PPI Liverpool Cancer Centre

Transport Statement

D/I/D/118180/05

FAIRHURST

Project No: 118180
April 2017

FAIRHURST

CONTROL SHEET

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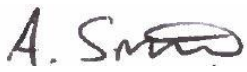
Prepared by	A Smith		April 2017
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This document has been prepared in accordance with procedure OP/P02 of the *Fairhurst Quality and Environmental Management System*

CONTENTS

1.0 INTRODUCTION

1.1. Fairhurst has been commissioned by Proton Partners International to prepare a Transport Statement (TS) to accompany a planning application for a new cancer care centre on land formerly occupied by the former Archbishop Blanch Secondary School, in Liverpool. The site lies on the eastern fringe of Liverpool City Centre, to the south of the A5047 and east of the A5048, as shown on the location plan in **Figure 1.1**.

Figure 1.1 Site Location

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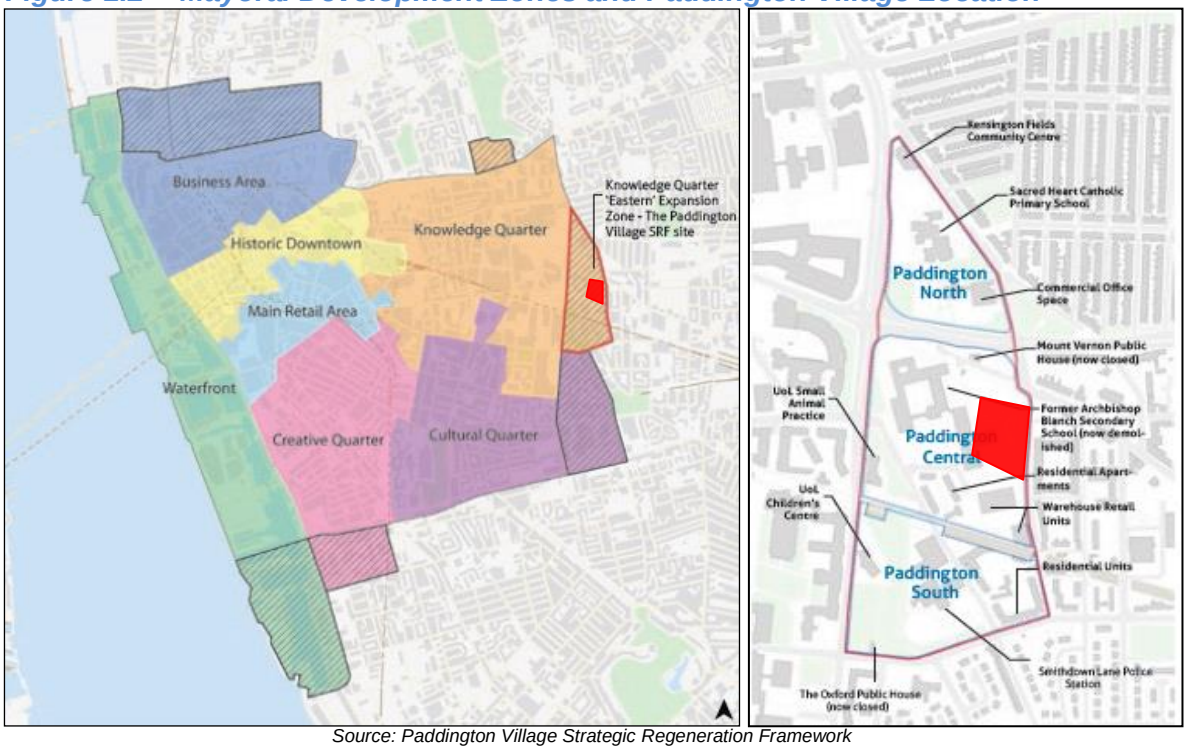
1.2. The site lies in the 'Eastern Expansion Zone' of Liverpool City Centre's 'Knowledge Quarter', as highlighted in **Figure 1.2**. The Knowledge Quarter is described in the Liverpool Strategic Investment Framework as:

> *"….. an area of higher education, science and medical expertise, knowledge and wealth creating potential, within the City Centre."*

1.3. The Eastern Expansion Zone comprises a flagship expansion area known as Paddington Village. An overarching masterplan of the Paddington Village 'Central' area has been prepared by Morgan Sindall and is shown in **Figure 1.3**. The site is identified in the masterplan as Site 6 – Healthcare (Proton), which reflects the proposed development. The site is located on the eastern side of 'Paddington Central' on the south side of a

proposed pedestrian boulevard known as St Mary's Walk that will run east-west through the development.

Figure 1.2 Mayoral Development Zones and Paddington Village Location

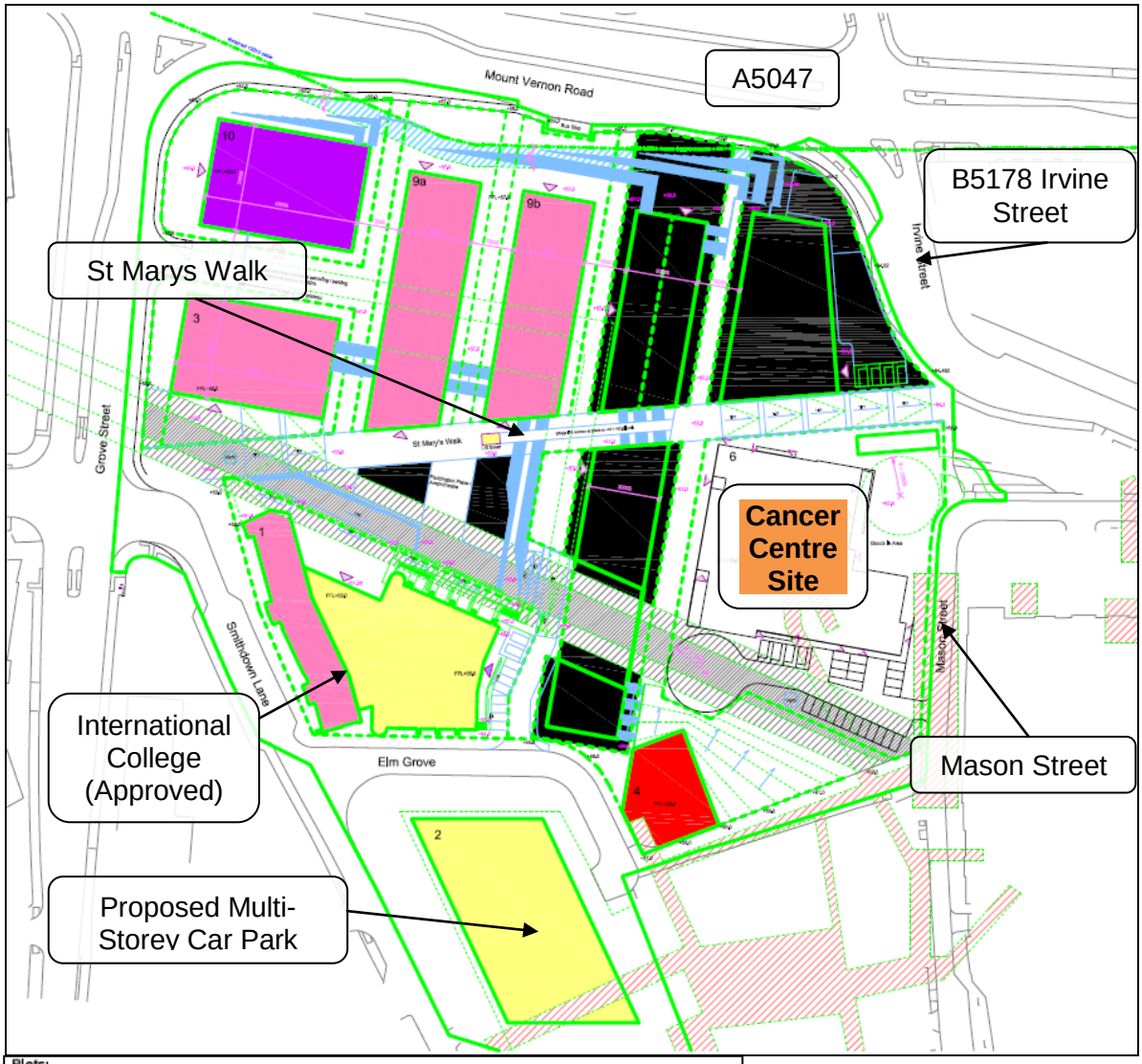


Source: Paddington Village Strategic Regeneration Framework

1.4. Other planned developments within the Paddington Central masterplan area include education, Royal College of Physicians, laboratories, commercial offices, residential and a multi storey car park. Planning permission has recently been granted for the International College (Site 1), an education development including a college facility (4,359sqm) and a 259 bed student accommodation block.

1.5. The proposed development site comprises an area of cleared land, which is bounded to the east by Mason Street. It is understood that the Developer will be provided with a pre-prepared development platform to facilitate construction and it is assumed that this would include the essential transport infrastructure to serve the development, including the St Mary's Walk pedestrian boulevard on the north side of the site and the adjoining pedestrian path that runs down the west side of the site.

Figure 1.3 Paddington Central Masterplan



Plots:

Note - heights and areas given indicatively to be confirmed through detailed design.

1. Residential / Education (Kaplan) -	GIA 12,300sqm 12 Storeys 48m High	7. Residential -	GIA 6,600sqm 4-5 Storey 20M High
2. Multi Storey Car Park -		8. Commercial Offices -	GIA 8,700sqm 6-8 Storeys 32m High
3. Royal College of Physicians (RCP) -	GIA 15,000sqm 12-15 Storeys 60m High	9a. Commerical Offices -	GIA 16,900sqm 7-12 Storeys 48m High
4. Sub-station -	GIA 600sqm Single Storey 4m High	9b. Commerical Offices -	GIA 15,000sqm 7-12 Storeys 48m High
5. Laboratories -	GIA 10,100sqm 4-6 Storeys 24m High	10. Commercial -	GIA 19,200sqm 15 Storeys 60m High
6. Healthcare (Proton) -	GIA 2,400sqm 2-3 Storeys 12m High	**Total GIA 106,200sqm**	

Source: Morgan Sindall/ Ryder

1.6. The proposed Cancer Centre will be laid out in accordance with the proposed masterplan and will include:

- Cyclotron and linear accelerator treatment suites;
- Oncology suite;

- MRI scanning facility;
- CT scanning facility;
- Patient areas to include; consultation facilities, treatment rooms, patient rooms and waiting areas;
- Staff areas to include: male/ female changing rooms and shower facilities, lounge with kitchen facilities;
- Administration areas to include; offices, work stations and meeting rooms; and
- Infrastructure to include; maintenance / plant / boiler / utility / servicing.

1.7. Access and parking arrangements will be in accordance with the masterplan, comprising:

- A main access to the building at its southwest corner, reached via the new pedestrian infrastructure within the masterplan area;
- A drop off area and 26 space car park to the south of the building, accessed from Mason Street and with access to the Centre's main entrance;
- A service access to the east (rear) of the building accessed from Paddington/ Mason Street.

1.8. The purpose of this TS is to consider the Cancer Centre proposals in transportation terms. The content of the TS is as follows:

- Relevant background details on the site and surrounding area in transportation terms, including road traffic accidents in the last 5 years on the local highway network;
- Details of the proposed development, including consideration of the proposed access arrangements, a car parking assessment and swept path analysis of the servicing and delivery arrangements;
- An assessment of the accessibility of the development by sustainable modes of transport;
- An assessment of the potential trip generation of the development;
- Consideration of potential impacts and management measures during the construction phase;
- Consideration of mitigation measures, if necessary.

