Barnes Hospital
London Borough of Richmond upon Thames

Transport Statement

For

South West London & St George's Mental Trust

Document Control Sheet

Transport Statement

Barnes Hospital, London Borough of Richmond upon Thames

South West London & St George's Mental Health Trust

This document has been issued and amended as follows:

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1.0 Introduction

1.1 Motion has been appointed by the South West London & St George's Mental Health Trust ('the Trust') to prepare this Transport Statement in relation to development proposals at the Barnes Hospital site within the London Borough of Richmond upon Thames (LBRuT).

1.2 The application site is situated within the Barnes area of LBRuT and is bound to the north by South Worple Way, to the east by South Worple Avenue, to the west by Old Mortlake Burial Ground and fronts residential properties to the south.

1.3 The site is currently occupied by Barnes Hospital which provides circa 6,950 square metres of C2 medical facilities. There are currently three vehicle accesses to the site. The eastern access operates as an inbound only entrance, the central access operates as an outbound only exit and the western access to the site is not currently in use. However, it is noted that at the time of planning submission, the eastern access is closed due to demolition works at the site and all access to the site is via the central access point.

1.4 The current proposals seek "*outline planning permission for the demolition and comprehensive redevelopment (phased development) of land at Barnes Hospital to provide a mixed use development comprising a health centre (Use Class D1), a Special Educational Needs (SEN) School (Use Class D1), up to 80 new build residential units (Use class C3), the conversion of two of the retained BTMs for use for up 3no. residential units (Use Class C3), the conversion of one BTM for medical use (Use Class D1), car parking, landscaping and associated works. All matters reserved save for the full details submitted in relation to access points at the site boundaries.*"

1.5 This Transport Statement has been prepared to support the current planning application and considers the highway and transport matters associated with the development proposals in particular with regard to trip generation, vehicle access, parking and servicing arrangements.

1.6 Following this introduction, the remainder of the report comprises the following sections:

- Section 2 outlines the transport planning policies that are considered to be pertinent to this application;
- Section 3 considers the existing use of the site and reviews the accessibility of the site by all modes of transport;
- Section 4 provides an overview of the proposed development;
- Section 5 assesses the trip generating potential of the proposed development against the existing use of the site; and,
- Section 6 summarises the key findings and conclusions of the report.

2.0 Policy Context

National Policy

National Planning Policy Framework (July 2018)

2.1 The updated National Planning Policy Framework (NPPF) was published in July 2018. The document sets out a presumption in favour of sustainable development that recognises the importance of transport policies in facilitating sustainable development. It also indicates that planning decisions should have regard to local circumstances.

2.2 In promoting sustainable transport, the document identifies at paragraph 103 that:

"*The planning system should actively manage patterns of growth…. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes*."

2.3 With regard to car parking, the NPPF does not refer to maximum or minimum car parking standards for new development, and instead promotes a flexible approach to car parking provision having regard to the accessibility of a development by non-car modes, local car ownership and the need to ensure adequate provision for 'plug-in' and other ultra-low emission vehicles. Paragraph 106 states:

"*Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport*."

2.4 With regard to transport and development, paragraph 108 of the NPPF states that:

"*In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- *Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *Safe and suitable access to the site can be achieved for all users; and*
- *Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree*."

2.5 Paragraph 109 continues to state:

"*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impact on the road network would be severe*."

Regional Policy

The London Plan: The Spatial Development Strategy for London Consolidated with Alterations since 2011 (March 2016)

2.6 The London Plan (2011) is the overall strategic plan for the development of the capital to 2031. Chapter six of the London Plan sets out the context of integrating transport and development. Policy 6.3 informs an assessment of the effects of development on transport capacity and states:

- *"Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed. Development should not adversely affect safety on the transport network;*

- *Where existing transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans exist for an increase in capacity to cater for this, boroughs should ensure that development proposals are phased until it is known these requirements can be met, otherwise they may be refused. The cumulative impacts of development on transport requirements must be taken into account; and*
- *Transport Assessments will be required in accordance with TfL's Transport Assessment Best Practice Guidance for major planning applications. Workplace and/or residential Travel Plans should be provided for planning applications exceeding the thresholds in, and produced in accordance with, the relevant TfL guidance. Construction logistics plans and delivery and servicing plans should be secured in line with the London Freight Plan and should be co-ordinated with Travel Plans."*

2.7 Policy 6.13 relates to parking and states:

- *"The Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycle, walking and public transport use".*

2.8 The table below sets out the expected maximum number of car parking spaces associated with proposed residential dwellings.

Number of beds	Maximum number of spaces
1-2 bedroom(s)	Less than 1 per unit
3 bedrooms	Up to 1.5 per unit
4 or more bedrooms	Up to 2 per unit

Table 2.1: London Plan Car Parking Standards

2.9 The London Plan does not set out car parking standards for health or school uses and instead states *"the level of parking should be determined by the Transport Assessment undertaken for the proposal"*.

2.10 With regards to cycle parking, the London Plan minimum cycle parking standards are summarised in Table 2.2 below:

Land Use	Long Stay	Short Stay
C3 – Residential dwellings	1 space per studio and 1-bedroom unit 2 spaces per all other dwellings	1 space per 40 units
D1 – Health centre	1 space per 5 staff	1 space per 3 staff
D1 – nurseries/schools (primary and secondary)	1 space per 8 staff + 1 space per 8 students	1 space per 100 students

Table 2.2: London Plan Cycle Parking Standards

Draft London Plan

2.11 The Draft London Plan was published in December 2017 and once adopted will replace the currently adopted version of the London Plan.

2.12 In relation to assessing the transport impacts of development, Policy T4 of the Draft London Plan states:

A. *"Development Plans and development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity.*

B. *Transport assessments should be submitted with development proposals to ensure that any impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide and strategic level, are fully assessed. Transport assessments should focus on embedding the Healthy Streets Approach within, and in the vicinity of, new development. Travel plans, parking design and management plans, construction logistics plans and delivery and servicing plans will be required in accordance with relevant Transport for London guidance.*

C. *Where appropriate, mitigation, either through direct provision of public transport, walking and cycling facilities and highways improvements or through financial contributions, will be required to address any adverse transport impacts that are identified.*

D. *Where the ability to absorb increased travel demand through active travel modes has been exhausted, existing public transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans and funding exist for an increase in capacity to cater for the increased demand, planning permission may be contingent on the provision of necessary public transport and active travel infrastructure.*

E. *The cumulative impacts of development on public transport and the road network capacity including walking and cycling, as well as associated effects on public health, should be taken into account and mitigated.*

F. *Development proposals should not increase road danger."*

2.13 Policy T6 of the Draft London Plan provides guidance on car parking. Table 10.3 of the Draft London Plan provides maximum car parking standards for residential developments, which are set out below.

Land Use	Maximum Parking Standard
Residential	Inner London PTAL 2, Outer London PTAL 4, Outer London Opportunity Areas Up to 0.5 spaces per unit

Table 2.3: London Plan Maximum Car Parking Standards

2.14 The Draft London Plan states that *"where no standard is provided, the level of parking should be determined on a case-by-case basis taking account of Policy T6 Car parking, PTAL and future levels of public transport, walking and cycling connectivity"*.

2.15 The Draft London Plan advises that disabled persons parking should also be provided for new residential developments. As a minimum, it should be ensured that a least one designated disabled persons parking bay per dwelling for 3% of dwellings is available from the outset. It should also be demonstrated how the remaining bays to a total of one per dwelling for 10% of dwellings can be requested and provided when required a designated disabled persons parking in the future.

2.16 Table 10.2 of the Draft London Plan provides minimum cycling parking standards which are summarised in Table 2.4 below.

Land Use	Long-stay	Short-stay
C3-C4 – Dwellings (all)	1 space per studio, 1.5 spaces per 1-bedroom unit, 2 spaces per all other dwellings	1 space per 40 units
D1 – Health centre, including dentists	1 space per 5 FTE	1 space per 3 FTE staff
D1 – Primary schools/secondary schools / sixth form colleges	1 space per 8 FTE staff + 1 space per 8 students	1 space per 100 students

Table 2.4: Draft London Plan Minimum Cycle Parking Standards

Local Policy

London Borough of Richmond upon Thames Local Plan (July 2018)

2.17 The July 2018 Local Plan replaces the previous policies contained within the Core Strategy and Development Management Plan, which previously applied to Richmond. The Plan sets out policies and guidance for the development of the borough over the next 15 years. The policies considered pertinent to this application are listed below.

- Policy LP 44: Sustainable Travel Choices –

  A. Location of development – *"Encourage high trip generating development to be located in areas with good public transport with sufficient capacity, or which are capable of supporting improvements to provide good public transport accessibility and capacity, taking account of local character and context."*

  B. Walking and cycling – *"Ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the provision of safe and convenient walking and cycling routes, and to provide opportunities for walking and cycling, including the provision of links and enhancements to existing networks."*

  C. Public transport – *"Ensure that major new development is designed to maximise opportunities to provide safe and convenient access to public transport services. Proposals will be expected to support improvements to existing services and infrastructure where no capacity current exists or is planned to be provided."*

  D. The road network – *"Ensure that new development does not have a severe impact on the operation, safety or accessibility to the local or strategic highway networks. Any impacts on the local or strategic highway networks, arising from the development itself or the cumulative effects of development, including in relation to on-street parking, should be mitigated through the provisions of, or contributions towards, necessary and relevant transport improvements."*

- Policy LP 45: Parking Standards and Servicing –

  "Parking Standards: The Council will require new development to make provision for the accommodation of vehicles in order to provide for the needs of the development while minimising the impact of car based travel including on the operation of the road network and local environment, and ensuring making the best use of land. It will achieve this by:

  1. *Requiring new development to provide for car, cycle, 2 wheel and, where applicable, lorry parking and electric vehicle charging points, in accordance with the standards set out in Appendix 3. Opportunities to minimise car parking through its shared use will be encouraged.*

  2. *Resisting the provision of front garden car parking unless it can be demonstrated that:*

     a) *there would be no material impact on road or pedestrian safety;*

     b) *there would be no harmful impact on the character of the area, including the streetscape or setting of the property, in line with the policies on Local Character and Design; and*

     c) *the existing on-street demand is less than available capacity.*

  3. *Car free housing developments may be appropriate in locations with high public transport accessibility, such as areas with a PTAL of 5 or 6, subject to:*

     a) *the provision of disabled parking;*

     b) *appropriate servicing arrangements; and*

     c) *demonstrating that proper controls can be put in place to ensure that the proposal will not contribute to on-street parking stress in the locality.*

Freight and Servicing: New major development which involves freight movements and has servicing needs will be required to demonstrate through the submission of a Delivery and Servicing Plan and Construction and Logistics Plan that it creates no severe impacts on the efficient and safe operation of the road network and no material harm to the living conditions of nearby residents."

2.18 The LB Richmond upon Thames car and cycling parking standards are set out at Appendix 3 of the adopted Local Plan. The relevant standards with regard to the development proposals are set out below.

Land Use		**Vehicle Parking Space Required (maximum)**	**Cycle Parking (minimum)**
Use Class C3 (standard residential)	PTALs 0-3 (1-2 bedrooms)	1 space	As per London Plan
	PTALs 0-3 (3+ bedrooms)	2 spaces	
	PTALs 4-6	As per London Plan although local circumstances, CPZ times and on-street parking conditions need to be assessed	
Clinics, Health Centres, Dentists/Doctors Surgeries	PTALs 0-3	1 per 2 staff	As per London Plan
	PTALs 4-6	Case by case basis	
Schools		1 space per 2 staff. Arrangements must also be made for visitor and disabled parking spaces as per London Plan. Facilities for setting down of coaches off street required.	As per London Plan

Table 2.5: Richmond upon Thames Car and Cycle Parking Standards

3.0 Baseline Conditions

3.1 The application site is situated within the Barnes area of LBRuT and is bound to the north by South Worple Way, to the east by South Worple Avenue, to the west by Old Mortlake Burial Ground and fronts residential properties to the south.

3.2 The site location in relation to the surrounding area is shown in **Figure 3.1**.

Existing Site Use

3.3 The site is currently occupied by Barnes Hospital which provides circa 6,950 square metres of C2 medical facilities. There are currently three vehicle accesses to the site. The eastern access operates as an inbound only entrance, the central access operates as an outbound only exit and the western access to the site is not currently in use. However, it is noted that at the time of planning submission, the eastern access is closed due to demolition works at the site and all access to the site is via the central access point.

Local Highway Network

3.4 South Worple Way is a two-way carriageway operating in an east-west alignment and runs parallel to the railway line. To the east of the site South Worple Way connects with White Hart Lane and a railway level crossing is located directly north of the junction between South Worple Way and White Hart Lane. At the junction between South Worple Way and White Hart Lane, the left turn movement out of South Worple Way is restricted such that all vehicles are required to turn right out of onto White Hart Lane (southbound).

3.5 White Hart Lane is a two-way carriageway operating in a north-south alignment and connects to Mortlake High Street (A3003) to the north and with Upper Richmond Road West (A205) via Priests Bridge to the south. Mortlake High Street creates a link between the A316 to the west and Hammersmith Bridge to the north east.

3.6 The streets in the immediate vicinity of the site are not currently subject to any parking controls and the site is not situated within a controlled parking zone. However, the streets to the north of the railway are within LBRuT Controlled Parking Zone (CPZ) M. In addition, the streets to the west of the site, west of Trehern Road are part of CPZ ES.

3.7 It is noteworthy that LBRuT are bringing forward proposals for a CPZ on the streets in the vicinity of the site, including South Worple Way and will be introduced as Zone B2.

Sustainable Transport Accessibility

3.8 It is generally accepted that walking and cycling provide important alternatives to the private car, and should also be encouraged to form part of longer journeys via public transport. The Chartered Institution of Highways and Transportation (CIHT) have prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments. Within these documents it is suggested that:

- Most people will walk to a destination that is less than one mile (Planning for Walking, 2015);
- The bicycle is a potential mode of transport for all journeys under five miles (approximately 8 kilometres) (Planning for Cycling, 2015); and,
- Walking distances to bus stops should not exceed 400 metres, whilst people are prepared to walk twice as far to rail stations (Planning for Walking, 2015).

Accessibility by Foot

3.9 South Worple Way benefits from a footway on the southern side of the carriageway, which connects east to White Hart Lane and west to Sheen Lane. This footway connects with streets from South Worple Way, which connect south towards the Upper Richmond Road West (A205). Dropped kerbs and tactile paving are provided at all junctions in the immediate vicinity of the site.

3.10 The site is bound by South Worple Avenue to the east, which is a public right of way (PROW). This provides a traffic free pedestrian route towards White Hart Lane to the south east of the site.

3.11 To the west of the application site there is a pedestrian footbridge across the railway line which provides a connection north towards the bus stops on Avondale Road to the north creating a safe route across the railway track. To the south, signalised pedestrian crossings connect Priests Bridge to Upper Richmond Road West (A205) and creates a safe crossing to local bus stops, shops and services.

3.12 There is currently no footbridge over White Hart Lane level crossing to the east of the site. However, recent proposals to implement a new footbridge over the crossing have been permitted, which will improve pedestrian safety and connectivity in the area.

3.13 It is evident that the existing pedestrian infrastructure in the vicinity of the site provides the opportunity for future residents, staff and visitors to the site to undertake journeys on foot with connections to local shops, services and facilities as well as public transport opportunities and residential areas.

Accessibility by Cycle

3.14 The site is well located with regard to cycle opportunities with a range of signed and recommended cycle routes in the immediate vicinity as highlighted by TfL's Local Cycling Guide. Cycle routes are illustrated on **Figure 3.2**, along with further information on the routes detailed below.

3.15 The TfL Local Cycling Guide identifies South Worple Way as a quiet route recommended by cyclists. This connects with further recommended routes on White Hart Lane, Rosslyn Avenue and Woodlands Road which connect east towards Barnes station. East of Barnes station there are signed cycle routes on Upper Richmond Road towards Putney and Putney Bridge.

3.16 To the west of the application site, Sheen Lane is a signed cycle route and this connects south to off-road cycle routes through Richmond Park. Further signed cycle routes are provided along St Leonards Road and Tangier Road which link west towards North Sheen station.

Public Transport Accessibility Level (PTAL)

3.17 Public Transport Accessibility Levels (PTALs) provide a guide to the relative accessibility of a site. PTAL scores range from 1 to 6b, where 6b is the highest score and 1 is the lowest.

3.18 The Transport for London online PTAL calculator, WebCAT, indicates that the application site achieves a PTAL of 2. However, from a review of the WebCAT PTAL output report it is evident that the analysis does not include consideration of all pedestrian routes in the vicinity of the site and therefore underestimates the PTAL score and public transport accessibility of the site. In particular, the WebCAT assessment does not include consideration of the pedestrian footbridge across the railway line to the west of the site, which provides a connection north towards bus stops on Avondale Road and Mortlake High Street.

3.19 In addition, a new footbridge is to be provided by LBRuT/Network Rail/TfL, which will enhance pedestrian connectivity and improve the pedestrian links to nearby public transport facilities.

3.20 On that basis a manual PTAL assessment has been undertaking in order to accurately assess the PTAL score of the application site. The full manual PTAL assessment is attached at **Appendix A** and demonstrates that the site achieves a PTAL of 4, indicating a good level of accessibility to public transport services.

Accessibility by Bus

3.21 The nearest bus stops to the site are located approximately 300 metres to the south east of the site on Upper Richmond Road West (A205). These stops are served by routes 33, 337 and 493 and provide a regular connection towards Hammersmith, Richmond, Clapham Junction and Tooting.

3.22 Further bus stops are located north of the site on Avondale Road and Mortlake High Street which are served by services 209, 419, 609, 969 and N22. The bus stops to the north can either be accessed via the railway level crossing to the east of the site or via the pedestrian footbridge to the west of the site.

3.23 A copy of the TfL local bus route spider map is attached at **Appendix B**.

Accessibility by Rail

3.24 Mortlake railway station is located approximately 750 metres to the west of the site and is managed by South Western Railway. Services from Mortlake station operate to London Waterloo every 15 minutes and to both Wimbledon and Chiswick every 30 minutes during peak periods.

3.25 Barnes Bridge station is located approximately 750 metres to the north east of the site and is also managed by South Western Railway. Services from here operate to London Waterloo every 15 minutes and to both Weybridge and Hounslow every 30 minutes.

3.26 In addition, the bus services which call within the vicinity of the site provide connections to both Mortlake and Barnes Bridge stations, along with a connection to North Sheen, Barnes, Richmond, Southfields and Wimbledon stations. The connections to Richmond, Southfields and Wimbledon provide access to the London Underground District Line.

3.27 It is evident that the site is well placed for future residents, staff and visitors to undertake journeys by rail with a number of train stations in the vicinity of the site providing access to a range of destinations. Furthermore, local bus services provide access to further rail stations, providing the opportunity for interchange between public transport and access to a wider range of destinations.

Car Club

3.28 Car Clubs can help to reduce car ownership by offering the convenience of a car, without the costs of repairs, servicing, insurance and parking.

3.29 The nearest car club car to the site is located on Thorne Street, approximately 380 metres north-east of the application site and is operated by ZipCar. Further car club cars, operated by ZipCar, are located on Avondale Road, Mortlake High Street and Vernon Road within a short walk of the site.

