Station is within a comfortable cycling distance. There are no PROW in the vicinity of the site.

4.1.6. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site. The only collision along Hinton Street is at the Hinton Street / Singleton Road junction. The collision was slight in severity and involved one vehicle resulting in one collision. Four collisions occurred on Splott Road in the vicinity of the Splott Road / South Park Road Junction. Three of these collisions were slight in severity and one serious. The serious collision involved one vehicle and resulted in one casualty.

There were no obvious trends or clusters of incidents which suggests that there aren't any fundamental issues with the highway network that would be exacerbated by The Hollies Special School establishing a second site at Ysgol Glan Morfa.

5. Proposed Changes

This chapter aims to summarise the proposed changes to Ysgol Glan Morfa and The Hollies Special School, as well as its impact on the highway network.

5.1. Proposed Changes to Ysgol Glan Morfa

To meet the demand for primary and secondary school special school places for learners with Autism Spectrum Conditions, it is proposed to:

- Extend the age range of The Hollies School from 4-11 to 4-14; and,
- Increase the capacity of the school to allow for up to 138 places.

In order to achieve this, it is proposed that an additional site is provided for the school through the refurbishment of Ysgol Glan Morfa which is due to be vacated by the current school in August 2018. The additional 48 pupils are expected to travel by minibuss with 4/5 pupils per vehicle, resulting in a worst-case scenario of 12 vehicle trips.

5.2. Impacts on Highway Network

Due to the proposed minimal increase in pupil numbers from 90 to 138, it is considered that the proposals will not have a material impact on the operation of the local highway network. In the context of existing operations at Ysgol Glan Morfa and neighbouring sites, the increase in vehicle movements is expected to have a negligible impact.

5.3. Limitations

This section will summarise the limitations of the school site in terms of transport and accessibility and these are as follows:

- There are two schools located within close proximity, both of which are accessed from Singleton Road / Marion Street. This results in a large concentration of movements within the area around the start and end of the school day.
- Currently, to drop-off at the school gate on Hinton Street would require a u-turn to be performed on a street which has on-street parking along both sides.
- Lack of designated staff parking, staff currently required to park on residential streets in the vicinity of the school.

5.4. Recommendations

This section aims to provide high-level recommendations to counteract some of the site's limitations and promote active travel and sustainable transport options. This will help mitigate the limited impact which is expected to arise as a result of the proposals. The recommendations are as follows:

- New through-road between Hinton Street and Singleton Road close to the existing Moorland Primary School access. This one-way system would allow drop-off / pick-up within the school site and relieve pressure along Hinton Street. The increase in pupil numbers would result in additional minibusses serving the site, the amended internal site layout and access arrangements would help to accommodate this increase.
- Utilise the existing drop-off zone and turning area for Moorland Primary School which is located to the south west of the site on Singleton Road. A secure pedestrian walkway would need to be provided connecting the drop-off point to the school entrance.
- Some staff parking provision could be provided at the north of the site near the school gate.
- Consult Moorland Primary School and stagger the start times for pupils in order to minimise stress on the highway during peak times.

- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) Ltd. have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed development of a second site for The Hollies High School at the existing Ysgol Glan Morfa site located in Splott, Cardiff.

The proposal is to increase the capacity of the school to allow for up to 138 places through the refurbishment of Ysgol Glan Morfa which is due to be vacated by the current school in August 2018.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

The site location is described as well as an assessment of the existing site conditions and surrounding highway conditions. The planning history of the site is also summarised, only two planning applications have been made on the site, both were for minor works.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances, the environment is also conducive to walking and cycling.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. A total of five collisions have occurred, with one on Hinton Street. All of the collisions were slight in severity with the exception of one serious collision. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed changes to Ysgol Glan Morfa and The Hollies Special School will not have a severe impact on the surrounding highway network. This is due mainly to the minimal increase in pupil numbers. The uptake of sustainable travel can be encouraged and monitored through the recommendations set out in Chapter 5.

Appendix A – Site Location Plan



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Author: @Opus.co.nz
Project No:

Site Location Plan

Legend

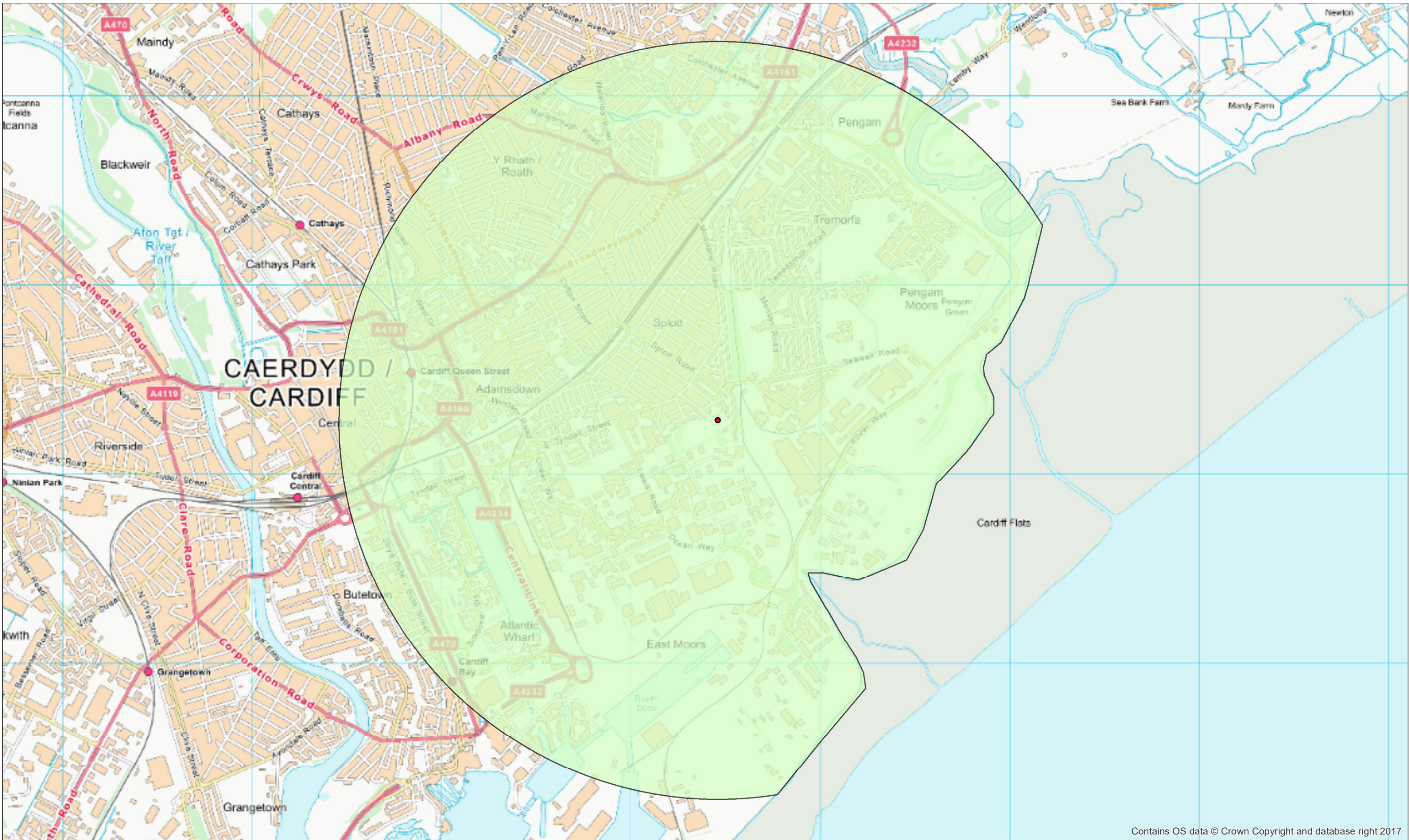
 Site Location

0 200 400 600 800 m

1:9,748 @A3

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Appendix B – Walking Isochrone



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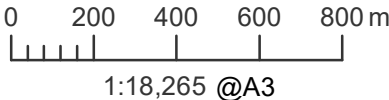
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Author: @Opus.co.nz
Project No:

Walking Isochrone

Legend

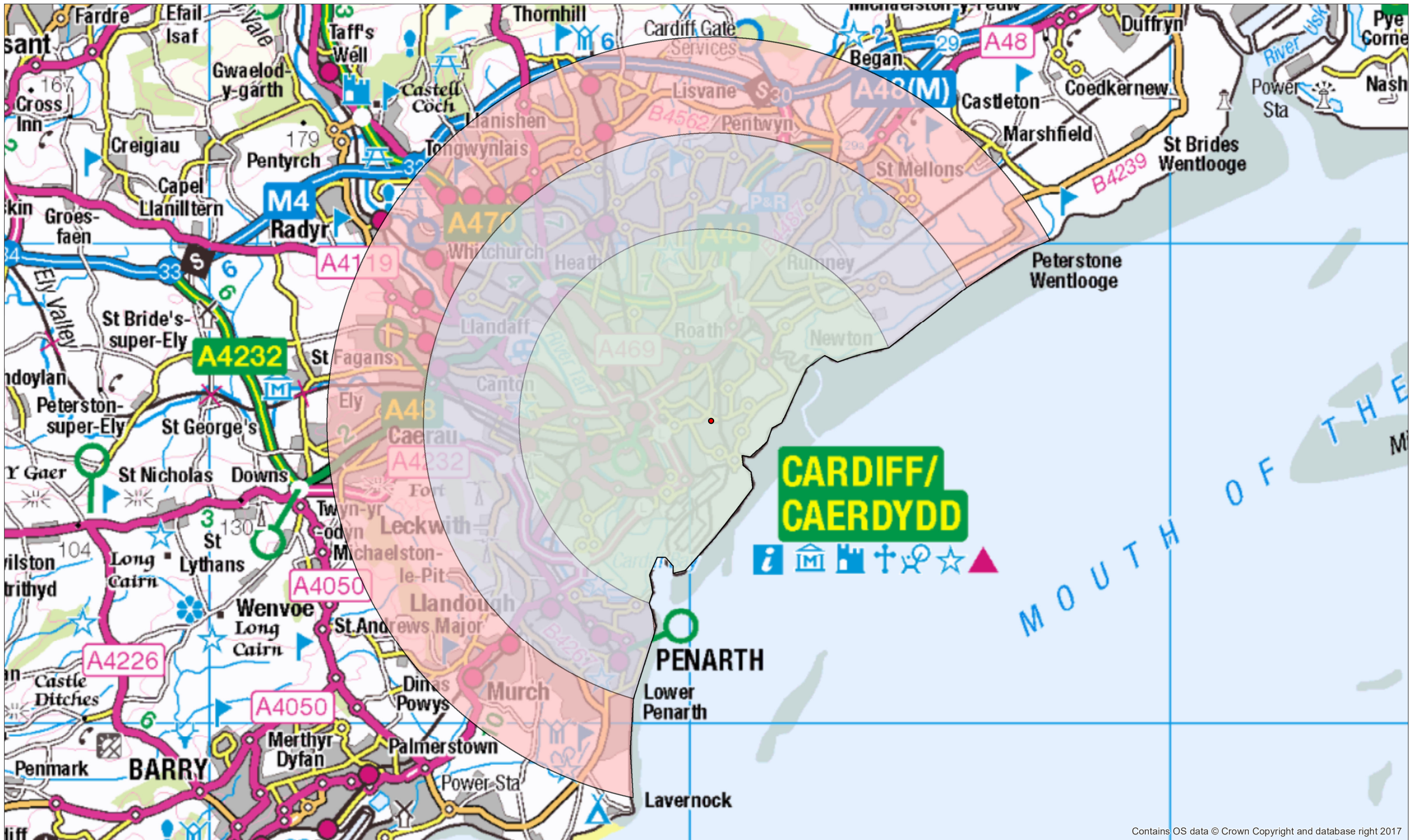
 2km Walking Isochrone



1:18,265 @A3

Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

Appendix C – Cycling Isochrones



Cycling Isochrones

- Legend
- 4km Cycling Isochrone
 - 6km Cycling Isochrone
 - 8km Cycling Isochrone



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Ysgol Gymraeg Glantaf

Transport Assessment



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1. Introduction

1.1. Introduction

Opus International Consultants (UK) Ltd have been commissioned by Cardiff Council to produce a Transport Assessment for the Specialist Resource Base (SRB) within Ysgol Gymraeg Glantaf, a community high school located in Llandaff, Cardiff. The SRB is attended by pupils with complex learning disabilities and autism spectrum conditions.