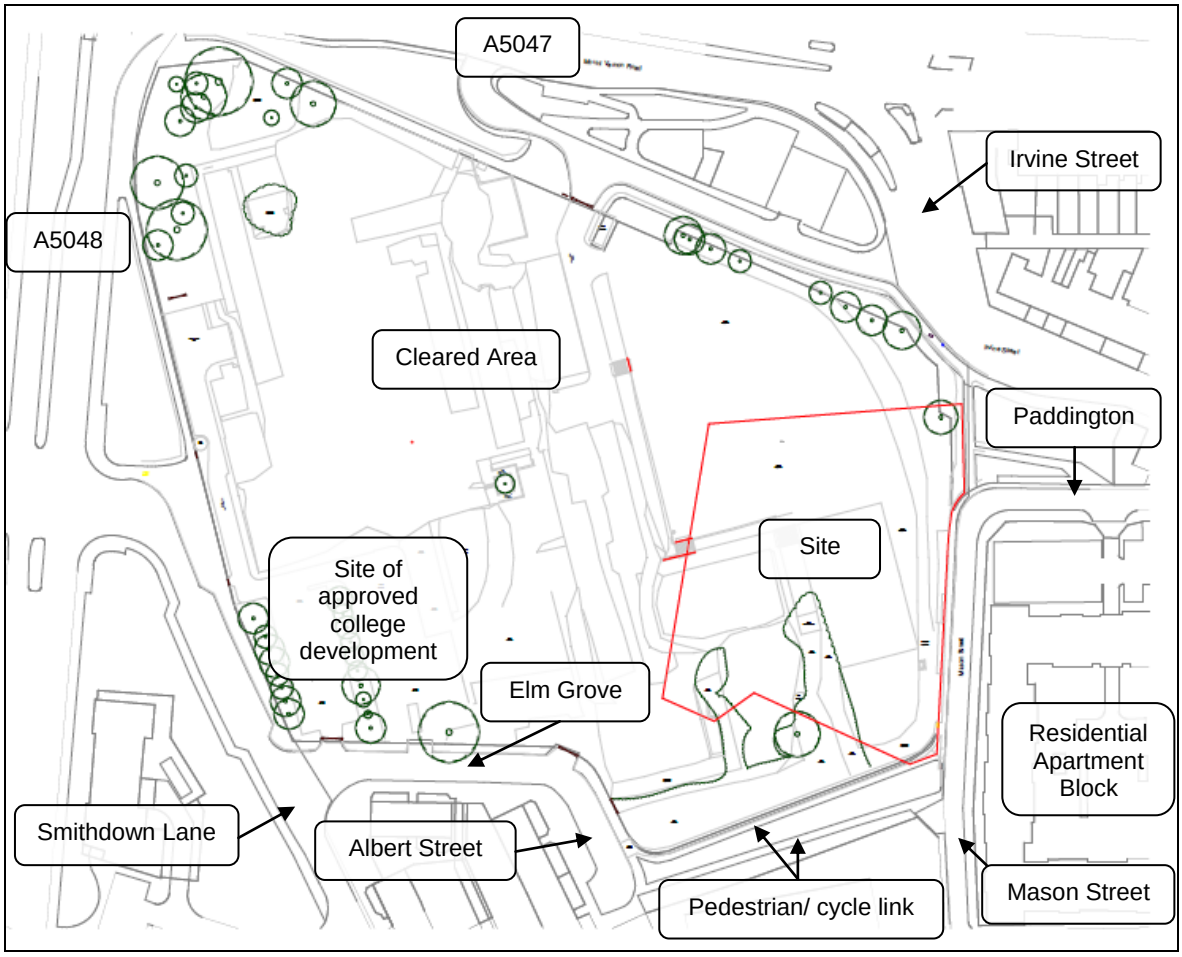
1.9. A Framework Travel Plan has been prepared for the development (Document Ref D/I/D/118180/06) that sets out measures to be considered/ implemented to encourage sustainable travel.

2.0 LOCAL CONTEXT

2.1. The site is shown in **Figure 2.1** and is a cleared area of the former Archbishop Blanch Secondary School, which is part of the Paddington Central masterplan area within the wider Knowledge Quarter at the eastern fringe of Liverpool City Centre.

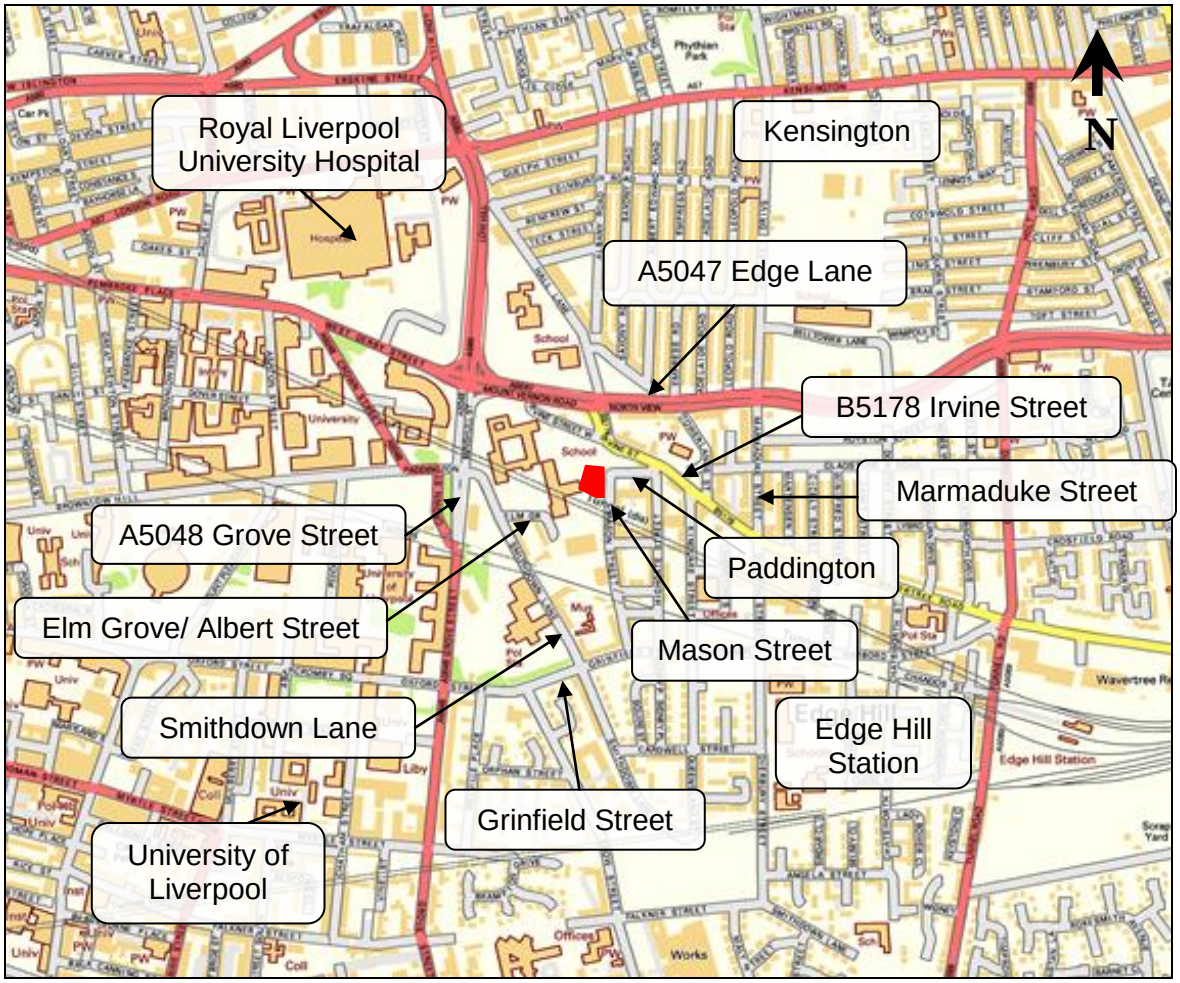
2.2. The site is bounded to the east by Mason Street and on other sides by the cleared wider masterplan area. Mason Street is fronted on its east side by a residential apartment block opposite the site and houses to the south.

Figure 2.1 Site Boundary Plan



2.3. The site lies within a transitional area between the City Centre to the west and residential suburbs to the east. The local area is shown in **Figure 2.2**.

Figure 2.2 Surrounding Area Plan



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2.4. The surrounding area has a mix of land uses with the residential areas of Kensington and Edge Hill to the east/ south, and the University of Liverpool and Royal Liverpool University Hospital to the west.

2.5. The site has good strategic transport access as it lies at the eastern gateway to the City Centre. The A5047 Edge Lane is a dual carriageway subject to a 30 speed limit and runs east to west approximately 120m north of the site. This main strategic route in the area provides access to the M62 to the east and links the site to the City Centre and the A5048 Grove Street to the west, which then connects to the wider area via the A59 to the north and M56 to the south. The A5048 is a mix of dual and single carriageway in the vicinity of the site.

2.6. Smithdown Lane forms the western boundary of the Paddington Central masterplan area and runs southeast from a signal controlled junction with the A5048 Grove Street. Smithdown Lane is a local distributor road that links to the residential area south of the

site. The western side of the masterplan area is accessed from Smithdown Road, via Elm Grove which was the main access point for the former school on the site and also served the residential properties to the south via Albert Street, which terminates at a railway line that runs in a tunnel to the south of the site on a northwest-southeast alignment.

2.7. Albert Street is linked to Mason Street via a pedestrian/ cycle path.

2.8. A further disused tunnel runs below the masterplan site and passes below the car park of the proposed development.

2.9. To the northeast of the site, the B5178 Irvine Street is a wide single carriageway road accessed via a right turn at signal controlled crossroads for eastbound traffic on the A5047 Edge Lane. There is no left turn at the crossroads for westbound traffic; therefore westbound traffic would take a left turn onto Marmaduke Street 250m east of the crossroads before linking to the B5178 Wavertree Road. This local distributor road is subject to a 30mph speed limit and serves the local residential area of Edge Hill and leads to further residential areas to the east towards Widnes.

2.10. Mason Street is the proposed vehicular access point to the development which is accessed from Irvine Street via Paddington. Mason Street and Paddington are both typical access roads (circa 5.5m wide) serving the predominantly residential area surrounding the site. Mason Street narrows to the south of the site, where it extends to Grinfield Street. There is no vehicular access to Mason Street from Grinfield Street except for access.

2.11. Mason Street and Paddington are both subject to yellow line waiting restrictions that prevent waiting in the vicinity of the bend between the two streets as well as on sections of Paddington (both sides) and on the east side of Mason Street.

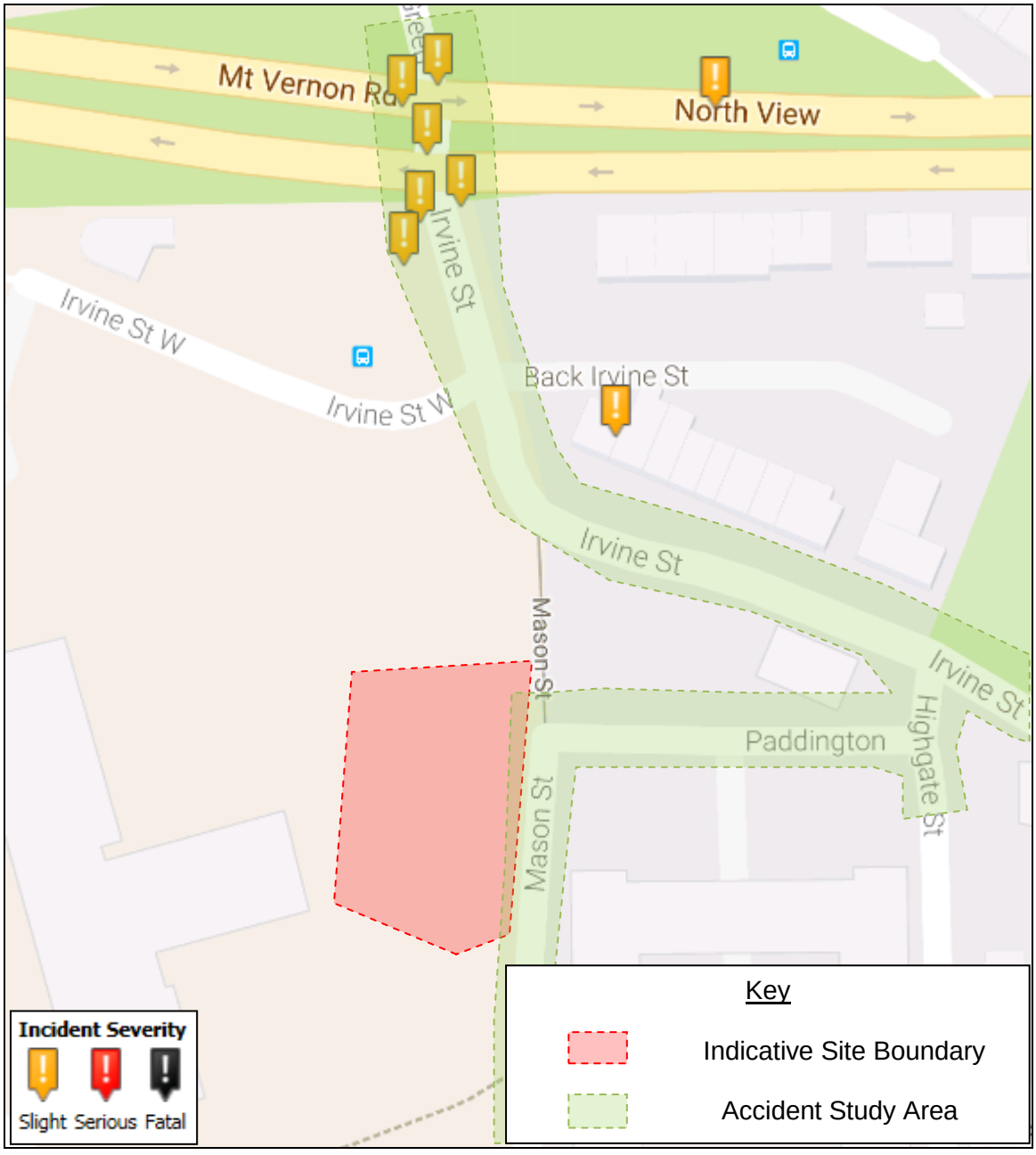
2.12. The surrounding highway network is well-lit with good standard footways and pedestrian crossing facilities at all main junctions, which is as expected for a site close to the City Centre.

2.13. There are numerous bus stops in the vicinity of the site with the nearest being eastbound and westbound stops on the B5178 Irvine Street approximately 140m and 210m away respectively. All bus stops in the vicinity of the site are of a high quality, with the majority having seating, shelter and timetable provision. Details of local bus services are discussed further in Section 4.

