

Dartmouth Park
Low Traffic Neighbourhood
Baseline Analysis



Version Control and Approval

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Prepared for London Borough of Camden

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INTRODUCTION

PJA has been commissioned by the London Borough of Camden (LB Camden) to undertake a baseline feasibility assessment for a proposed Low Traffic Neighbourhood (LTN) within Dartmouth Park.

Dartmouth Park is a primarily residential district in North London, situated across the administrative boundaries of Camden and Islington. The district has a well-connected residential street network, enabling convenient access to local amenities. The LTN project aims to further enhance the area's place quality and create an attractive and safe environment for active travel modes.

The aim of this document is to provide a contextual understanding of the existing urban and movement context across Dartmouth Park, in order to inform the next stages of the LTN design process.

Based on research and site visits, this study includes an overview of the area focusing on its character, land use, amenities and traffic management measures and provides a baseline analysis with information about trip attractors, air quality, car/van accessibility and deprivation levels.



Width Restriction on Chetwynd Road junction with Highgate Road



20mph speed limit on Highgate Road



View from Dartmouth Park Hill



Footway Parking on Chetwynd Road



One way arrangement on Swains Lane (between Bisham Gardens and the entrance to Waterlow Park)



Timed Pedestrian and Cycle Zone on Burghley Road





POLICY REVIEW

This chapter summarises the key policies enacted in different levels, in relation to the intention and implementation of low traffic neighbourhoods.

NATIONAL POLICY

The Cycling and Walking Plan for England (2020)

The Cycling and Walking Plan for England, 'Gear change: a bold vision for cycling and walking', was published on 27 July 2020. The plan sets out the government's shift in transport policy: to prioritise active travel over single-occupancy private vehicles.

The plan set the following vision:

"Places will be truly walkable. A travel revolution in our streets, towns and communities will have made cycling a mass form of transit. Cycling and walking will be the natural first choice for many journeys with half of all journeys in towns and cities being cycled or walked by 2030."

The plan recognises the need to reduce rat-running on residential side streets through more low traffic neighbourhoods (LTNs). Streets within LTNs are envisaged to 'provide clear, direct routes for cyclists and pedestrians promoting walking and cycling', and to reduce accidents, pollution, and noise for residents.

LTN 1/20 - Cycle Infrastructure Design (2020)

In addition, the Department for Transport's recently published Cycle Infrastructure Design - Local Transport Note 01/20 also makes specific reference to the use of low-traffic environments to improve cycling conditions:

'Properly-protected bike lanes, cyclesafe junctions and interventions for low-traffic streets encourage people to cycle'

'Encouraging through-traffic to use main roads can provide benefits for pedestrians and residents, particularly children and vulnerable adults, as well as enabling cycling. This can be achieved through implementing measures such as turning bans, one-way streets, and by modal filtering ... These measures also have the benefit of making short journeys quicker on foot or cycle compared to driving, providing a disincentive to using a car for short trips'.

LONDON POLICY

Mayor's Transport Strategy (2018)

The Mayor's Transport Strategy (MTS) published in 2018 aims to make 80% of all trips in London to be made on foot, by cycle or using public transport by 2041. This will be done by reducing Londoners' dependency on cars in favour of active, efficient, and sustainable modes of travel.

The MTS also introduced the Healthy
Street Approach, a people-centred
framework for assessing the quality of
the street environment which focuses on
public health outcomes and the human

experience. The approach is based on the following ten indicators of a Healthy Street that focus on the experience of people using streets:

- Pedestrians from all walks of life
- Easy to cross
- Shade and shelter
- Places to stop and rest
- Not too noisy
- People choose to walk, cycle and use public transport
- People feel safe
- Things to see and do
- People feel relaxed
- Clean air

LTNs are set to improve the public's experience of walking, cycling and using public transport and to increase opportunities to use streets as public spaces and for play, and to encourage fewer trips by car. This will reduce road danger, noise, and air pollution on residential streets, making them more pleasant and improving health and health inequalities for residents.



Healthy Streets Indicators
(Lucy Saunders/TfL)

LOCAL POLICY

Camden Transport Strategy (2019-2041)

The Camden Transport Strategy (2019-2041) (CTS) was adopted in 2019. It sets out the way people can move around Camden in the decades to come.

The CTS emphasises the vital role that

transport plays in reducing health inequalities: along with deteriorating air quality, noise and road casualties, sedentary lifestyles present significant health challenges. Therefore, the CTS seeks to:

- Increasing in sustainable transport mode share by Camden residents from 85% (2017) to 93% by 2041;
- Reducing motor traffic volumes by 20-25% by 2041 compared to 2016 data;
- Quadrupling in cycle mode share by Camden residents, from 3.6% (2017) to 15% (2041);
- Half of all residents' trips to be made on foot by 2041.

The CTS also aims to create streets that encourage walking, cycling and public transport use and reduce car dependency (including taxis and private hire vehicles) and the health problems it creates.

Proposed measures, schemes and existing funding allocation

'Measure 2k' of the CTS mentioned the use of low traffic neighbourhoods and/ or the discouragement of through motor traffic in residential neighbourhoods:

- i. Using 'area-wide Healthy
 Streets Projects' and Liveable
 Neighbourhood programmes (where
 bids are successful) to deliver traffic
 restrictions and other measures that
 create 'low-traffic neighbourhoods'
- ii. Rolling out 'Healthy School Streets' of timed road closures at the start and end of (and potentially during) each school day, particularly around pollution hotspots and busy roads, providing healthy routes to school.
- iii.Permanent/timed restrictions on residential streets where there are known problems of 'rat running' and through motor traffic while maintaining access for local people and cyclists (filtered permeability)

The Transport Capital Programme (Large scheme – 2019/20 to 2021/22) map from the CTS, which shows the LIP prioritisation ranking in hex cells format, is shown on the right hand side.

Specifically, **Dartmouth Park** has been earmarked for 'Area Scheme' for Healthy Streets Projects.

The Dartmouth Park Neighbourhood Forum (DPNF) Neighbourhood Plan was put to a public referendum in February 2020. The DPNF neighbourhood Plan was formally adopted by Camden Council in March 2020.