There are currently 14 students enrolled at the Ysgol Gymraeg Glantaf SRB. The proposal is to extend the designated number of pupils at the SRB up to 30 places. It is proposed that the accommodation is extended and improved to facilitate the additional pupils.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

The report has been prepared in response to a request by the client and the report will evaluate the impacts of the proposed changes on the surrounding highway network. The report has been based on Opus' understanding of Cardiff Council's requirements and our specialist experience of undertaking TAs for similar developments.

1.2. Report Structure

The TA investigates the highway and transportation issues associated with the development proposals, the report will be structured in the following way:

- Chapter 2: will summarise the relevant national and local planning policy;
- Chapter 3: presents the existing site conditions;
- Chapter 4: focuses on the accessibility of the site by different travel modes;
- Chapter 5: presents the proposed changes to the school; and
- Chapter 6: summarises and concludes the report.

2. Planning and Policy Context

Relevant national and local planning policy documents have been reviewed and adopted within the Transport Assessment.

2.1. Legislation

2.1.1. *Town and Country Planning Act, 1990*

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2. National Planning Policy

2.2.1. *Planning Policy Wales, Edition 8 (2016)*

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, which is supplemented by a series of Technical Advice Notes (TANs). PPW sets out Wales' commitment to sustainable development, ensuring it plays an appropriate role in the planning system.

The Welsh Government aims to extend transportation choices in a way that supports sustainable development and helps tackle the causes of climate change. The Welsh Government is committed to enabling more people to undertake and enjoy the benefits of active travel.

It is stated that the proposed access to a development is likely to reflect the travel patterns that are involved. People should be able to reach the development by walking, cycling and public transport as well as by car. Walking and cycling should be promoted for shorter trips and as a substitute for shorter car journeys.

2.2.2. *Planning Policy Wales Technical Advice Note 18: Transport (March 2007)*

Technical Advice Note 18 (TAN18) was published in March 2007 and is a supplement of Planning Policy Wales. TAN18 provides advice on transport related issues when planning for new development, such as the integration between land use planning and transport, parking and the design of the development.

The importance of new developments promoting walking is highlighted in TAN18. It is stated that new developments should be situated close to main footways, public transport stops and pedestrian desire lines. Cycling also has the potential to act as a substitute for shorter car journeys. Cycling can be encouraged through the provision of secure cycle parking that is easy to access for everyday use.

2.2.3. *Active Travel (Wales) Act, 2013*

The Active Travel Act was adopted in 2013 and makes provision for maps of existing active travel routes and related facilities in a local authority's area. The Act requires Welsh Ministers and local authorities to take reasonable steps to enhance the provisions made for walking and cycling.

2.2.4. *Wales National Transport Plan (March 2010)*

The Wales National Transport Plan was published in March 2010 and establishes a framework for the creation of an integrated transport system. By joining together proposals for road, rail and public transport, people will be able to move more efficiently and sustainably throughout the country.

2.3. Local Planning Policy

2.3.1. *Cardiff Local Development Plan (LDP) 2006-2026*

The adopted LDP provides the statutory framework for the development and use of land within Cardiff over the Plan period (2006-2026). This fulfils the requirements of The Planning and Compulsory Purchase Act 2004 which requires the Council to prepare a LDP. It replaces existing Structure Plans and Local Plans relating to Cardiff and will be used by the Council to guide and control development and provide the statutory local policy context for determining planning applications.

In terms of transport the LDP highlights the following key points and objectives:

- The overall approach seeks to minimise travel demand and provide a range of measures and opportunities which reduce reliance on the car.
- New development in Cardiff must be integrated with the provision of new transport infrastructure which can help contribute to this objective by putting in place sustainable transport solutions which also provide improved travel choices for the wider community.
- This approach is fully consistent with on-going work at a city-region scale which seeks to develop a more effective public transport network across the region as a whole, helping people travel from where they live to work and thereby helping to spread prosperity around the entire city-region.

The LDP also highlights the key transportation trends and issues, including the following:

- Traffic on Cardiff's roads grew by 9% between 2002 and 2012.
- 56% of Cardiff's residents travel to work by car.
- Nearly 77,900 people commute into Cardiff each day by all modes (37% of Cardiff's workforce). The 2001 Census indicates that approximately 80% of commuters travel to Cardiff by car.
- Travel on rail services has increased considerably - the use of Cardiff Central and Queen Street Stations has risen by 82% between 2001 and 2011.
- Cycle use has increased 10% between 2001 and 2011 but bus use has fallen slightly over the same period.

3. Existing Conditions

3.1. Site Location

Ysgol Gymraeg Glantaf is located to the east of Bridge Road, in the Llandaff area of Cardiff. The site has two vehicular access points on Gabalfa Road and one vehicular access point on the A4054 Bridge Road. The streets surrounding the school are of a residential nature. Cardiff City Centre is located approximately 4km south-east of the site and Cardiff Railway Station is approximately 4.3km to the south-east.

The location of the site is shown in Figure 1, which is also contained in **Appendix A**.

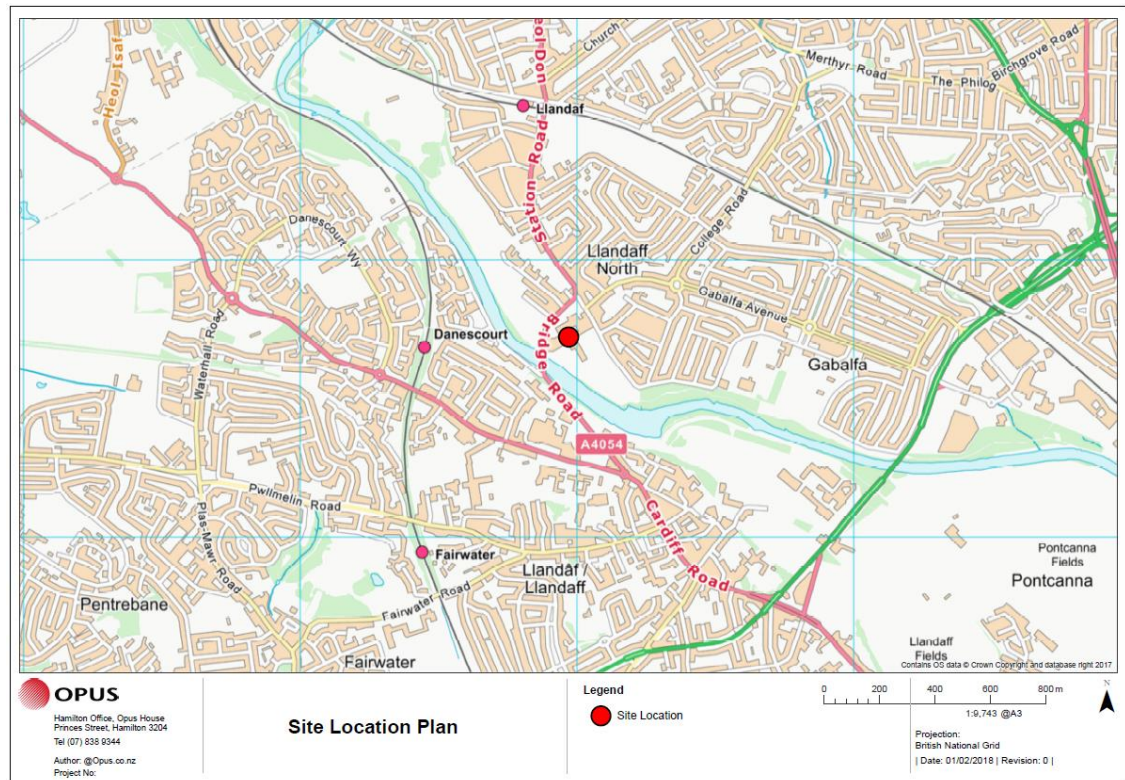


Figure 1 – Site Location Plan

3.2. Existing Site

The existing high school site which the SRB is located within covers an area of approximately an area of approximately 54,255m². The high school is made up of several two-storey school buildings and ancillary buildings, playing fields and a sports court. There are currently 1178 pupils enrolled at the high school. There are 14 pupils enrolled at the SRB.

There are currently three vehicular access points to the site. The south-west arm of the Gabalfa Road / Gabalfa Avenue mini-roundabout provides direct access to the school. The access is gated and is used for access to staff parking only. Approximately 74 metres south-east of the mini-roundabout, a simple priority junction on the west side of the highway also provides access to the school. This access is used for reception, visitors and deliveries. Vehicular access to the site is also available from the A4054 Bridge Road. The access point is gated and provides access into the car parking area on the north side of the school.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 - Planning History

Application Reference	Proposal	Decision	Date
97/00130/W	New science block – two storey extension	Granted	09/05/1997
97/01426/W	New two storey classroom block/extension providing performing arts accommodation	Granted	03/10/1997
98/01684/W	Two storey science block, additional parking	Granted	15/01/1999
01/02004/W	Extensions to school 'gymnasium 1' to provide additional changing room accommodation, a school mini bus garage and equipment store	Granted	15/11/2001
09/01221/W	Construction of new sports hall	Granted	27/11/2009
09/01932/W	Construction of extension block providing improved facilities for sixth form, classrooms and dining	Granted	08/03/2010
10/00459/W	Construction of a new synthetic turf pitched together with associated fencing and floodlights	Granted	10/06/2010

3.3. Local Highway Network

3.3.1. A4054 Bridge Road

The A4054 Bridge Road runs along the western boundary of the site from north to south. It is a single highway road with an approximate width of 7.5m. A vehicular access to the site is available from the A4054 Bridge Road, which is gated and has signage stating, 'no access to site traffic'. The access connects to the car park on the north side of Ysgol Gymraeg Glantaf.