Baseline Travel Behaviour

3.30 In order to establish the existing baseline travel behaviour for residents, reference has been made to Census data extracted from the *Nomis* website. A summary of the data extracted from the 2011 Census is provided at Table 3.1 and attached at **Appendix C.**

Mode of Travel	Output Area *Richmond upon Thames 003 (%)*
Underground	15%
Rail	30%
Bus	11%
Car/van driver	23%
Car/van passenger	1%
Taxi	0%
Motorcycle	2%
Pedal Cycle	10%
On foot	8%
TOTAL	**100%**

Table 3.1: Method of travel to work (residents)

3.31 Table 3.1 indicates that 74% of residents travel to work via sustainable modes of transport (i.e. public transport, walking and cycling) and 23% travel by private car. This suggests that the existing infrastructure in the vicinity of the site will encourage future residents to travel by more sustainable modes of transport.

3.32 In order to establish the existing baseline travel behaviour for staff associated with the proposed school and health centre, reference has also been made to Census data extracted from the *Nomis* website. Details of the data extracted from the 2011 Census is summarised in Table 3.2 and provided at **Appendix C.**

Mode of Travel	Output Area *Richmond upon Thames 003 (%)*
Underground	10%
Rail	18%
Bus	11%
Car/van driver	37%
Car/van passenger	2%
Taxi	0%
Motorcycle	1%
Pedal Cycle	7%
On foot	14%
TOTAL	**100%**

Table 3.2: Method of travel to work (employees)

3.33 Table 3.2 indicates that 60% of people travelling into Richmond upon Thames output area 003 for work, travel via sustainable modes of transport (i.e. public transport, walking and cycling) and 37% travel by private car. This suggests that the existing infrastructure in the vicinity of the site will encourage future employees at the site to travel by more sustainable modes of transport.

Summary

3.34 The above review demonstrates that, in accordance with local and national planning policy, the site is situated in an accessible location with a range of sustainable transport choices in the vicinity of the site.

3.35 The pedestrian and cycle facilities in the vicinity of the site provide the opportunity for future residents, staff and visitors to undertake journeys by foot or cycle and provide access to a range of destinations including local residential areas and employment opportunities. Furthermore, the pedestrian and cycle facilities provide a connection to the public transport infrastructure in the vicinity of the site,

3.36 The site achieves a PTAL of 4 which highlights good accessibility to public transport opportunities. There a number of bus services and train stations in the vicinity of the site providing a choice of public transport routes providing access to a range of destinations.

4.0 Development Proposals

Existing Site Use

4.1 The site is currently occupied by Barnes Hospital which provides circa 6,950 square metres of C2 medical facilities. There are currently three vehicle accesses to the site. The eastern access operates as an inbound only entrance, the central access operates as an outbound only exit and the western access to the site is not currently in use. However, it is noted that at the time of planning submission, the eastern access is closed due to demolition works at the site and all access to the site is via the central access point.

Planning Application Details

4.2 A copy of the proposed site layout plan is attached at **Appendix D** and the current planning application seeks:

"*outline planning permission for the demolition and comprehensive redevelopment (phased development) of land at Barnes Hospital to provide a mixed use development comprising a health centre (Use Class D1), a Special Educational Needs (SEN) School (Use Class D1), up to 80 new build residential units (Use class C3), the conversion of two of the retained BTMs for use for up 3no. residential units (Use Class C3), the conversion of one BTM for medical use (Use Class D1), car parking, landscaping and associated works. All matters reserved save for the full details submitted in relation to access points at the site boundaries.*"

4.3 The residential accommodation will provide a total of 83 units comprising 80 units within three new residential blocks and 3 residential units through the conversion of two retained BTMs (Buildings of Townscape Merit). The units are likely to comprise 31 x 1 bedroom, 37 x 2 bedroom and 15 x 3-bedroom units.

4.4 The health centre will provide a combination of outpatient mental health facilities for the Trust and a GP surgery. Information provided by the trust details that the GP surgery would likely provide up to 7 consulting rooms, while the mental health outpatient facilities will provide 28 consulting rooms, resulting in a total of 35 consulting rooms on site.

4.5 Details of the likely operation of the SEN school have been provided by LBRuT and they have confirmed that the school would accommodate between 50-90 pupils and have circa 50 staff.

Access

4.6 The site currently benefits from three points of vehicle access from South Worple Way. It is proposed that vehicle access to the residential element of the development will be taken via the existing western access to the site, which will operate as a two-way access to the basement residential car park. Drawing 170926-10, attached at **Appendix E**, shows the proposed arrangement at the western access to the site.

4.7 Vehicle access to the health centre and SEN school will be taken from the existing eastern access to the site, which will be widened to accommodate two-way traffic movements. Drawing 170926-12, attached at **Appendix E**, shows the proposed arrangement of the eastern access to the site. There will be no internal vehicle connection between the two vehicle access points.

4.8 The existing central vehicle access point will be closed to vehicles and will operate as an access for pedestrians, cyclists and as an emergency vehicle access only. Drawing 170926-11, attached at **Appendix E**, shows detail of the closure of the existing vehicle access.

Car Parking

Residential

4.9 As set out in Section 3 of this Note, the site is situated in an accessible location, achieving a PTAL of 4. The streets in the immediate vicinity of the site are not currently subject to parking controls. However, LBRuT are bringing forward proposals for a CPZ on the streets in the vicinity of the site, including South Worple Way.

4.10 Appendix 3 of the LBRuT Local Plan provides maximum car parking standards for residential use. For residential dwellings situated in a site with PTALs of 4-6, as the application is, reference should be made to the London Plan. When referring to the Draft London Plan, Outer London locations with a PTAL of 4 should provide 0.5 spaces per unit.

4.11 The proposed development will provide up to 83 residential units and it is proposed to provide a total of 44 car parking spaces (including 5 disabled accessible spaces) for the residential use within the basement car park, equating to a ratio of 0.53 spaces per unit. The proposed parking provision is in accordance with LBRuT and London Plan standards and is therefore considered appropriate to meet the needs of the development.

4.12 On that basis car parking is provided in accordance with LBRuT and London Plan standards it is concluded that the development would not result in overspill parking from the development onto the streets in the vicinity of the site. Notwithstanding, it is proposed that residential units would be subject to a permit free agreement, such that future residents of the development are not eligible to apply for a parking permit within the local controlled parking zone. On that basis the development proposals would not have any material effect on local parking conditions in the vicinity of the site.

4.13 Cycle parking for the proposed residential dwellings will be provided in accordance with LBRuT Local Plan and London Plan minimum cycle parking standards, which state that 1.5 long stay spaces should be provided per 1-bedroom unit, 2 long stay spaces for all other dwellings and 1 short stay space per 40 units. As such, a total of 151 long stay and 2 short stay spaces will be provided on-site.

Health Centre Parking

4.14 The proposed health centre will provide 35 consulting rooms split between the mental health outpatient facilities and GP Surgery. The development will provide a total of 26 car parking spaces (inclusive of 4 accessible spaces) for the health centre which will be provided at ground floor level, accessed via the eastern access to the site.

4.15 The LBRuT parking standards advise the for D1 use developments in a location achieving a PTAL of 4-6, such as the application site, parking provision should be assessed on a case by case basis. The proposed provision equates to 0.74 spaces per consulting room, which is considered appropriate to meet the needs of the development.

4.16 As set out previously, the streets in the vicinity of the site will be part of a controlled parking zone and this will prevent staff or future visitors to the site parking on streets. In addition, the site is in an accessible location with a PTAL rating of 4, which is likely to encourage staff and visitors to travel by sustainable modes as suggested by the Census data presented in Table 3.2 above.

4.17 Cycle parking for the proposed health centre will be provided in accordance with LBRuT Local Plan and London Plan minimum cycle parking standards. The London Plan states that 1 long stay space should be provided per 5 full time employees and that 1 short stay space should be provided per 3 full time employees. It is understood that the health centre will employ a total of 51 staff and as such 10 long stay and 17 short stay spaces will be provided.

SEN School Parking

4.18 Details of the likely operation of the SEN school have been provided by LBRuT and they have advised that the school would accommodate between 50-90 pupils and have circa 50 staff.

4.19 LBRuT have confirmed that all pupils will be travelling to the site by a Local Authority commissioned minibus. On that basis car parking will only be provided for staff, along with adequate space for minibuses to pick up and drop off pupils before leaving the site in a forward gear via the eastern access.

4.20 It is anticipated that in the region of 50 staff will be at the school at any one time. In the first instance, staff will be encouraged to travel by sustainable modes including walking, cycling, bus and rail as well as being encouraged to car share. Due to the good level of accessibility to the site (PTAL 4), it is anticipated that the majority of staff will indeed travel by sustainable methods of travel and therefore the proposals will make the provision for 11 parking spaces (inclusive of 1 accessible space). As the streets in the vicinity of the site are to become part of a CPZ, future staff at the school would not be able to parking on street and therefore the proposals would not have any material effect on local parking conditions in the vicinity of the site.

4.21 Cycle parking will be provided in accordance with LBRuT and London Plan minimum standards, which require 1 long stay space per 8 staff and 1 short stay space per 100 students. The development proposals make provision for up to 26 cycle parking spaces, which is above the minimum standards.

Parking Survey

4.22 In order to establish current levels of parking demand on the streets in the vicinity of the site, overnight parking surveys in accordance with the 'Lambeth' methodology, were undertaken on Thursday 5 October and Tuesday 10 October 2017. The survey area covered all streets within a 200-metre catchment of the site. The full survey outputs and plans of the survey area for the site are contained within **Appendix F**.

4.23 The survey identified a total of 324 unrestricted on-street parking opportunities on the streets in the vicinity of the site and recorded 262 and 258 vehicles parked on the Thursday (5th) and Tuesday (10th) night respectively. As such, there was a minimum of 68 and 70 parking opportunities available on the Thursday and Tuesday night respectively, equivalent to existing parking capacity of 81% and 80%.

4.24 The results of the parking survey demonstrate that there is on-street parking capacity in the vicinity of the site. However, it is anticipated that given the proposed parking provision, the introduction of the new CPZ in the area and the permit free agreement, there will not be any overspill parking on the surrounding streets as a result of the proposals and the development would not have any material effect on local parking conditions in the vicinity of the site.

Deliveries and Servicing

4.25 Refuse collection for all the proposed uses will be undertaken on site. The health centre and SEN school are accessed from the eastern access and as such the refuse vehicle will enter the site via the eastern access from South Worple Way, manoeuvre on-site and leave in a forward gear. Swept path analysis is provided at Drawings 170926-TK22, TK24 and TK25, attached at **Appendix G**, showing the refuse vehicle accessing the health centre and SEN school and manoeuvring on site. It is expected that the health centre and SEN school will both have privately managed refuse collection strategies. As such, refuse collection of these uses will occur outside peak hour periods.

4.26 With regard to refuse collection for the residential use, there is a refuse collection bay located in the north western corner of the site, opposite to residential block A. Building management would be responsible for the transfer of waste bins from basement stores to the refuse collection bay on the day of collection and returning the bins to stores after collection. The refuse vehicle will reverse from South Worple Way into the area dedicated for refuse collection, before leaving the site in forward gear. Swept path analysis is provided at Drawing 170926-TK17, attached within **Appendix G**, showing the refuse vehicle manoeuvre to and from the site.

4.27 Deliveries to the health centre and SEN school uses will be undertaken on site and swept path analysis is provided at Drawings 170926-TK18 and TK27, attached within **Appendix G**, showing expected delivery vehicles accessing the health centre and SEN school.

4.28 Deliveries to the residential use will be undertaken on-street on South Worple Way. As presented at Drawing 170926-11, a stretch of double yellow lines will be provided on South Worple Way where the existing central access point to the site is to be closed. This provides an appropriate opportunity from deliveries and servicing, other than refuse collection to be undertake for the residential use.

4.29 A Delivery and Servicing Management Plan (DSMP) has been prepared and is submitted under separate cover. This document provides further detail and the servicing and deliveries associated with the site.

Summary

4.30 The proposed parking provision will be appropriate to meets the needs of the development and will not result in any overspill from the development onto the streets in the vicinity of the site. It is also noted that the proposed that development would be subject to a permit free agreement, such that future residents of the development are not eligible to apply for a parking permit within the local controlled parking zone. In addition, the introduction of the CPZ by LBRuT will mean that staff of the health centre and the school will not be able to park on the surrounding streets.

4.31 On that basis the development proposals would not have any material effect on local parking conditions in the vicinity of the site.

4.32 Furthermore, refuse vehicles will service all uses of the proposals on site and deliveries associated with the residential use will service on street in a suitable location as to not affect the free flow operation of the surrounding highway network.

5.0 Effect of Development

Overview

5.1 The section of the report considers the likely person and vehicle trips associated with the existing and proposed site uses and the likely effect of those trips on the highway network local to the site.

Existing Site Use

5.2 The application site is currently occupied by Barnes Hospital and provides circa 6,950 square metres of medical floor space. However, the Trust have advised that the site is predominantly unoccupied at present with circa 991 squares metres of floor space currently in use.

5.3 Whilst the hospital is predominantly unoccupied, it has valid planning land-use use as a hospital and could potentially be fully reoccupied as a hospital. To this extent it is considered relevant to consider the trip attraction of the site if fully occupied for current lawful use.

5.4 The TRICS database has limited information for comparable medical uses and, given the limited existing occupancy of the site at present, it is considered that surveys of the existing traffic at the site would not provide an appropriate basis for the potential trip generation of the existing site use.

5.5 On that basis reference is made to traffic surveys undertaken at Tolworth Hospital in 2014 as part of redevelopment proposals for that site (Planning Ref: 14/10290). The traffic surveys at Tolworth Hospital were presented within the Transport Assessment submitted alongside that planning application and have been used to calculate person trip rates for that site. It is considered that the person trip rates calculated for Tolworth Hospital provide an appropriate comparable basis for considering the person trip attraction of the Barnes Hospital site, should it be reoccupied.

5.6 Table 5.1 below summarises the person trip rates and person trips associated with the existing use of the site, when it was previously occupied or should it be fully reoccupied for its current use.

Time Period	Person Trip Rate (per 100sqm)			Total Person Trips (6,950sqm)		
	In	Out	Total	In	Out	Total
AM Peak 0800-0900	0.817	0.134	0.945	57	9	66
PM Peak 1700-1800	0.207	0.689	0.890	14	48	62

Table 5.1: Existing Hospital Trips (Total People)

5.7 Table 5.1 demonstrates that the existing site, should it be fully occupied, would likely result in 66 two-way person trips during the morning peak hour and 62 two-way person trips during the evening peak hour.

5.8 In order to consider the mode split of the person trips associated with the existing use of the site, reference has also been made to modal split data provided within the assessment of the Tolworth Hospital site.

Time Period	Total Vehicle Trips (6,950sqm)		
	In	Out	Total
AM Peak 0800-0900	41	7	48
PM Peak 1700-1800	11	35	46

Table 5.2: Existing Hospital Trips (Vehicle)

5.9 Table 5.2 demonstrates that the existing site is likely to generate in the order of 48 two-way vehicle trips during the morning peak hour and 46 during the evening peak hour.

Proposed Site Uses

5.10 The proposals comprise the redevelopment of the site to provide up to 83 residential units, a health centre comprising 2,500 square metres (GIA) and a special education needs (SEN) school comprising 2,402 square metres (GIA). The TRICS database has therefore been interrogated where possible to establish the likely trip rates associated with the proposed uses of the site.

Residential

5.11 The results of the TRICS assessment for the residential use of the site are attached at **Appendix H** of this report, with the results of the total person trip rates summarised in the table below. It is noted that the TRICS assessment has been based on private flats, which is considered robust as the residential use of the proposals will contain a proportion of affordable units which typically have a lower trip generation than private flats.

Time Period	Total Person Trip Rate (per unit)			Total Person Trips (83 units)		
	In	Out	Total	In	Out	Total
AM Peak 0800-0900	0.129	0.585	0.714	11	49	60
PM Peak 1700-1800	0.394	0.222	0.616	33	18	51

Table 5.3: Proposed Residential Trips (Private Flats)

5.12 Table 5.3 demonstrates that the existing site is likely to generate in the order of 60 two-way person trips during the morning peak hour and 51 during the evening peak.

5.13 In order to establish how the person trips will be distributed across different mode of travels, the modal share data for the output area (Richmond upon Thames 003) based on 2011 Census data (as presented in Table 3.1) has been applied to the person trips outlined in Table 5.3. Table 5.4 below summaries the multi-modal trips associated with the proposed residential use.

Mode of Travel		AM Peak		PM Peak	
		Arrivals	Departures	Arrivals	Departures
Underground	15%	2	8	5	3
Rail	30%	3	14	10	6
Bus	11%	1	5	3	2
Car/van driver	23%	2	11	8	4
Car/van passenger	1%	0	0	0	0
Taxi	0%	0	0	0	0
Motorcycle	2%	0	1	1	0
Pedal Cycle	10%	1	5	3	2
On foot	8%	1	4	3	1
TOTAL	**100%**	**11**	**49**	**33**	**18**

Table 5.4: Person Trips

5.14 Based upon the information presented in Table 5.4, it is evident that the person trips associated with the proposals will be spread across a number of modes of travel, most notably rail, which is likely to experience 17 two-way movements in the AM peak and 16 in the PM peak. With regard to vehicle trips, the residential use of the site will generate approximately 13 two-way movements in the AM peak and 12 in the PM peak.

Health Centre

5.15 The health centre will provide a combination of outpatient mental health facilities for the Trust and a GP surgery. The GP surgery will provide up to 7 consulting rooms, while the mental health outpatient facilities will provide 28 consulting rooms, resulting in a total of 35 consulting rooms on site. It is understood that the health centre could employ circa 51 staff in total.

5.16 The results of the TRICS assessment for the GP surgery use of the site are attached at **Appendix I** of this report. TRICS has a limited number of surveyed GP surgery sites within London and for that reason the assessment only compares one site. Whilst sites outside of London were interrogated, these sites were not considered comparable to the proposed use in this London location.

5.17 In addition, the TRICS database does not provide an option to base trip rates on number of consulting rooms. For that reason, it has been assumed that one consulting room translates into one doctor, and as the GP surgery has 7 consulting rooms, it has been assumed that it will have 7 doctors.

Time Period	Total Person Trip Rate (per doctor)			Total Person Trips (7 doctors)		
	In	Out	Total	In	Out	Total
AM Peak 0800-0900	4.125	1.000	5.125	29	7	36
PM Peak 1700-1800	2.375	4.625	7.000	17	32	49

Table 5.5: Proposed GP Surgery Trips (Total People)

5.18 Table 5.5 demonstrates that the GP element of the health centre is likely to generate in the order of 36 total person trips during the morning peak hour and 49 during the evening peak hour.

5.19 In addition to the total person trip rates associated with the GP surgery, the likely vehicle trip rate has also been interrogated and is set out in the table below.

Time Period	Total Vehicle Trip Rate (per doctor)			Total Vehicle Trips (7 doctors)		
	In	Out	Total	In	Out	Total
AM Peak 0800-0900	0.875	0.250	1.125	6	2	8
PM Peak 1700-1800	0.750	0.875	1.625	5	6	11

Table 5.6: Proposed GP Surgery Trips (Vehicle)

5.20 Table 5.6 demonstrates that the GP surgery is likely to generate in the order of 8 two-way vehicle movements trips during the morning peak hour and 11 during the evening peak hour.