NEIGHBOURHOOD PLAN

The Dartmouth Park Neighbourhood
Plan, prepared by the Neighbourhood
Forum, was put to a public referendum
in February 2020. The Neighbourhood
Plan was formally adopted by Camden
Council in March 2020.

The Neighbourhood Plan expressed the desire to create a movement network that reflects the predominantly residential character of the area, serves local transport requirements and encourages more sustainable means of transport (para 8.2)

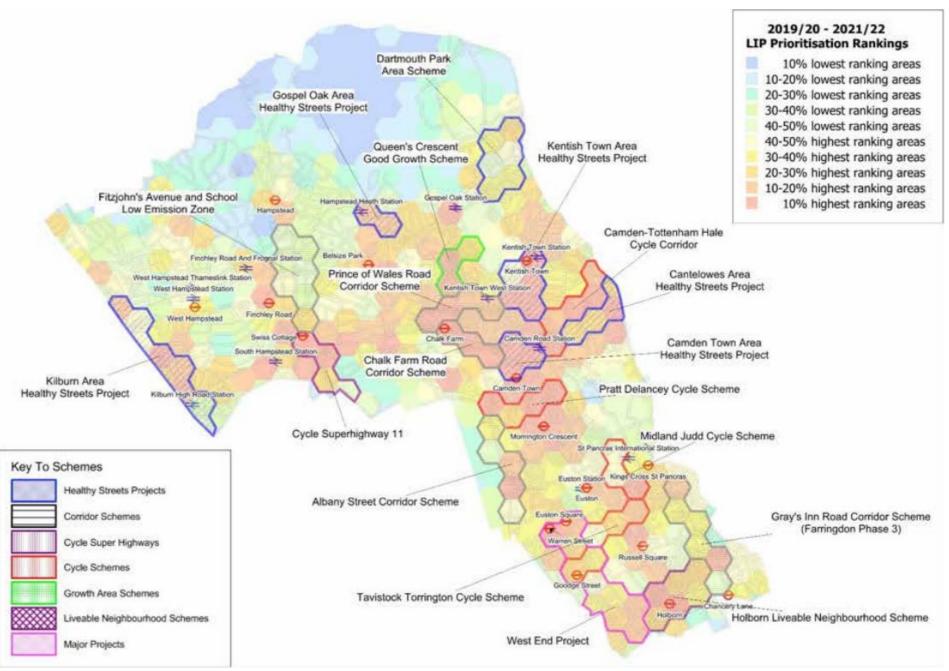
During community engagement, residents expressed the need to protect open air and community event spaces, including road closures and temporary traffic restrictions to allow events to occur (para 5.2), as well as a desire for traffic calming and pedestrian crossings in Swain's Lane and at the bottom of Highgate West Hill (para 6.17).

The Neighbourhood Plan conveyed a range of issues expressed by residents (para 8.3), with the key ones presented below:

 High levels of traffic and congestion on main roads (especially Highgate Road and Gordon House Road) and some residential streets (especially Chetwynd Road) during peak times. There is a strong desire to reduce through traffic

- A need for slower speeds and better enforcement of the 20 mph limit.
 Many residents have expressed concern about speeding vehicles
- Safer conditions for pedestrians, including new or better crossings around the shops on Swain's Lane and on Gordon House Road and Highgate Road. The consultation shows that improving the streets around our Neighbourhood Centres is a high priority
- Safety concerns at junctions and at entrances to offices, schools and Hampstead Heath

As mentioned in paragraph 8.4, many residents are concerned about high levels of traffic in the area and want to reduce through traffic. A reduction in traffic not only would have health benefits but would help to promote a community feel to the streets and shared spaces.



Transport capital programme (large schemes) (2019/20 - 2021/22) (CTS)





TRIP ATTRACTORS

The plan overleaf summarises the key trip attractors in Dartmouth Park, providing an overview of the likely key generators of walking and cycling trips in the local area. It is important to review the distribution of these trip attractors to help understand local movement patterns.

Whilst the area is primarily residential, there are some notable clusters of shops, services and/or public amenities. For example, at the junction of Chetwynd Road and York Rise there are several independent shops, takeaways, and a pub. This location is recognised as a 'Neighbourhood Centre' in Camden. There are some additional 'Neighbourhood Centres' located on the Dartmouth Park boundary, notably on the B518/Highgate Road and at the Tufnell Park junction.