To the immediate north-east of the school, the A4054 Bridge Road forms a mini-roundabout with Station Road and Gabalfa Road. Approximately 85 metres south-east of the mini-roundabout, a lay-by is provided on the southbound side of the highway. The lay-by is approximately 76 metres long and is not subject to any parking or waiting restrictions. There are no parking restrictions along the A4054 Bridge Road.

Footways are provided on both sides of the A4054 Bridge Road with an approximate width of 2m. Approximately 18 metres south-west of the A4054 Bridge Road / Station Road / Gabalfa Road mini-roundabout, a zebra crossing is provided on the A4054 Bridge Road. Street lighting is provided along both sides of the highway, with dropped kerbs and tactile paving provided at crossing points, the tactile paving is in need of upgrading in places. The highway surface is generally in a good condition.

3.3.2. Gabalfa Road

Gabalfa Road runs along the north-east boundary of the site for approximately 398 metres. There are two vehicular access points to the site from Gabalfa Road. The school can be

accessed from the Gabalfa Road / Gabalfa Avenue mini-roundabout and from a simple priority junction that is 74 metres south along Gabalfa Road.

Gabalfa Road is a single highway road with an approximate width of 7 metres, however vehicles were observed to park along both sides of the highway which significantly reduces the available width. There are no parking restrictions along Gabalfa Road. 'Keep clear' markings are provided along the southernmost vehicular access to the school.

Footways are provided on both sides of the highway with an approximate width of 2 metres. Approximately 50 metres south-east of the southernmost vehicular access to the school on Gabalfa Road, a pedestrian access point is provided. The access is gated and provides access to the playground at the school. Street lighting is provided on both sides of the highway. The highway surface is generally in a good condition.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2 kilometres (1.24 miles). Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

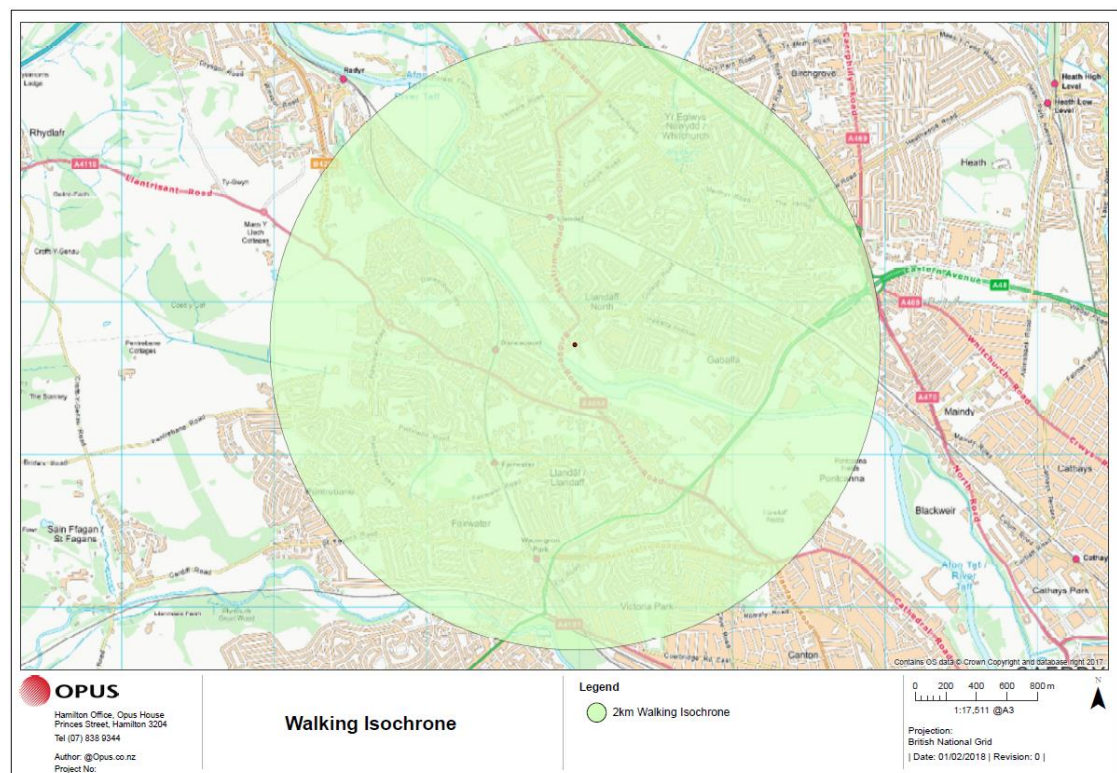


Figure 2 – Walking Isochrone

The isochrones show that the site is within walking distance of several nearby residential areas, including Llandaff, Llandaff North and Gabalfa. The A4054 Station Road to the north-west of the site offers access to local services and facilities, including a supermarket and petrol station. Cardiff Central Railway Station is located just beyond the realistic walking distance; however, Llandaff Railway Station is within the 2km distance.

Footways are provided along both sides of the highway in the vicinity of the site as well as pedestrian crossing facilities. A zebra crossing is provided near the site on the A4054 Bridge Road. The gradient is generally level in the area surrounding the site, which results in an environment which is conducive to walking.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site, this revealed that there are no PROW in the vicinity of the site.

4.1.2. Cycling

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

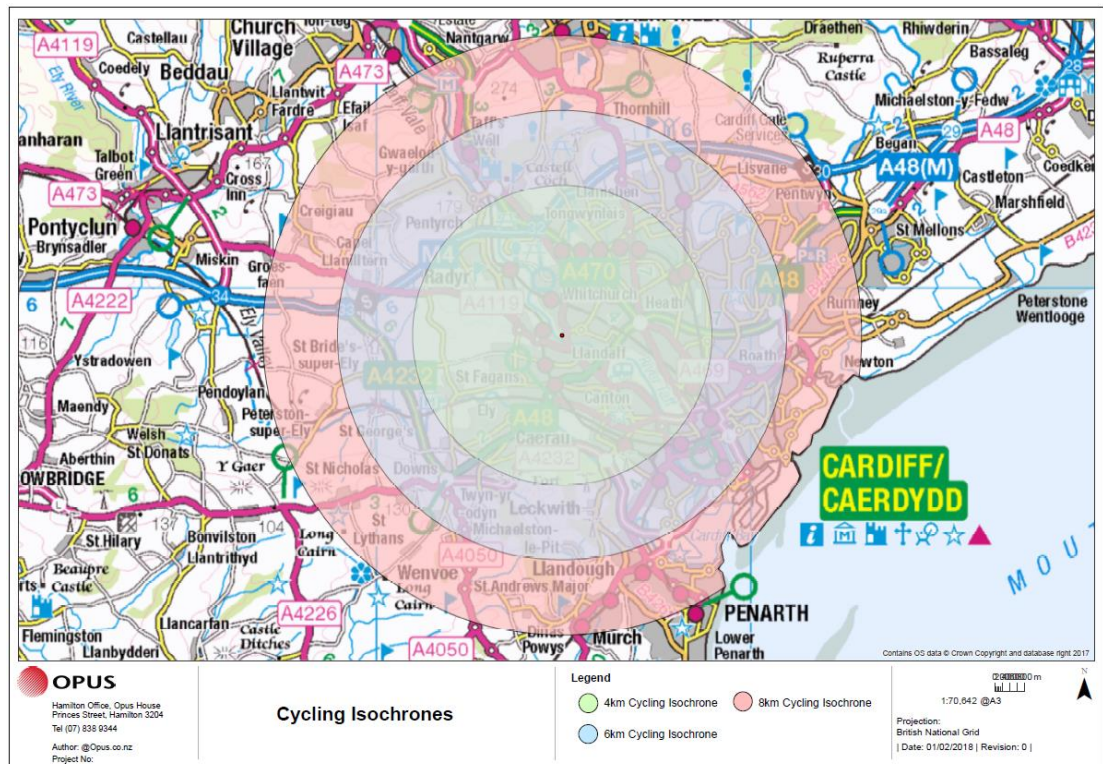


Figure 3 – Cycling Isochrones

The isochrones show that the majority of the city is accessible via bicycle, including commuter settlements on the outskirts of Cardiff such as Llandough to the south-east/

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling.

National Cycle Network Route 8 can be accessed from approximately 300 metres south-east of the site along Gabalfa Road. Route 8 runs in an east – west direction along the banks of the River Taff. The route is predominantly traffic free in the vicinity of the site and can be used to reach Cardiff city centre. The route is also known as 'Lôn Las Cymru' and is fully signed between Cardiff and Holyhead.

4.1.3. Public Transport – Bus Services

The closest bus stops to the site area located on the A4054 Bridge Road, approximately 240 metres north-west of the site. The north-eastbound bus stop comprises of easy access kerbing, a flagpole and timetable information. Buses pull into the lay-by for the south-westbound bus stop, which is located directly opposite. This bus stop does not have a flag pole or timetable.

Table 2 provides a summary of the bus services that are available from these stops.

Table 2 - Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
25 (north-eastbound only)	Cardiff Bus	Cardiff City Centre	Whitchurch	Every 20 minutes
24 (south-westbound only)	Cardiff Bus	Cardiff City Centre	Llandaff	Every 20 minutes
64	Cardiff Bus	Cardiff City Centre	Llanrumney	Every 2 hours
65	Cardiff Bus	Llanrumney	Cardiff City Centre	Every 2 hours
615	Cardiff Bus	Roath	Ysgol Glantaf	One service daily in each direction
806	New Adventure Travel	Llanishen	Ysgol Glantaf	One service daily in each direction
813	New Adventure Travel	Lisvane	Ysgol Glantaf	One service daily in each direction
823	New Adventure Travel	Newport Road	Ysgol Glantaf	One service daily in each direction

Table 2 shows that there are a variety of regular services available from these stops which provide access throughout the city. A number of school bus services are also provided.

4.1.4. Public Transport – Rail Services

Cardiff Central Station is located approximately 5km to the south-east of the site. This equates to a 60-minute walk or 18-minute cycle via National Cycle Route 8. The station includes facilities such as a shop, café, toilets, waiting rooms and cycle parking. The station is managed by Arriva Trains Wales and provides regular services to popular destinations such as London to the east and Swansea to the west. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

Llandaff Railway Station is located within closer proximity of Ysgol Gymraeg Glantaf than Cardiff Central Railway Station. The station is located approximately 850m to the north of the school, which equates to an 11-minute walk. The Station is managed by Arriva Trains Wales and has a limited range of facilities, however ticket machines and step free access are available. Five services per hour to Cardiff Queen Street Railway Station and Radyr Railway Station are available from Llandaff Railway Station.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that a good range of public transport services are available in the vicinity of Ysgol Gymraeg Glantaf. These services can be used to reach Cardiff and beyond. The site is within walking distance of the bus stops on the A4054 Bridge Road and Llandaff Railway Station. While there are no PROW within the vicinity of the site, it is within close proximity of National Cycle Network Route 8.

4.2. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. A total of five collisions have occurred, one of which was serious in severity. The other four collisions were slight in severity.