Health Centre - Mental Health Outpatient Facilities

5.21 As the proposed mental health outpatient facilities of the site will reflect what is currently on-site, the existing trip rates of the hospital presented in Table 5.1 above, have been applied to the 948 square metres of mental health outpatient facilities.

Time Period	Total Person Trips (948sqm)		
	In	Out	Total
AM Peak 0800-0900	8	1	9
PM Peak 1700-1800	2	7	9

Table 5.7: Proposed Clinic Trips (Total People)

Time Period	Total Vehicle Trips (948sqm)		
	In	Out	Total
AM Peak 0800-0900	6	1	7
PM Peak 1700-1800	1	5	6

Table 5.8: Proposed Clinic Trips (Vehicle)

5.22 The above demonstrates that the mental health outpatient facilities will result in 9 total person movements in the AM and PM peaks and in the region of 6 and 7 vehicle movements in the AM and PM peaks respectively.

SEN School

5.23 The TRICS database has limited information on SEN schools and therefore a first principle approach has been applied based on information provided by LBRuT. LBRuT have confirmed that the school will have between 50 and 90 pupils and will employ in the region of 50 staff.

5.24 Based on information provided by LBRuT it is expected that all pupils will be picked up and dropped off by a Local Authority commissioned minibus. On the basis of up to 90 pupils attending the school it is anticipated that 6 minibuses will be required based on a carrying capacity of 15 pupils per minibus. Mini-buses will not be parked on site and therefore the arrival of pupils in the morning peak hour will will result in 6 inbound and outbound vehicle movements. LBRuT have confirmed that the school day will finish at 3.15pm and on that basis pupil trips leaving the school will occur outside the tradition evening peak period.

5.25 With regard staff trips, it is proposed to provide a total of 11 car parking spaces on site for staff. Given that LBRuT are bringing forward proposals for a CPZ in the vicinity of the site and staff would not be eligible to apply for a parking permit within the CPZ it is concluded that the only staff vehicle trips associated with the site would be associated with the 11 on-site parking spaces.

5.26 For the purpose of the assessment it has been assumed that all 50 staff will arrive at the site during the morning peak hour and this is considered a robust assessment. As set out above, the school day will finish at 3.15pm and so it is envisaged that the majority of staff trips leaving the school at the end of the day will be outside the traditional evening peak period. However, to ensure a robust assessment it has been assumed that 50% of staff of the school (25 staff) will leave the school in the evening peak hour.

5.27 In order to establish how the multi-modal trips associated with school staff reference has been made to data from the 2011 Census data for people travelling to output area Richmond 003. The mode share information has been adjusted to reflect the on-site car parking provision for staff and that parking off site will not be available to staff. The likely travel patterns of staff to the site are detailed in Table 5.9 below.

Mode of Travel		**AM Peak**		**PM Peak**	
		Arrivals	**Departures**	**Arrivals**	**Departures**
Underground	12%	6	0	0	3
Rail	22%	11	0	0	5
Bus	25%	7	0	0	3
Car/van driver	22%	11	0	0	6
Car/van passenger	2%	1	0	0	1
Taxi	0%	0	0	0	0
Motorcycle	2%	1	0	0	0
Pedal Cycle	9%	5	0	0	2
On foot	17%	9	0	0	4
TOTAL	**100%**	**50**	**0**	**0**	**25**

Table 5.9: Staff Trip Attracting Potential

5.28 In addition to the staff trip attraction above, pupil trip attraction would comprise 6 minibus arrival and departures during the morning peak hour, such that the SEN school would result in 23 two-way vehicle movements in the morning peak period and 6 vehicle movements during the evening peak hour.

Net Change

5.29 In order to determine the likely net change in trips as a result of the proposed development, the trips associated with the existing hospital if it was fully reoccupied and proposed uses have been compared. The results of this analysis are shown in Table 5.10.

		AM Peak (0800-0900)			**PM Peak (1700-1800)**		
		In	**Out**	**Total**	**In**	**Out**	**Total**
Existing (fully occupied)	Veh trips	41	7	48	10	35	45
	All person trips	57	9	66	14	48	62
Proposed	Veh trips	31	20	51	15	21	35
	All person trips	104	63	167	52	82	133
Net Change	Veh trips	-10	+13	+3	+3	-14	-11
	All person trips	+47	+54	+101	+38	+34	+71

Table 5.10: Net Change in Trips

5.30 Table 5.10 demonstrates that the proposed development is likely to result in an additional 3 vehicle movements the AM peak and an overall decrease of 11 vehicle movements in the PM peak when compared to the existing site use.

5.31 With regard to person trips the proposals will result in an increase of 101 movements in the AM peak and 71 movements in the PM peak. Given the accessible location of the site, it is envisaged the person trips associated with the proposals will be undertaken by sustainable modes of travel. The analysis has demonstrated that the development proposals will result in a negligible increase in vehicle trips in the morning peak hour and a decrease in trips in the evening peak hour. On that basis the development will not have a material effect on the highway network local to the site. As such no further analysis of vehicle trips associated with the site is considered necessary and no junction surveys or capacity analysis on the surrounding road network is required.

Pedestrian Movements

5.32 With regard to pedestrian movements, the analysis has demonstrated that the proposals are likely to result in an additional 33 and 25 pedestrian movements in the AM and PM peaks, respectively, when compared to the existing use on site. The increase in pedestrian movements is not considered to be significant and would not have a material effect on the existing pedestrian infrastructure in the vicinity of the site.

5.33 The increase pedestrian movements would be spread around various local pedestrian routes and connect towards local residential areas, local facilities on Sheen Lane and Upper Richmond Road west and towards local public transport facilities. On the basis that pedestrian movements would be distributed across various routes it is concluded that the additional pedestrian movements would not have a material effect on the local pedestrian infrastructure and no mitigation or contribution to local pedestrian infrastructure improvements is considered necessary.

Summary

5.34 The analysis has demonstrated that the development would result in a negligible increase in vehicle trips in the morning peak hour and a decrease in vehicle trips in the evening peak hour, when compared to the existing lawful use of the site. On that basis the development will not have a material effect on the highway network local to the site.

5.35 Given the accessible location of the site, any additional person trips will be distributed across a variety of routes and sustainable transport opportunities including rail, bus, cycling and walking. On that basis, it is evident that the change in total person movements associated with the proposed development will not result in a material effect on the operation of the highway and transport networks in the vicinity of the site. No further assessment of the effect of movements associated with the development proposals is considered necessary.

6.0 Summary and Conclusions

6.1 Motion has been appointed by the South West London & St George's Mental Health Trust ('the Trust') to prepare this Transport Statement in relation to development proposals at the Barnes Hospital site within the London Borough of Richmond upon Thames (LBRuT).

6.2 The application site is situated within the Barnes area of LBRuT and is bound to the north by South Worple Way, to the east by South Worple Avenue, to the west by Old Mortlake Burial Ground and fronts residential properties to the south.

6.3 The site is currently occupied by Barnes Hospital which provides circa 6,950 square metres of C2 medical facilities. There are currently three vehicle accesses to the site. The eastern access operates as an inbound only entrance, the central access operates as an outbound only exit and the western access to the site is not currently in use.

6.4 The current proposals seek *"outline planning permission for the demolition and comprehensive redevelopment (phased development) of land at Barnes Hospital to provide a mixed use development comprising a health centre (Use Class D1), a Special Educational Needs (SEN) School (Use Class D1), up to 80 new build residential units (Use class C3), the conversion of two of the retained BTMs for use for up 3no. residential units (Use Class C3), the conversion of one BTM for medical use (Use Class D1), car parking, landscaping and associated works. All matters reserved save for the full details submitted in relation to access points at the site boundaries."*

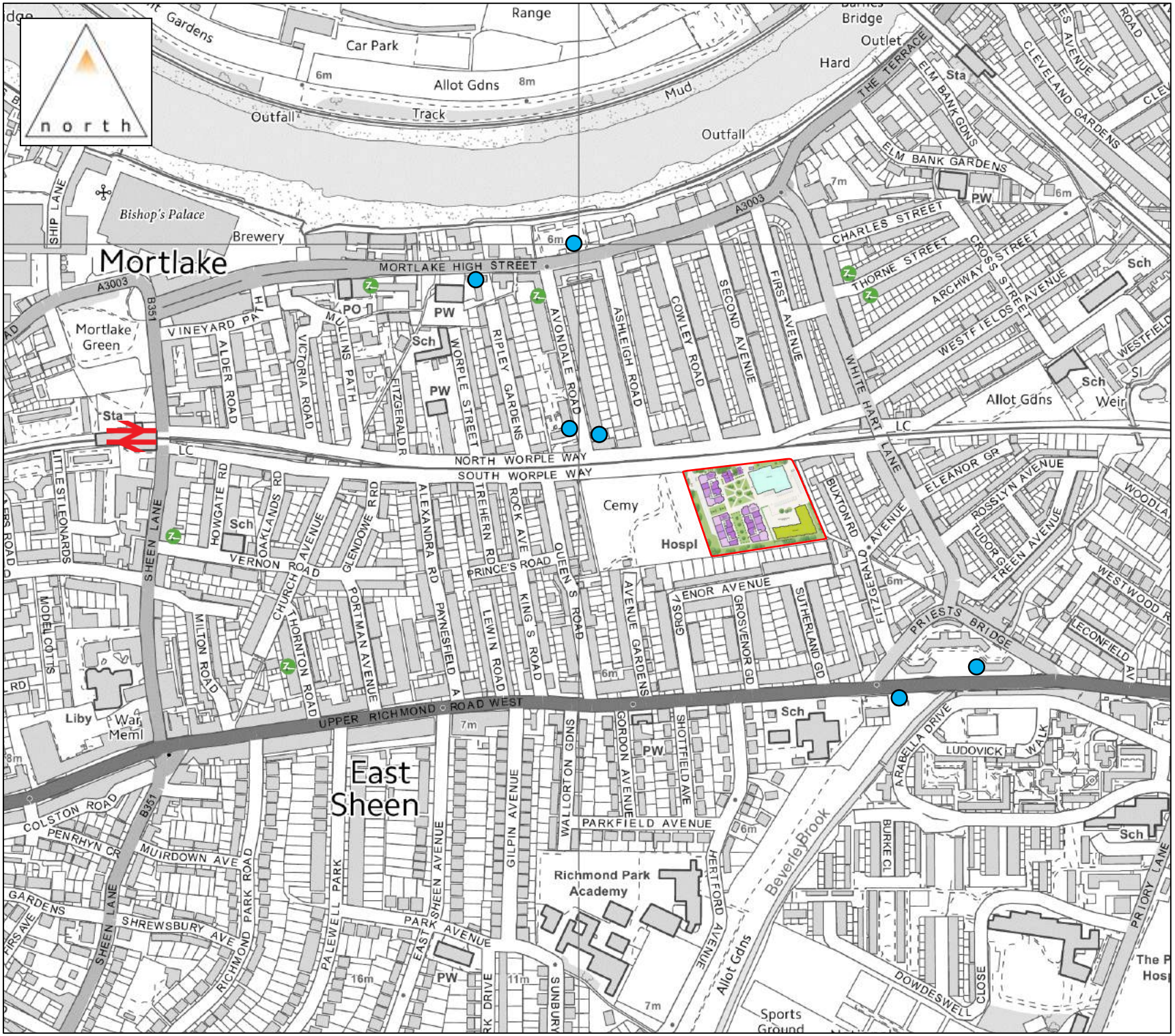
6.5 This Transport Statement has demonstrated that:

- The site is located in a sustainable location that provides convenient access to the wider area and public transport opportunities;
- Vehicle access to the site would be via the existing western and eastern access points. The western access will serve the residential use and the eastern access will serve both the health centre and school;
- The existing central vehicle access point will be closed to vehicles and will operate as an access for pedestrians, cyclists and emergency vehicles only;
- A total of 44 car parking will be provided for the 83 residential units, equating to a ratio of 0.53 spaces per unit. The health centre will be provided with 26 car parking spaces and the SEN school with 11 spaces. This level of parking is considered appropriate to meet the needs of the development, is in accordance with local standards and will avoid overspill parking onto the surrounding roads.
- LBRuT are implementing a CPZ on the surrounding streets. The development will be subject to a permit-free agreement such that future residents and staff of the development will not be eligible to apply for a permit within the local CPZ;
- Cycle parking for all uses will provided in accordance with LBRuT and London Plan minimum standards;
- Framework Residential and Workplace Travel Plans have been prepared alongside this document to encourage sustainable travel choices at the site for residents, employees and visitors;
- Refuse collection will be undertaken on-site for all uses;
- A Delivery and Servicing Management Plan has been prepared and is submitted alongside the planning application under separate cover;

- An analysis of the likely trip attraction of the development has been undertaken and demonstrates that the development proposals would not result in a material increase in vehicle trips when compared to the existing use on site. It is anticipated that any additional person trips as a result of the proposals will be distributed across the sustainable transport opportunities within the vicinity of the site.

6.6 On the basis of the above, it is concluded that the proposals can be accommodated without detriment to the operation of the local transport networks. As such, it is concluded there is no reason why the proposals should be resisted on traffic or transportation grounds.

Figures



Legend:

- Mortlake Station
- Local Bus Stops
- ZipCar Car Club Locations
- Site Location

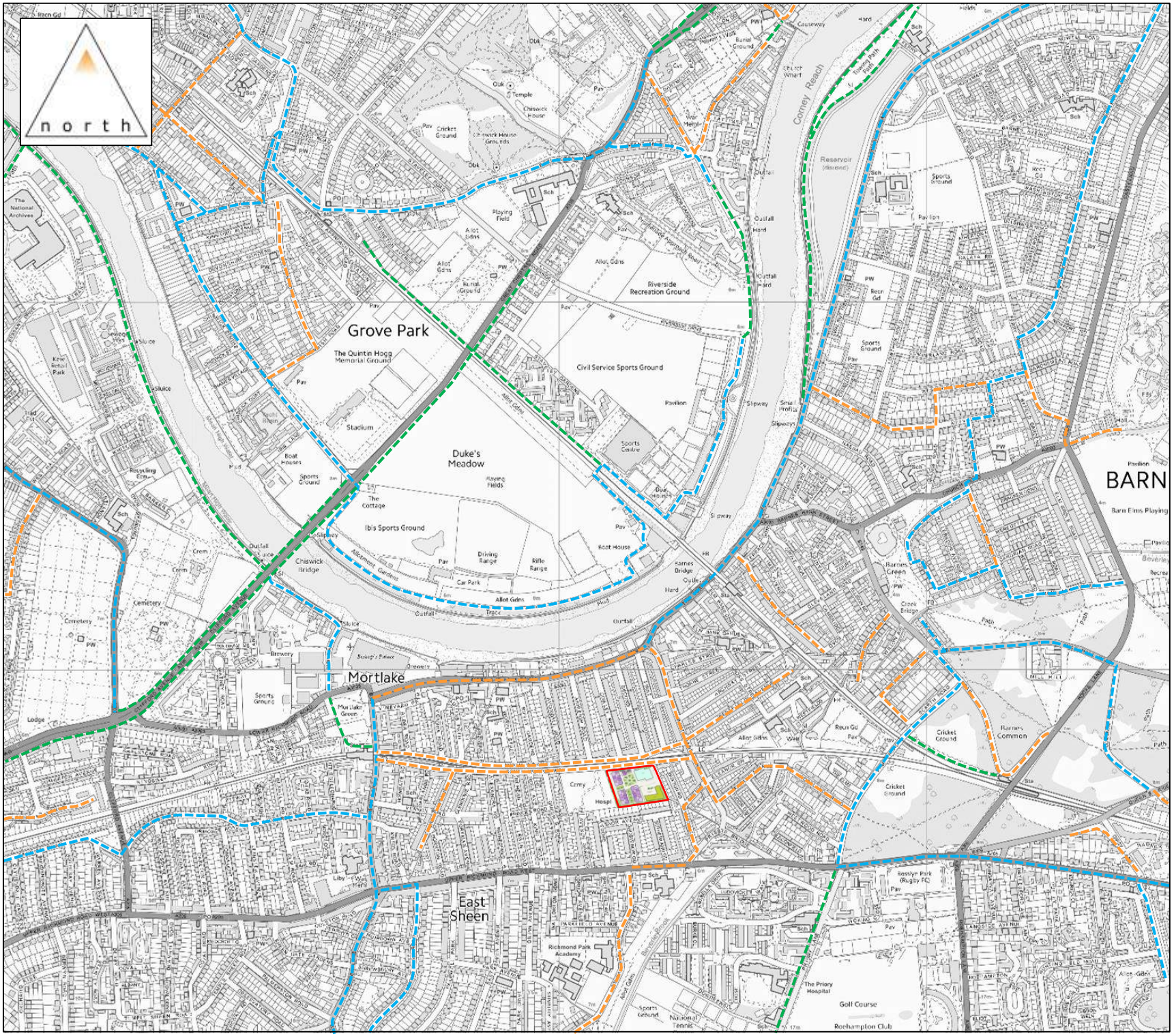
Barnes Hospital,

London Borough of Richmond upon Thames

Figure 3.1 Site Location Plan

Not to Scale

motion



Legend:

- Signed Route
- Recommended Route
- Off-Road Route

Site Location

Barnes Hospital,

London Borough of Richmond upon Thames

Figure 3.2 Local Cycle Routes

Not to Scale

motion

Appendix A

PTAL Assessment

Manual PTAL Assessment

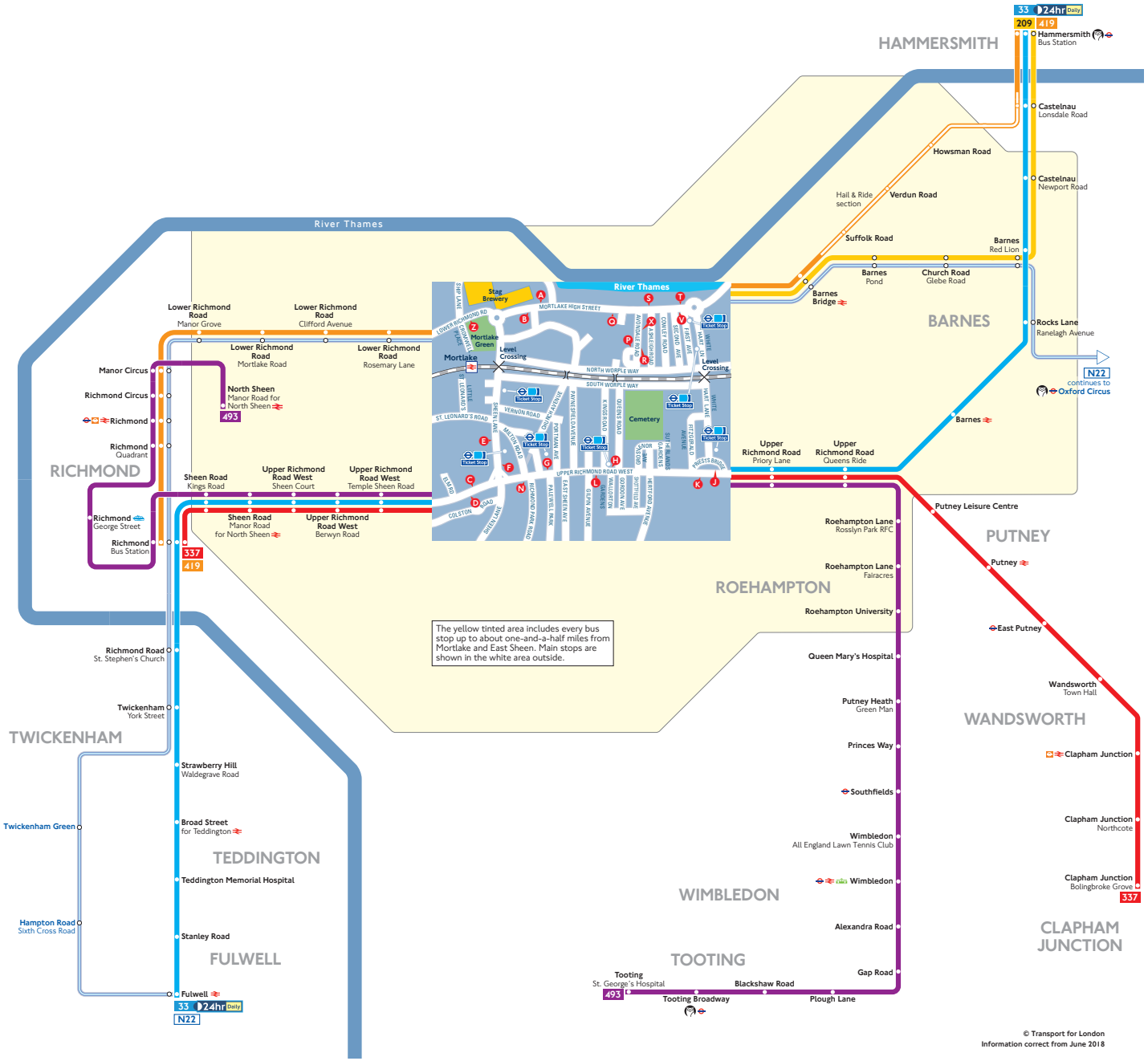
	service	distance	frequency/hr	walk time	swt	awt	tat	edf	weight	ai
	33	350	8.57	4.38	3.50	5.50	9.88	3.04	0.5	1.52
	209	400	13.33	5.00	2.25	4.25	9.25	3.24	1	3.24
bus	337	350	5.22	4.38	5.75	7.75	12.13	2.47	0.5	1.24
	419	600	4.00	7.50	7.50	9.50	17.00	1.76	0.5	0.88
	493	350	5.45	4.38	5.50	7.50	11.88	2.53	0.5	1.26
	bb-wey	800	2	10	1.00	1.75	11.75	2.55	0.5	1.28
barnes bridge	bb-wat	800	4	10	2.00	2.75	12.75	2.35	0.5	1.18
	bb-houn	800	2	10	1.00	1.75	11.75	2.55	1	2.55
	m-wat	800	4	10	2.00	2.75	12.75	2.35	0.5	1.18
mortlake	m-wim	800	2	10	1.00	1.75	11.75	2.55	0.5	1.28
	m-chi	800	2	10	1.00	1.75	11.75	2.55	0.5	1.28

Total	16.88	PTAL 4

Appendix B

TfL Bus Spider Map

Buses from Mortlake and East Sheen



Route finder

Bus route	Towards	Bus stops
33 24hr Daily	Fulwell	D K L N
	Hammersmith	C G H J
209	Hammersmith	P S T
337	Clapham Junction	C G H J
	Richmond	D K L N
419	Hammersmith	A S T
	Richmond	B Q V Z
493	North Sheen	D K L N
	Tooting	C G H J

Night buses

Bus route	Towards	Bus stops
N22	Fulwell	B Q V Z
	Oxford Circus	A S T

Other buses

Bus route	Towards	Bus stops
969	Roehampton Vale ▼	A C E S T
	Whitton ▼	B D F Q V

Key

33	Day buses in black
N22	Night buses in blue
	Connections with London Underground
	Connections with London Overground
	Connections with National Rail
	Connections with London Trams
	Connections with river boats
	Tube station with 24-hour service Friday and Saturday nights
▼	Tuesdays and Fridays only

Ways to pay

Use your contactless debit or credit card. It's the same fare as Oyster and there is no need to top up.

Top up your Oyster pay as you go credit or buy Travelcards and bus & tram passes at around 4,000 shops across London.

Sign up for an online account to top up online and see your travel history and spending.

TfL 434.06.18 (P)

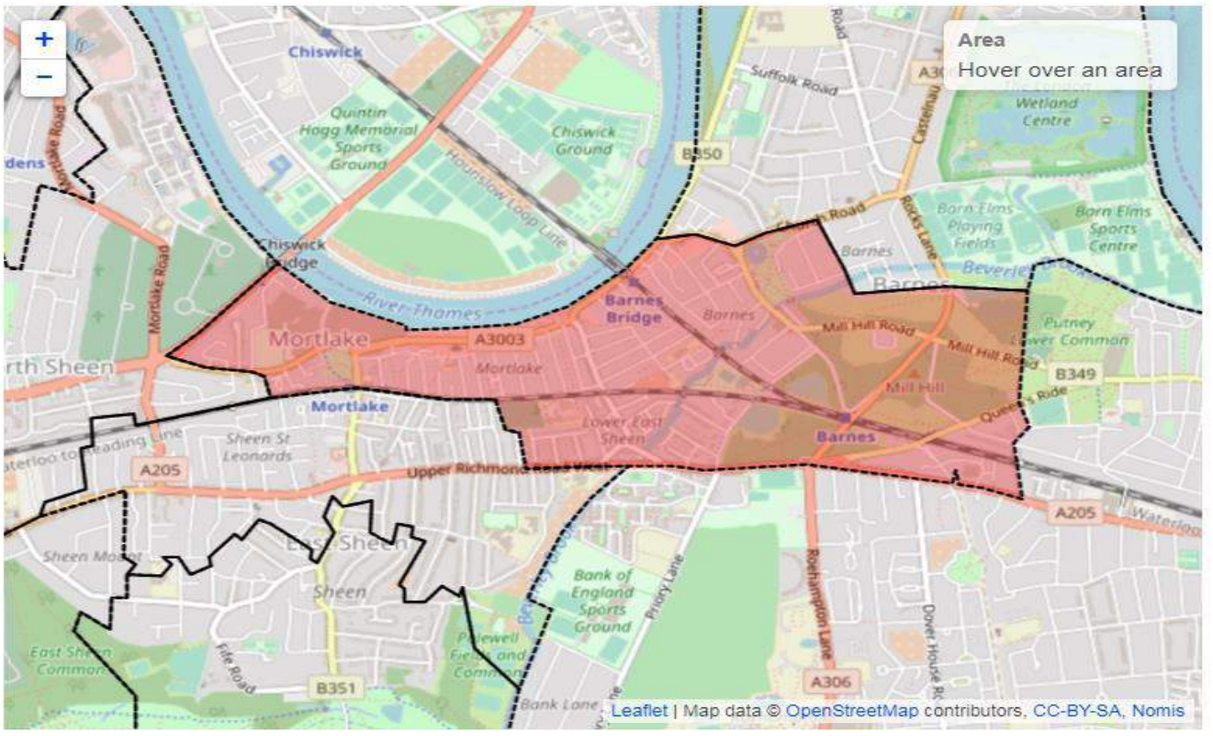
Appendix C

2011 Census Data

QS701EW - Method of travel to work

population	All usual residents aged 16 to 74
units	Persons
date	2011
rural urban	Total

Method of Travel to Work	E02000786 : Richmond upon Thames 003	
All categories: Method of travel to work		5,415
Underground, metro, light r	839	15%
Train	1,617	30%
Bus, minibus or coach	578	11%
Taxi	22	0%
Motorcycle, scooter or mop	118	2%
Driving a car or van	1,244	23%
Passenger in a car or van	45	1%
Bicycle	518	10%
On foot	434	8%
	Total	**100%**



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
place of work	E02000786 : Richmond upon Thames 003 (2011 super output area - middle layer)

	usual residence			
Method of travel to work	**England and Wales**	**England**	**Wales**	
				2,506
Underground, metro, light rail or tram	243	243	0	10%
Train	443	443	0	18%
Bus, minibus or coach	276	276	0	11%
Taxi	3	3	0	0%
Motorcycle, scooter or moped	37	37	0	1%
Driving a car or van	915	914	1	37%
Passenger in a car or van	50	50	0	2%
Bicycle	187	187	0	7%
On foot	352	352	0	14%
		Total		**100%**

Appendix D

Proposed Site Layout

NOTES:

DO NOT SCALE FROM THIS DRAWING.
ALL DIMENSIONS TO BE CHECKED ON SITE.
ALL OMISSIONS AND DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.

Site Boundary

Revision description	Date	Check	Rev

SQUIRE & PARTNERS

The Department Store
248 Ferndale Road, London SW9 8FR
T: 020 7278 5555

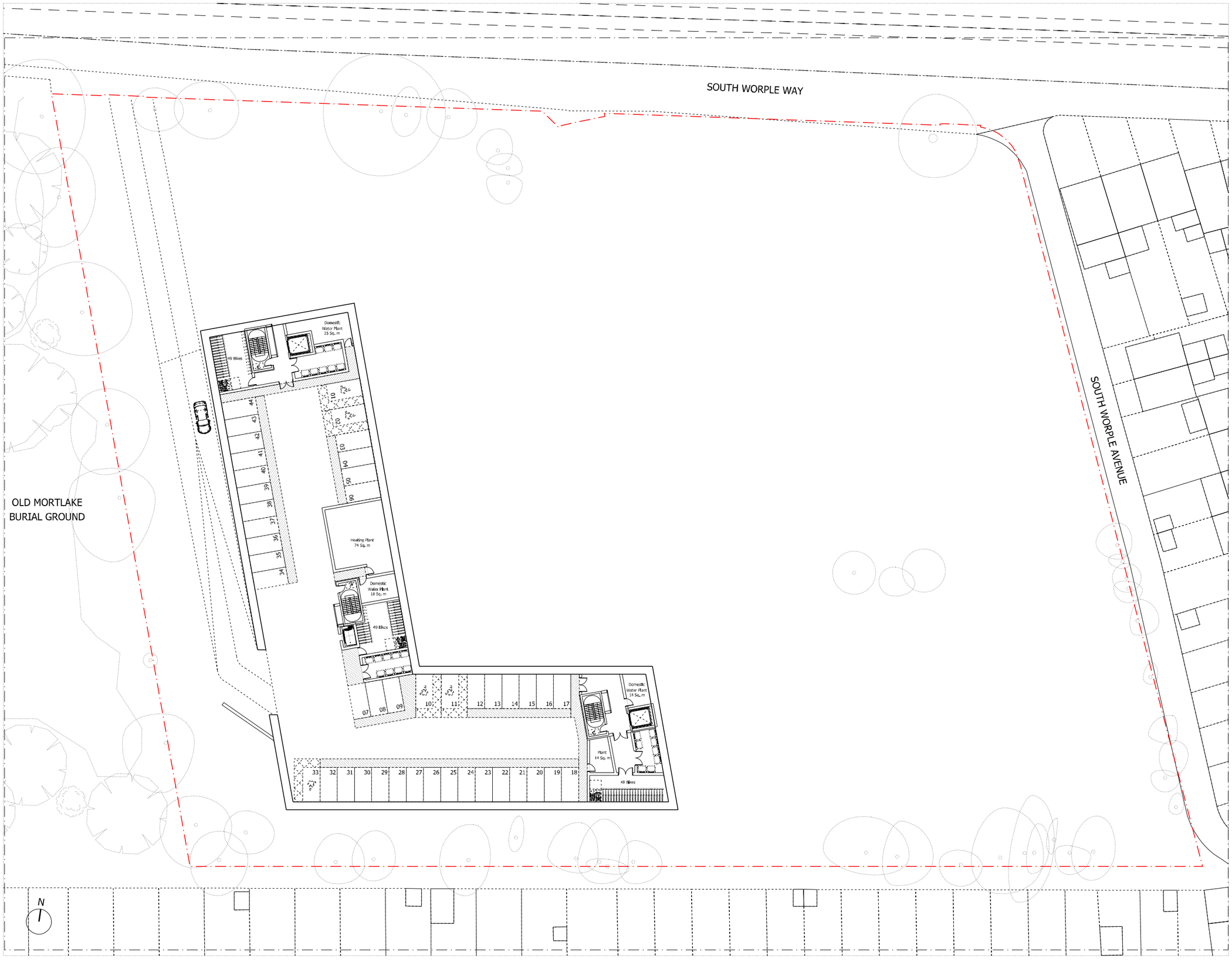
Info@squireandpartners.com
www.squireandpartners.com

Project
Barnes Hospital
South Worple Way
Barnes, SW14 8SU

Drawing
Proposed
Ground Floor

Drawn	Date	Scale
RLe	26/10/2018	1: 250@A1 1: 500@A3

Job number	Drawing number	Revision
18002	G200_P_00_001	-



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ALL OMISSIONS AND DISCREPANCIES TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.

Site Boundary

Revision description	Date	Check	Rev

SQUIRE & PARTNERS

The Department Store
248 Ferndale Road, London SW9 8FR
T: 020 7278 5555

info@squireandpartners.com
www.squireandpartners.com

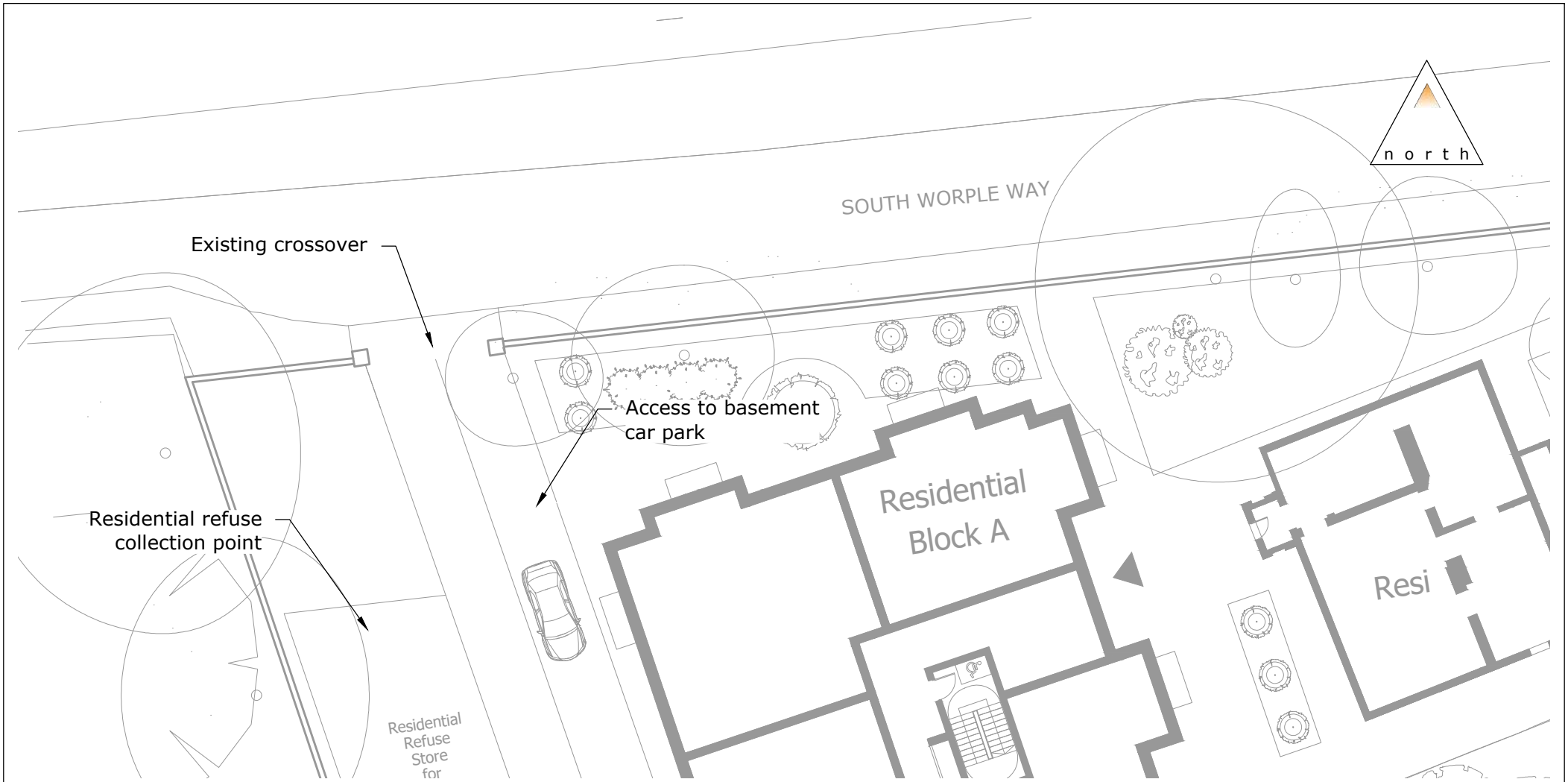
Project
Barnes Hospital
South Worple Way
Barnes, SW14 8SU

Drawing
Proposed
Lower Ground Floor

Drawn	Date	Scale
RLe	25/10/2018	1: 250@A1 1: 500@A3
Job number	Drawing number	Revision
18002	G200_P_LG_001	-

Appendix E

Access Junction Layouts



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motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 020 8065 5208

www.motion.co.uk

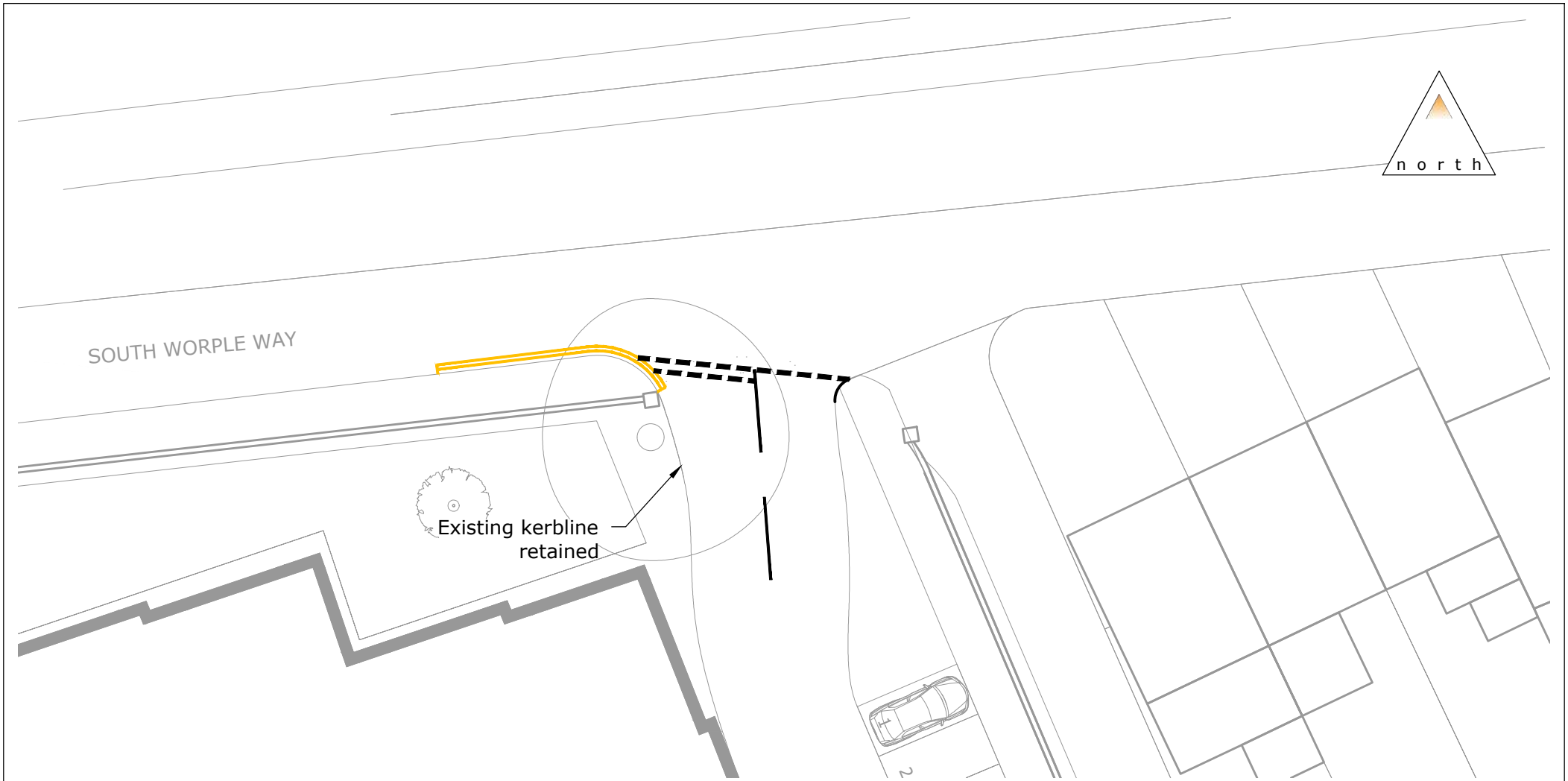
Project:
Barnes Hospital

Title:
Western Site Access
Residential Vehicle Access

Scale: 1:250 (@ A4)