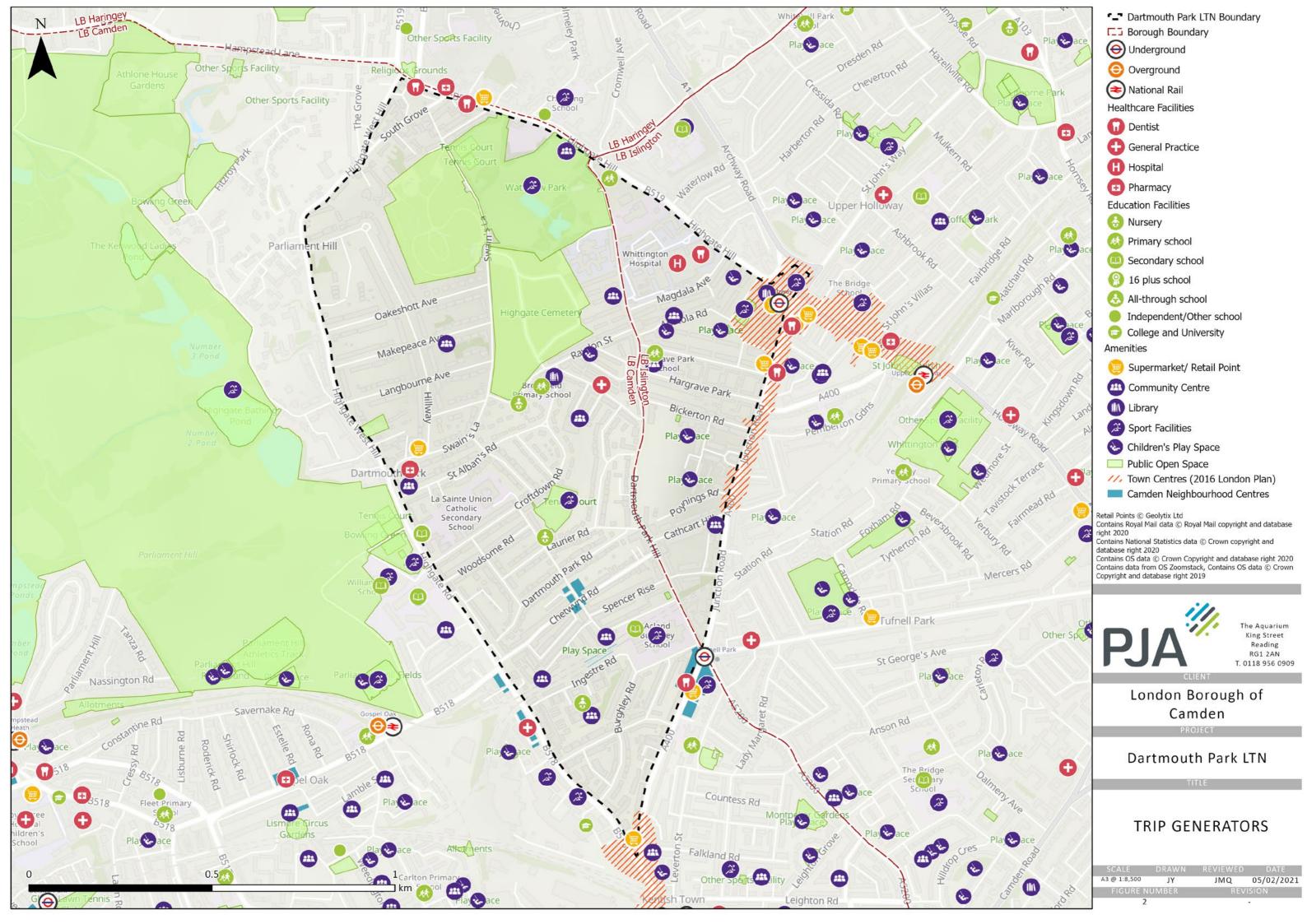
To the north east of the Dartmouth Park boundary lies Archway, which is identified as a 'Town Centre' within in the London Plan (shaded in orange for reference). Archway is centred on a

busy junction where the A1/Holloway Road intersects the A400/Junction Road/St John's Way and continues as Archway Road.

Archway is home to several trip attractors including shops/retail outlets, supermarkets, restaurants, and healthcare facilities to name a few. Archway Leisure Centre and Premier Inn Archway are located off MacDonald Road.

Whittington Health is a large hospital located off Magdala Avenue to the north of Dartmouth Park. Magdala Avenue is accessed via Dartmouth Park Hill and Highgate Hill.

There are multiple schools, community centres and healthcare facilities situated within Dartmouth Park, each of which are expected to generate considerable amount of trips every day.



PUBLIC OPEN SPACE

This plan shows the distribution and availability of Public Open Space (POS) and Children's Play Space in and around Dartmouth Park.

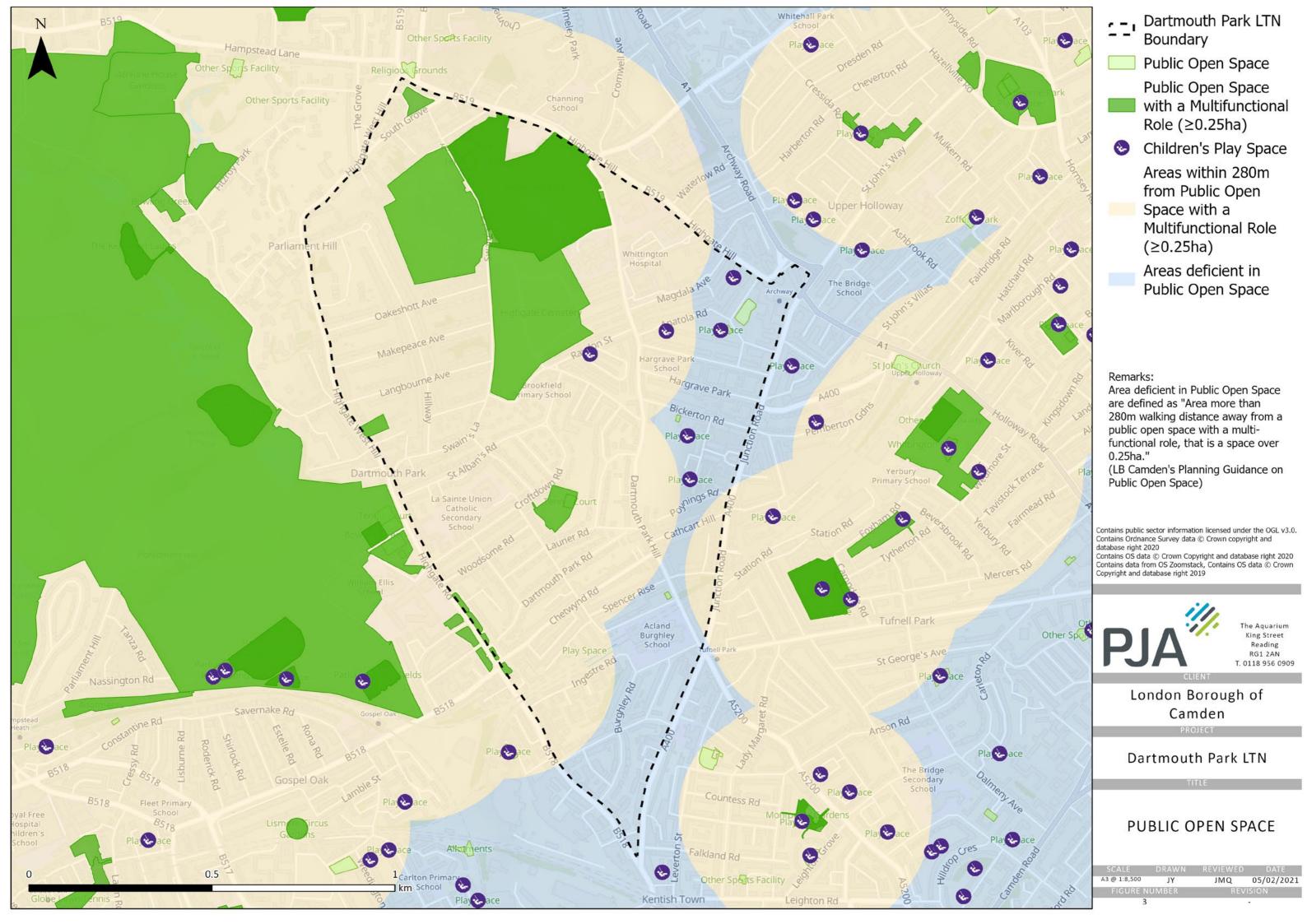
LB Camden's Planning Guidance (Public Open Space), published in November 2017, has set distance threshold for "Areas deficient in Public Open Space". It is defined as "areas more than 280m walking distance away from a public open space with a multifunctional role, that is a space over 0.25ha".