Table 3 summarises the collisions that have occurred in the vicinity of the site in the latest five-year period.

Date	Location	Severity	Number of Vehicles	Number of Casualties
16/04/2016	A4054 Bridge Road / Radyr Court Road junction	Slight	3	1
28/11/2013	Gabalfa Road / Gabalfa Avenue roundabout	Slight	2	1
04/04/2017	Gabalfa Road / Gabalfa Avenue roundabout	Slight	2	1
13/01/2016	Station Road	Slight	1	1
03/08/2013	Station Road	Serious	1	1

There were no obvious trends or clusters of incidents which suggests that there aren't any fundamental issues with the highway network. No fatal incidents have been reported within the vicinity of the site.

5. Proposed Changes

This chapter aims to summarise the proposed changes to the SRB at Ysgol Gymraeg Glantaf, as well as its impact on the highway network.

5.1. Proposed Changes to Ysgol Gymraeg Glantaf

To meet the demand for secondary SRB places for complex learning disabilities and autism spectrum conditions in the Welsh medium sector, it is proposed to extend the designated number at Ysgol Glantaf SRB up to 30 places.

The current SRB accommodation would be extended and improved to facilitate the additional pupil numbers. The increase in pupil numbers could, in a worst-case scenario, result in an increase of 16 additional trips assuming that all pupils are travelling individually by private vehicle.

In the context of the school as a whole, an increase of 16 pupils is considered minimal and it is expected that the existing internal site layout and access arrangements, including extensive staff parking to the north and a pick-up / drop-off area on Gabalfa Road will comfortably accommodate this minor increase.

5.2. Impact on the Highway Network

There are currently 14 pupils enrolled at the SRB. The proposals would extend the designated number at the SRB to 30, which is an increase of 16 pupils. Due to the small increase in pupil numbers, the proposals are not expected to have a material impact on the operation of the surrounding highway network. Any additional trips generated by the increase in pupil numbers could be accommodated on the roads surrounding the site. In the context of existing operations at Ysgol Gymraeg Glantaf, the increase in vehicle movements is expected to have a negligible impact.

5.3. Recommendations

This section aims to provide high-level recommendations that promote active travel and sustainable transport options. This will help mitigate the limited impact which is expected to arise as a result of the proposals. The recommendations are as follows:

- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) Ltd have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed changes to the SRB within Ysgol Gymraeg Glantaf, a community high school located in Llandaff, Cardiff.

The proposal is to increase the designated number at the SRB to 30 places. Given that 14 pupils are currently enrolled, this would result in a maximum increase of 16 pupils. This is not expected to have an impact on the operation of the surrounding highway network.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

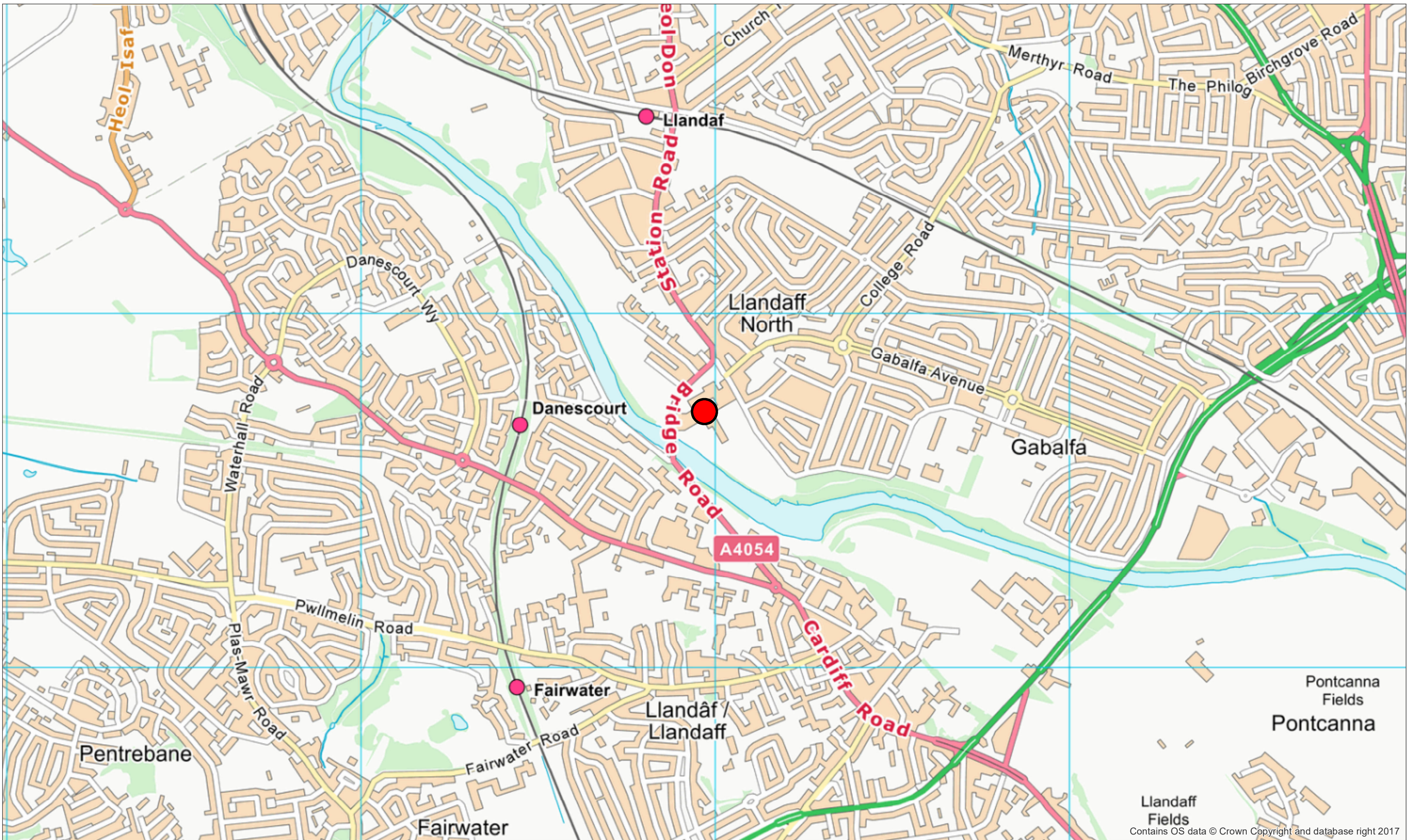
The site location has been described as well as an assessment of the existing conditions on the A4054 Bridge Road and Gabalfa Road. The planning history of the site has also been summarised. A number of planning applications have been submitted for the school over the past 30 years, notably the construction of a new science block and changes to the car parking provision.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances, the environment is also conducive to walking and cycling.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. A total of five collisions have occurred within the latest five-year period, four of which were slight in severity and one of which was serious in severity. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed changes to Ysgol Gymraeg Glantaf will not have a severe impact on the surrounding highway network. This is due mainly to the minimal increase in pupil numbers. The uptake of sustainable travel can be encouraged and monitored through the recommendations set out in Chapter 5.

Appendix A – Site Location Plan



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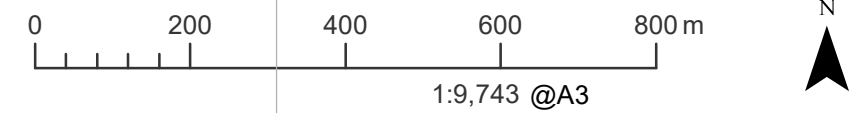
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Project No:

Site Location Plan

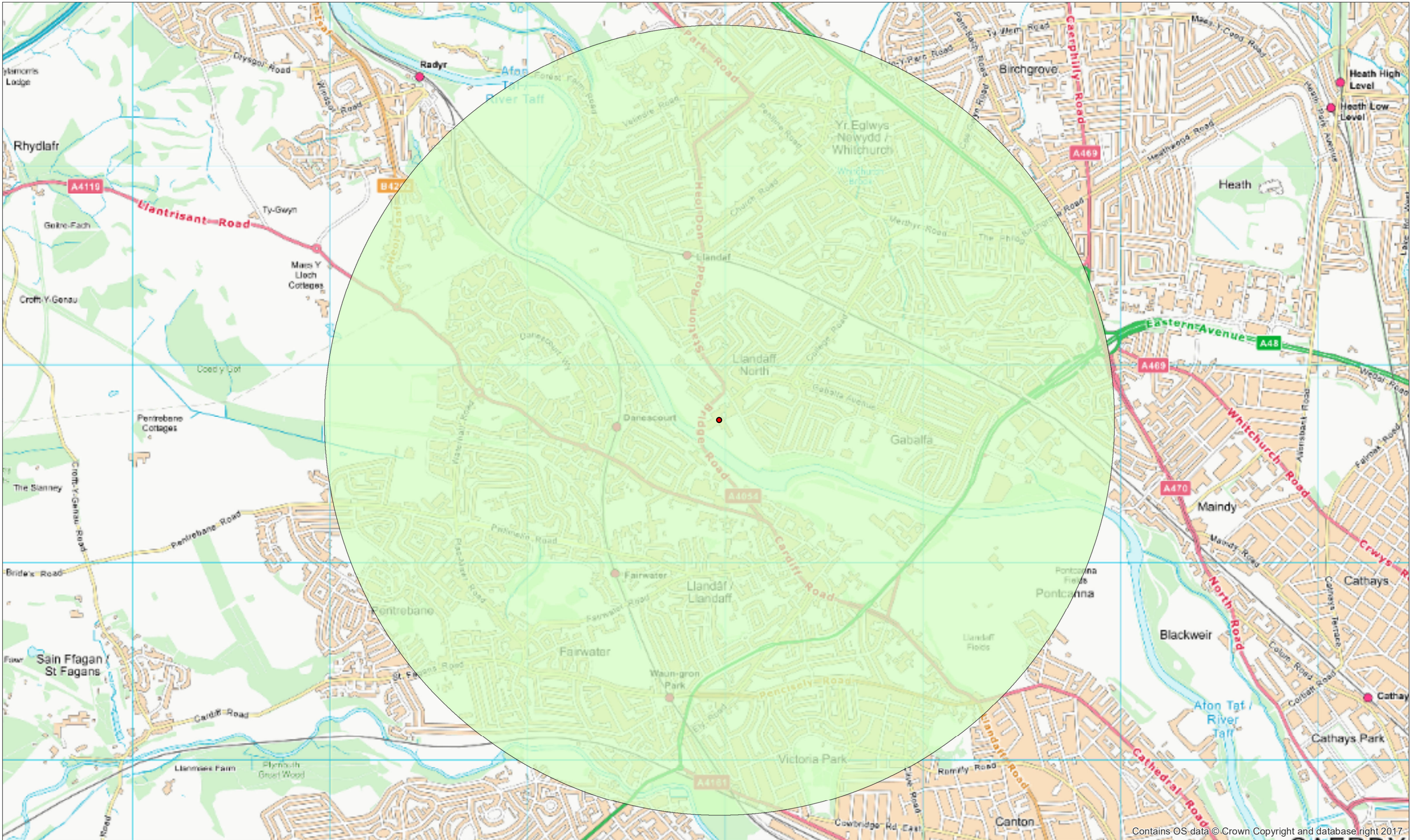
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Appendix B – Walking Isochrone