2.14. Traffic injury accident data for the highway network in the vicinity of the site was obtained from Crashmap. The accident study area, including the locations of accidents, is shown in **Figure 2.3** and covers parts of Mason Street, Paddington, Highgate Street, B5178 Irvine Street and the B5178 Irvine Street/ A5047 Mt Vernon Road/ A5047 North View/ Mt Vernon Green signal controlled crossroads to the north. These would be the vehicular access route to the development.

2.15. Data was obtained for the most recent 5 year period for which data is available – 2012 to 2016 inclusive. Accidents are classified as slight, serious or fatal.

Figure 2.3 Traffic Accident Study Area



2.16. In total there were 6 injury accidents in the study area during the 5 year period, all at the B5178 Irvine Street/ A5047 Mt Vernon Road/ A5047 North View/ Mt Vernon Green signal controlled crossroads. All injury accidents were of slight severity – none involving pedestrians or pedal cycles. The accidents are summarised below:

- Four accidents due to cars turning right across the path of oncoming cars;
- One accident was a rear shunt between a car and a bus; and
- One accident was due to a bus passenger falling over inside the bus.

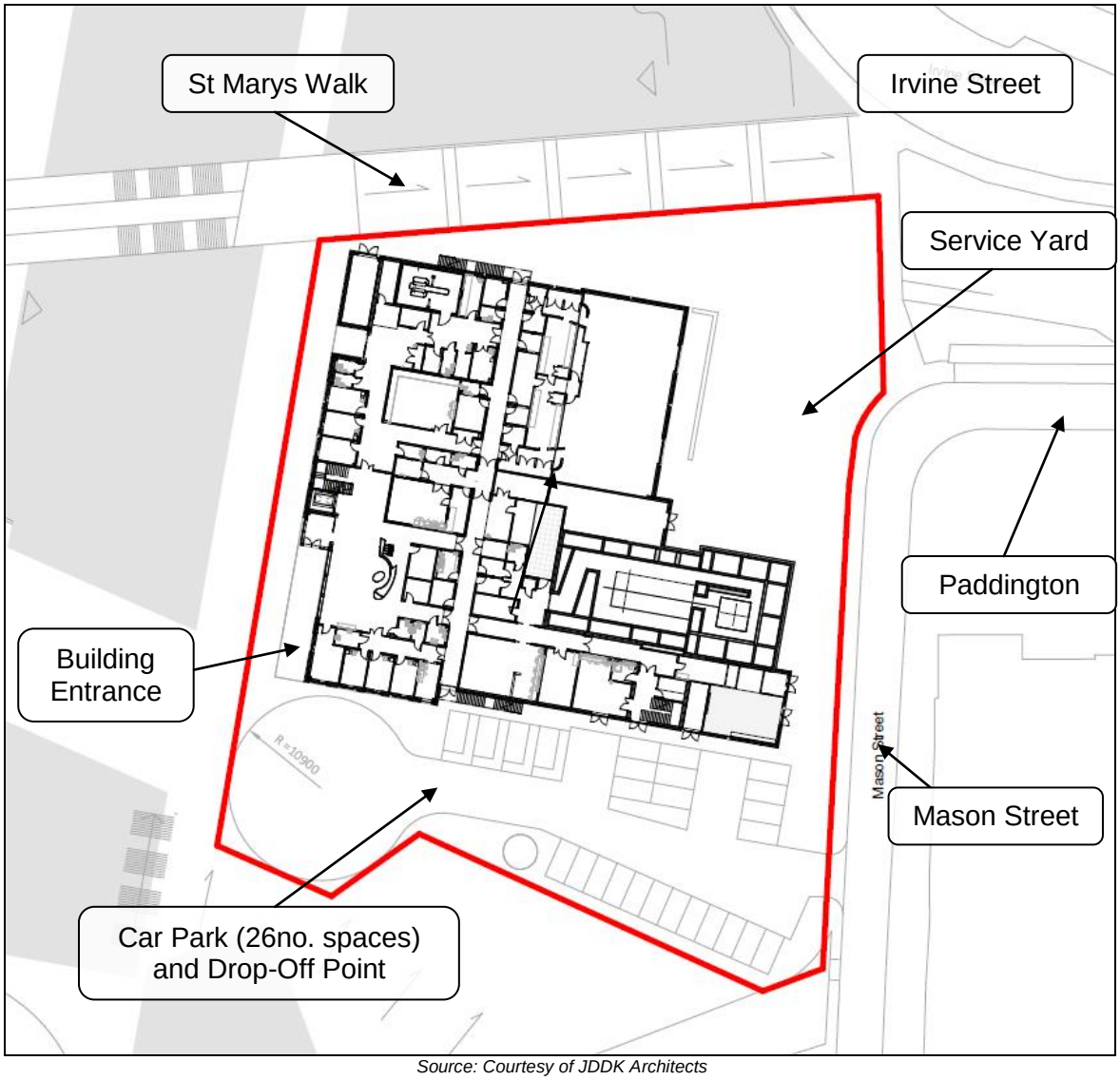
2.17. In summary, there have been 6 injury accidents within the study area, all at the signal controlled crossroads to the north. This is considered to be within normal expectations for a signal controlled junction between an A & B class road in a busy urban area. No incidents involved pedestrians or pedal cycles. Overall, a review of the incidents that have occurred does not suggest any patterns or clusters of incidents that would raise concern in the context of the proposed cancer centre, which is not expected to be a high trip generator.

3.0 PROPOSED DEVELOPMENT

The Development

3.1. The proposed PPI Liverpool Cancer Centre is shown on **Figure 3.1** and on the drawing in **Appendix A**. The Centre will provide diagnosis and treatment for patients from both the local and wider area – potentially regionally and nationally.

Figure 3.1 Proposed Development



Source: Courtesy of JDDK Architects

3.2. The development includes:

- Cancer centre with proton/photon therapy suite, MRI and CT scanning facilities, oncology suite, consultation facilities, treatment rooms, patient rooms and waiting areas, administration areas, meeting rooms and maintenance/ servicing space;
- 26 car parking spaces, including 4 disabled spaces;
- Drop off and turning facility in the car park; and

- Service yard area.

3.3. There are also numerous facilities on site for staff to encourage sustainable travel, including:

- Changing rooms;
- Shower facilities;
- Staff lounge with kitchen facilities;
- Cycle parking.

3.4. It is understood that the main pedestrian links across the masterplan area that serve the development will be in place prior to opening of the Centre, including the St Mary's Walk pedestrian boulevard on the north side of the site and the adjoining pedestrian path that runs down the west side of the site.

3.5. Access and parking arrangements will be in accordance with the masterplan, comprising:

- A main access to the building at its southwest corner, reached via the new pedestrian infrastructure within the masterplan area;
- A drop off area and 26 space car park to the south of the building, accessed from a new priority access on Mason Street and with access to the Centre's main entrance;
- A service access to the east (rear) of the building accessed from a new priority access on Paddington/ Mason Street.

3.6. There will be 3 'Sheffield' style cycle stands (6 spaces) for staff as per the Liverpool City Councils cycle standards, which state 1 stand per 8 staff. It is not envisaged that patients will cycle to the Centre, therefore no on-site cycle parking provision has been included. As part of the wider 'Paddington Village' masterplan there may be off-site cycle parking provision available.

3.7. All vehicular access to the Centre is via Mason Street and it is anticipated that the majority of vehicles would travel to/from the north via Mason Street/ Paddington.

3.8. The proposed access arrangements are considered appropriate to serve a small car park and service area. Existing traffic regulation orders may need to be locally adjusted to accommodate the accesses.

3.9. It is intended that the immediate surroundings of the site will be developed in the future as part of the 'Paddington Central' regeneration scheme. Planned schemes include a multi-storey car park to the south of the approved college, accessed from Elm Grove, that could be available for events/ meetings or other gatherings at the Cancer Centre. The car park

would be within a short walk of the Centre via the proposed routes across the Masterplan area.

3.10. The expected typical day to day activity levels at the Centre are set out below:

- Proton Therapy: 40 patients per day
- Photon Therapy: 41 patents per day
- Medical Oncology: 20 patients
- Diagnostic CT: 8 patients per day
- MRI Scanning: 8 patients per day

3.11. In summary, the Centre could treat approximately 117 patients per day.

3.12. The hours of operation may be up to 06:00 to 22:00, however, it is intended that patient treatments will generally occur during the normal working day 08:00 to 18:00. As can be seen from the operational information above, the majority of treatments are short duration and patients would not therefore be in the Centre for long periods. Overall, patient activity across the 10 hour operational day would be low, around 12 patients per hour on average, and time on site is generally short.

3.13. The Centre would employ around 22 personnel, working across the following shifts:

- Proton Therapy: 2 x 8hr shifts per day (16hrs in total).
- Photon Therapy/ Oncology/ administrative: a single 8hr shift per day.

Car Parking Assessment

3.14. The Centre would provide a total of 26 car parking spaces, including 4 disabled. At any one time these spaces would cater for around 19 employees (assuming 3 employees are maintenance employees that work outside the normal working day) and a patient arrival rate of around 11 per hour.

3.15. To assess whether the parking arrangements are reasonable for the development, NOMIS 2011 census data for this area of Liverpool has been used to derive a typical percentage of employees that would drive to work in the area. The data showed only 56% people drive to work in the area, reflecting the urban character and proximity to the City Centre.

3.16. In terms of patients, the nature of treatment often involves patients attending the Centre daily over a number of weeks. It is therefore most common for patients that do not live locally to stay in the area over the course of their treatment. Consequently many patients do not travel a significant distance each day and can therefore use taxis or the numerous sustainable transport links within close proximity to the site.

3.17. Therefore the following assumptions have been applied to estimate the likely movements of patients and employees:

- 56% of employees drive and park on site.
- 50% of patients drive, or are driven to site, and park during their treatment – the remainder are assumed to travel on foot, by public transport or by taxi/ community transport that would utilise the drop-off facility. This is assumed to be a robust assumption given the nature of treatment.
- Patients are generally on site for up to 2 hours, i.e. 22 patients on site at one time, based on 11 per hour.
- Patient activity occurs over a 10hr period, with all patient arrivals in the first 9 hours and all patient departures in the last 9 hours.

3.18. These travel assumptions are considered robust in the context that a Travel Plan will be implemented that would include range of measures to encourage employees to drive and to encourage patients to utilise public transport and community transport.

3.19. The resultant maximum parking demand, based on the above assumptions, would be 11 spaces for employees and 13 spaces for patients. Based on this robust approach, the maximum parking demand would be 24 spaces, which is within the 26 spaces provided, leaving free space for visitors.

3.20. The waiting restrictions on Mason Street and Paddington would prevent overspill parking from the development onto the adjacent streets. The proposed multi-storey car parking provision, when built, would provide an alternative parking location adjacent to the site that would cater for events or other gatherings at the Centre.

3.21. Overall, the proposed parking arrangements are considered reasonable to meet the needs of the development.

Arrangements for Servicing, Drop-offs & Deliveries

3.22. All servicing will be from the service yard on the east side of the building, with patient drop-off/ pick-up and small deliveries (post/ parcels) utilising the turning area and main entrance. It is understood that the Centre does not have significant servicing and delivery demands with the largest vehicles likely to visit the site being refuse vehicles and fire tenders, although allowance has also been made for visits by a mobile MRI scanner.

3.23. The largest vehicles likely to visit the site would be during the construction phase, and these are discussed further in Section 6.

3.24. A swept path analysis drawing for the site is included as **Appendix B** and covers both the operational and construction phases. The vehicle movements considered are as follows:

- A fire tender accessing both the service yard and front drop off point;
- A mobile MRI scanner accessing both the service yard and front drop off point – note the front access would need to be slightly enlarged if this vehicle is to be accommodated for this manoeuvre;
- A 400t mobile crane accessing and turning within the service yard during construction; and
- An extendable platform delivery vehicle (c.25m length) reversing into the service yard – this is the largest delivery vehicle that would occasionally be required to deliver specialist equipment during the construction phase.

3.25. In considering the swept path analysis plan it should be noted that it is based on a previous version of the site layout plan that has since been revised, although the dimensions of the service yard and drop off area are the same. Such changes to the previous version include the service yard access will be located on the outside of the bend between Paddington and Mason Street to give vehicles a straight run in and out of the site. Also, what appeared to be a wall and an out-building in the service yard are not actually constraints on vehicle manoeuvres.

3.26. Overall, the swept path analysis demonstrates, through the analysis of larger vehicles, that the drop-off and servicing arrangements are appropriate to accommodate all vehicles likely to visit the Centre.

4.0 ACCESSIBILITY BY SUSTAINABLE TRANSPORT

4.1. The PPI Liverpool Cancer Centre will be a regional/national facility that will draw patients from both the local and wider area. Due to the nature of treatment, which requires daily attendance at the Centre, patients from out of the region are likely to reside locally during the course of their treatment and most day to day trips are therefore likely to be within a local catchment.

4.2. The Cancer Centre employees are likely to be locally based and would therefore have opportunities to travel by sustainable transport from surrounding areas.

4.3. The purpose of this Section is to consider the accessibility of the development by sustainable transport, both from the local and wider area.

4.4. The Centre includes a range of facilities to encourage sustainable travel including kitchen facilities, a staff lounge, showers/ changing areas for staff and cycle parking.