These multifunctional POS are shaded with darker green colour on the plan. The plan also highlights (in light blue colour) the areas considered to be deficient of public space access based on their proximity to open spaces.

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There are several areas providing POS within Dartmouth Park, including Waterlow Park and Highgate Cemetery. The majority of Dartmouth Park is situated within 280m of a multifunctional POS. Nevertheless, 20% of Dartmouth Park is located more than 280m away from a multifunctional POS, and is therefore considered as being deficient of open public space.

In close proximity to the eastern boundary of Dartmouth park there are multiple streets which are deficient of POS. This signals that there is a need to provide more recreational space on those streets.



PUBLIC TRANSPORT ACCESSIBILITY

The plan overleaf provides an overview of public transport services in the vicinity of Dartmouth Park, with the aim of evaluating the area's potential relationship with bus and rail services.

Public transport accessibility is analysed by TfL on a relative basis and is expressed as a 'Public Transport Accessibility Level' (PTAL). The PTAL scores range from 0 (worst) up to 6b (best). Dartmouth Park has PTAL scores, ranging from 1b to 6b.

Dartmouth Park is well served by bus services, with many routes running along the peripheral roads only and a few intersecting the boundary namely the following:

- Route 4 intersects the Dartmouth Park area boundary and serves Dartmouth Park Hill and Magdala Avenue. Route 4 runs between Archway Station and Blackfriars Station.
- Route C11 runs east/west along Raydon Street, Magdala Avenue and

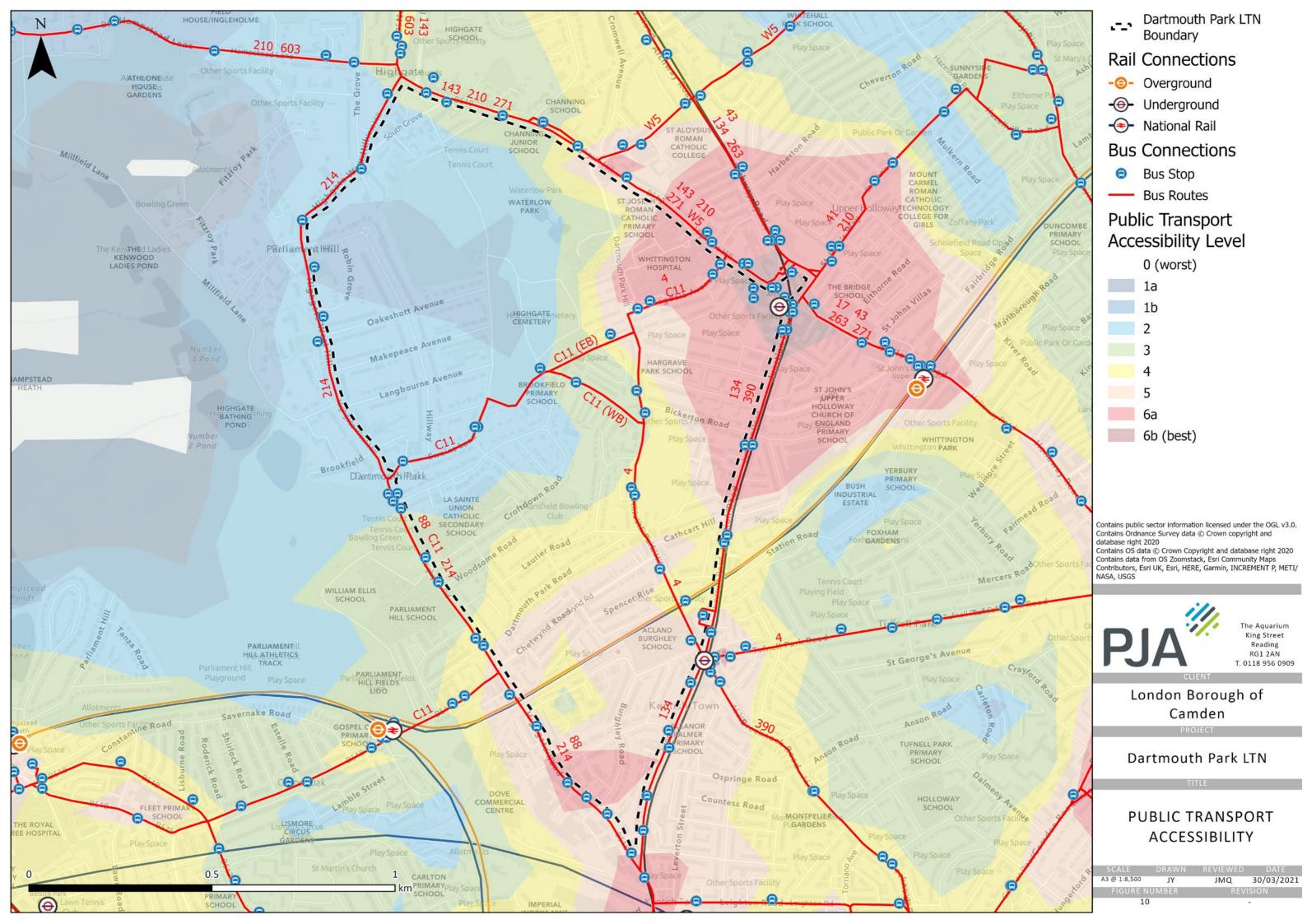
Swains Lane. Route C11 runs from Brent Cross Shopping Centre to Archway Station

The additional services with bus stops located on the peripheral roads include:

- Route W5 (Harringay Sainsbury's to Archway Station)
- Route 88 (Parliament Hill Fields to Omnibus Clapham)
- Route 390 (Archway Station to Victoria Bus Station)
- Route 271 (Finsbury Square to South Grove)
- Route 214 (Highgate School/ Hampstead Lane to Finsbury Square)
- Route 210 (Brent Cross Shopping Centre to Finsbury Park Station)
- Route 143 (Archway Station to Brent Cross Shopping Centre)
- Route 134 (University College Hospital/Euston Road to Tally Ho Corner)

Dartmouth Park is served by London Underground services via Archway and Tufnell Park stations. Archway and Tufnell Park stations provide access to the High Barnet branch of the Northern Line. The northern Line serves multiple destinations in central London, as well as Morden in the south and Edgware, High Barnet and Mill Hill East in the north.