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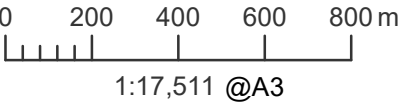
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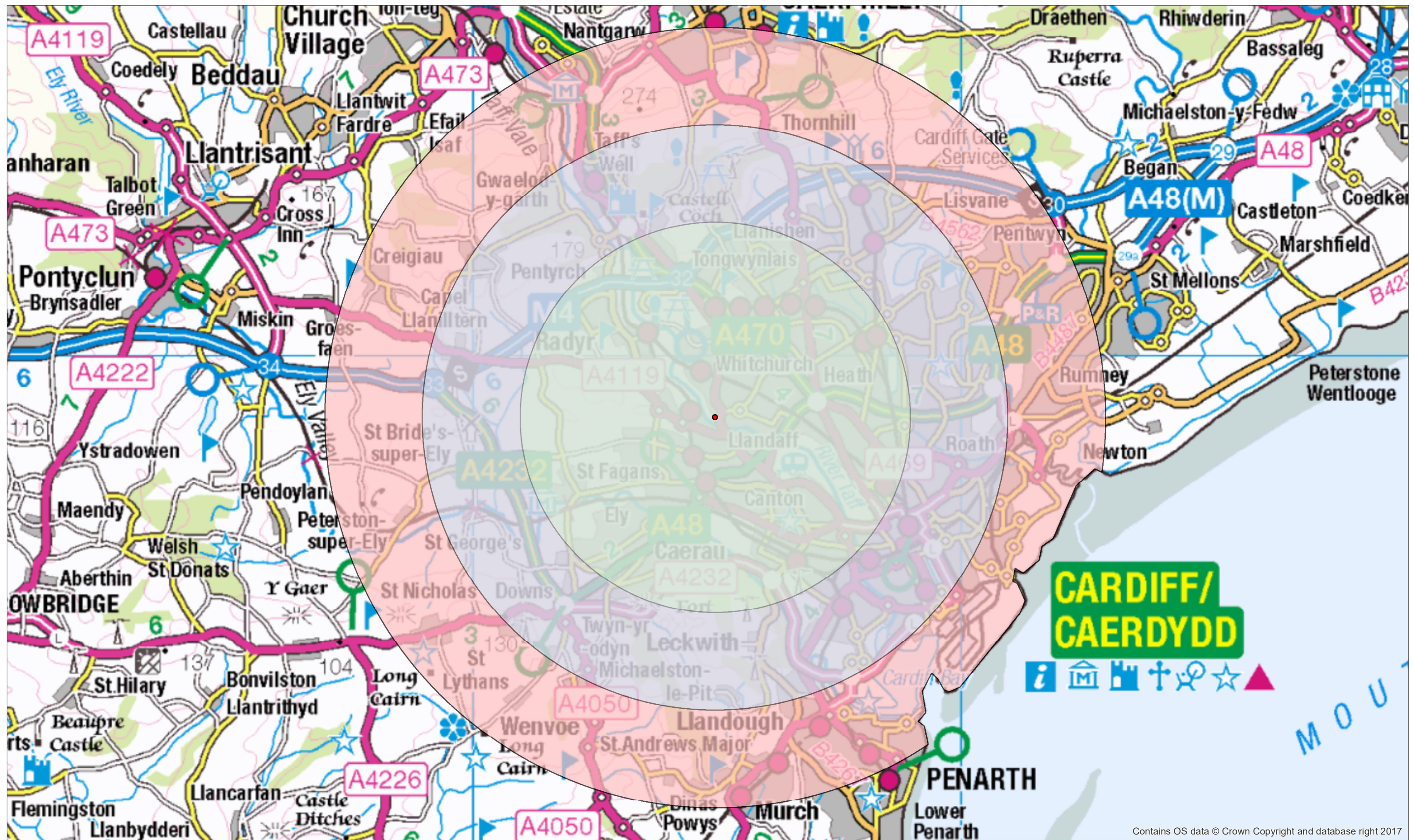
 2km Walking Isochrone



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British National Grid
| Date: 01/02/2018 | Revision: 0 |



Appendix C – Cycling Isochrones



Cycling Isochrones

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- 4km Cycling Isochrone
- 6km Cycling Isochrone
- 8km Cycling Isochrone



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Ysgol Gymraeg Pwll Coch

Transport Assessment



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Approved for Release by:



Neil Buckman | Principal Transport Planner

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1. Introduction

1.1. Introduction

Opus International Consultants (UK) Ltd. have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for Ysgol Gymraeg Pwll Coch a community primary school located in the Canton area of Cardiff. The school currently has 430 pupils enrolled aged 4-11. There is no existing specialist provision at the school.

The proposal is to open a Specialist Resource Base at (SRB) at Ysgol Gymraeg Pwll Coch initially providing up to 10 places to pupils with complex learning disabilities and autism spectrum conditions. The SRB would have the scope to provide up to 20 places in the future.

The TA has been prepared to take account of national planning policy including Planning Policy Wales, Edition 8 (2016). Local Planning Policy has also been taken into account, including the Cardiff Local Development Plan 2006-2026. The scope of the TA has been agreed with Cardiff Council through email correspondence and a meeting held at Cardiff County Hall on 7th February 2018.

The report has been prepared in response to a request by the client and the report will evaluate the impacts of the extension works on the surrounding highway network. The report has been based on Opus' understanding of Cardiff Council's requirements and our specialist experience of undertaking TAs for similar developments.

1.2. Report Structure

The TA investigates the highway and transportation issues associated with the development proposals, the report will be structured in the following way:

- Chapter 2: will summarise the relevant national and local planning policy;
- Chapter 3: presents the existing site conditions;
- Chapter 4: focuses on the accessibility of the site by different travel modes;
- Chapter 5: presents the proposed changes to the school; and
- Chapter 6: summarises and concludes the report.

2. Planning and Policy Context

Relevant national and local planning policy documents have been reviewed and adopted within the Transport Assessment.

2.1. Legislation

2.1.1. *Town and Country Planning Act, 1990*

The Town and Country Planning Act 1990 (TCPA 1990) and the Planning and Compulsory Purchase Act 2004 (PCPA 2004) establish the legislative basis for town planning in England and Wales. These Acts establish a plan-led system which requires Local Planning Authorities (LPAs) to determine planning applications in accordance with the development plan unless material considerations indicate otherwise.

2.2. National Planning Policy

2.2.1. *Planning Policy Wales, Edition 8 (2016)*

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government, which is supplemented by a series of Technical Advice Notes (TANs). PPW sets out Wales' commitment to sustainable development, ensuring it plays an appropriate role in the planning system.

The Welsh Government aims to extend transportation choices in a way that supports sustainable development and helps tackle the causes of climate change. The Welsh Government is committed to enabling more people to undertake and enjoy the benefits of active travel.

It is stated that the proposed access to a development is likely to reflect the travel patterns that are involved. People should be able to reach the development by walking, cycling and public transport as well as by car. Walking and cycling should be promoted for shorter trips and as a substitute for shorter car journeys.

2.2.2. *Planning Policy Wales Technical Advice Note 18: Transport (March 2007)*

Technical Advice Note 18 (TAN18) was published in March 2007 and is a supplement of Planning Policy Wales. TAN18 provides advice on transport related issues when planning for new development, such as the integration between land use planning and transport, parking and the design of the development.

The importance of new developments promoting walking is highlighted in TAN18. It is stated that new developments should be situated close to main footways, public transport stops and pedestrian desire lines. Cycling also has the potential to act as a substitute for shorter car journeys. Cycling can be encouraged through the provision of secure cycle parking that is easy to access for everyday use.

2.2.3. *Active Travel (Wales) Act, 2013*

The Active Travel Act was adopted in 2013 and makes provision for maps of existing active travel routes and related facilities in a local authority's area. The Act requires Welsh Ministers and local authorities to take reasonable steps to enhance the provisions made for walking and cycling.

2.2.4. *Wales National Transport Plan (March 2010)*

The Wales National Transport Plan was published in March 2010 and establishes a framework for the creation of an integrated transport system. By joining together proposals for road, rail and public transport, people will be able to move more efficiently and sustainably throughout the country.

2.3. Local Planning Policy

2.3.1. *Cardiff Local Development Plan (LDP) 2006-2026*

The adopted LDP provides the statutory framework for the development and use of land within Cardiff over the Plan period (2006-2026). This fulfils the requirements of The Planning and Compulsory Purchase Act 2004 which requires the Council to prepare a LDP. It replaces existing Structure Plans and Local Plans relating to Cardiff and will be used by the Council to guide and control development and provide the statutory local policy context for determining planning applications.

In terms of transport the LDP highlights the following key points and objectives:

- The overall approach seeks to minimise travel demand and provide a range of measures and opportunities which reduce reliance on the car.
- New development in Cardiff must be integrated with the provision of new transport infrastructure which can help contribute to this objective by putting in place sustainable transport solutions which also provide improved travel choices for the wider community.
- This approach is fully consistent with on-going work at a city-region scale which seeks to develop a more effective public transport network across the region as a whole, helping people travel from where they live to work and thereby helping to spread prosperity around the entire city-region.

The LDP also highlights the key transportation trends and issues, including the following:

- Traffic on Cardiff's roads grew by 9% between 2002 and 2012.
- 56% of Cardiff's residents travel to work by car.
- Nearly 77,900 people commute into Cardiff each day by all modes (37% of Cardiff's workforce). The 2001 Census indicates that approximately 80% of commuters travel to Cardiff by car.
- Travel on rail services has increased considerably - the use of Cardiff Central and Queen Street Stations has risen by 82% between 2001 and 2011.
- Cycle use has increased 10% between 2001 and 2011 but bus use has fallen slightly over the same period.

3. Existing Conditions

3.1. Site Location

The site is located south of Lawrenny Avenue, towards the south of the Canton Area of Cardiff, approximately 2.3km west of Cardiff City Centre. The site is situated north of the Cardiff Internationals Sports Campus and the A432 and west of Cardiff City Football Stadium and the associated amenities. West of the site is a Goals Football Centre and Sanatorium Park. Residential developments and Fitzalan High School are north of the site.

The location of the site is shown in Figure 1, which is also contained in **Appendix A**.