Drawing: 170926-10

Revision: -



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84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 020 8065 5208

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Project:
Barnes Hospital

Title:
Eastern Site Access
Health Centre & SEN School

Scale: 1:250 (@ A4)

Drawing: 170926-12

Revision: -

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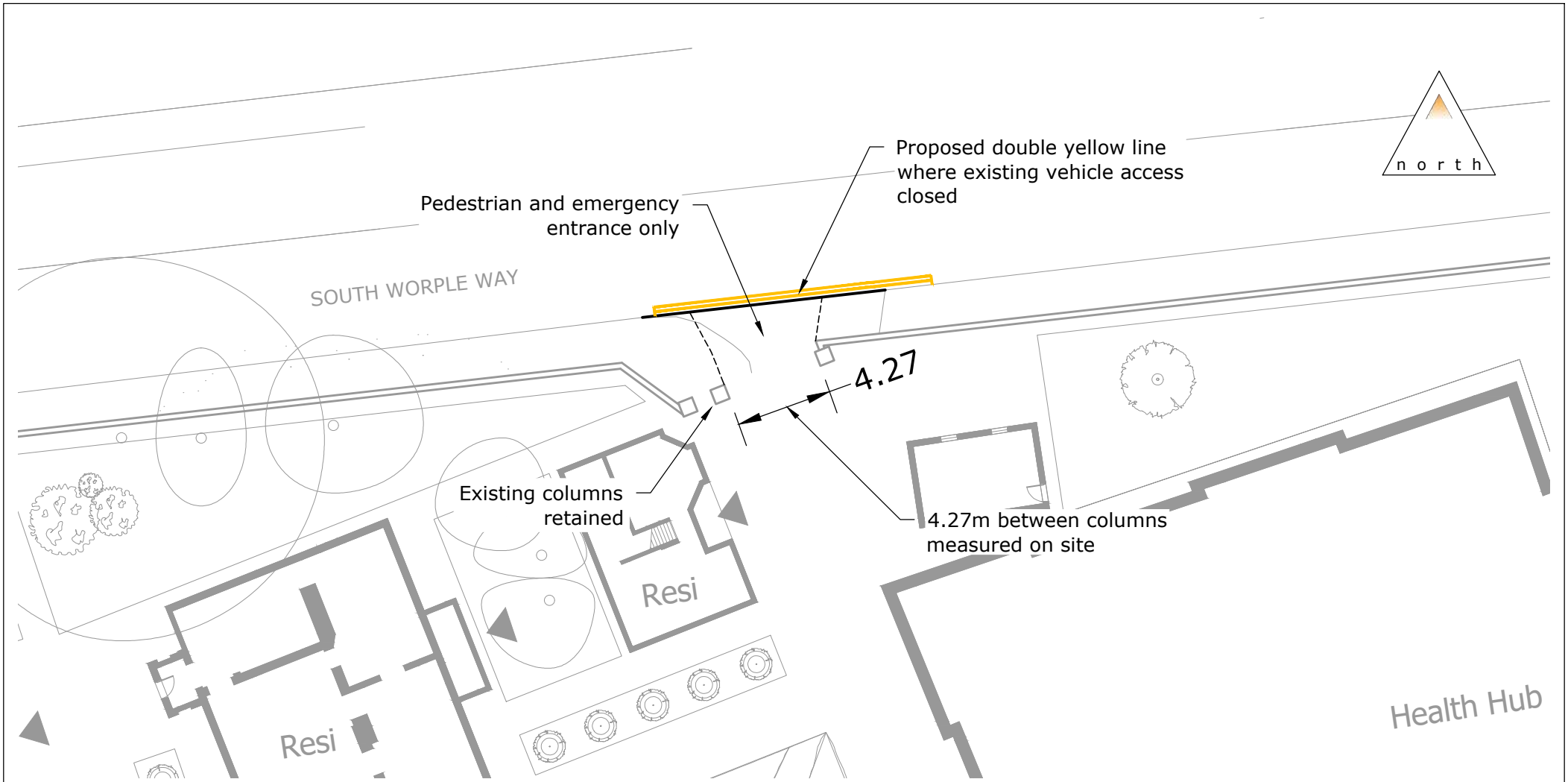

motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 020 8065 5208

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Project:
Barnes Hospital

Title:
Pedestrian Site Access

Scale: 1:250 (@ A4)

Drawing:
170926-11

Revision:
-

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Appendix F

Parking Survey Results

PARKING BEAT SURVEY

BARNES HOSPITAL, SOUTH WORPLE WAY

THURSDAY 5TH & TUESDAY 10TH OCTOBER 2017

360TSL
Traffic Data Collection

1. METHODOLOGY

This parking beat survey has been carried out by 360 TSL Limited, an independent survey company. The survey methodology follows the London Borough of Lambeth Parking Guidance.

Each road included as part of this parking beat survey has been measured to establish parking capacity for each section of legal parking available. Where lengthwise parking is available along the kerbside 1 space = 5m long.

Parking capacity has been calculated by measuring each length of road between obstructions (e.g. crossovers, kerb build-outs, traffic islands, illegal parking, etc) then converted into parking spaces by rounding down to the nearest 5m and dividing the length by 5. Parking spaces that have been marked out or are of a crosswise orientation have been counted separately. If the width of the road is such that parking on both sides would cause an obstruction, then only one side of the road has been included as part of the roads capacity calculation. For reasons of highway safety the first 7.5m from a junction has not been counted as part of the capacity calculation.

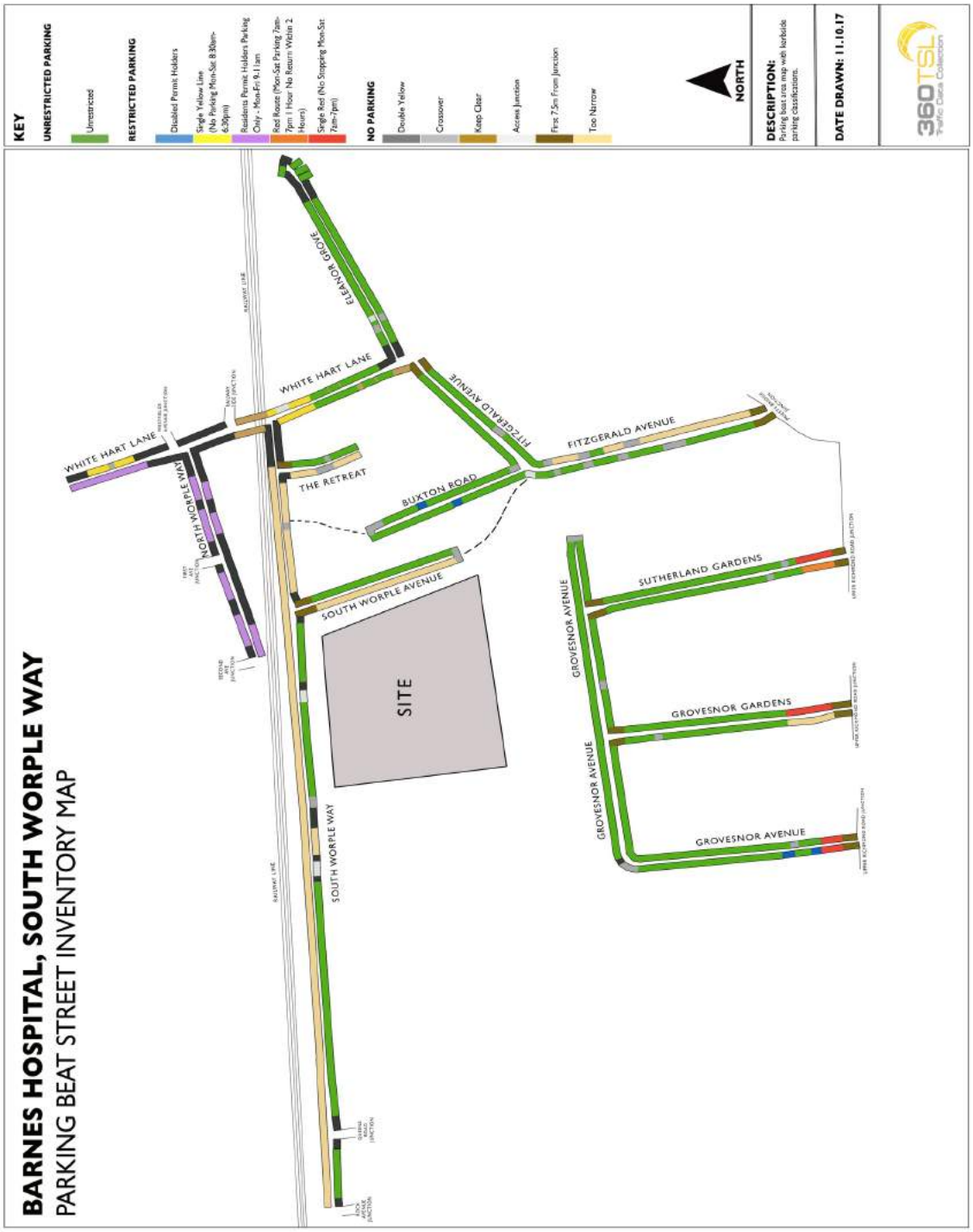
Vehicles occupying spaces have been counted at set times and recorded according to the type of space they are parked in. A stress calculation has been applied to express the number of parked vehicles as a percentage of available parking for each parking type. Any private parking has not been included in this survey.

Any illegal or obstructive parking (on double yellow lines, crossovers, keep clear lines etc) has excluded from the stress calculation but noted separately (if observed). Skips or any other non-vehicle occupying a parking space has also been noted separately (if observed).

2. SURVEY EXTENT

Date	Times	Beat Frequency
Thursday 5th October 2017	00:30	1 snapshot
Tuesday 10th October 2017	00:30	1 snapshot

3. SURVEY AREA



4. PARKING CAPACITY OVERVIEW

Road	Unrestricted	Residents Permit Holders Parking Only - Mon-Fri 9-11am	Disabled Permit Holders Only	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)	Single Red (No Stopping Mon-Sat 7am-7pm)	Red Route (Mon-Sat Parking 7am-7pm 1 Hour No Return Within 2 Hours)	Total Spaces
	Spaces: 5m = 1 Space						
Buxton Road	27	0	2	0	0	0	**29**
Eleanor Road	35	0	0	0	0	0	**35**
Fitzgerald Avenue	38	0	0	0	0	0	**38**
Grovesnor Avenue	90	0	2	0	3	0	**95**
Grovesnor Gardens	30	0	0	0	3	0	**33**
North Worple Way	0	16	0	0	0	0	**16**
South Worple Avenue	14	0	0	0	0	0	**14**
South Worple Way	43	0	0	0	0	0	**43**
Sutherland Gardens	31	0	0	0	3	3	**37**
The Retreat	5	0	0	0	0	0	**5**
White Hart Lane	11	8	0	9	0	0	**28**
Totals	**324**	**24**	**4**	**9**	**9**	**3**	**373**

5. PARKING BEAT SURVEY STRESS TABLES - THURSDAY 5TH & TUESDAY 10TH OCTOBER 2017

TABLE 1

Road	Unrestricted									
	Parking Capacity				Occupied		Available Spaces		Parking Stress	
	Lengthwise Parking (m)	Lengthwise Spaces	Crosswise or Marked Spaces	Total Spaces	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30
Buxton Road	135	27	0	27	25	24	2	3	93%	89%
Eleanor Road	155	31	4	35	29	30	6	5	83%	86%
Fitzgerald Avenue	190	38	0	38	40	39	0	0	105%	103%
Grovesnor Avenue	450	90	0	90	89	87	1	3	99%	97%
Grovesnor Gardens	150	30	0	30	33	32	0	0	110%	107%
South Worple Avenue	70	14	0	14	4	4	10	10	29%	29%
South Worple Way	215	43	0	43	25	26	18	17	58%	60%
Sutherland Gardens	155	31	0	31	0	0	31	31	0%	0%
The Retreat	25	5	0	5	6	6	0	0	120%	120%
White Hart Lane	55	11	0	11	11	10	0	1	100%	91%
Total	**1600**	**320**	**4**	**324**	**262**	**258**	**68**	**70**	**81%**	**80%**

TABLE 2

Road	Residents Permit Holders Parking Only - Mon-Fri 9-11am									
	Parking Capacity				Occupied		Available Spaces		Parking Stress	
	Lengthwise Parking (m)	Lengthwise Spaces	Crosswise or Marked Spaces	Total Spaces	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30
North Worple Way	80	16	0	16	16	16	0	0	100%	100%
White Hart Lane	40	8	0	8	7	7	1	1	88%	88%
Total	**120**	**24**	**0**	**24**	**23**	**23**	**1**	**1**	**96%**	**96%**

TABLE 3

Road	Disabled Permit Holders Only									
	Parking Capacity				Occupied		Available Spaces		Parking Stress	
	Lengthwise Parking (m)	Lengthwise Spaces	Crosswise or Marked Spaces	Total Spaces	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30
Buxton Road	0	0	2	2	0	0	2	2	0%	0%
Grovesnor Avenue	0	0	2	2	1	1	1	1	50%	50%
Total	**0**	**0**	**4**	**4**	**1**	**1**	**3**	**3**	**25%**	**25%**

TABLE 4

Road	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)									
	Parking Capacity				Occupied		Available Spaces		Parking Stress	
	Lengthwise Parking (m)	Lengthwise Spaces	Crosswise or Marked Spaces	Total Spaces	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30	Thurs 5th Oct 00:30	Tues 10th Oct 00:30
White Hart Lane	45	9	0	9	0	0	9	9	0%	0%
Total	**45**	**9**	**0**	**9**	**0**	**0**	**9**	**9**	**0%**	**0%**

TABLE 5

Road	Single Red (No Stopping Mon-Sat 7am-7pm)									
	Parking Capacity				Occupied		Available Spaces		Parking Stress	
	Lengthwise Parking (m)	Lengthwise Spaces	Crosswise or Marked Spaces	Total Spaces	Thurs 5th Oct	Tues 10th Oct	Thurs 5th Oct	Tues 10th Oct	Thurs 5th Oct	Tues 10th Oct
					00:30	00:30	00:30	00:30	00:30	00:30
Grovesnor Avenue	15	3	0	3	1	1	2	2	33%	33%
Grovesnor Gardens	15	3	0	3	1	0	2	3	33%	0%
Sutherland Gardens	15	3	0	3	0	0	3	3	0%	0%
Total	**45**	**9**	**0**	**9**	**2**	**1**	**7**	**8**	**22%**	**11%**

TABLE 6

Road	Red Route (Mon-Sat Parking 7am-7pm 1 Hour No Return Within 2 Hours)									
	Parking Capacity				Occupied		Available Spaces		Parking Stress	
	Lengthwise Parking (m)	Lengthwise Spaces	Crosswise or Marked Spaces	Total Spaces	Thurs 5th Oct	Tues 10th Oct	Thurs 5th Oct	Tues 10th Oct	Thurs 5th Oct	Tues 10th Oct
					00:30	00:30	00:30	00:30	00:30	00:30
Sutherland Gardens	15	3	0	3	0	0	3	3	0%	0%
Total	**15**	**3**	**0**	**3**	**0**	**0**	**3**	**3**	**0%**	**0%**

TABLE 7

Road	Illegal/Obstructive Parking		
	Details	Occupied	
		Thurs 5th Oct	Tues 10th Oct
		00:30	00:30
Grovesnor Avenue	Skip	2	2
Sutherland Gardnes	Skip	1	1
Fitzgerald Avenue	Crossover	1	0
	Total	**4**	**3**

6. PARKING CAPACITY MEASUREMENTS

A working table showing kerbside measurements for each parking type.