In addition, London Overground services are accessible from Dartmouth Park via Gospel Oak and Upper Holloway railway stations.



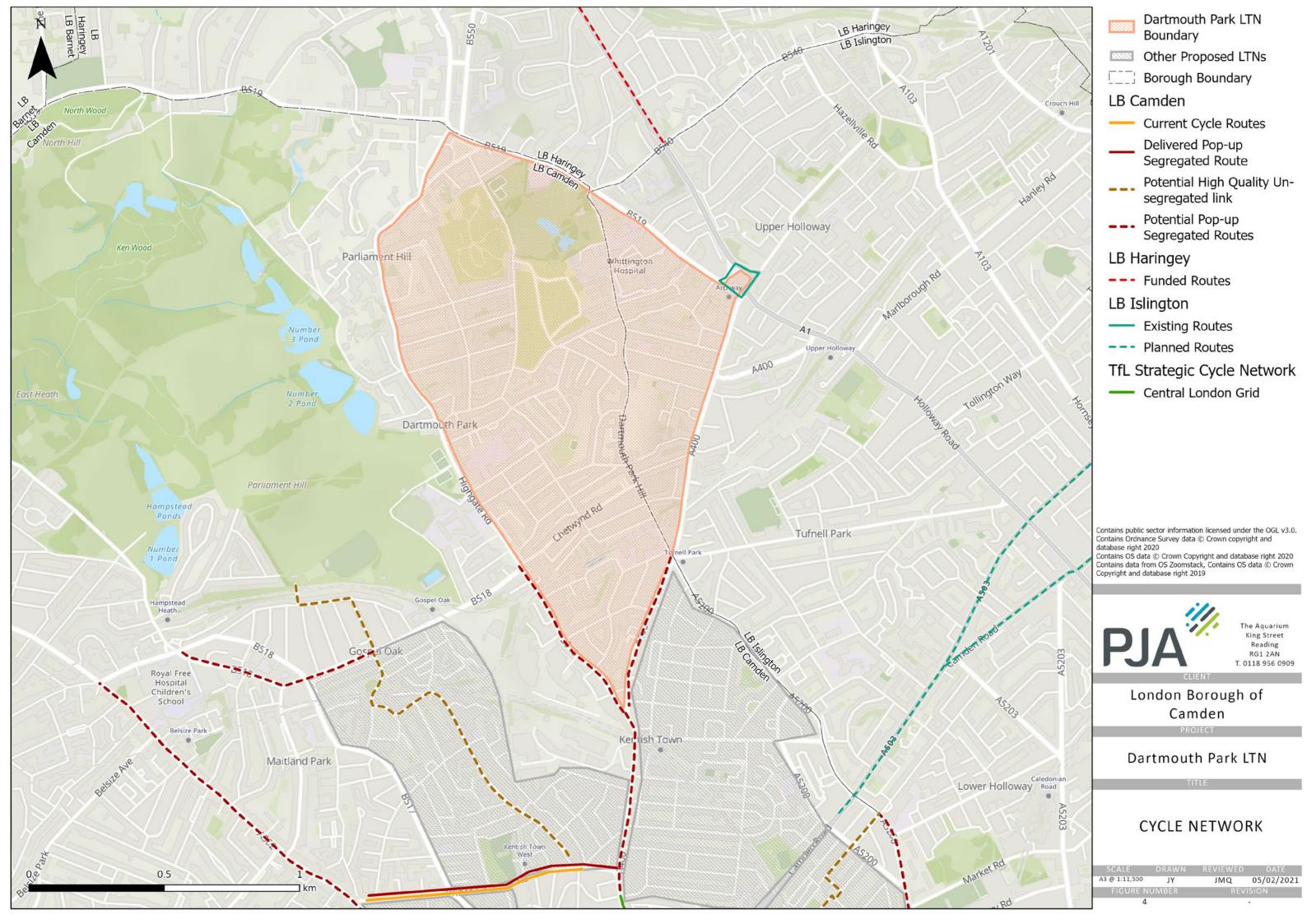
CYCLE NETWORK

The plan overleaf summarises the existing and potential cycle network in the vicinity of Dartmouth Park, providing an indication of how a Low Traffic Neighbourhood (LTN) could assist in enhancing existing links and providing new route opportunities.

It is evident that Dartmouth Park
has a poor provision of cycle route
infrastructure and there is a clear
opportunity to provide routes on either a
north/south or east/west alignment.

Two potential pop-up cycle routes are proposed that run from Kentish Town, up to Tufnell park and the Chetwynd Road/ Highgate road/B518 junction. There is a funded route in Haringey that runs along the B540 down to the Haringey/Camden borough boundary.

In addition, there is also a network of high-quality cycle infrastructure located towards Archway station, at the A1/ Archway Road junction with Highgate Hill/St John's Way/A400.