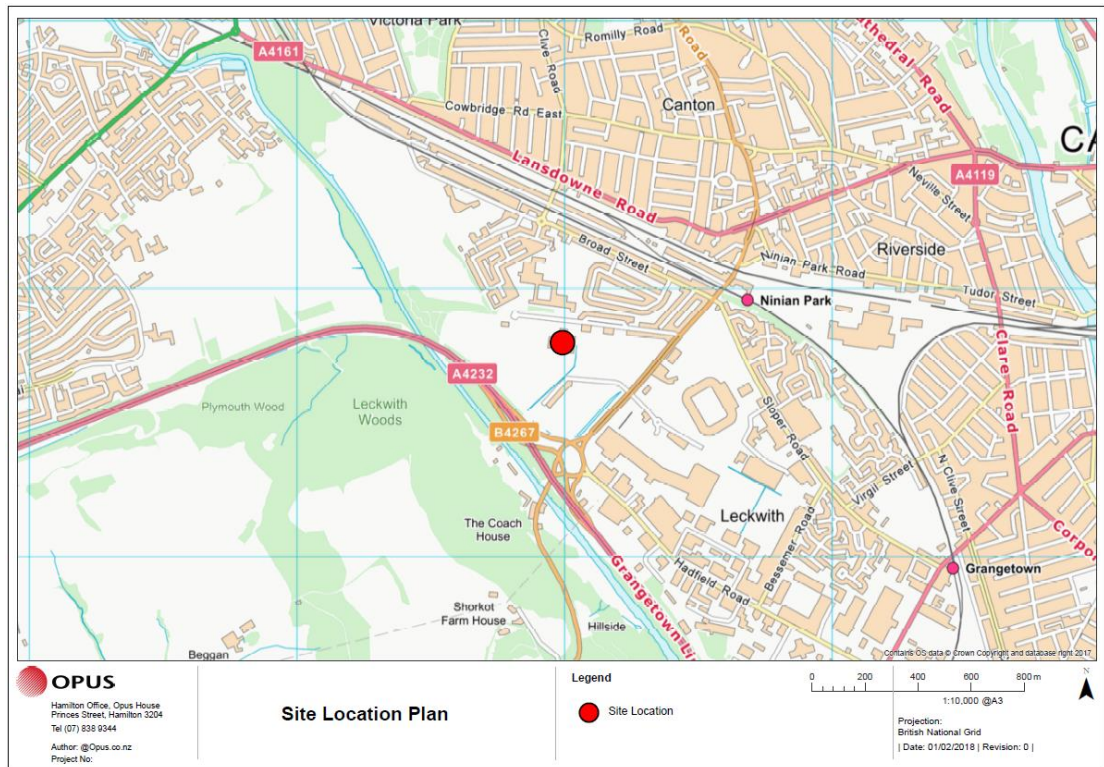


Figure 1 – Site Location Plan

3.2. Existing Site

The existing school is accessed from Lawrenny Avenue, a designated pedestrian access point is located at the northwest of the site, this access point is also conveniently located opposite a bus stop. A second vehicular access point is located to the northeast of the site which provides access to the staff car park. Footways are also provided at this crossing point and pedestrian crossing points are provided in the staff car park to ensure the safe movement of pedestrians.

The main school building is located at the centre and southeast of the site with the playground located to the south. Additional outbuildings are situated at the southwest of the site.

Cardiff Council's planning application portal has been interrogated to determine the relevant planning history of the site, a summary of the relevant planning applications is found in Table 1 below.

Table 1 – Planning History

Application Reference	Proposal	Decision	Date
03/01414/R	Provision of a demountable classroom	Granted	June 2003
98/00840/R	New Single Storey School	Granted	July 1998
03/02957/R	De-mountable classroom	Granted	December 2003
04/00688/R	Single Storey Extension to east of school	Granted	March 2005
05/00033/W	Provision of single demountable classroom for short term hire	Granted	May 2005
11/00724/DCO	Installation of 2 double demountable classroom units	Granted	April 2011

3.3. Local Highway Network

3.3.1. Lawrenny Avenue

Lawrenny Avenue borders the north of site with no through road to the west and junction with Leckwith Road B4267 to the east. The road is subject to 20mph and there are many measures in place to increase pedestrian safety. Signage provided approximately 110m east of the site to warn motorists that they are entering a school safety zone, a speed hump and road narrowing feature is also provided at this point. Speed humps are provided at intervals within the school safety zone. A zebra crossing is also provided in the school safety zone approximately 10m west of the vehicular access point to the school. A 115m long stretch of the eastbound lane of the highway is occupied by a bus stop. A layby for bus stops is also provided on the south side of the highway. A roundabout is provided to the west of Lawrenny Avenue which acts as a turning point for buses and other vehicles dropping off and picking up pupils. There are two separate areas where cycle lanes are provided, the cycle lanes are provided for a length of approximately 40m in both locations.

The pedestrian infrastructure in the vicinity of the site is of good quality. Footways of approximately 2m are provided on both sides of the highway and are set back from the highway by grass verges. As previously mentioned a zebra crossing is provided to the north of the site, this crossing comprises a raised table and tactile paving. Street lighting is provided along the entirety of Lawrenny Avenue and the gradient is level.

4. Accessibility

The sustainability of a site is inherently linked to its location and access to facilities for active travel and public transport.

4.1.1. Walking

The aim of land use and transport policy is to promote and encourage the choice of walking and cycling above all else where the need to travel exists. Therefore, it is reasonable to assume that walking is a viable and growing means of transport, and that new development should be designed to promote and encourage it.

In practice, the distance that an individual is likely to choose to walk depends on the individual circumstances, but it is reasonable to assume that over time, given current policies to encourage active travel, the propensity for individuals to walk, and to walk further, will increase.

The Institution of Highways and Transportation in their document 'Guidelines for Providing Journeys on Foot' state that "walking accounts for over a quarter of all journeys and four fifths of journeys less than one mile".

PPG13 'A Guide to Better Practice' (2001) stated that people are prepared to walk up to 2km. Whilst PPG13 has been superseded, it is considered that this distance is still relevant and appropriate as a guide to what is acceptable and reasonable to many people.

The isochrone shown in Figure 2 displays a 2km walking area from the site, this is also contained in **Appendix B**.

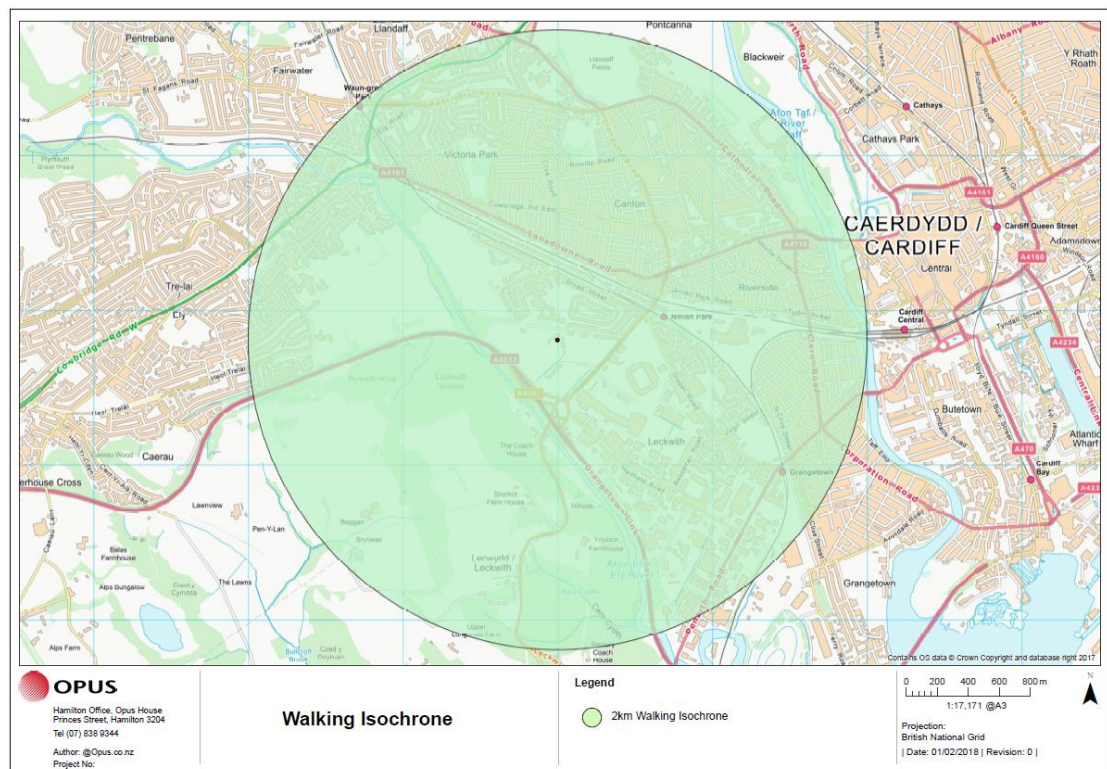


Figure 2 – Walking Isochrone

The isochrones shows that Ysgol Gymraeg Pwll Coch is within walking distance of several residential areas of Cardiff such as Saltmead, Taffs Mead and Riverside. Cardiff City Football Stadium and the surrounding amenities and services such as Asda superstore, Costco and Lidl are all within comfortable walking distance of the site. Cardiff Central Railway Station is slightly beyond comfortable walking distance of Ysgol Gymraeg Pwll Coch; however, Ninian Park Railway Station is located just 600m north east of the site.

In the vicinity of the site there are footways provided as well as pedestrian crossing facilities, this along with factors such as the generally level gradient results in an environment which is conducive to walking.

A review has been undertaken of any Public Rights of Way (PROW) in the area surrounding the site, this revealed that there are no PROW in the vicinity of the site.

4.1.2. *Cycling*

The DfT in their 'Transport Statistics on Cycling in Great Britain' state that the average length of a cycle journey is 3.84km (2.4 miles). PPG13 'A Better Guide to Practice' (2001) identified that people were prepared to cycle up to 8km (5 miles); which, although the guidance has been superseded, is still considered appropriate. The DfT's LTN 2/08 'Cycle Infrastructure Design' (October 2008) states that "in common with other modes, many utility cycle journeys are over short distances under three miles (4.8km), although for commuter journeys, a trip distance of up to five miles (7.2km) is not uncommon".

It is therefore considered that a distance of 4km (2.5 miles) represents a reasonable cycling distance and that 8km (5 miles) is a maximum realistic range for cycle trips. The isochrones shown in Figure 3 display a 4km, 6km and 8km cycling area from the site, this is also contained in **Appendix C**.