Location	Side of Road	Measuring Orientation	Parking Type	Section Length (m)	5m Round Down (If Lengthwise & Unmarked)	Crosswise Spaces or Marked Spaces	Total Spaces (5m = 1 space)
White Hart Lane	W	N-S	Residents Permit Holders Parking Only - Mon-Fri 9-11am	41.5	40		8
White Hart Lane	W	N-S	Double Yellow Lines	13.6	10		2
White Hart Lane	W	N-S	Junction	10.2	10		2
White Hart Lane	W	N-S	Double Yellow Lines	14.3	10		2
White Hart Lane	W	N-S	Keep Clear	18.4	15		3
White Hart Lane	W	N-S	Junction	9.5	5		1
White Hart Lane	W	N-S	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)	19.7	15		3
White Hart Lane	W	N-S	Unrestricted	22.4	20		4
White Hart Lane	W	N-S	Keep Clear	2.7	0		0
White Hart Lane	W	N-S	Unrestricted	6.8	5		1
White Hart Lane	W	N-S	Keep Clear	0.7	0		0
White Hart Lane	W	N-S	Unrestricted	4.1	0		0
White Hart Lane	W	N-S	Keep Clear	4.8	0		0
Eleanor Road	S	W-E	Double Yellow Lines	8.8	5		1
Eleanor Road	S	W-E	Unrestricted	12.9	10		2
Eleanor Road	S	W-E	Crossover	4.1	0		0
Eleanor Road	S	W-E	Unrestricted	73.4	70		14
Eleanor Road	S	W-E	Double Yellow Lines	10.2	10		2
Eleanor Road	S	W-E	Unrestricted	7.5	CW	3	3
Fitzgerald Avenue	S	E-W	First 7.5 Metres From Junction	7.5	5		1
Fitzgerald Avenue	S	E-W	Unrestricted	45.6	45		9
Fitzgerald Avenue	S	E-W	Crossover	6.8	5		1
Fitzgerald Avenue	S	E-W	Unrestricted	26.5	25		5
Fitzgerald Avenue	S	E-W	Crossover	4.8	0		0
Fitzgerald Avenue	S	E-W	Too Narrow For Parking	12.9	10		2
Fitzgerald Avenue	S	E-W	Crossover	6.1	5		1
Fitzgerald Avenue	S	E-W	Unrestricted	7.5	5		1
Fitzgerald Avenue	S	E-W	Too Narrow For Parking	10.2	10		2
Fitzgerald Avenue	S	E-W	Crossover	8.8	5		1
Fitzgerald Avenue	S	E-W	Too Narrow For Parking	34.0	30		6
Fitzgerald Avenue	S	E-W	First 7.5 Metres From Junction	7.5	5		1
Sutherland Gardens	W	S-N	First 7.5 Metres From Junction	7.5	5		1
Sutherland Gardens	W	S-N	Red Route (Mon-Sat Parking 7am-7pm 1 Hour No Return Within 2 Hours)	17.0	15		3
Sutherland Gardens	W	S-N	Unrestricted	14.3	10		2
Sutherland Gardens	W	S-N	Crossover	3.4	0		0
Sutherland Gardens	W	S-N	Unrestricted	70.0	70		14
Sutherland Gardens	W	S-N	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Gardens	W	N-S	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Gardens	W	N-S	Unrestricted	15.6	15		3
Grovesnor Gardens	W	N-S	Crossover	4.1	0		0
Grovesnor Gardens	W	N-S	Unrestricted	63.9	60		12
Grovesnor Gardens	W	N-S	Too Narrow For Parking	15.6	15		3
Grovesnor Gardens	W	N-S	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Avenue	W	S-N	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Avenue	W	S-N	Single Red (No Stopping Mon-Sat 7am-7pm)	11.6	10		2
Grovesnor Avenue	W	S-N	Disabled Permit Holders Only	5.2	LW	1	1
Grovesnor Avenue	W	S-N	Unrestricted	8.2	5		1
Grovesnor Avenue	W	S-N	Disabled Permit Holders Only	6.8	LW	1	1
Grovesnor Avenue	W	S-N	Unrestricted	74.1	70		14
Grovesnor Avenue	W	S-N	Crossover	4.8	0		0
Grovesnor Avenue	W	S-N	Double Yellow Lines	2.7	0		0
Grovesnor Avenue	W	S-N	Unrestricted	175.4	175		35
Buxton Road	W	S-N	Unrestricted	36.0	35		7
Buxton Road	W	S-N	Disabled Permit Holders Only	5.2	LW	1	1
Buxton Road	W	S-N	Unrestricted	46.9	45		9
The Retreat	W	N-S	Double Yellow Lines	4.1	0		0
The Retreat	W	N-S	Too Narrow For Parking	13.6	10		2
The Retreat	W	N-S	Crossover	10.9	10		2
The Retreat	W	N-S	Too Narrow For Parking	15.0	10		2
South Worple Way	S	E-W	Double Yellow Lines	22.4	20		4
South Worple Way	S	E-W	Junction	6.1	5		1
South Worple Way	S	E-W	Double Yellow Lines	4.1	0		0

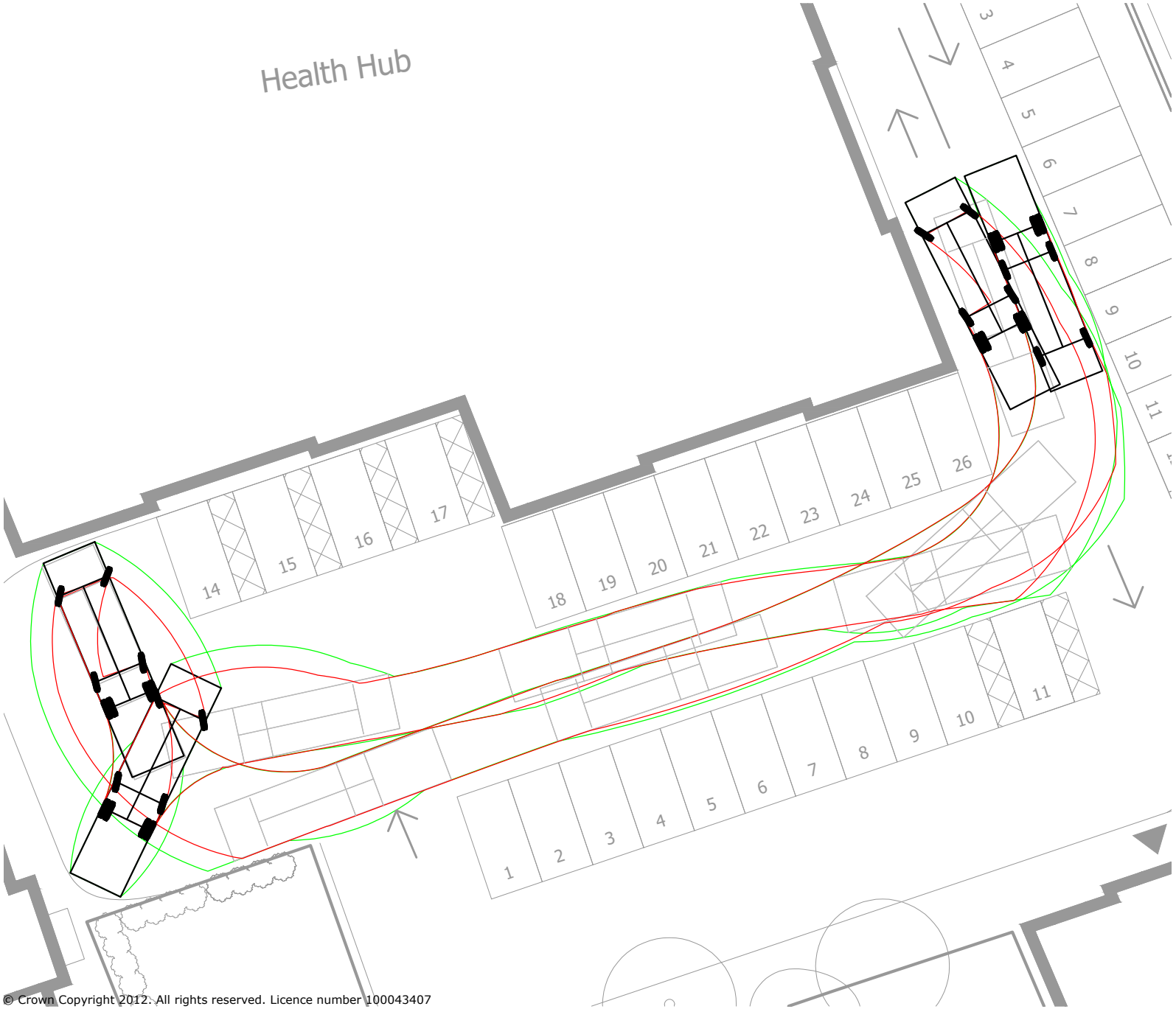
South Worple Way	S	E-W	Too Narrow For Parking	22.4	20		4
South Worple Way	S	E-W	Crossover	4.1	0		0
South Worple Way	S	E-W	Too Narrow For Parking	37.4	35		7
South Worple Way	S	E-W	Double Yellow Lines	6.8	5		1
South Worple Way	S	E-W	Access Junction	6.1	5		1
South Worple Way	S	E-W	Double Yellow Lines	3.4	0		0
South Worple Way	S	E-W	Unrestricted	32.6	30		6
South Worple Way	S	E-W	Double Yellow Lines	4.1	0		0
South Worple Way	S	E-W	Access Junction	6.8	5		1
South Worple Way	S	E-W	Unrestricted	53.7	50		10
South Worple Way	S	E-W	Crossover	6.1	5		1
South Worple Way	S	E-W	Double Yellow Lines	10.9	10		2
South Worple Way	S	E-W	Too Narrow For Parking	15.0	10		2
South Worple Way	S	E-W	Double Yellow Lines	3.4	0		0
South Worple Way	S	E-W	Access Junction	8.2	5		1
South Worple Way	S	E-W	Double Yellow Lines	2.0	0		0
South Worple Way	S	E-W	Unrestricted	112.9	110		22
South Worple Way	S	E-W	Double Yellow Lines	4.1	0		0
South Worple Way	S	E-W	Junction	6.8	5		1
South Worple Way	S	E-W	Double Yellow Lines	4.8	0		0
South Worple Way	S	E-W	Unrestricted	27.2	25		5
South Worple Way	S	E-W	Double Yellow Lines	4.8	0		0
South Worple Avenue	W	N-S	Too Narrow For Parking	84.3	80		16
North Worple Way	S	E-W	Double Yellow Lines	18.4	15		3
North Worple Way	S	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	10.2	10		2
North Worple Way	S	E-W	Double Yellow Lines	7.5	5		1
North Worple Way	S	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	12.2	10		2
North Worple Way	S	E-W	Double Yellow Lines	56.4	55		11
North Worple Way	S	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	12.2	10		2
White Hart Lane	E	N-S	Double Yellow Lines	10.2	10		2
White Hart Lane	E	N-S	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)	11.6	10		2
White Hart Lane	E	N-S	Crossover	3.4	0		0
White Hart Lane	E	N-S	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)	10.9	10		2
White Hart Lane	E	N-S	Double Yellow Lines	13.6	10		2
White Hart Lane	E	N-S	Junction	6.8	5		1
White Hart Lane	E	N-S	Double Yellow Lines	23.8	20		4
White Hart Lane	E	N-S	Junction	5.4	5		1
White Hart Lane	E	N-S	Keep Clear	17.0	15		3
White Hart Lane	E	N-S	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)	4.1	0		0
White Hart Lane	E	N-S	Access Junction	6.8	5		1
White Hart Lane	E	N-S	Single Yellow Line (No Parking Mon-Sat 8:30am-6:30pm)	10.2	10		2
White Hart Lane	E	N-S	Unrestricted	10.2	10		2
White Hart Lane	E	N-S	Unrestricted	4.1	0		0
White Hart Lane	E	N-S	Unrestricted	20.4	20		4
White Hart Lane	E	N-S	Double Yellow Lines	6.1	5		1
White Hart Lane	E	N-S	Junction	6.8	5		1
Eleanor Road	N	W-E	Double Yellow Lines	8.2	5		1
Eleanor Road	N	W-E	Unrestricted	8.2	5		1
Eleanor Road	N	W-E	Crossover	4.8	0		0
Eleanor Road	N	W-E	Unrestricted	2.7	0		0
Eleanor Road	N	W-E	Access Junction	3.4	0		0
Eleanor Road	N	W-E	Unrestricted	72.1	70		14
Eleanor Road	N	W-E	Double Yellow Lines	8.2	5		1
Eleanor Road	N	W-E	Unrestricted	4.8	LW	1	1
Eleanor Road	N	W-E	Double Yellow Lines	1.4	0		0
Fitzgerald Avenue	N	E-W	First 7.5 Metres From Junction	7.5	5		1
Fitzgerald Avenue	N	E-W	Unrestricted	57.8	55		11
Fitzgerald Avenue	N	E-W	Junction	7.5	5		1
Fitzgerald Avenue	N	E-W	Access Junction	5.4	5		1
Fitzgerald Avenue	N	E-W	Unrestricted	8.8	5		1
Fitzgerald Avenue	N	E-W	Crossover	3.4	0		0
Fitzgerald Avenue	N	E-W	Unrestricted	12.2	10		2
Fitzgerald Avenue	N	E-W	Crossover	5.4	5		1
Fitzgerald Avenue	N	E-W	Unrestricted	12.2	10		2
Fitzgerald Avenue	N	E-W	Crossover	5.4	5		1
Fitzgerald Avenue	N	E-W	Unrestricted	17.7	15		3
Fitzgerald Avenue	N	E-W	Crossover	12.2	10		2
Fitzgerald Avenue	N	E-W	Unrestricted	24.5	20		4
Fitzgerald Avenue	N	E-W	First 7.5 Metres From Junction	7.5	5		1

Sutherland Gardens	E	S-N	First 7.5 Metres From Junction	7.5	5		1
Sutherland Gardens	E	S-N	Single Red (No Stopping Mon-Sat 7am-7pm)	19.0	15		3
Sutherland Gardens	E	S-N	Unrestricted	4.1	0		0
Sutherland Gardens	E	S-N	Crossover	4.1	0		0
Sutherland Gardens	E	S-N	Unrestricted	76.8	75		15
Sutherland Gardens	E	S-N	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Gardens	E	N-S	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Gardens	E	N-S	Unrestricted	75.0	75		15
Grovesnor Gardens	E	N-S	Single Red (No Stopping Mon-Sat 7am-7pm)	16.3	15		3
Grovesnor Gardens	E	N-S	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Avenue	E	S-N	First 7.5 Metres From Junction	7.5	5		1
Grovesnor Avenue	E	S-N	Single Red (No Stopping Mon-Sat 7am-7pm)	9.5	5		1
Grovesnor Avenue	E	S-N	Unrestricted	11.6	10		2
Grovesnor Avenue	E	S-N	Crossover	4.1	0		0
Grovesnor Avenue	E	S-N	Unrestricted	122.4	120		24
Grovesnor Avenue	E	S-N	Junction	8.8	5		1
Grovesnor Avenue	E	S-N	Unrestricted	23.8	20		4
Grovesnor Avenue	E	S-N	Crossover	5.4	5		1
Grovesnor Avenue	E	S-N	Unrestricted	23.8	20		4
Grovesnor Avenue	E	S-N	Junction	7.5	5		1
Grovesnor Avenue	E	S-N	Unrestricted	33.3	30		6
Grovesnor Avenue	E	S-N	Crossover	7.5	5		1
Buxton Road	E	S-N	Crossover	5.4	5		1
Buxton Road	E	S-N	Unrestricted	44.9	40		8
Buxton Road	E	S-N	Disabled Permit Holders Only	5.4	LW	1	1
Buxton Road	E	S-N	Unrestricted	19.7	15		3
Buxton Road	E	S-N	Crossover	6.1	5		1
The Retreat	E	N-S	First 7.5 Metres From Junction	7.5	5		1
The Retreat	E	N-S	Unrestricted	13.6	10		2
The Retreat	E	N-S	Crossover	2.7	0		0
The Retreat	E	N-S	Unrestricted	16.3	15		3
South Worple Way	N	E-W	Double Yellow Lines	20.4	20		4
South Worple Way	N	E-W	Too Narrow For Parking	387.6	385		77
South Worple Avenue	E	N-S	First 7.5 Metres From Junction	7.5	5		1
South Worple Avenue	E	N-S	Unrestricted	74.8	70		14
North Worple Way	N	E-W	Double Yellow Lines	13.6	10		2
North Worple Way	N	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	13.6	10		2
North Worple Way	N	E-W	Double Yellow Lines	5.4	5		1
North Worple Way	N	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	18.4	15		3
North Worple Way	N	E-W	Double Yellow Lines	4.8	0		0
North Worple Way	N	E-W	Junction	9.5	5		1
North Worple Way	N	E-W	Double Yellow Lines	4.1	0		0
North Worple Way	N	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	15.0	10		2
North Worple Way	N	E-W	Double Yellow Lines	8.2	5		1
North Worple Way	N	E-W	Residents Permit Holders Parking Only - Mon-Fri 9-11am	17.7	15		3
North Worple Way	N	E-W	Double Yellow Lines	4.8	0		0

Road	Side of Road	Total Length
Buxton Road	W	88.2
Buxton Road	E	81.6
Eleanor Road	S	117.0
Eleanor Road	N	113.6
Fitzgerald Avenue	S	178.2
Fitzgerald Avenue	N	187.7
Grovesnor Avenue	W	296.2
Grovesnor Avenue	E	265.2
Grovesnor Gardens	W	114.2
Grovesnor Gardens	E	106.3
North Worple Way	S	117.0
North Worple Way	N	114.9
South Worple Avenue	W	84.3
South Worple Avenue	E	82.3
South Worple Way	S	416.2
South Worple Way	N	408.0
Sutherland Gardens	W	119.7
Sutherland Gardens	E	119.0
The Retreat	W	43.5
The Retreat	E	40.1
White Hart Lane	W	168.6
White Hart Lane	E	171.4

Appendix G

Swept Path Analysis



north

Richmond BC RCV (with Elite 2 6x2MS chassis)

Overall Length	10.400m
Overall Width	2.500m
Overall Body Height	3.211m
Min Body Ground Clearance	0.416m
Track Width	2.530m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	9.350m

motion

84 North Street
Guildford
Surrey
GU1 4AU

T: 01483 531 300

Cargo Works
1-2 Hatfields
London
SE1 9PG

T: 020 8065 5208

www.motion.co.uk

Project:
Barnes Hospital

Title:
Swept Path Analysis
Refuse Vehicle - Health Centre

Scale: 1:250 (@ A4)

Drawing: 170926-TK22

Revision: B

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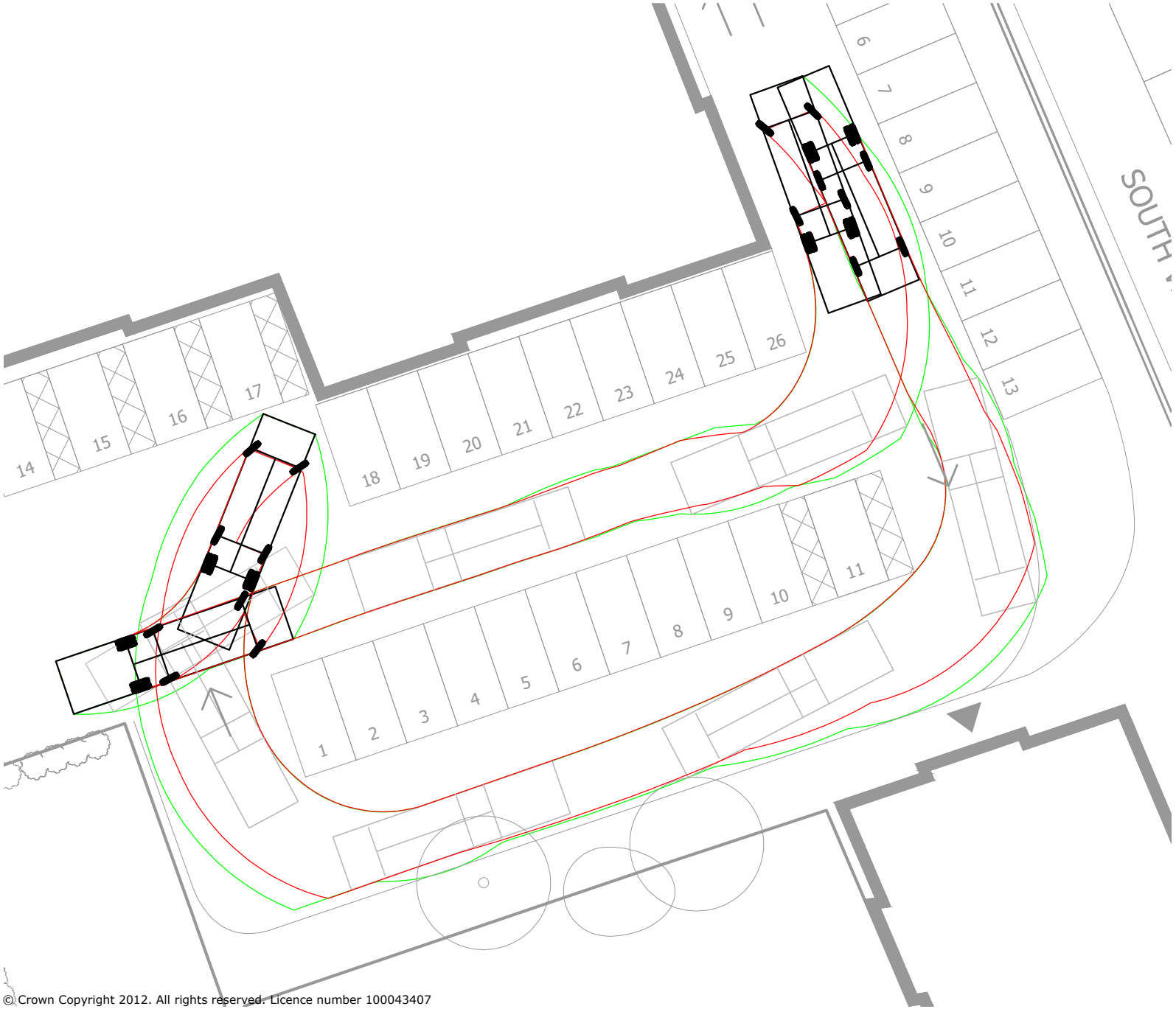
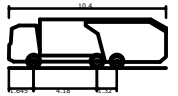


north



Richmond BC RCV (with Elite 2 6x2MS chassis)