4.5. Measures to promote sustainable travel are a key focus of the framework Travel Plan submitted as part of the planning application.

Pedestrians & Cyclists

4.6. Up to 2km is generally considered a reasonable distance for day to day walking trips, with up to 5km being considered reasonable for day to day cycling trips.

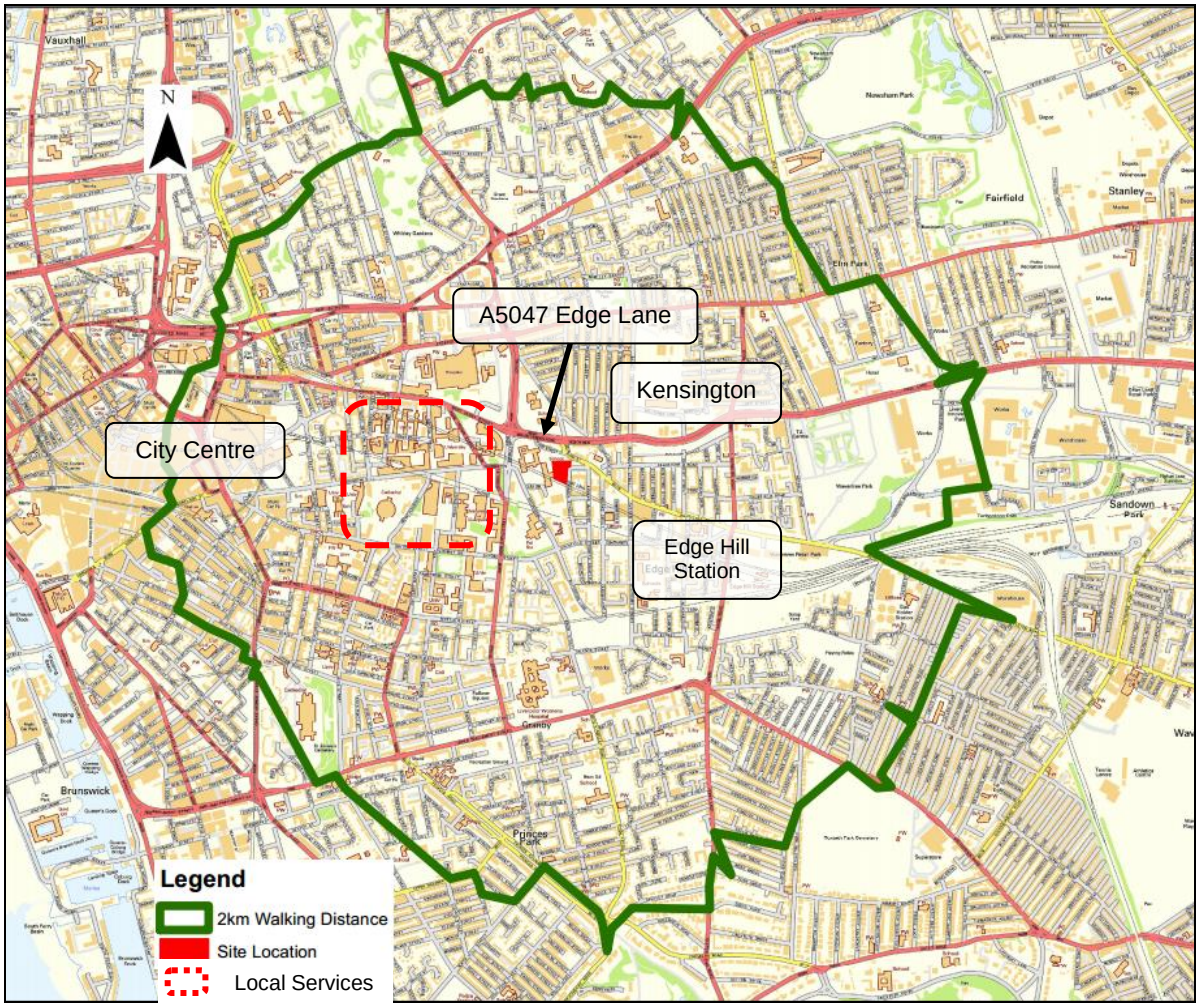
4.7. The approximate walking catchment based on a 2km travel distance is shown on **Figure 4.1**. A 5km cycling catchment would effectively cover all areas of Wavertree, Sefton Park, Central Liverpool, and Anfield, shown on **Figure 4.4**.

4.8. The 2km walking catchment takes in a wide area of residential suburbs east of the City Centre. The cycling catchment is more extensive, covering the City Centre and wide urban and suburban areas to the north, east and south.

4.9. There is a range of local facilities to the west of the site in the vicinity of the University, including a Tesco Express, local bakery and places to eat for employees and patients of the Cancer Centre including a Subway, Costa and Starbucks. All are within a 5 minute walk. Hotels are within Comfortable walking distance including Manor Hotel 300m to the east of the site and other services are available including a Santander bank within the Liverpool University campus. The general location of the majority of services is indicated on **Figure 4.1**.

4.10. The highway network within Kensington and surrounding the study site is of urban character, with most local roads in the built up area being subject to a 30mph speed limit and having adequate lighting and footways. The surrounding residential area to the south, north and east of the site is subjected to a 20mph speed limit; this includes Mason Street leading to the proposed site of access. The dual carriageway A5048 (Grove Street) runs past the east of the site, intersected by the similar dual lane A5047 (Edge Lane) both displaying a 30mph speed limit. There is a continuous footway on all roads within 2 km of the Study site.

Figure 4.1 Indicative 2km Walking Distance



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4.11. The A5048 (Grove Street) and the A5047 (Edge Lane) contain multiple opportunities for pedestrians to cross using Pelican Light Controlled Crossings. A more in depth analysis of pedestrian crossing locations is displayed in **Figure 4.2**.

4.12. Smaller access roads (c.5.5m wide) within a network of predominantly residential streets surrounding the study site display speed restrictions (20mph). This is sufficient to allow safe pedestrian crossing.

4.13. The development will include 6 secure cycle parking spaces to encourage cycling. The local cycle network is shown on the extract of the Liverpool Cycle route Map in **Figure 4.3** and local cycle map data in **Figure 4.5.** There are roads including some cycle facilities to the south and east of the site which connect the site to Liverpool City Centre, and also provide links to wider areas including Edge Hill, Newsham Park and Alder Hey. There is also a local cycle path to the immediate south of the site that links Smithdown Lane to Mason Street.

Figure 4.2 Traffic Light Controlled Crossing Locations

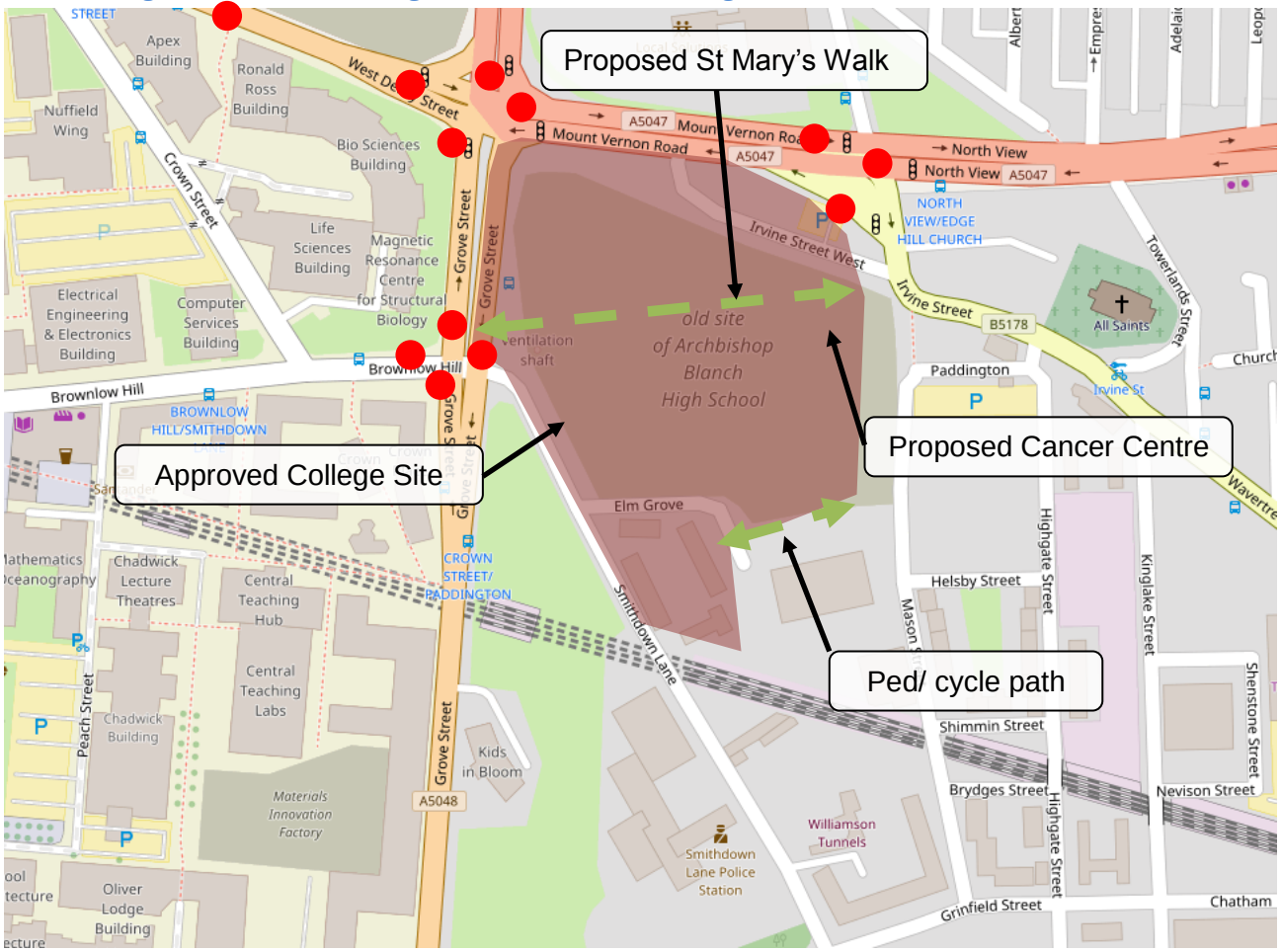
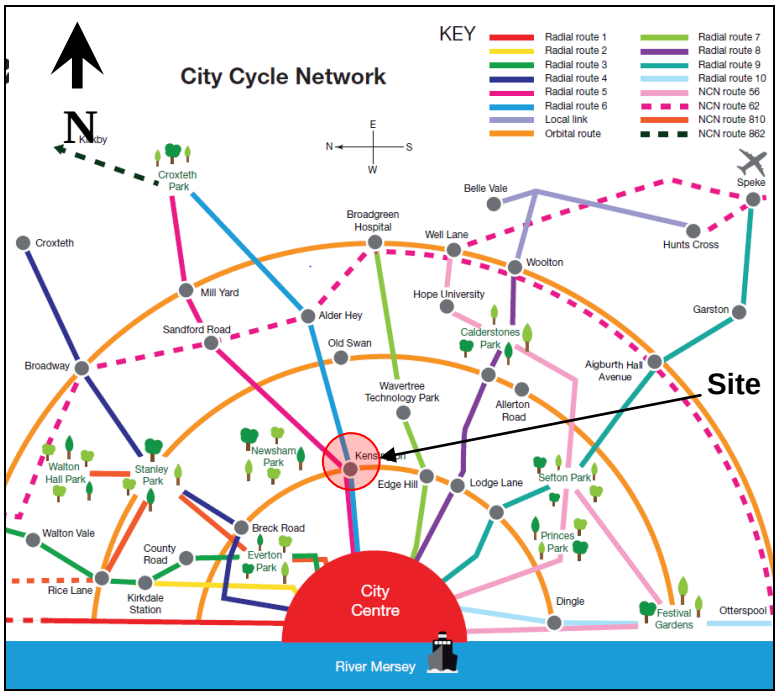