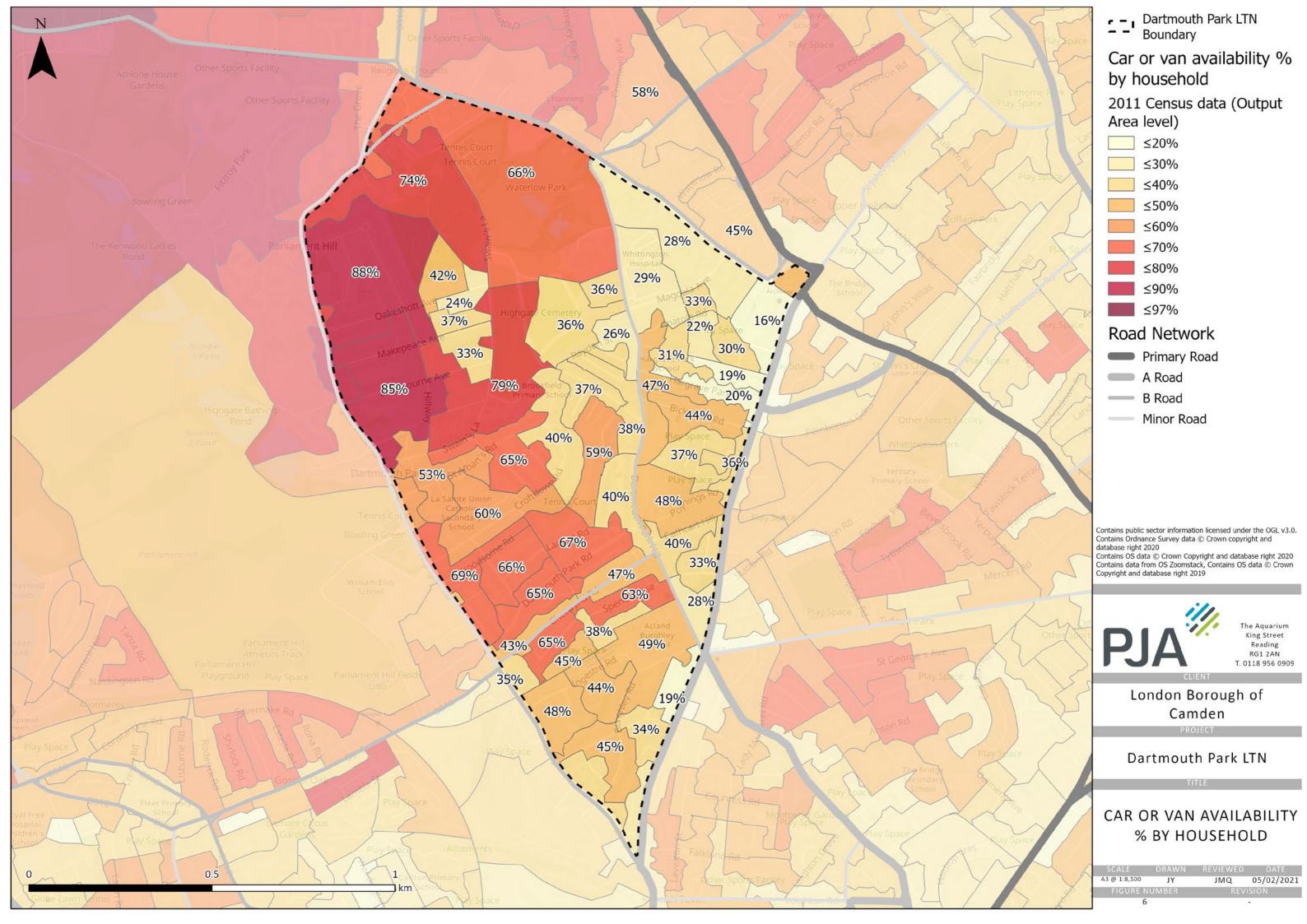
CAR OR VAN AVAILABILITY

The plan overleaf illustrates the varying levels of car/van ownership within Dartmouth Park, based on data from the 2011 census.

The census identified a greater percentage of people having access to a car/van to the north west of Dartmouth Park, with up to 88% of households having access to a car/van in the residential streets off Highgate Hill.

The percentage of households with access to a car/van is lower to the east of Dartmouth Park, with approximately 16% ownership recorded on some of the streets surrounding Archway town centre.

Car ownership has reduced over the last 10 years, particularly in inner London and amongst young people (London Travel Demand Survey, 2019). The upcoming 2021 census will provide a more accurate and up to date picture of car/van ownership within the Dartmouth Park.