Overall Length	10.400m
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Overall Body Height	3.211m
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Curb to Curb Turning Radius	9.350m

motion

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Project:
Barnes Hospital

Title:
Swept Path Analysis
Refuse Vehicle - SEN School

Scale: 1:250 (@ A4)

Drawing:
170962-TK24

Revision:
B

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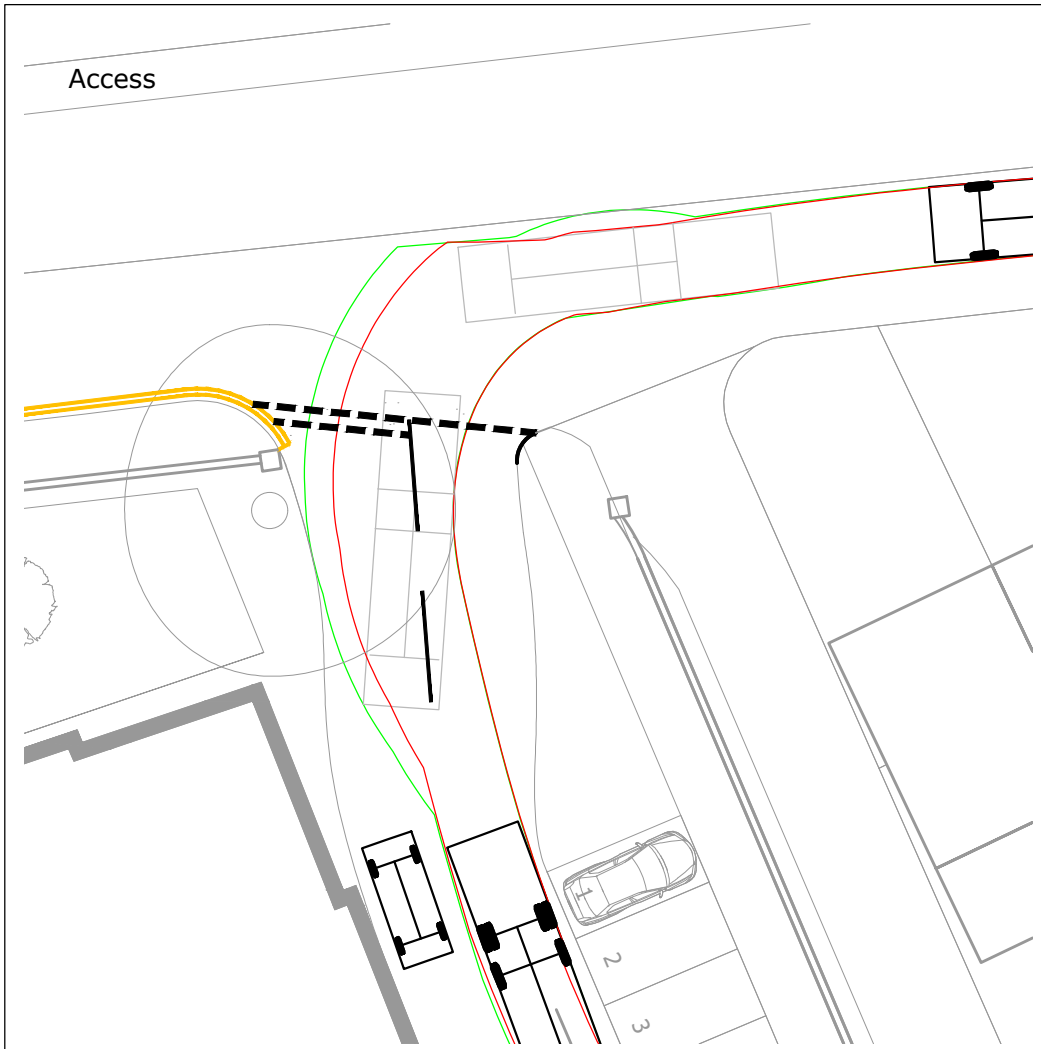
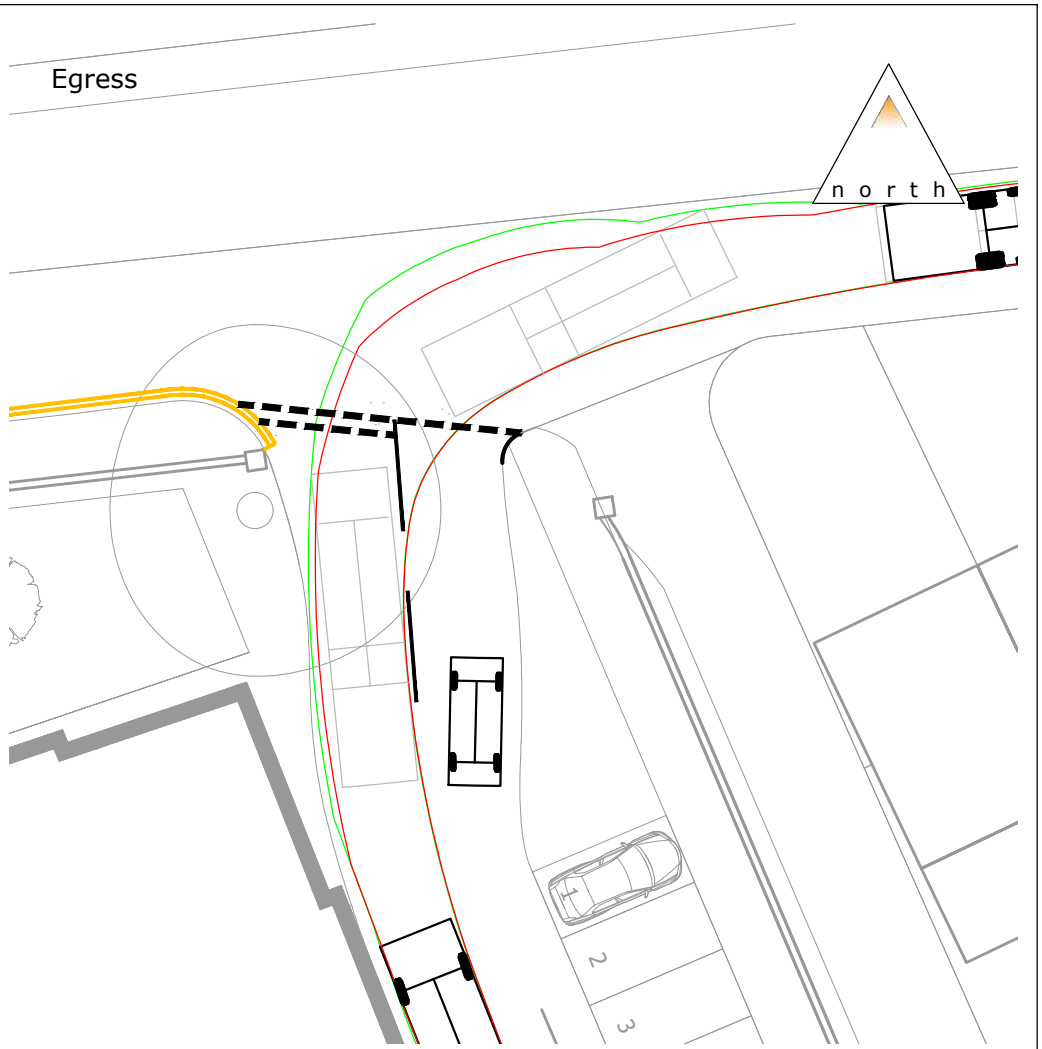
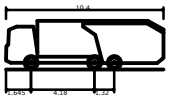
Access



Egress





Richmond BC RCV (with Elite 2 6x2MS chassis)

Overall Length	10.400m
Overall Width	2.500m
Overall Body Height	3.211m
Min Body Ground Clearance	0.416m
Track Width	2.530m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	9.350m

motion

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Project:
Barnes Hospital

Title:
Swept Path Analysis
Access Arrangement

Scale: 1:250 (@ A4)

Drawing:
170926-TK25

Revision:
B

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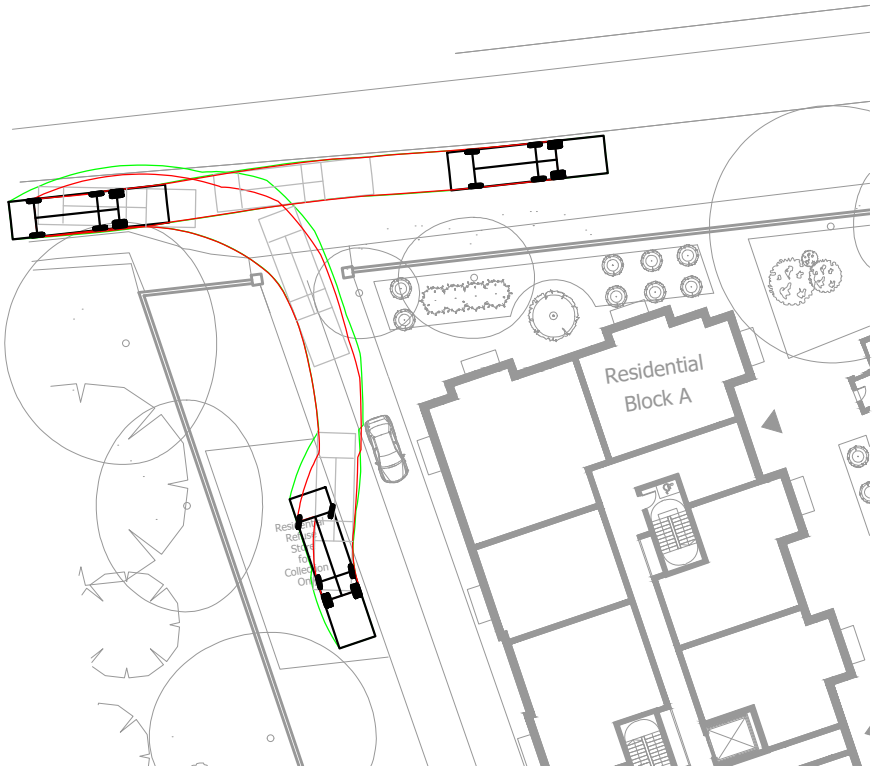
Access



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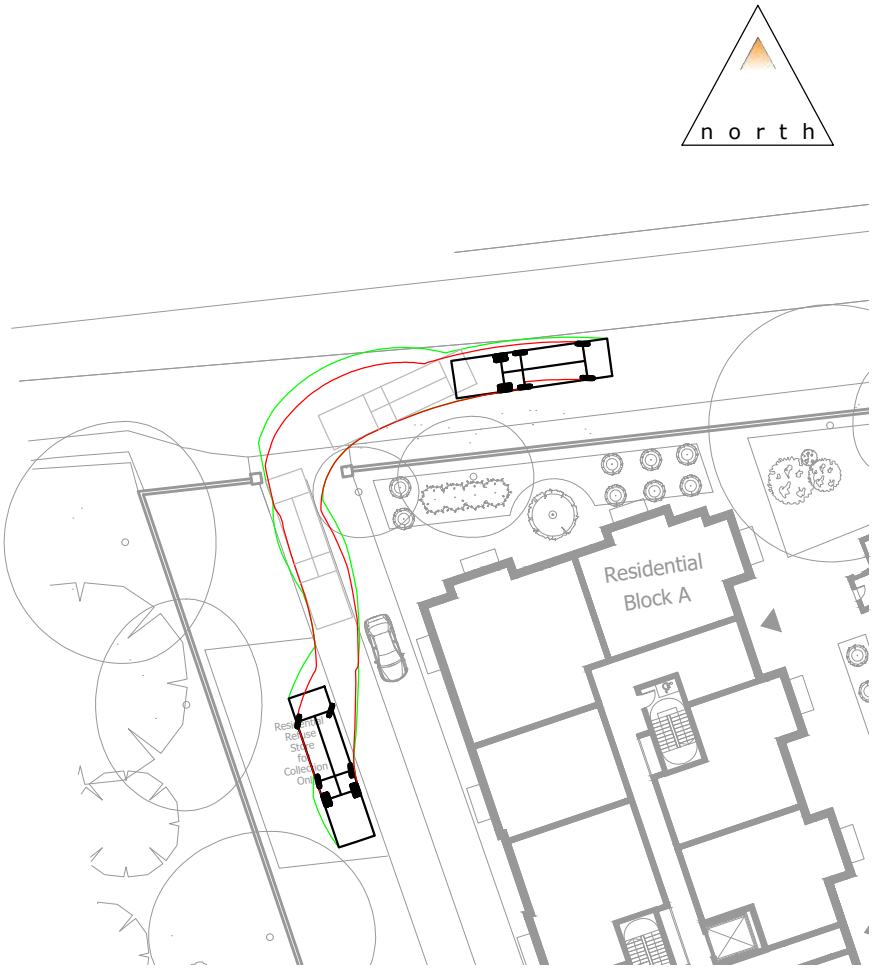

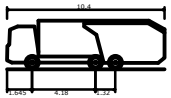

Richmond BC RCV (with Elite 2 6x2MS chassis)

Overall Length	10.400m
Overall Width	2.500m
Overall Body Height	3.211m
Min Body Ground Clearance	0.416m
Track Width	2.530m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	9.350m

motion

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www.motion.co.uk

Project:
Barnes Hospital

Title:
Swept Path Analysis
Refuse Vehicle - Residential

Scale: 1:500 (@ A4)

Drawing: 170926-TK17

Revision: B

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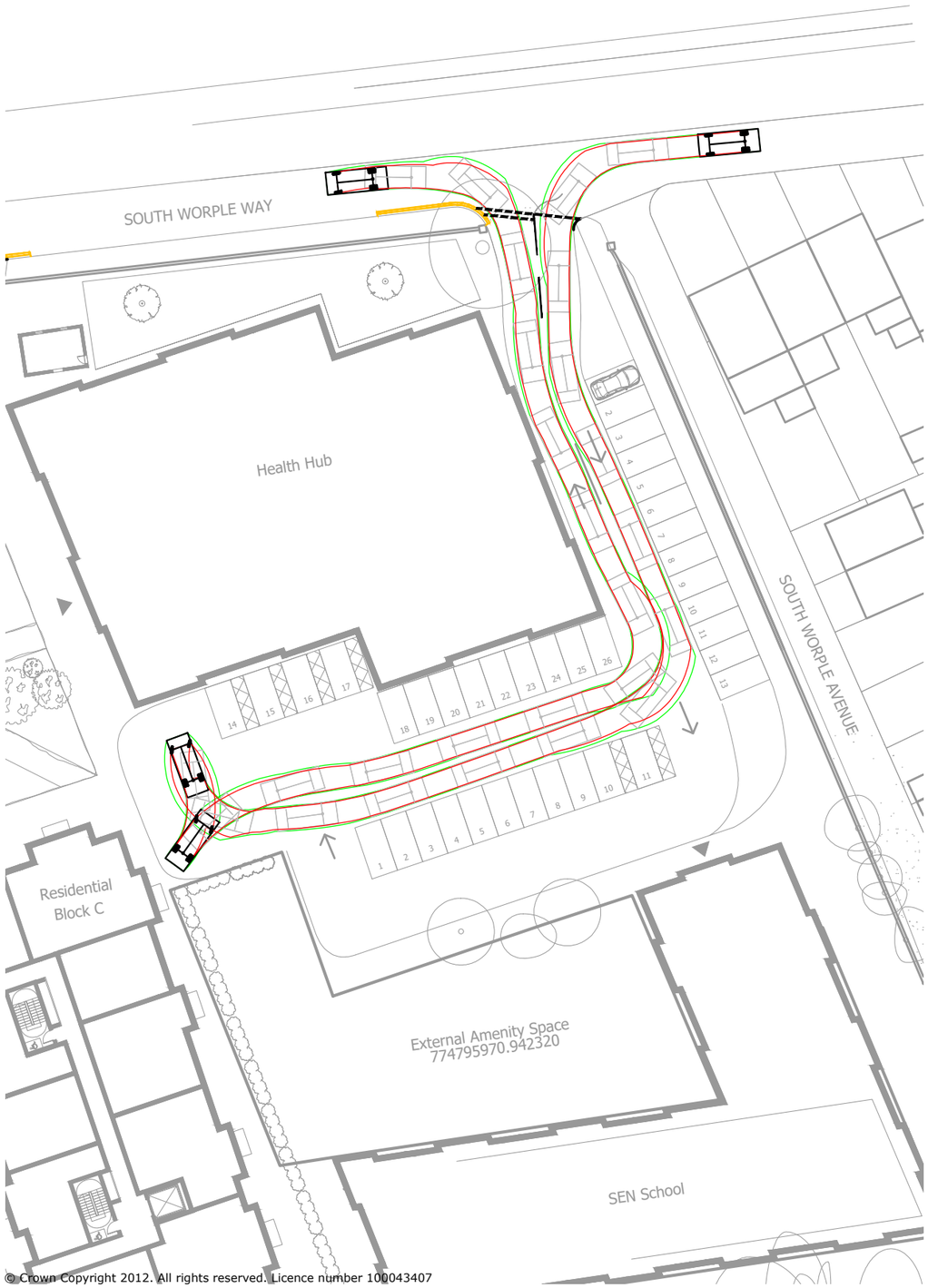
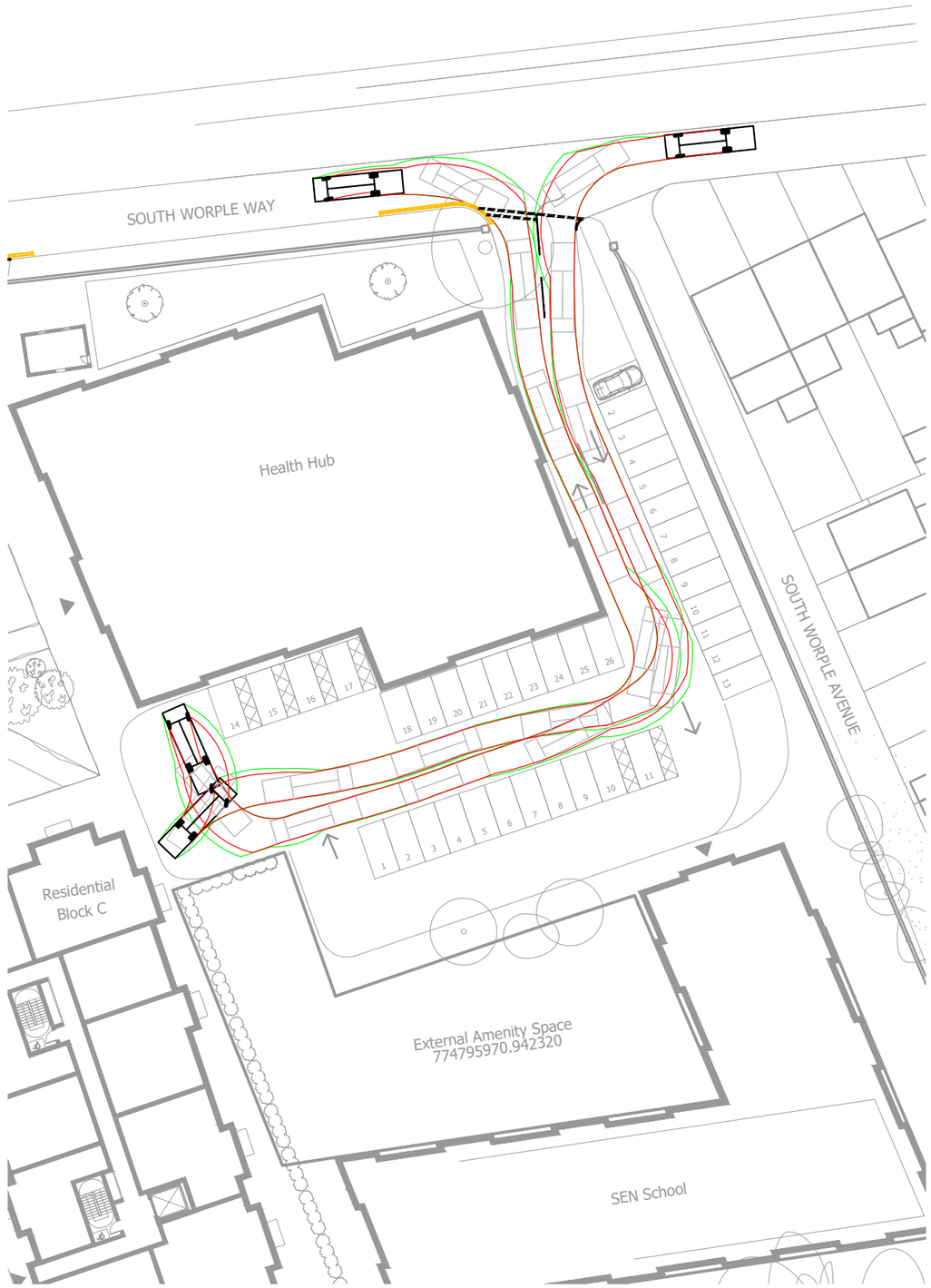
Ambulance