Figure 4.3 Liverpool Cycle route Map



Source: liverpool.gov.uk cycling strategy

Figure 4.4 Indicative 5km Cycling Distance

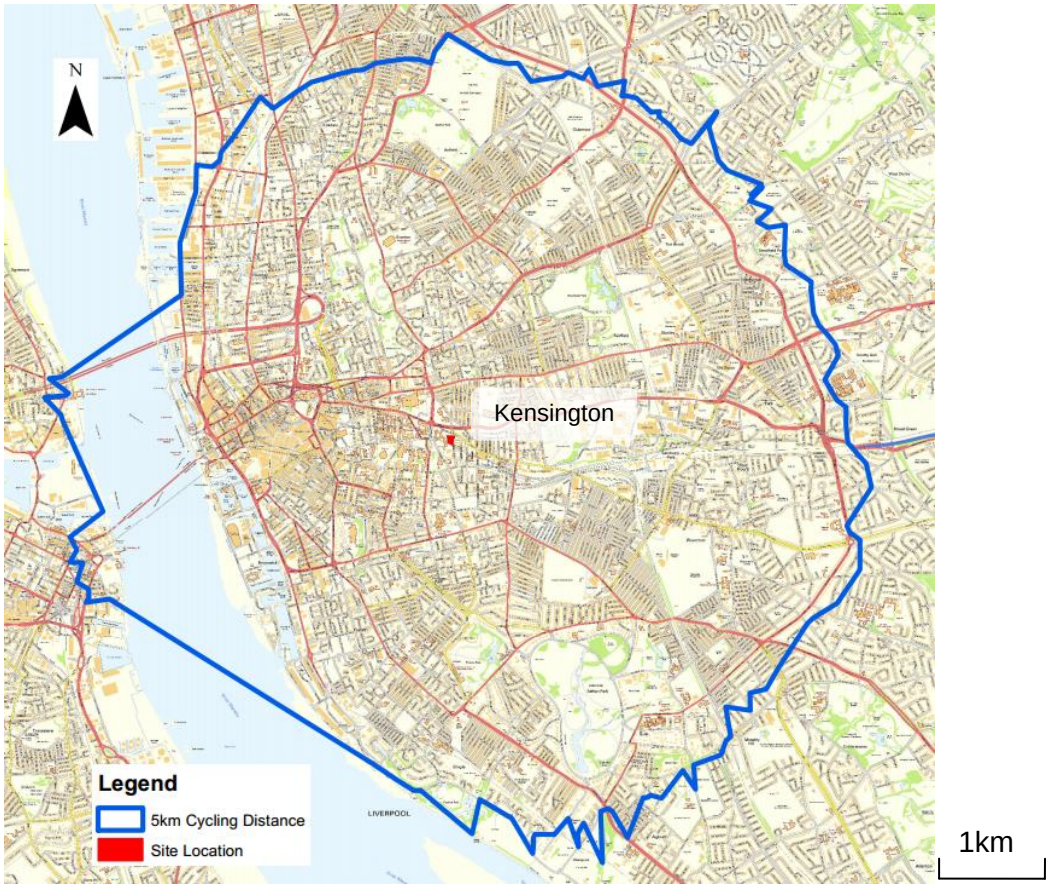


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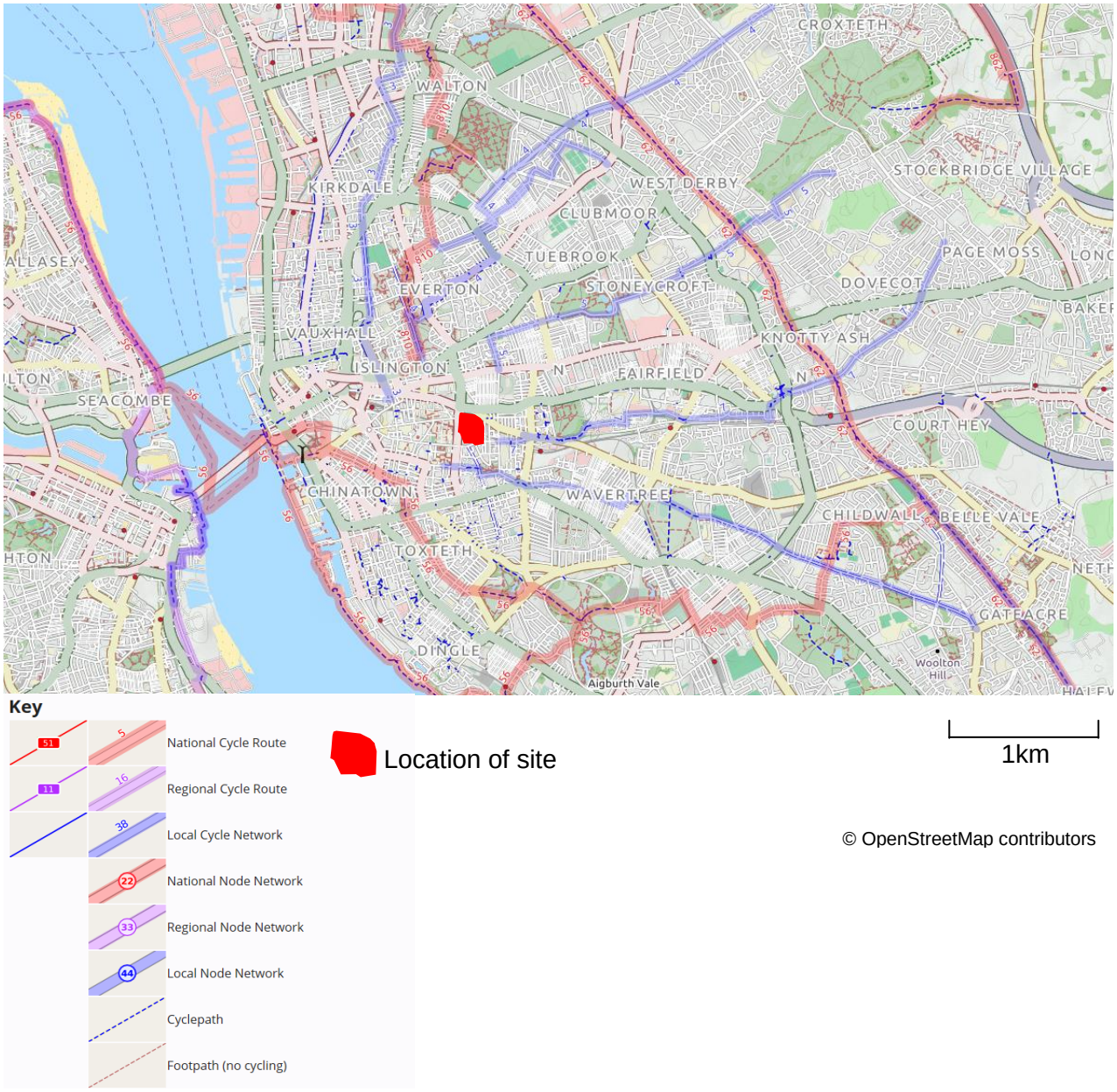
Figure 4.5 Cycling Map of the Area



4.14. Overall, the site has good walking and cycling links to the surrounding area and the inclusion of 3 'Sheffield' style cycle stands (6 spaces) would promote cycling by employees.

Public Transport

4.15. Bus stops are conveniently located and distributed within short distances from the site. The nearest existing stops are located close to the proposed access, as shown on **Figure 4.6**. Although multiple other services exist within the area, the most frequent services are summarised in **Table 4.1** and route details are shown in **Figure 4.7**.

Figure 4.6 – Local Bus Stops Within 400m of the Proposed Site Entrance

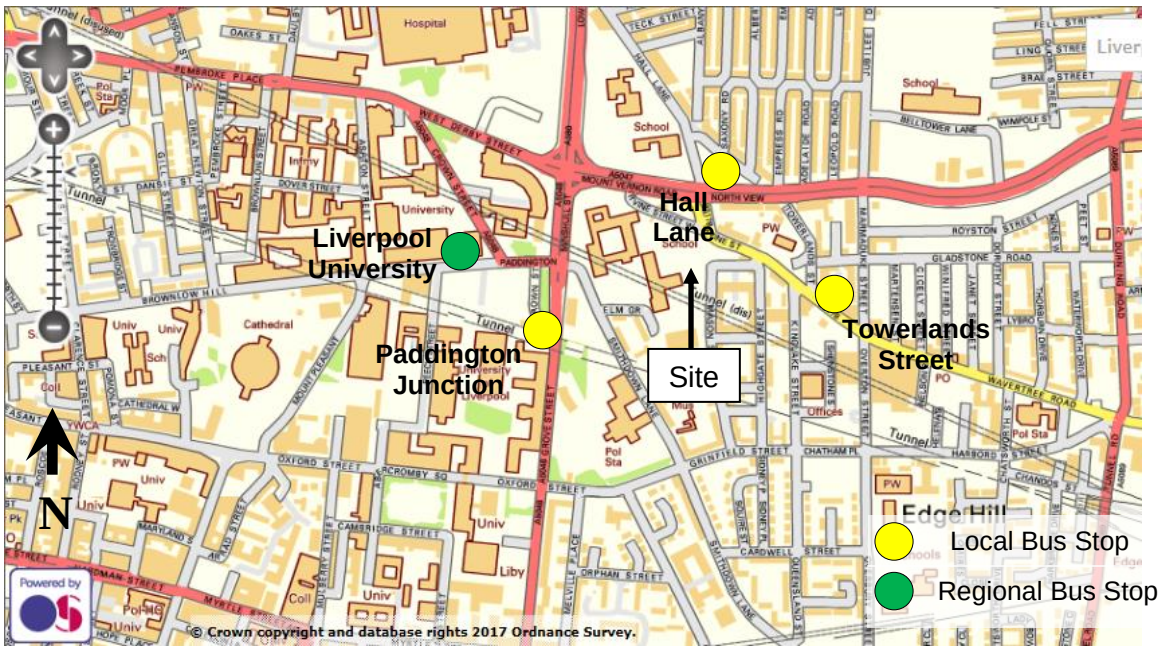


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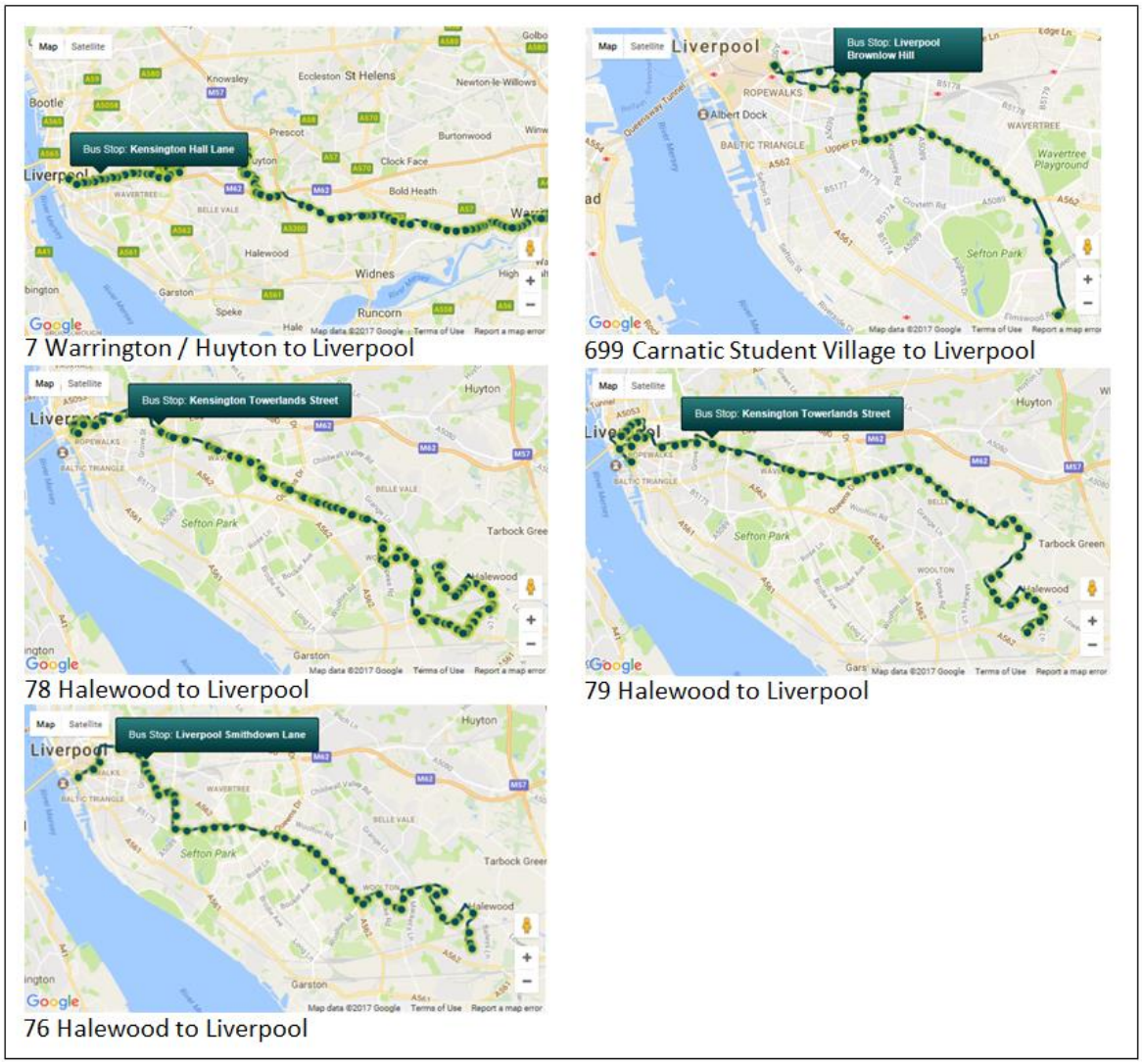
Table 4.1 –Site Bus Timetable

Service Number	Destinations	Mon - Sat		Sunday	
		D	E	D	E
7	Warrington to Liverpool	Every 30min	Every 30min	Every 30min	Every 30min
76	Halewood to Liverpool	Every 30min	Every 30min	Every 30min	Every 30min
699	Carnatic Student Village to The University of Liverpool and City Centre	Every 10min	Every 10min	Every 20min	Every 20min
78	Halewood to Liverpool	Every 30min	Every 30min	Every 30min	No service
79	Kensington Towerlands Street	Every 4-15min	Every 15-20min	Every 15-20min	Every 20min

D = Daytime / E = Evening. Service frequency given is for each direction.