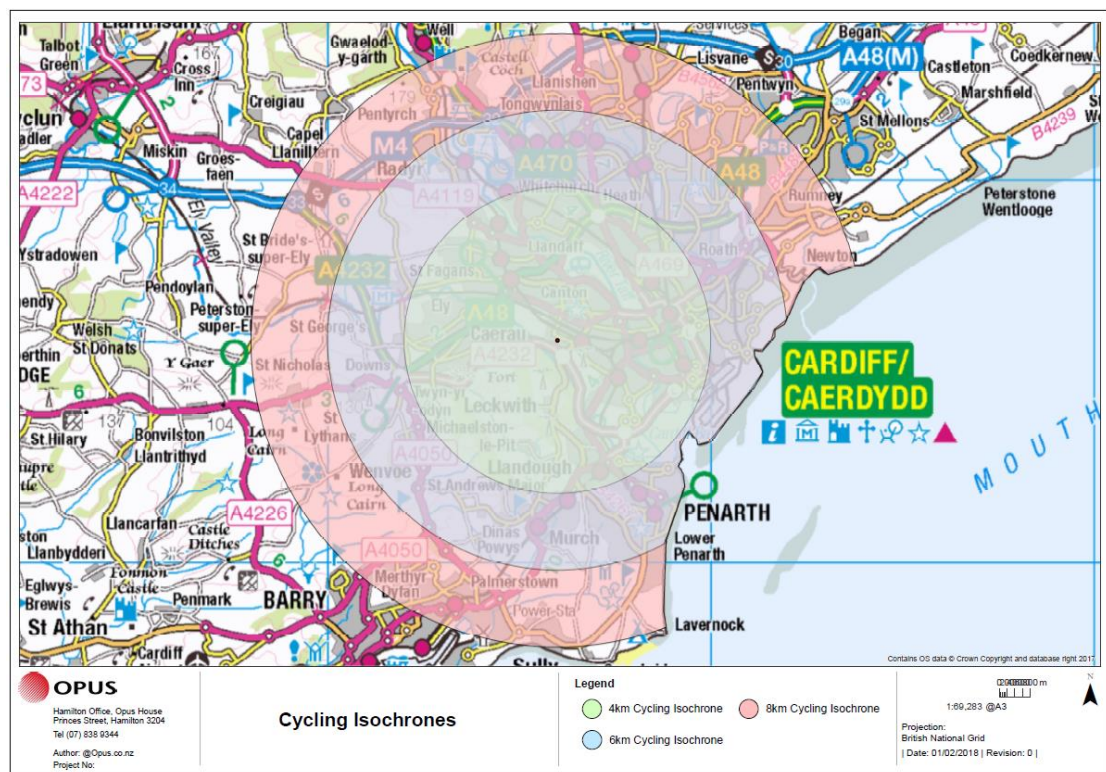


Figure 3– Cycling Isochrones

The isochrones shows that the entire city is accessible via bicycle, as well as other settlements such as Penarth, Dinas Powys and the outskirts of Barry.

Due to the generally level gradient and factors such as the low traffic speeds associated with city streets and residential areas, the environment is deemed to be conducive to cycling. Cycle lanes are also provided in some locations of Lawrenny Avenue.

National Cycle Network Route 8 is located approximately 2km east of the site. The fully open and signed route connects Cardiff to Holyhead, via Brecon, Builth Wells, Machynlleth, Porthmadog and Bangor. The route is a combination of traffic-free and on-road sections.

4.1.3. Public Transport – Bus Services

Bus stops are provided outside of the school which are utilised by the 627 school bus for Ysgol Gymraeg Pwll Coch. The public bus stops are provided approximately 550m (7-minute) walk from the school. Both the northbound and southbound stops comprise of a shelter, seating, timetable information and easy access kerbing. Additional bus stops are provided on Broad Street north of the site and Sloper Road to the east. A summary of the services available from

the stops in the vicinity of the site is provided in Table 2. Other services shown in Table 2 do utilise the bus stops on Lawrenny Avenue; however, these services are intended primarily for students at Fitzalan High School.

Table 2 – Summary of Bus Services

Service Number	Operator	Starts	Destination	Frequency Mon - Fri
627	Wheadon's Coaches	Llandaff Road	Ysgol Gymraeg Pwll Coch	Commences from Llandaff Road 08:05 Commences from Ysgol Gymraeg Pwll Coch at 15:25
1 Clockwise	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	2 per hour
2 Anti-Clockwise	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	2 per hour
12	Cardiff Bus	Leckwith Retail Park	Mansell Avenue	6 daily services between 08:44 and 14:02
95	Cardiff Bus	Heath Hospital	Barry Island	2 per hour
95a	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	1 per hour
95b	Cardiff Bus	City Centre Canal Street	City Centre Canal Street (Circular)	1 per hour
95C	Cardiff Bus	City Centre Canal Street	Cardiff City Stadium	2 per hour
X91	Cardiff Bus	Customhouse Street JL	Llantwit major Bus Station	Approximately every 2 hours
4	Cardiff Bus	Wood Street	Bus Depot (SE)	Services every 20 minutes between 05:20 – 07:20 and 18:30 – 21:10

Table 2 shows that there are a variety of regular services available from these stops which provide access throughout the city throughout the day with additional services provided during peak times.

4.1.4. Public Transport – Rail Services

The closest station to the site is Ninian Park Railway Station a 750m (10 minute) walk from the site. The station has facilities such as cycle parking and ticket machines. Access to the station is available via ramps however, the ramps are steeper than the maximum recommended gradient of 1:20 for wheelchair users. The station is managed by Arriva Trains Wales and provides regular services to local destinations such as Cardiff Central, Coryton and Radyr.

Cardiff Central Railway Station is slightly beyond the maximum recommended walking distance of 2km. The station is a 2.4km (30-minute) walk from Ysgol Gymraeg Pwll Coch or alternatively a 2.4km (9-minute) cycle. The station includes facilities such as a shop, café, toilets, waiting rooms as well as cycle parking. The station is managed by Arriva Trains Wales and provides regular services to popular destinations such as London to the east and Swansea to the west. There are 2 direct services per hour to London Paddington (calling at other popular destinations such as Bristol Parkway) and up to 3 direct services per hour to Swansea.

It is acknowledged that specialist Additional Learning Needs provision has a city-wide catchment and therefore pupils may not live in the immediate vicinity of the school. Therefore walking, cycle routes, bus services or rail services may not be suitable either due to distance or pupil needs. Furthermore, whilst some pupils are able to travel independently with support it is acknowledged that others are not and therefore Schools Transport will work with pupils, schools and parents/carers to look at the most appropriate form of transport for the pupil and their needs.

4.1.5. Conclusion

Based on the above, it is evident that the public transport provision is adequate and provides a variety of regular services throughout Cardiff and beyond. The site is considered to be in a sustainable location as there is a dedicated school bus provided for Ysgol Gymraeg Pwll Coch as well as bus stops available on Leckwith Road, Broad Street and Sloper Road. Ninian Park Railway Station is within a comfortable walking distance and Cardiff Central Railway Station is within a comfortable cycling distance. There are no PROW in the vicinity of the site.

4.2. Collision Data

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. A total of three collisions have been recorded on Lawrenny Avenue including one at the Lawrenny Avenue / Leckwith Road junction. All three of the recorded collisions are slight in severity. There were no obvious trends or clusters of incidents which suggests that there aren't any fundamental issues with the highway network. No fatal incidents have been reported within the vicinity of the site.

5. Proposed Changes

This chapter aims to summarise the proposed changes to Ysgol Gymraeg Pwll Coch, as well as its impact on the highway network.

5.1. Proposed Changes to Ysgol Gymraeg Pwll Coch

To meet the demand for primary SRB places for pupils with complex learning disabilities and autism spectrum conditions in the Welsh medium sector, it is proposed to:

- Open a specialist resource base at Ysgol Pwll Coch, providing up to 10 places initially, but with scope to extend to 20 places in future, as demand grows.

Accommodation for the SRB would be established within current facilities however some refurbishment would be required. The increase in pupil numbers could result, in a worst-case scenario, in 10 additional trips assuming all pupils travel individually by private vehicle.

In the context of existing operations at the school and neighbouring sites, the existing internal site layout and access arrangements will comfortably accommodate the minor increase in pupils and vehicles accessing the site.

5.2. Impacts on the Highway Network

The increase in student numbers proposed as part of the changes to Ysgol Gymraeg Pwll Coch is considered to be negligible when compared to the number already attending the school. It is anticipated that the proposals will not have a material impact on the operation of the surrounding network. In the context of existing operations at Ysgol Gymraeg Pwll Coch and neighbouring sites, the increase in vehicle movements is expected to have a negligible impact.

5.3. Limitations

This section will summarise the limitations of the school site in terms of transport and accessibility and these are as follows:

- There are two schools located within close proximity, both of which are accessed from Lawrenny Avenue. This results in a large concentration of movements within the area around the start and end of the school day.

5.4. Recommendations

This section aims to provide high-level recommendations to counteract some of the site's limitations and promote active travel and sustainable transport options. This will help mitigate the limited impact which is expected to arise as a result of the proposals. The recommendations are as follows:

- Aim to stagger the start times for SRB pupils so that they differ from the rest of the school in order to minimise stress on the highway during peak times.
- Promote active travel as a viable means of transport to the school, by implementing measures such as providing secure cycle parking and lockers to store walking / cycling equipment.
- If the school does not currently have an adopted Travel Plan, one should be produced with the aim of minimising single occupancy vehicle trips to the school.

6. Summary

Opus International Consultants (UK) Ltd. have been commissioned by Cardiff Council to produce a Transport Assessment (TA) for the proposed development of an SRB at Ysgol Gymraeg Pwll Coch, a community primary school located in the Canton area of Cardiff.

The proposals are for the provision of an SRB at Ysgol Gymraeg Pwll Coch with an initial 10 places for pupils with complex learning disabilities and autism spectrum conditions. The SRB would have the scope to extend to 20 places in the futures. The start and finish time of the SRB will be staggered to minimise congestion on Lawrenny Avenue.

A review of relevant local and national planning policy documents has been carried out, including PPW Edition 8 (2016), TAN 18: Transport (March 2007), the Active Travel (Wales) Act (2013) and the Wales National Transport Plan (March 2010), as well as Cardiff LDP (2006-2026).

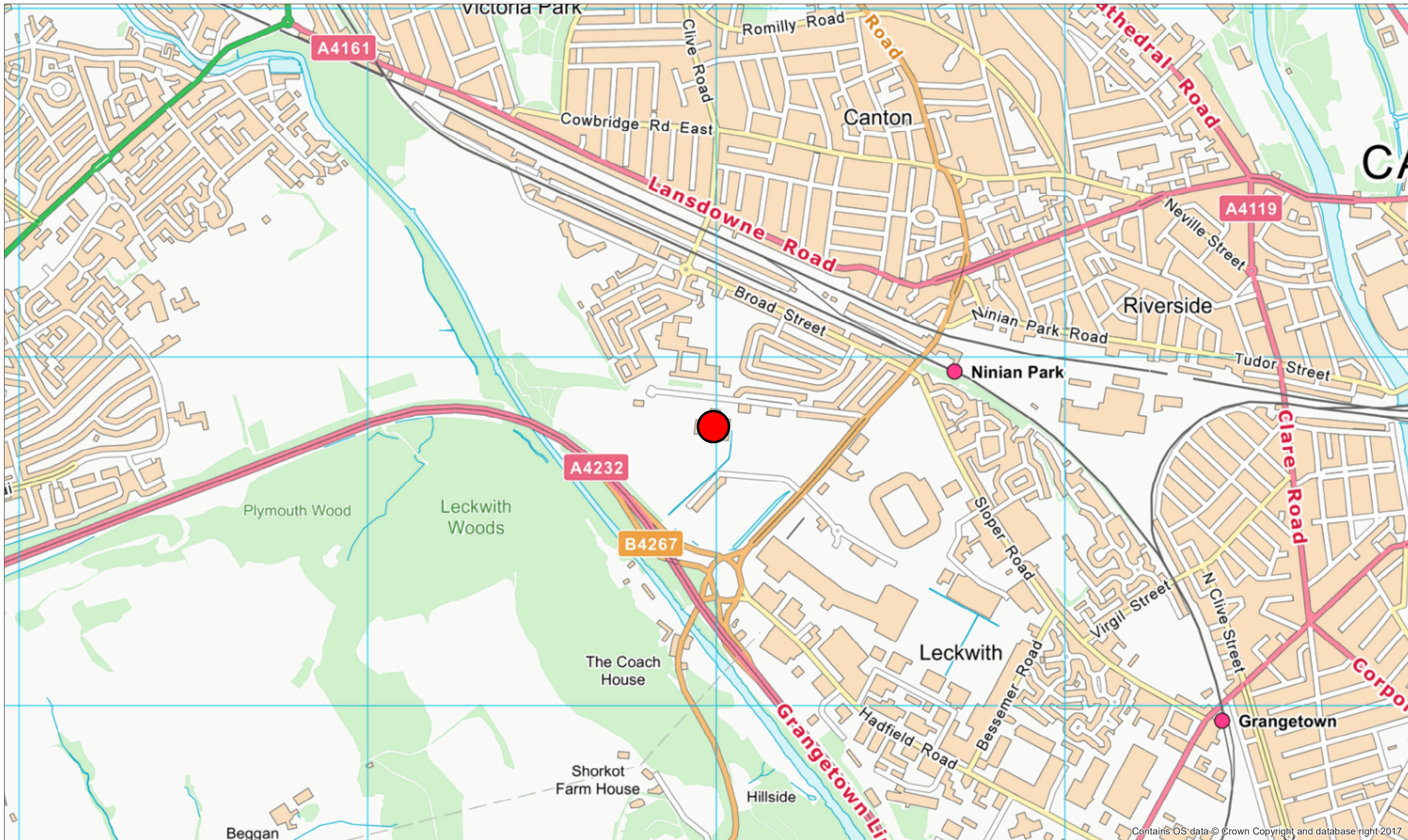
The site location is described as well as an assessment of the existing site conditions and surrounding highway conditions. The planning history of the site is also summarised, six planning application have been made on the site including extension works and provisions of demountable buildings.