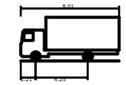


7.5t Rigid Vehicle



n o r t h

Ambulance	
Overall Length	5.461m
Overall Width	2.020m
Overall Body Height	2.498m
Min Body Ground Clearance	0.225m
Track Width	1.860m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.500m



7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.400m

motion

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Project:
Barnes Hospital

Title:
Swept Path Analysis
Service Vehicles - Health Centre

Scale: 1:500 (@ A3)

Drawing: 170926-TK18

Revision: B

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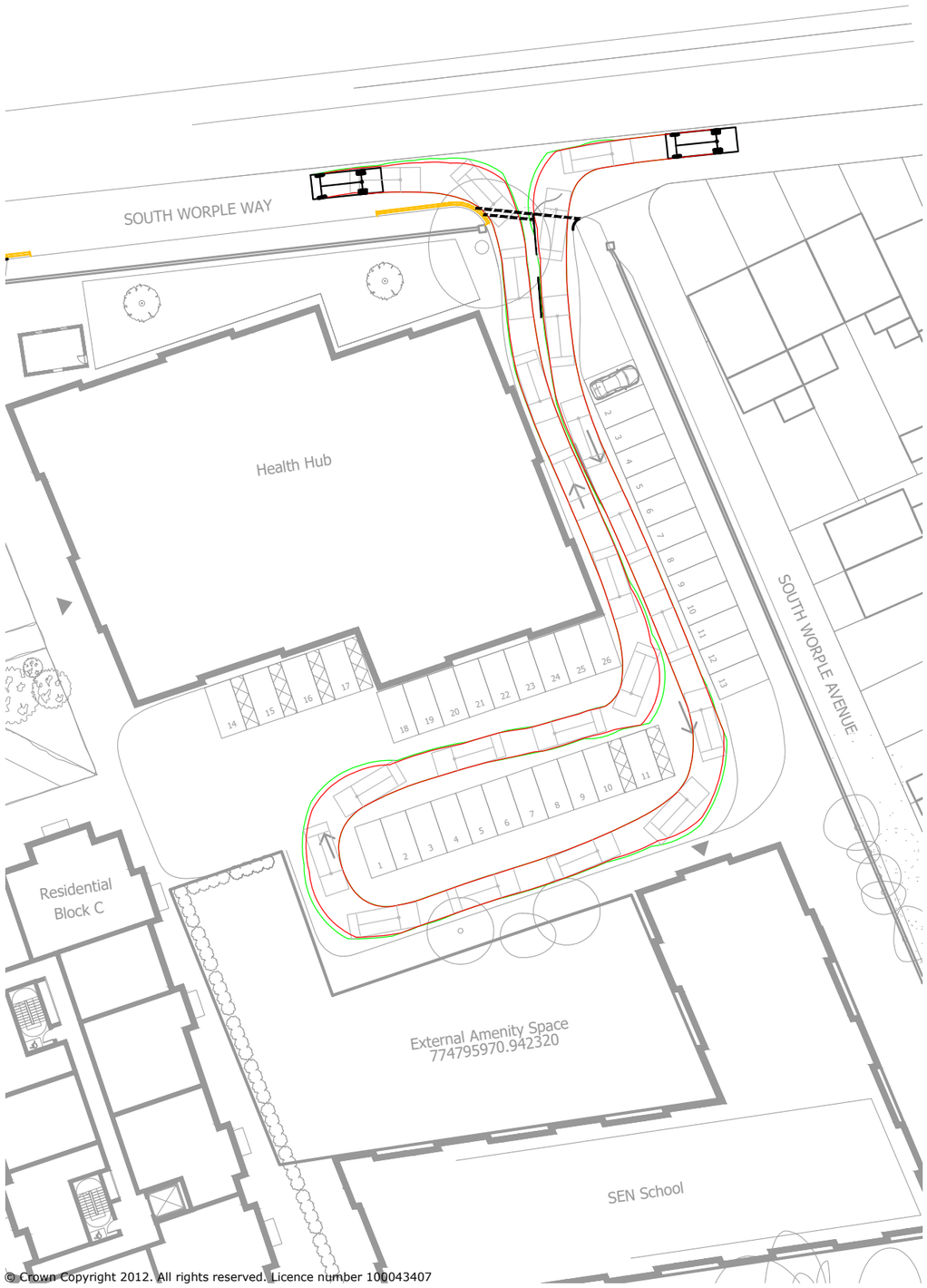
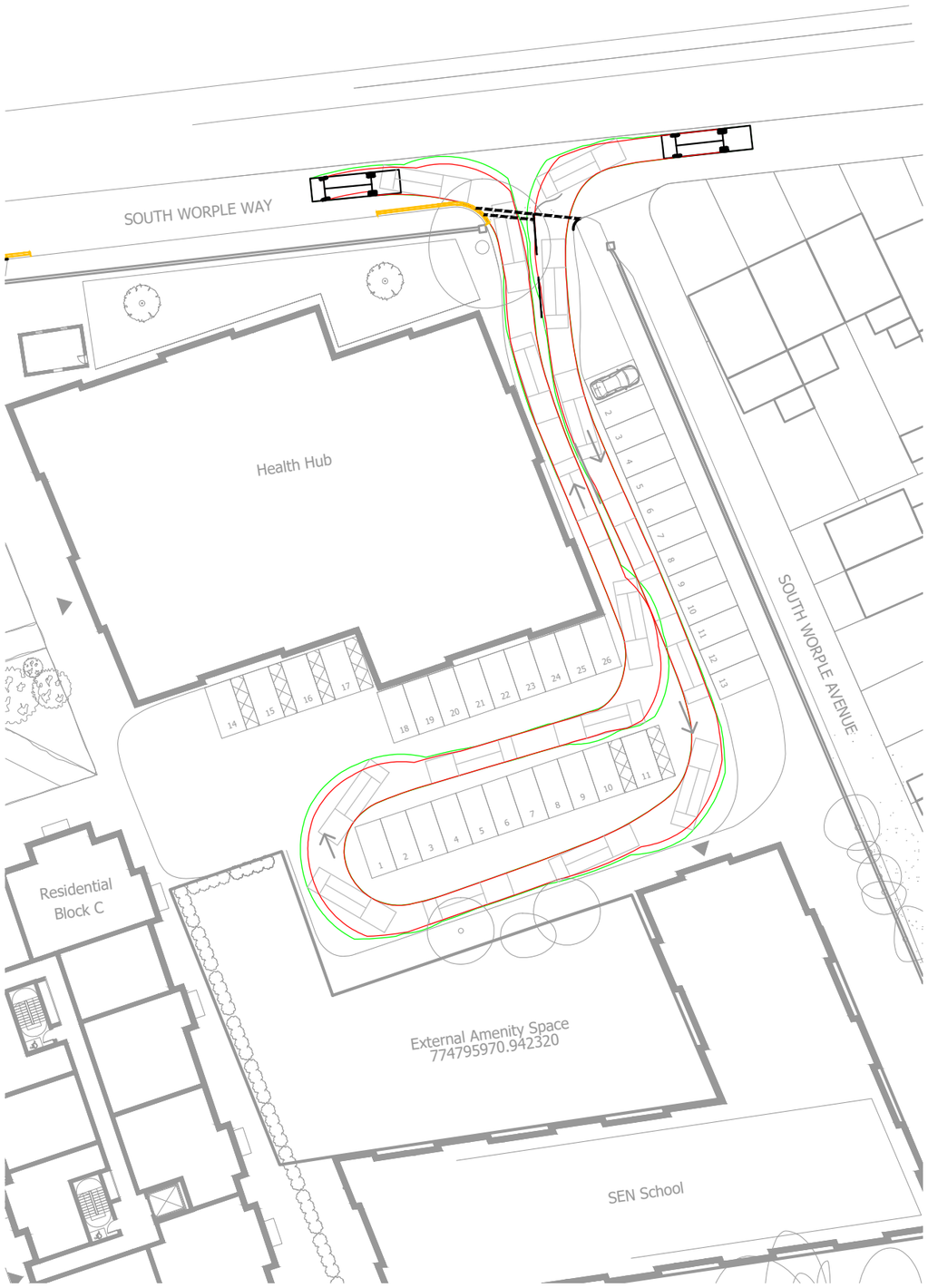
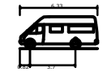
Mini Bus



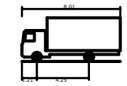
7.5t Rigid Vehicle



n o r t h



Mini Bus	
Overall Length	6.330m
Overall Width	2.192m
Overall Body Height	2.601m
Min Body Ground Clearance	0.374m
Track Width	2.192m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	6.450m



7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.400m

motion

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SE1 9PG

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Project:
Barnes Hospital

Title:
Swept Path Analysis
Service Vehicles - SEN School

Scale: 1:500 (@ A3)

Drawing: 170926-TK27

Revision: -

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Appendix H

TRICS Output
(Residential)

Calculation Reference: AUDIT-734001-180911-0908

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	HG	HARINGEY	1 days
	HO	HOUNSLOW	1 days
	KI	KINGSTON	2 days
	KN	KENSINGTON AND CHELSEA	1 days
	SK	SOUTHWARK	1 days
	WH	WANDSWORTH	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 20 to 150 (units:)
Range Selected by User: 20 to 150 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 18/11/16

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

Selected survey days:

Monday	2 days
Wednesday	2 days
Friday	3 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	6
Suburban Area (PPS6 Out of Centre)	1

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

Selected Location Sub Categories:

Development Zone	1
Residential Zone	4
Built-Up Zone	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C3	7 days

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
25,001 to 50,000	3 days
50,001 to 100,000	2 days

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

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	5 days

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

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	2 days

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

Travel Plan:

Yes	1 days
No	6 days

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

PTAL Rating:

2 Poor	2 days
4 Good	1 days
5 Very Good	1 days
6a Excellent	1 days
6b (High) Excellent	2 days

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

LIST OF SITES relevant to selection parameters

1 HG-03-C-02 BLOCK OF FLATS HARINGEY
HIGH ROAD
WOOD GREEN
WOODSIDE PARK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 30
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

2 HO-03-C-03 BLOCKS OF FLATS HOUNSLOW
COMMERCE ROAD
BRENTFORD

Edge of Town Centre
Development Zone
Total Number of dwellings: 150
Survey date: FRIDAY *18/11/16* *Survey Type: MANUAL*

3 KI-03-C-02 BLOCK OF FLATS KINGSTON
SOPWITH WAY
KINGSTON UPON THAMES

Edge of Town Centre
No Sub Category
Total Number of dwellings: 132
Survey date: MONDAY *14/06/10* *Survey Type: MANUAL*

4 KI-03-C-03 BLOCK OF FLATS KINGSTON
PORTSMOUTH ROAD
SURBITON

Edge of Town Centre
Residential Zone
Total Number of dwellings: 20
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

5 KN-03-C-03 BLOCK OF FLATS KENSINGTON AND CHELSEA
ALLEN STREET
KENSINGTON

Edge of Town Centre
Residential Zone
Total Number of dwellings: 72
Survey date: FRIDAY *11/05/12* *Survey Type: MANUAL*

6 SK-03-C-01 BLOCK OF FLATS SOUTHWARK
PARK STREET
SOUTHWARK

Edge of Town Centre
Built-Up Zone
Total Number of dwellings: 53
Survey date: FRIDAY *19/09/14* *Survey Type: MANUAL*

7 WH-03-C-01 BLOCKS OF FLATS WANDSWORTH
AMIES STREET
CLAPHAM JUNCTION

Edge of Town Centre
Residential Zone
Total Number of dwellings: 30
Survey date: WEDNESDAY *09/05/12* *Survey Type: MANUAL*

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
SK-03-C-02	Parking provision too low

Parameter summary

Trip rate parameter range selected:	20 - 150 (units:)
Survey date date range:	01/01/10 - 18/11/16
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	70	0.068	7	70	0.368	7	70	0.436
08:00 - 09:00	7	70	0.129	7	70	0.585	7	70	0.714
09:00 - 10:00	7	70	0.150	7	70	0.248	7	70	0.398
10:00 - 11:00	7	70	0.113	7	70	0.166	7	70	0.279
11:00 - 12:00	7	70	0.144	7	70	0.164	7	70	0.308
12:00 - 13:00	7	70	0.207	7	70	0.177	7	70	0.384
13:00 - 14:00	7	70	0.193	7	70	0.175	7	70	0.368
14:00 - 15:00	7	70	0.152	7	70	0.150	7	70	0.302
15:00 - 16:00	7	70	0.277	7	70	0.121	7	70	0.398
16:00 - 17:00	7	70	0.218	7	70	0.181	7	70	0.399
17:00 - 18:00	7	70	0.394	7	70	0.222	7	70	0.616
18:00 - 19:00	7	70	0.361	7	70	0.209	7	70	0.570
19:00 - 20:00	2	85	0.306	2	85	0.235	2	85	0.541
20:00 - 21:00	2	85	0.241	2	85	0.141	2	85	0.382
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.953			3.142			6.095

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

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

Appendix I

TRICS Output
(GP Surgery)

Calculation Reference: AUDIT-734001-180911-0937

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : G - GP SURGERIES
MULTI-MODAL VEHICLES

Selected regions and areas:
01 GREATER LONDON
WH WANDSWORTH 1 days

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

Secondary Filtering selection:

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

Parameter: Number of doctors
Actual Range: 8 to 8 (units:)
Range Selected by User: 8 to 8 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 12/11/13

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

Selected survey days:
Tuesday 1 days

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

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

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

Selected Locations:
Town Centre 1

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

Selected Location Sub Categories:
Retail Zone 1

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

Secondary Filtering selection:

Use Class:
D1 1 days

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

Population within 1 mile:
50,001 to 100,000 1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:
500,001 or More 1 days

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

Car ownership within 5 miles:
0.6 to 1.0 1 days

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

Travel Plan:
No 1 days

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

PTAL Rating:
4 Good 1 days

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

LIST OF SITES relevant to selection parameters

1 WH-05-G-01 MEDICAL CENTRE WANDSWORTH
GARRATT LANE
WANDSWORTH

Town Centre
Retail Zone
Total Number of doctors: 8
Survey date: TUESDAY *12/11/13* *Survey Type: MANUAL*

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

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
MULTI-MODAL VEHICLES
Calculation factor: 1 DOCTOR
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	8	0.375	1	8	0.250	1	8	0.625
08:00 - 09:00	1	8	0.875	1	8	0.250	1	8	1.125
09:00 - 10:00	1	8	0.500	1	8	0.125	1	8	0.625
10:00 - 11:00	1	8	0.250	1	8	0.250	1	8	0.500
11:00 - 12:00	1	8	0.375	1	8	0.500	1	8	0.875
12:00 - 13:00	1	8	0.750	1	8	0.875	1	8	1.625
13:00 - 14:00	1	8	0.500	1	8	0.875	1	8	1.375
14:00 - 15:00	1	8	0.625	1	8	0.500	1	8	1.125
15:00 - 16:00	1	8	0.625	1	8	0.875	1	8	1.500
16:00 - 17:00	1	8	1.125	1	8	0.625	1	8	1.750
17:00 - 18:00	1	8	0.750	1	8	0.875	1	8	1.625
18:00 - 19:00	1	8	0.375	1	8	0.500	1	8	0.875
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.125			6.500			13.625

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

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

Parameter summary

Trip rate parameter range selected:	8 - 8 (units:)
Survey date date range:	01/01/10 - 12/11/13
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DOCTOR
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	8	1.375	1	8	0.375	1	8	1.750
08:00 - 09:00	1	8	4.125	1	8	1.000	1	8	5.125
09:00 - 10:00	1	8	4.625	1	8	3.125	1	8	7.750
10:00 - 11:00	1	8	4.625	1	8	2.375	1	8	7.000
11:00 - 12:00	1	8	3.125	1	8	4.000	1	8	7.125
12:00 - 13:00	1	8	3.625	1	8	4.250	1	8	7.875
13:00 - 14:00	1	8	4.875	1	8	4.000	1	8	8.875
14:00 - 15:00	1	8	3.875	1	8	4.000	1	8	7.875
15:00 - 16:00	1	8	3.250	1	8	3.875	1	8	7.125
16:00 - 17:00	1	8	5.250	1	8	7.000	1	8	12.250
17:00 - 18:00	1	8	2.375	1	8	4.625	1	8	7.000
18:00 - 19:00	1	8	1.375	1	8	1.500	1	8	2.875
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			42.500			40.125			82.625

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

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