Source: www.arrivabus.co.uk/north-west/services

Figure 4.7 – Local Bus Service Routes



Source: www.arrivabus.co.uk/north-west/services

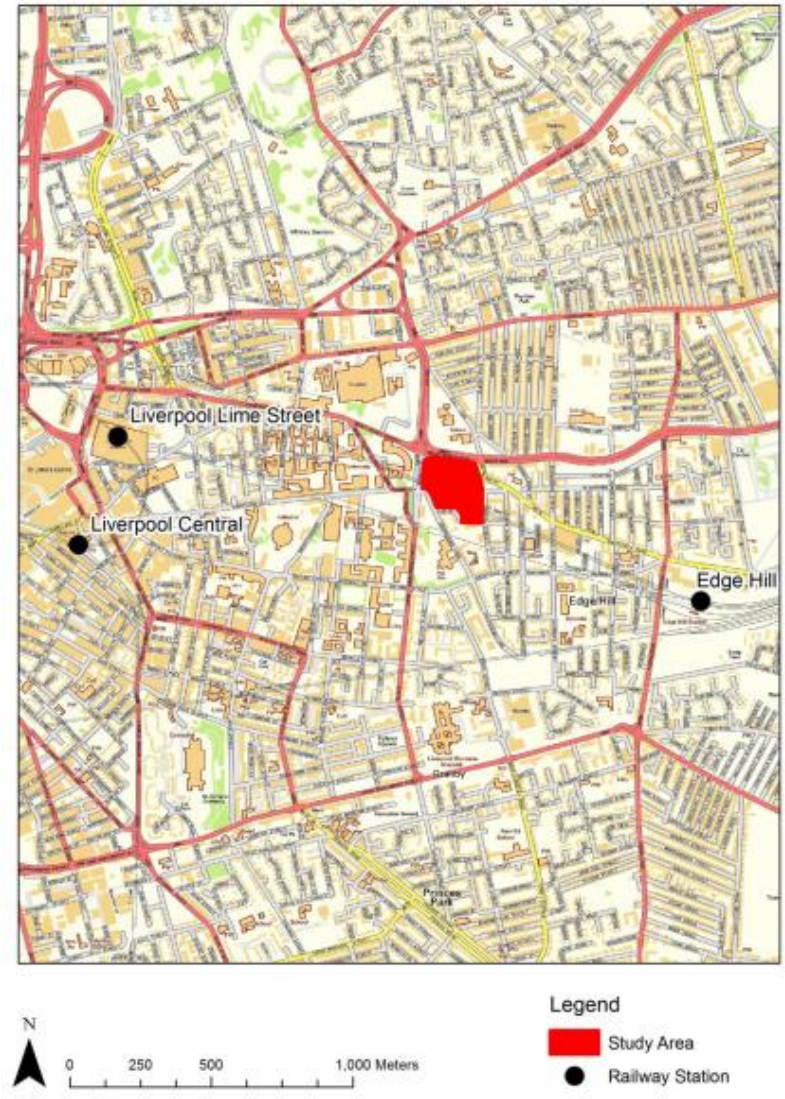
4.16. This area is highly connected by multiple local bus routes and a regional National Express route providing regular services on all days to Liverpool City Centre, Halewood, Belle Vale, Huyton, Warrington and Leeds. The main local bus routes that are within 400m walking distance are displayed in **Figure 4.7**.

4.17. In terms of connections to main transport hubs, there is a National Express service available from Liverpool University running between Leeds and Central Liverpool.

4.18. There are 3 railway stations within 3.2 kilometres of the site, all accessible via taxi, cycle or bus with the nearest being Edge Hill (3 minute taxi ride from the site) as displayed in **Figure 4.8**. Liverpool Lime Street Railway station is an 18 minute walk from the site and runs frequent services to all major UK cities including Manchester (7 services per hour),

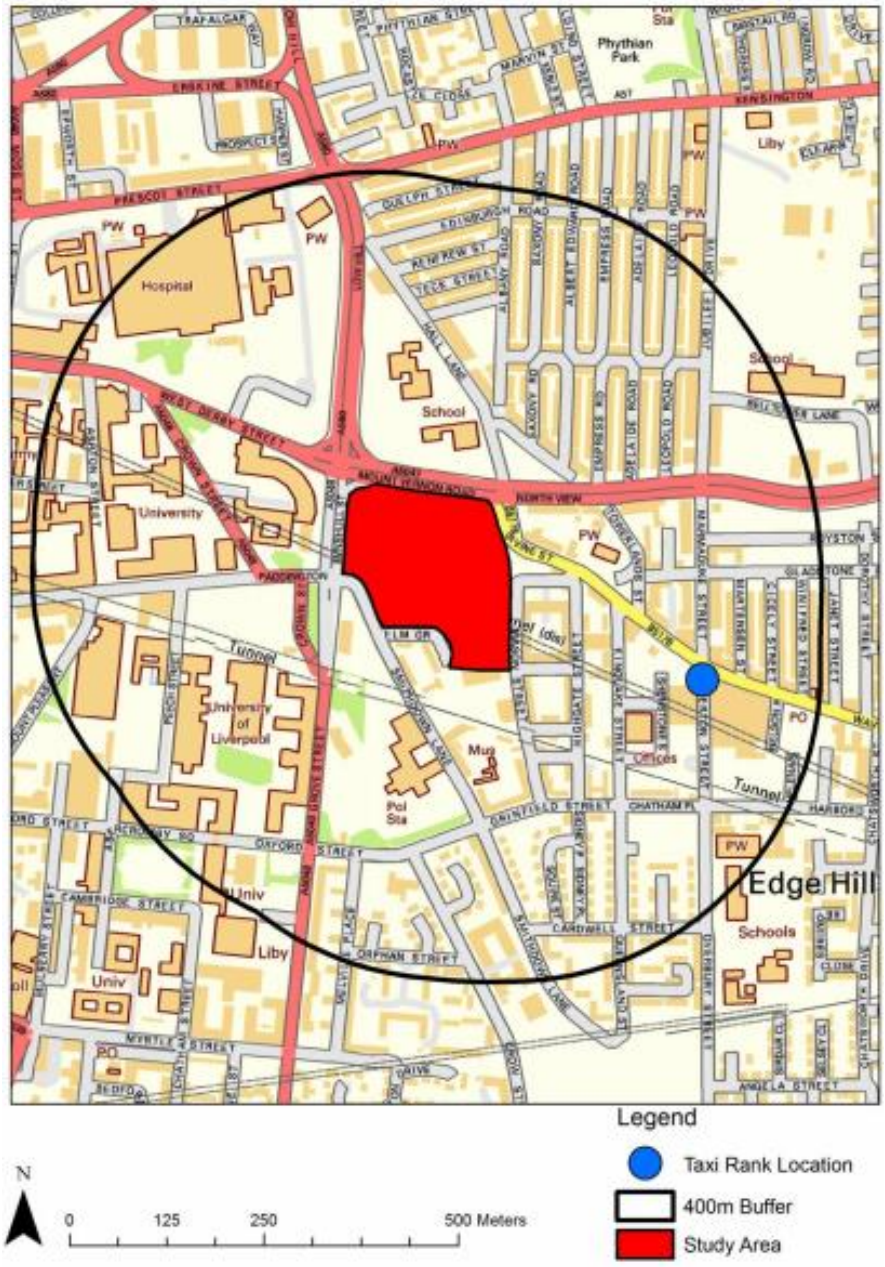
London Euston (1 service per hour), Birmingham (2 services per hour), Sheffield (1 service per hour) and Newcastle (1 services per hour).

Figure 4.8 – Local Train Station Locations



4.19. There is a taxi firm in the area that could potentially transport patients to the Centre from the local area as displayed in **Figure 4.9**. In addition, the North West Ambulance Service operates the Patient Transport Service, which provides pre-planned non-emergency transport to treatment centres.

Figure 4.9 – Local Taxi Rank



Source: Ordnance Survey © Crown Copyright 2015. All rights reserved. Licence number 100022432

Minimum Accessibility Standard Assessment

4.20. As required by Liverpool City Council, a 'Minimum Accessibility Standard Assessment' (MASA) has been undertaken using Liverpool City Council's 2008 Supplementary Planning Document entitled 'Liverpool City Council- Ensuring a Choice of Travel'. MASA is a set of criteria against which new developments are assessed in order to obtain a score to indicate the accessibility of the development. In considering the MASA results it should be noted that the site is on the eastern boundary of the defined City Centre and around 2km from the main centre.

4.21. The MASA for the proposed development is contained in **Appendix C** and the target scores are shown in **Table 4.2.**

Table 4.2 – MASA**: **Target Scores for Major Developments

Development Type	Location (see key below)	Development Size	Target score for walking	Target score for cycling	Target score for public transport	Target score for vehicle access
C2 and D1 Residential and non-residential institutions (medical centres, museums and galleries, public halls and meeting places)	Urban Centre	All	2	5	5	3
	Other Urban	All	4	5	6	1

4.22. The site meets the target score for pedestrians, cyclists and public transport. This further confirms that the site is located in a sustainable location.

4.23. With respect to vehicular access, the development will not achieve the target score of 3 points for a City Centre site (as displayed in **Appendix C**) as a result of the parking provision of 22 spaces plus 4 disabled spaces being in-line with the maximum permitted by Council Standards, based on a 'medical centre' type development. Off street parking provided would need to be less than 75% of the maximum (i.e. 5 spaces less) to achieve the 3 point score. However, the proposed parking provision is the same as that proposed in the masterplan and is considered satisfactory since:

- This is a bespoke development and the proposed parking meets the day to day needs; and
- The development is at the very edge of the City Centre and would achieve the required target score of 1 point for an 'other urban' location, which describes the area to the immediate east.

Accessibility Summary

4.24. The site has good pedestrian and cycle links to the local area and multiple frequent daytime bus and rail links to key surrounding local and regional areas, including main transport hubs in Liverpool and Leeds. Overall, the development is very well located for sustainable travel.

5.0 TRAFFIC ASSESSMENT

Development Traffic

5.1. The traffic generation of the development has been assessed on the same basis as the parking assessment set out in Section 3, with additional assumptions regarding drop-off trips:

- 56% of employees will drive to the site and will all start and finish at approximately the same time in the morning and evening respectively.
- 50% of patients will drive (or be driven) to site and will park
- 25% of patients will travel by taxi or community transport/ ambulance. To be robust for trip generation purposes all are assumed to travel individually in taxis, which would not wait on site, i.e. 1 patient visit results in two taxi visits.
- 25% of patients will stay locally and will walk or travel by public transport.
- Patients are assumed to be on-site for 1-2 hours.
- Patient activity occurs over a 10hr period, with all patient arrivals in the first 9 hours and all patient departures in the last 9 hours.

5.2. These assumptions are likely to overstate traffic generation as employees travel will be spread across shift times and patients utilising community transport would travel in groups. However, this approach will ensure a reasonable allowance is included for incidental trips during the day associated with visitors and servicing. The vehicle trip generation of the development, on this basis, would be as shown in **Table 5.1.**

Table 5.1 Daily Traffic Generation

	DAILY (VEH)		AM PEAK HOUR 08:00-09:00 (VEH)		PM PEAK HOUR 17:00-18:00 (VEH)	
	IN	OUT	IN	OUT	IN	OUT
Patients Driving (or being driven) Trips	58	58	7	0	0	7
Patients Taxi Trips (2 taxis per patient visit as taxis do not wait)	58	58	4	4	4	4
Total Employees Driving Trips*	11	11	11	0	0	11
Total Vehicles	**254**		**26**		**26**	

*** excludes 3 out of hours maintenance staff**

5.3. This assessment is based on robust assumptions on employees and patient travel patterns and predicts that traffic generation of the Centre will be low (less than one vehicle every two minutes at peak times).

5.4. The proposal is also in line with the masterplan proposal for the site, utilising the same modest number of car parking spaces and trip generation would therefore be broadly as expected when the masterplan was prepared.

5.5. Overall, traffic generation is predicted to be low and would not be expected to have any significant impact on the surrounding highway network. On this basis no capacity assessments are proposed at local junctions.

5.6. Sustainable trips by staff and patients that stay locally will be encouraged through the Travel Plan.

6.0 CONSTRUCTION IMPACT

6.1. The construction period for the Centre is expected to be in the order of 18 months. Given the modest scale of development it is not anticipated that traffic generation during construction, which is temporary, would have any significant impact on the surrounding highway network, although trips would need to be managed on local residential streets.

6.2. Access to the development for construction traffic is yet to be finalised, but is likely to be at to the proposed service yard access, reached from Irvine Street via Paddington. Appropriate arrangements would therefore need to be put in place prior to commencement to ensure that construction operations do not impact significantly on the adjacent highway network.

6.3. It is expected that all construction plant and operative parking could be accommodated on land adjacent to the proposed building. A turning area would be provided to allow construction vehicles to enter and leave the site in a forward gear. This could accommodate all vehicles likely to visit the site up to a 400t mobile crane, which is shown turning within the site on the swept path drawing in **Appendix B**. The only exception is likely to be the very occasional access required by specialist vehicles that would deliver bespoke elements of equipment that cannot be sub-divided into smaller loads.