The accessibility of the site has been assessed by sustainable travel modes, including walking, cycling and public transport. It is evident that the public transport provision is adequate and provides a variety of regular services from the site to destinations throughout Cardiff and beyond. The site is considered to be in a sustainable location as there are bus stops and railway stations within comfortable walking and cycling distances, the environment is also conducive to walking and cycling.

A review of www.crashmap.co.uk has been undertaken to identify any collisions within the vicinity of the site within the last five years. A total of three collision have been recorded on Lawrenny Avenue all of which are slight in severity. No obvious trends or clusters of incidents were observed.

It is the view of the TA that, in highway and transportation terms, the proposed changes to Ysgol Gymraeg Pwll Coch will not have a severe impact on the surrounding highway network. This is due mainly to the minimal increase in pupil numbers. The uptake of sustainable travel can be encouraged and monitored through the recommendations set out in Chapter 5.

Appendix A – Site Location Plan



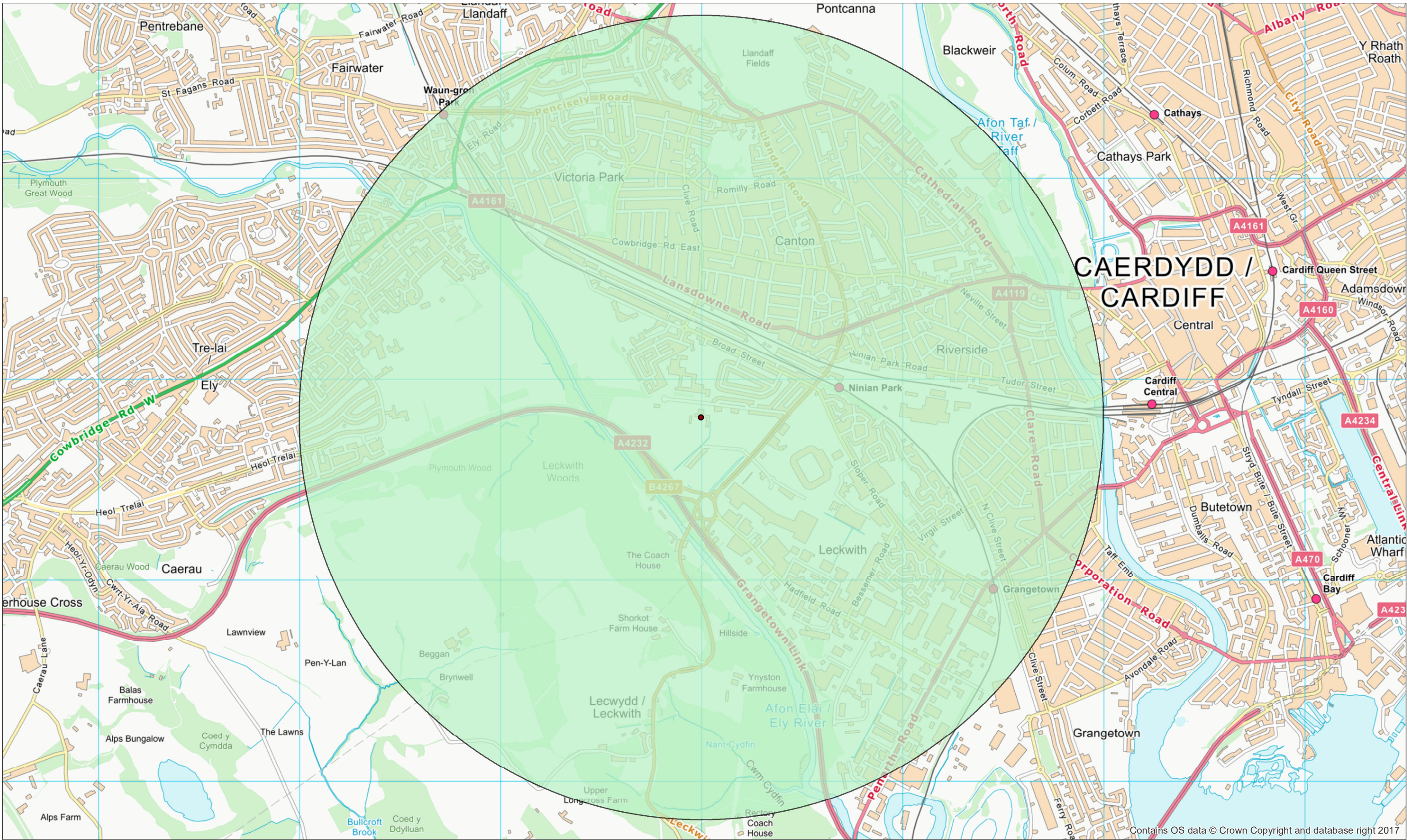
Site Location Plan

Legend

 Site Location

0 200 400 600 800 m
1:10,000 @A3
Projection:
British National Grid
| Date: 01/02/2018 | Revision: 0 |

Appendix B – Walking Isochrone



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Author: @Opus.co.nz
Project No:

Walking Isochrone

Legend

 2km Walking Isochrone

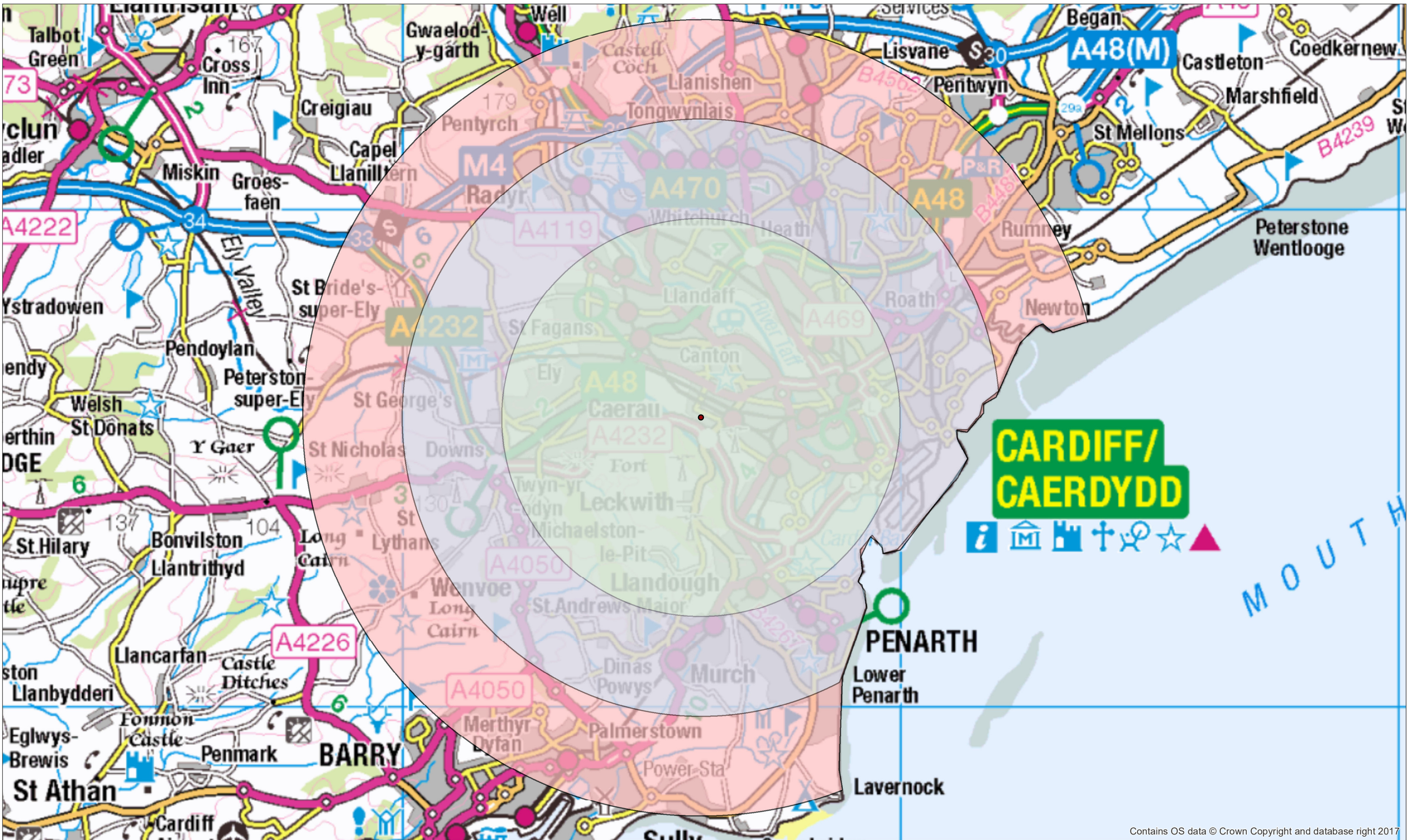
0 200 400 600 800 m

1:17,171 @A3

Projection:
British National Grid

| Date: 01/02/2018 | Revision: 0 |

Appendix C – Cycling Isochrones



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Cycling Isochrones

- Legend**
- 4km Cycling Isochrone
 - 6km Cycling Isochrone
 - 8km Cycling Isochrone



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