6.4. A specialist route assessment has therefore been undertaken by a haulage contractor for access by a power steered semi low loader/ modular trailer (c.25m long), which could cater for the largest deliveries, travelling from the M62 to the east. This assessment has confirmed that access is feasible. The assessment assumes that the vehicle will reverse into Paddington from Irvine Street and continue to reverse into the site (this manoeuvre is indicated on the swept path analysis in **Appendix B**). The reverse manoeuvre would need to be undertaken under supervision and would require the vehicle to traverse the 'nosing' of footway on the east side of the Irvine Street/ Paddington junction. Full details of the routeing and manoeuvring requirements would be agreed with the Council prior to commencement of works on site.

6.5. It is anticipated that a Construction Phase Traffic Management Plan would be prepared by the developer and agreed with the Council closer to the time of commencement on site. The Plan would set out all measures to be implemented to control working hours, routeing of vehicles, site access arrangements, parking, compound areas and special measures associated with any abnormal indivisible loads that may visit the site.

6.6. Overall, construction activities would be controlled through an agreed Construction Phase Traffic Management Plan and would not be expected to cause any significant issues on the surrounding highway network subject to special arrangements for occasional large deliveries.

7.0 SUMMARY & CONCLUSION

7.1. Proton Partners International proposes a new cancer care centre as part of the Paddington Village regeneration scheme in Liverpool, to the east of the City Centre.

7.2. The development includes a cancer centre with proton/photon therapy suite, oncology suite, consultation facilities, MRI/ CT scanning facilities, treatment rooms, patient rooms and waiting areas, administration areas, meeting rooms and maintenance/ servicing space. The development would be served by 26 car parking spaces, including 4 disabled spaces, 6 staff cycle parking spaces, a drop-off facility and a separate service yard.

7.3. The Centre is expected to have around 22 staff and to treat around 110-120 patients per day.

7.4. The development includes facilities to encourage sustainable travel, is well located for a range of local facilities, is accessible from the surrounding area (including the proposed pedestrian routes through the adjacent masterplan area) and will operate a Travel Plan to encourage sustainable travel.

7.5. The nature of treatment given at the Centre often involves patients staying locally of the course of their treatment. Therefore, many patients do not travel a significant distance each day and can therefore use taxis or the numerous sustainable transport links within close proximity to the site.

7.6. Access and parking arrangements will be in accordance with the proposed masterplan, comprising:

- A main access to the building at its southwest corner, reached via the new pedestrian infrastructure within the masterplan area;
- A drop off area and 26 space car park to the south of the building, accessed from a new priority access on Mason Street and with access to the Centre's main entrance;
- A service access to the east (rear) of the building accessed from a new priority access on Paddington/ Mason Street.

7.7. The proposed access arrangements are considered appropriate to serve a small car park and service area. Existing traffic regulation orders may need to be locally adjusted to accommodate the accesses.

7.8. The predicted day to day parking demand is within the 26 spaces provided, with a small amount of headroom. The waiting restrictions on Mason Street and Paddington would

prevent overspill parking from the development onto the adjacent streets. The proposed multi-storey car park within the main masterplan area would provide an alternative parking location adjacent to the site that would cater for events or other gatherings at the Centre.

7.9. Overall, the proposed parking arrangements are considered reasonable to meet the needs of the development.

7.10. The proposed drop-off and servicing arrangements are considered appropriate to accommodate the vehicles likely to visit the Centre and this has been confirmed through swept path analysis.

7.11. Traffic generation is predicted to be low, at less than one vehicle movement every two minutes at peak times, and would not be expected to have any significant impact on the surrounding highway network.

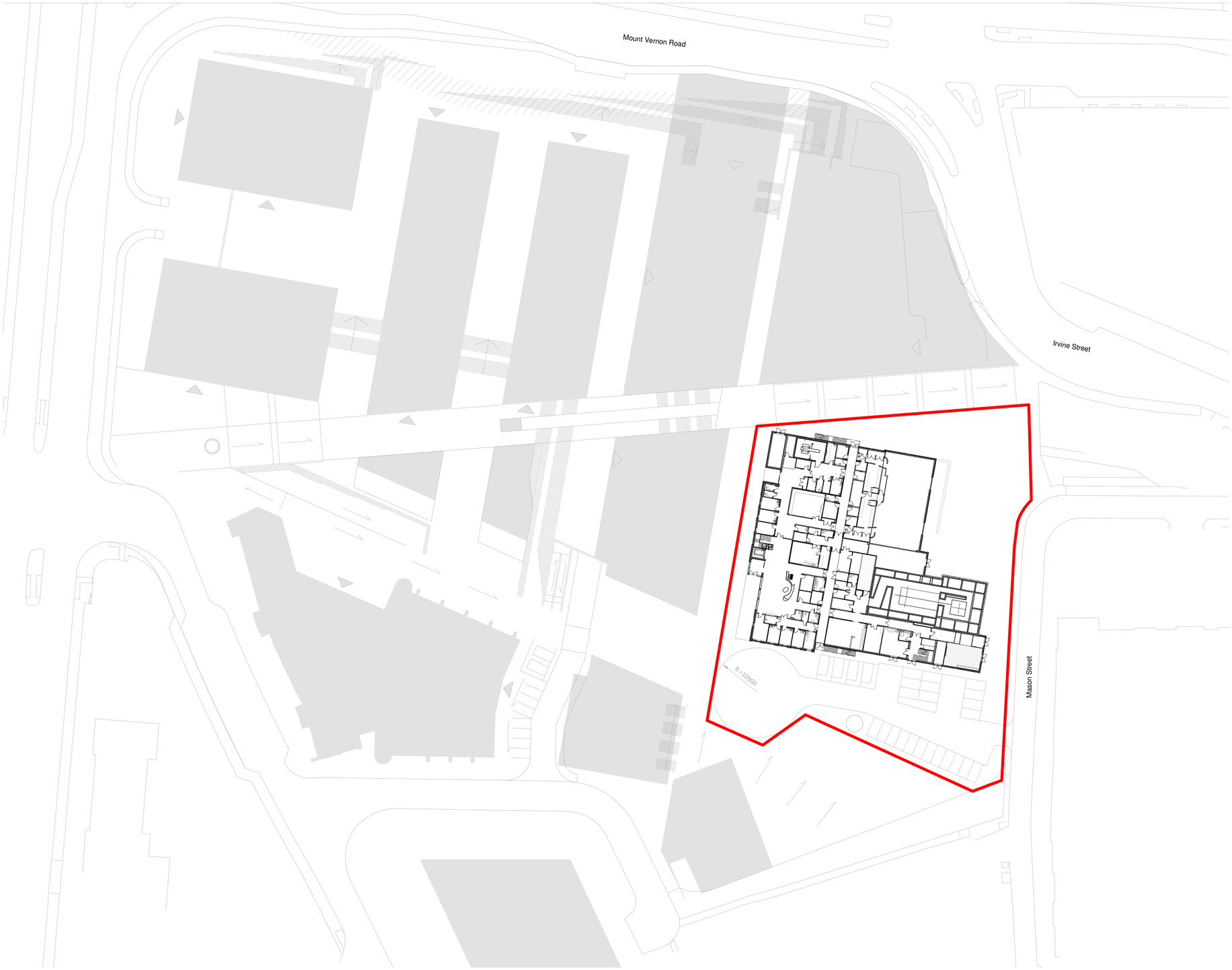
7.12. Construction activities would be controlled through a Construction Phase Traffic Management Plan, agreed with the Council, and would not be expected to cause any significant issues on the surrounding highway network. An initial route assessment has been undertaken by a specialist haulier to confirm that the largest items of equipment could be delivered to the site.

7.13. In conclusion, the proposed PPI Liverpool Cancer Centre is considered to be satisfactory in transportation terms.

APPENDIX A

NOTES:

1. DO NOT SCALE from the drawing
2. Further dimensions required to be requested from the project technical team
3. Report discrepancies to JDDK project team immediately.
4. This model file contains the following consultants model files:-



1 Proposed Site Plan

1 : 500

REV	ISSUED BY	DATE	DESCRIPTION

REVISION LOG

JDDK Architects
Millmount Ponteland Road
Newcastle upon Tyne
NE5 3AL
t. 0191 286 0811
f. 0191 286 3870
e. millmount@jddk.co.uk
jddk.co.uk
DISCOVER DESIGN DELIVER

CLIENT

PPI

PROJECT TITLE

PPI Liverpool Cancer Centre

TITLE

Proposed Site Plan

MAIN CONTRACTOR

QUANTITY SURVEYOR

M&E CONSULTANT
Desco

STRUCTURAL CONSULTANT
Fairhurst

OTHER CONSULTANT

DRAWING No.
3746-JDDK-A-11102

REV

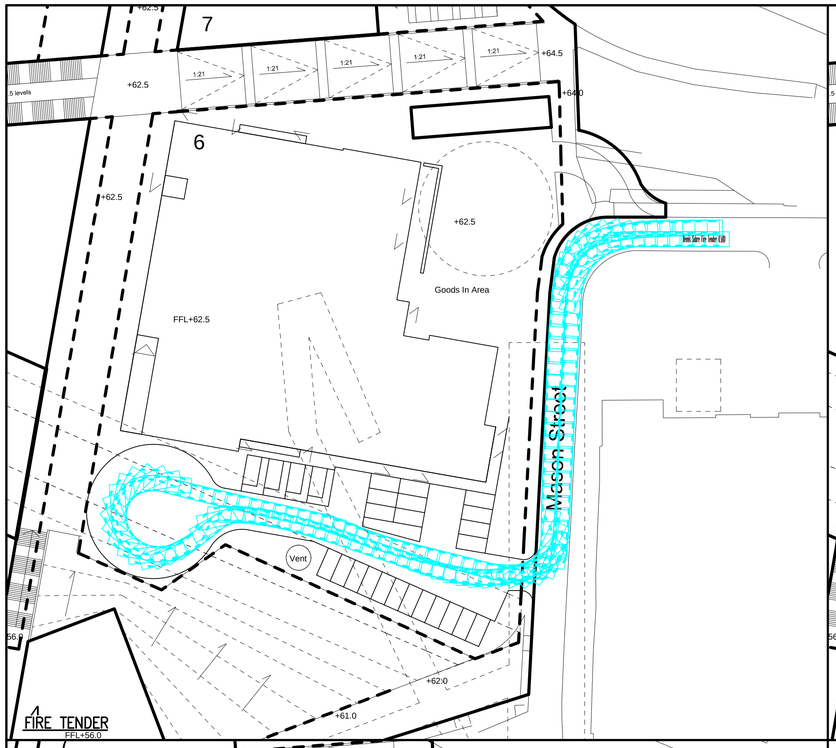
JDDK INTERNAL REF:	3746	**JDDK REF NO:**	111.02
SCALE:	1 : 500 @ A1	**ISSUE DATE:**	03/30/17
DRAWN BY:	OM	**CHECKED BY:**	KT

STATUS:

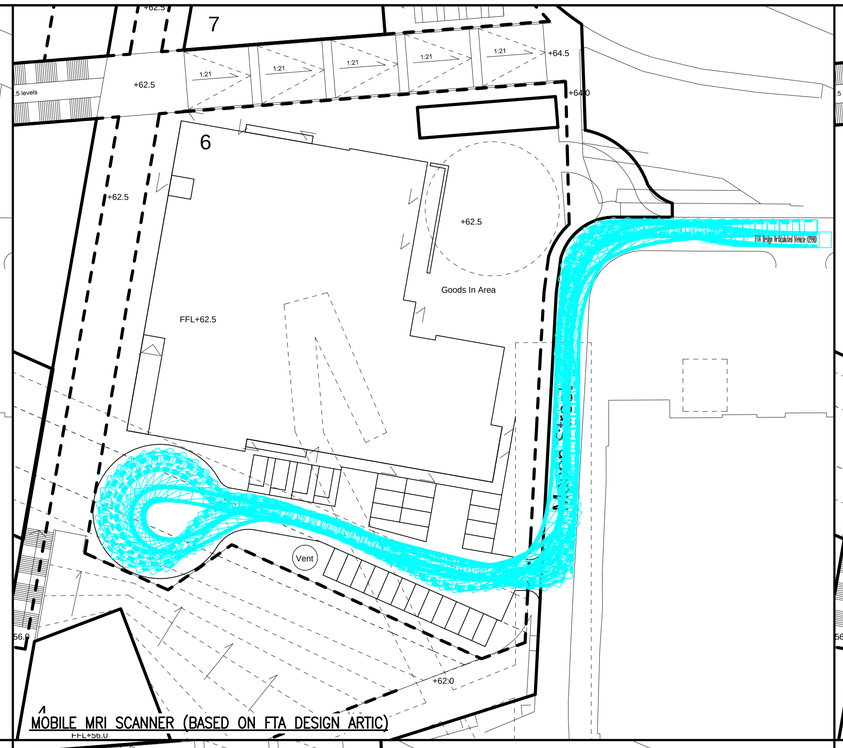
PURPOSE OF ISSUE:

APPENDIX B

Do not scale from this drawing.



FIRE TENDER
FFL+56.0



MOBILE MRI SCANNER (BASED ON FTA DESIGN ARTIC)
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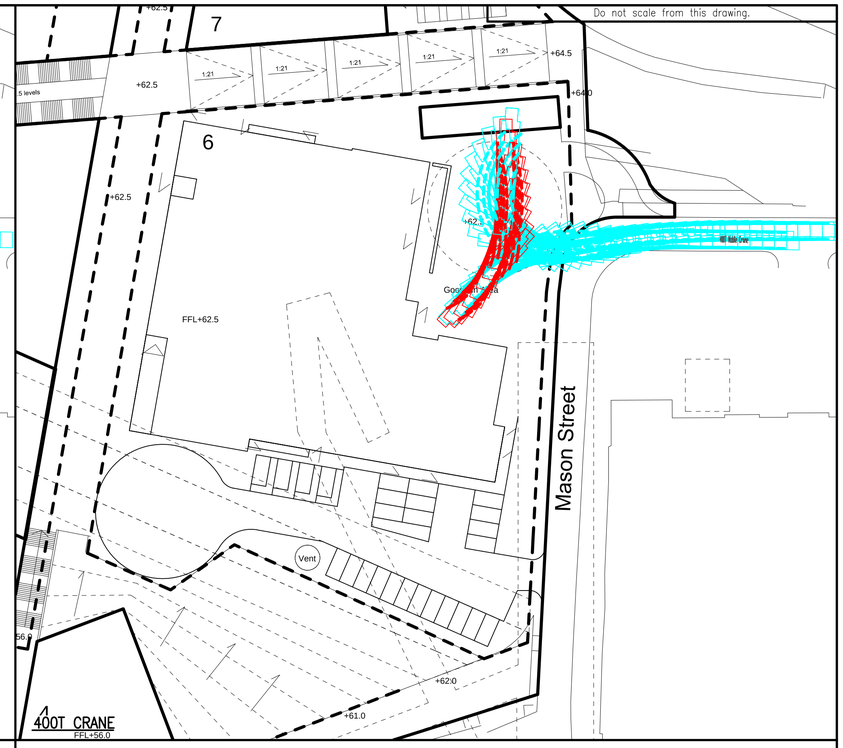
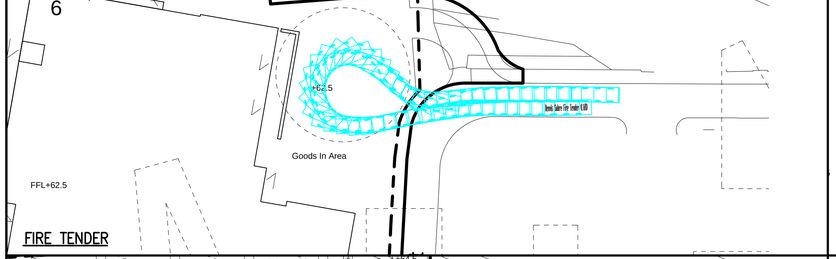


400T CRANE
FFL+56.0



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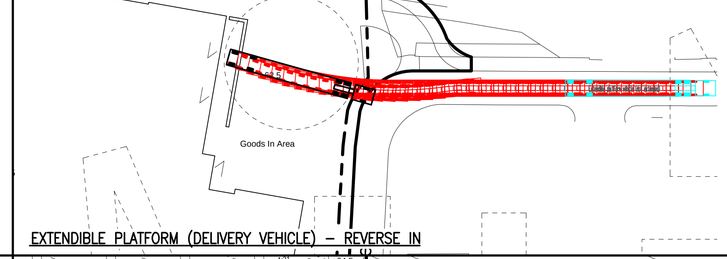
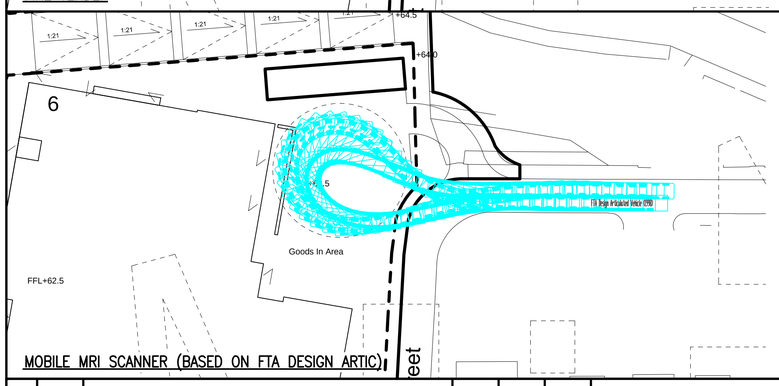
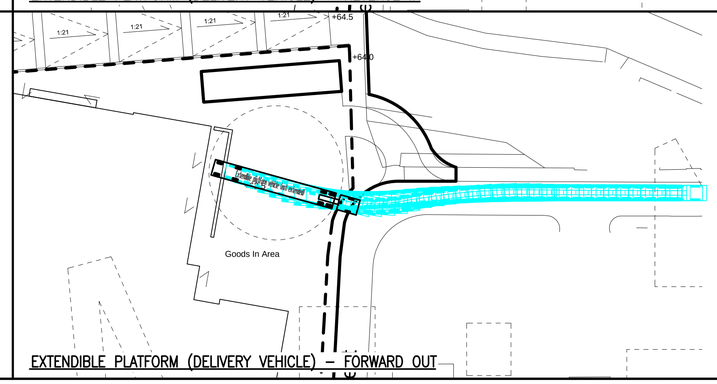


EXTENDIBLE PLATFORM (DELIVERY VEHICLE) – REVERSE IN



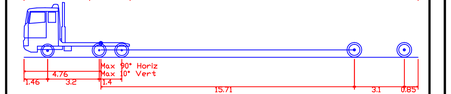
MOBILE MRI SCANNER (BASED ON FTA DESIGN ARTIC)



EXTENDIBLE PLATFORM (DELIVERY VEHICLE) – FORWARD OUT

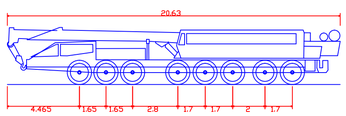
Dennis Sabre Fire Tender (LWB)

Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to Lock Time	5.00s
Kerb to Kerb Turning Radius	7.400m



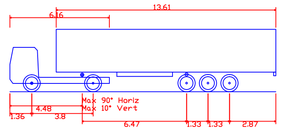
Extendible platform vehicle (not extended)

Overall Length	24.420m
Overall Width	2.500m
Overall Body Height	3.396m
Min Body Ground Clearance	0.320m
Max Track Width	2.600m
Lock to Lock Time	6.00s
Wall to Wall Turning Radius	14.000m



400T Mobile Crane

Overall Length	20.630m
Overall Width	3.000m
Overall Body Height	3.526m
Min Body Ground Clearance	0.740m
Max Track Width	3.000m
Lock to Lock Time	5.00s
Wall to Wall Turning Radius	16.500m



FTA Design Articulated Vehicle (1998)

Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to Lock Time	3.00s
Kerb to Kerb Turning Radius	6.550m

KEY

Forward manoeuvre

Reverse manoevre

Rev.	Date	Description	Drawn	Checked	Approved
A	05/04/17	BASEPLAN UPDATED. SWEPT PATH ANALYSIS RE-RUN. EXTENDIBLE PLATFORM (DELIVERY VEHICLE) ADDED.	JH	JM	DF

Client:

Project Title:
PPI LIVERPOOL
PADDINGTON PLACE

Drawing Title:
SWEPT PATH ANALYSIS

FAIRHURST
1 Arngrove Court, Barrack Road,
Newcastle-upon-Tyne, NE4 6DB
Tel: 0191 221 0505 Fax: 0844 381 4412

Scale at A1:	Status:	
1:500	For Information	
Drawn:	Checked:	Approved:
JH	DF	DF
Date:	Date:	Date:
13/03/17	13/03/17	13/03/17

Drawing No.: 118180/sk0001

Revision: A

APPENDIX C

Accessibility Checklist

Table 3.2 Accessibility Checklist

Proposal: PPI Liverpool Cancer Centre					
Application Reference:					
Address:					
Completed by: Harry Mann					
Access Diagram					
Has a diagram been submitted which shows how people move to and through the development and how this links to surrounding roads, footpaths and sight lines?				Yes	
Access on foot			**Points**	**Score**	
Safety	Is there safe pedestrian access to and within the site, and for pedestrians passing the site?			Yes	
Location	Housing Development: Is the development within 800m of a district or local centre (see Accessibility Map 1 in Appendix F) Other development: Is the density of local housing (i.e. within 800m) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes	2	2	A dense distribution of housing is located to the north of the site.
		No	0		
Internal Layout	Does 'circulation' and access inside the sites reflect direct, safe and easy to use pedestrian routes for all; with priority given to pedestrians when they have to cross roads or cycle routes?	Yes	1	1	Pedestrian and cycle friendly site layout
		No	0		
External Layout	Are there barriers between site and local facilities or housing which restrict pedestrian access? (see Merseyside Code of Practice on Access and Mobility) e.g. • No dropped kerbs at crossings or on desire lines • Pavement less than 1.5m wide; • A lack of a formal crossing where there is heavy traffic; • Security concerns, e.g. lack of lighting.	There are barriers	-1	1	A controlled pedestrian crossing is provided between the site and the connecting transport links and local facilities with dropped kerbs and tactile paving.
		There are no barriers	1		
Other	Links to identified recreational walking network (see Accessibility Map 1)				
			Total (B)	4	

Proposal:					
Summary	Box A: Target Score (From Table 2.1)	4	Comments or action needed to correct any shortfall		
	Box B: Actual Score	4			
Access by Cycle				**Points**	**Score**
Safety	Are there safety issues for cyclists either turning into or out of the site or at road junctions within 400m of the site (e.g. dangerous turns for cyclists due to the level of traffic)?				No
Cycle Parking	Does the development meet cycle parking standards (see standards in section 3)? Are there cycle parking facilities in a secure location with natural surveillance? Does the development where appropriate contribute to communal cycle parking facilities?				Yes
Location	Housing Development: Is the development within 2 kilometres of a district or local centre (see Accessibility Map 1) Other Development: Is the density of local housing (e.g. within 2 kilometres) more than 50 houses per hectare (see Accessibility Map 4 in Appendix F)	Yes		2	3
		No		0	
Internal layout	Does 'circulation' and access inside the site reflect direct and safe cycle routes; with priority given to cyclists where they meet motor vehicles?	Yes		1	
		No		0	
External Access	The development is within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F). Are there proposals to create a link to a cycle route, or develop a route?			1	1
	The development is not within 400m of an existing or proposed cycle route (see Accessibility Map 1 in Appendix F)			0	
Other	Development includes shower facilities and lockers for cyclists			1	1
				Total (B)	5

Pedestrian and cycle friendly site layout.

Cycle routes are provided south of the site.

Proposal:						
Summary	Box A: Target Score (From Table 2.1)	5	Comments or action needed to correct any shortfall			
	Box B: Actual Score	5				
Access by Public Transport				**Points**	**Score**	
Location and access to public transport	Is the site within a 200m safe and convenient walking distance of a bus stop, and/or within 400m of a rail station? (See Accessibility Map 2 in Appendix F).		Yes	2	2	Numerous Bus Stops are located within 200m
			No	0		
	Are there barriers on direct and safe pedestrian routes to bus stops or rail stations i.e. • A lack of dropped kerbs; • Pavements less than 1.5m wide; • A lack of formal crossings where there is heavy traffic; or • Bus access kerbs.		There are barriers	0	1	There are no physical barriers to transport links
			There are no barriers	1		
Frequency	High (four or more bus services or trains an hour)			2	2	A frequent bus and train service runs from this site.
	Medium (two or three bus services or trains an hour)			1		
	Low (less than two bus services or trains an hour)			0		
Other	The proposal contributes to bus priority measures serving the site			1	0	The PPI Cancer Centre will liaise with the North West Ambulance Service to implement patient transportation.
	The proposal contributes to bus stops, bus interchange or bus or rail stations in the vicinity and/or provides bus stops or bus interchange in the site			1	0	
	The proposal contributes to an existing or new bus service			1	1	
	NOTE: The site will work with NW Ambulance Service to bring patients to the site.			Total (B):		
Summary	Box A: Target Score (from Table 2.1)	6	Comments or action needed to correct any shortfall			
	Box B: Total Score	6				

Proposal:			
Vehicle access and parking		**Points**	**Score**
Vehicle access and circulation	Is there safe access to and from the road?		Yes
	Can the site be adequately serviced?		Yes
	Is the safety and convenience of other users (pedestrians, cyclists and public transport) affected by the proposal?		√No
	Has access for the emergency services been provided?		Yes√
	For development which generates significant freight movements, is the site easily accessed from the road or rail freight route networks (See Accessibility Map 3 in Appendix F)		Yes√
Parking	The off-street parking provided is more than advised in Section 3 for appropriate development type		
	The off-street parking provided is as advised in Section 3 for that development type	1	1
	The off-street parking provided is less than 75% of the amount advised in Section 4 for that development type (or shares parking provision with another development)	2	0
	For development in controlled parking zones:		
	• Is it a car free development?	1	0
	• Supports the control or removal of on-street parking spaces (inc provision of disabled spaces), or contributes to other identified measures in the local parking strategy (including car clubs)	1	0

The reasoning for the off street parking provision requirement is detailed in Section 4.20.

Summary			Comments or action needed to correct any shortfall. If conditions are appropriate for the reduced level of parking (see section 3), but this has not been provided, please explain why
	Box A Target Score (From Table 2.1)	3	
	Box B Actual Score	1	