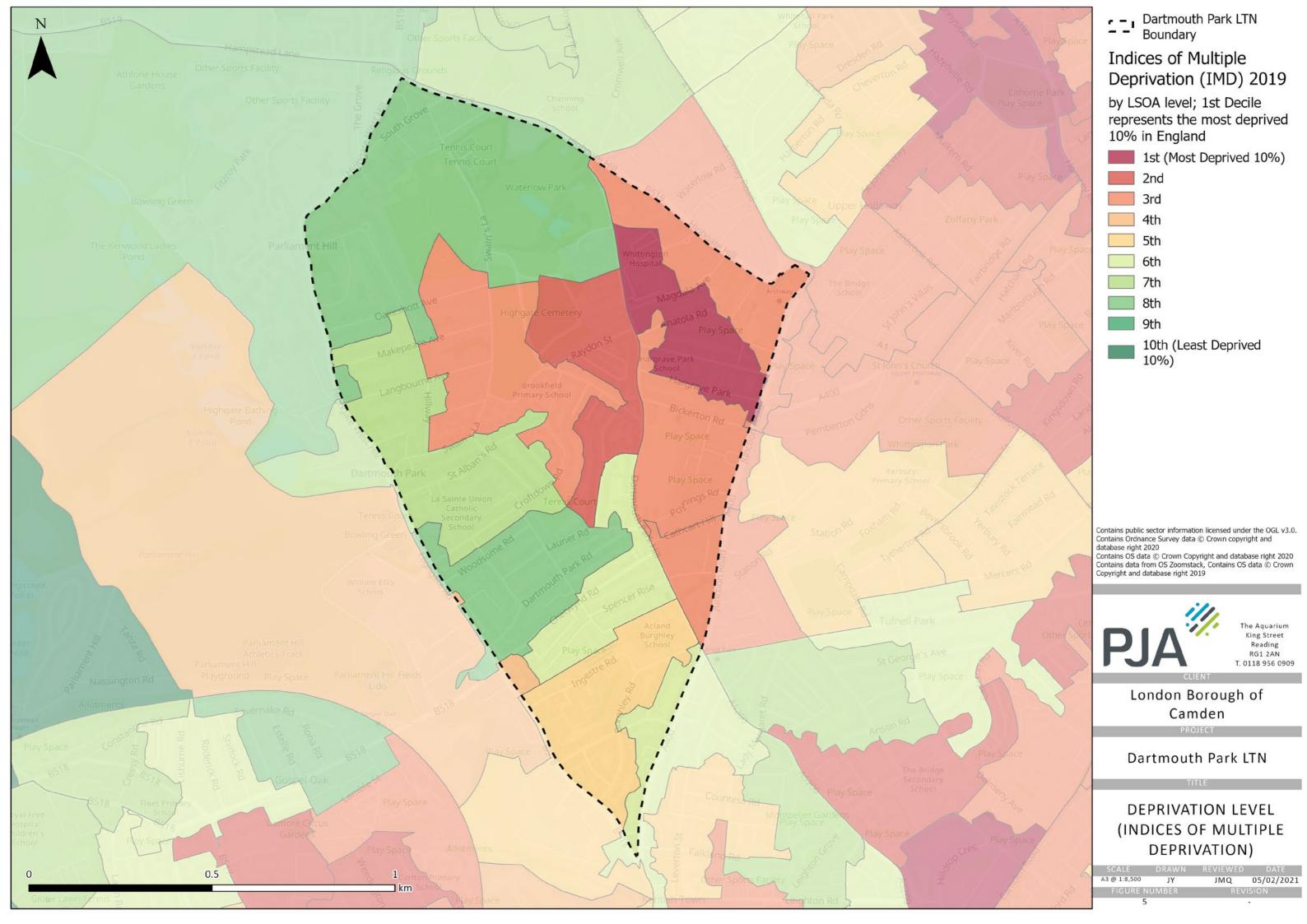


DEPRIVATION LEVEL

The plan overleaf highlights levels of deprivation in the Dartmouth Park area, based on the Indices of Multiple Deprivation Decile published in 2019.

The plan indicates varying levels of deprivation, with some households to the east falling within the top 10% most deprived in England. There are comparatively low levels of deprivation found towards the north west of Dartmouth Park, on the streets surrounding Waterlow Park and to the south west on the streets located off Dartmouth Park Hill. A majority of households in these areas were located in the 9th decile (top 20% least deprived in England).

There is a notable similarity between the distribution of deprivation and car/van availability. Areas shown as being less deprived (areas shown in green) are where there are higher levels of car/van ownership.



SCHOOLS

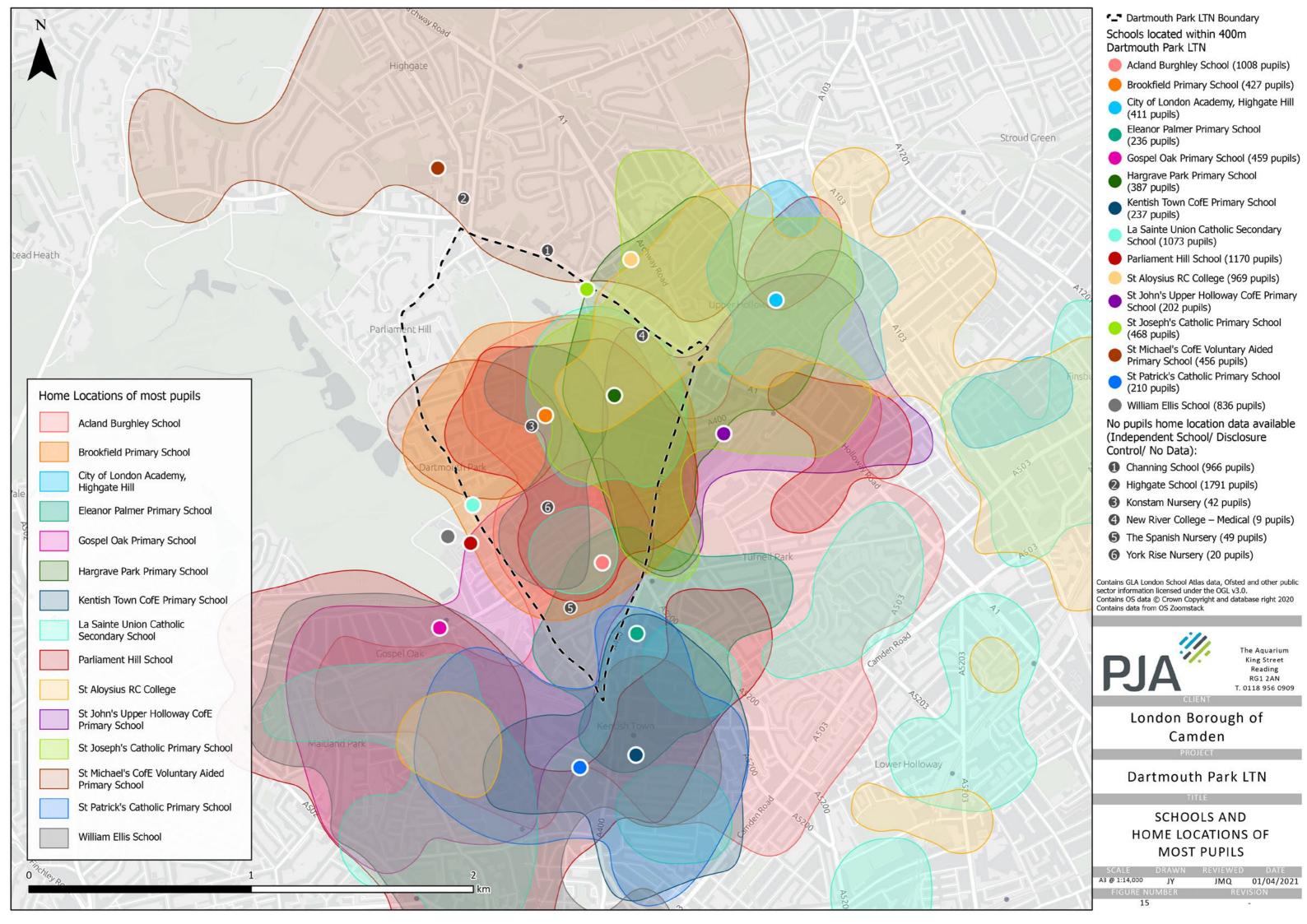
This plan shows the location of schools in and around Dartmouth Park as well as the home locations of most of their pupils. There are 21 schools located within and in close proximity to Dartmouth Park:

- Acland Burghley School (1008 pupils)
- Brookfield Primary School (427 pupils)
- City of London Academy Highgate Hill (411 pupils)
- Eleanor Palmer Primary School (236 pupils)
- Gospel Oak Primary School (459 pupils)
- Hargrave Park Primary School (387 pupils)
- Kentish Town CofE Primary School (237 pupils)
- La Sainte Union Catholic Secondary School (1073 pupils)
- Parliament Hill School (1170 pupils)
- St Aloysius' RC College (969 pupils)
- St John's Upper Holloway C of E Primary School (202 pupils)

- St Joseph's Catholic Primary School (468 pupils)
- St Michael's CofE Voluntary Aided Primary School (456 pupils)
- St Patrick's Catholic Primary School (210 pupils)
- William Ellis School (836 pupils)
- Channing School (966 pupils)
- Highgate School (1791 pupils)
- Konstam Nursery (42 pupils)
- New River College Medical (9 pupils)
- The Spanish Nursery (49 pupils)
- York Rise Nursery (20 pupils)

Channing School, Highgate School, Konstam Nursery, New River College – Medical, The Spanish Nursery and York Rise Nursery are independent schools or school with statistical disclosure control. Therefore, the pupils' home locations are unavailable.

The catchment areas identified for each school encompass a majority of Dartmouth Park. It can therefore be assumed that a large number of pupils walk or cycle through Dartmouth Park when travelling to/from school.



AIR QUALITY

The three plans shown in the following pages show the annual mean modelled concentrations of PM10, PM2.5 and NO2 in 2016 within Dartmouth Park.

PM10

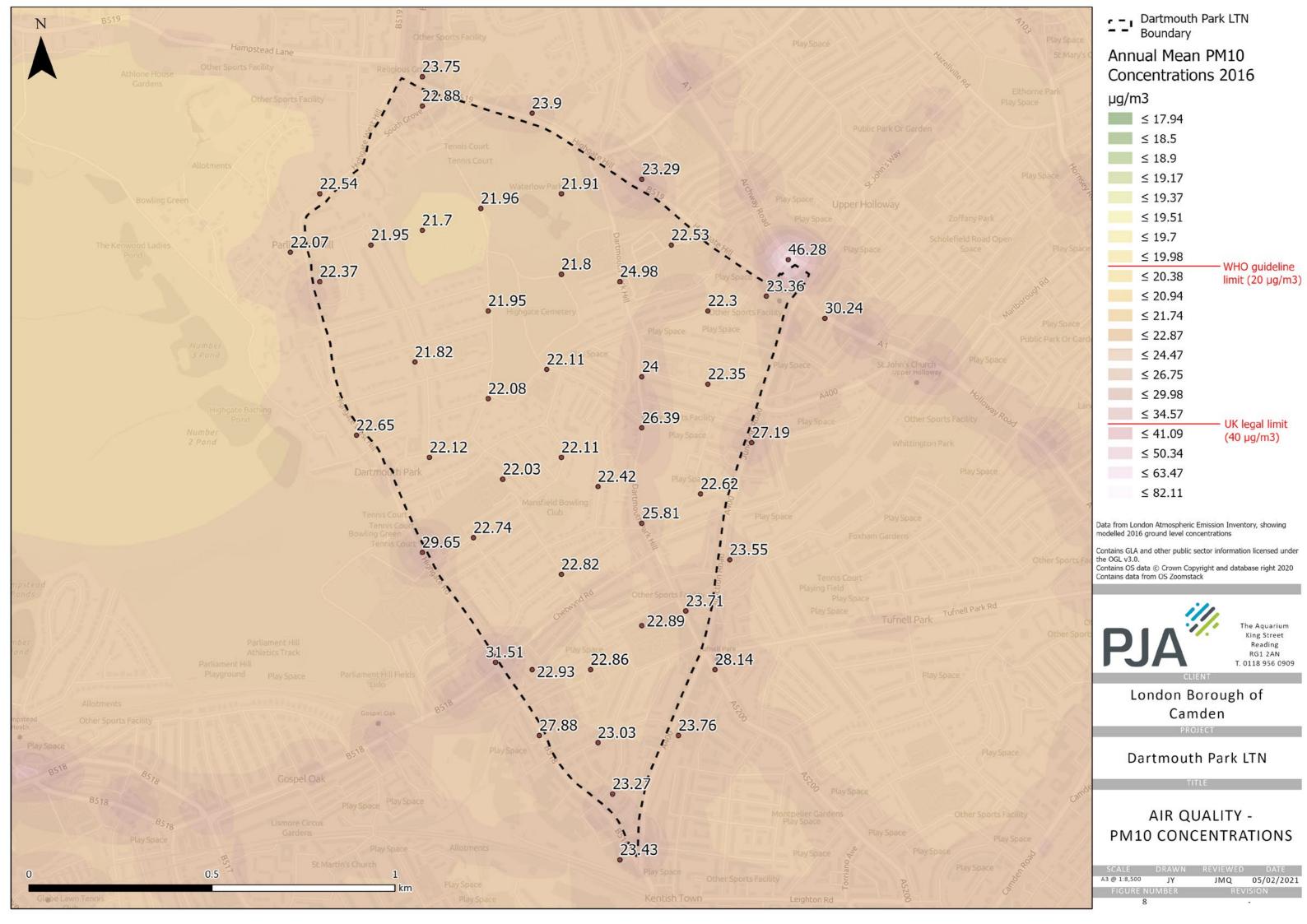
Whilst most areas within the Dartmouth Park boundary have PM10 modelled concentrations that are within the UK legal limit (40 μ g/m3), a significant number of modelled estimates show concentrations higher than the WHO guideline limit of $20 \mu g/m3$. Concentrations of PM10 were estimated to be distinctly higher at the Chetwynd Road junction with Highgate Road and on Dartmouth Park Hill. A modelled estimate of 46.28 µg/m3 was generated to the north east of the Dartmouth Park boundary, for the A1/Archway Road junction with Highgate Hill/St John's Way/A400.

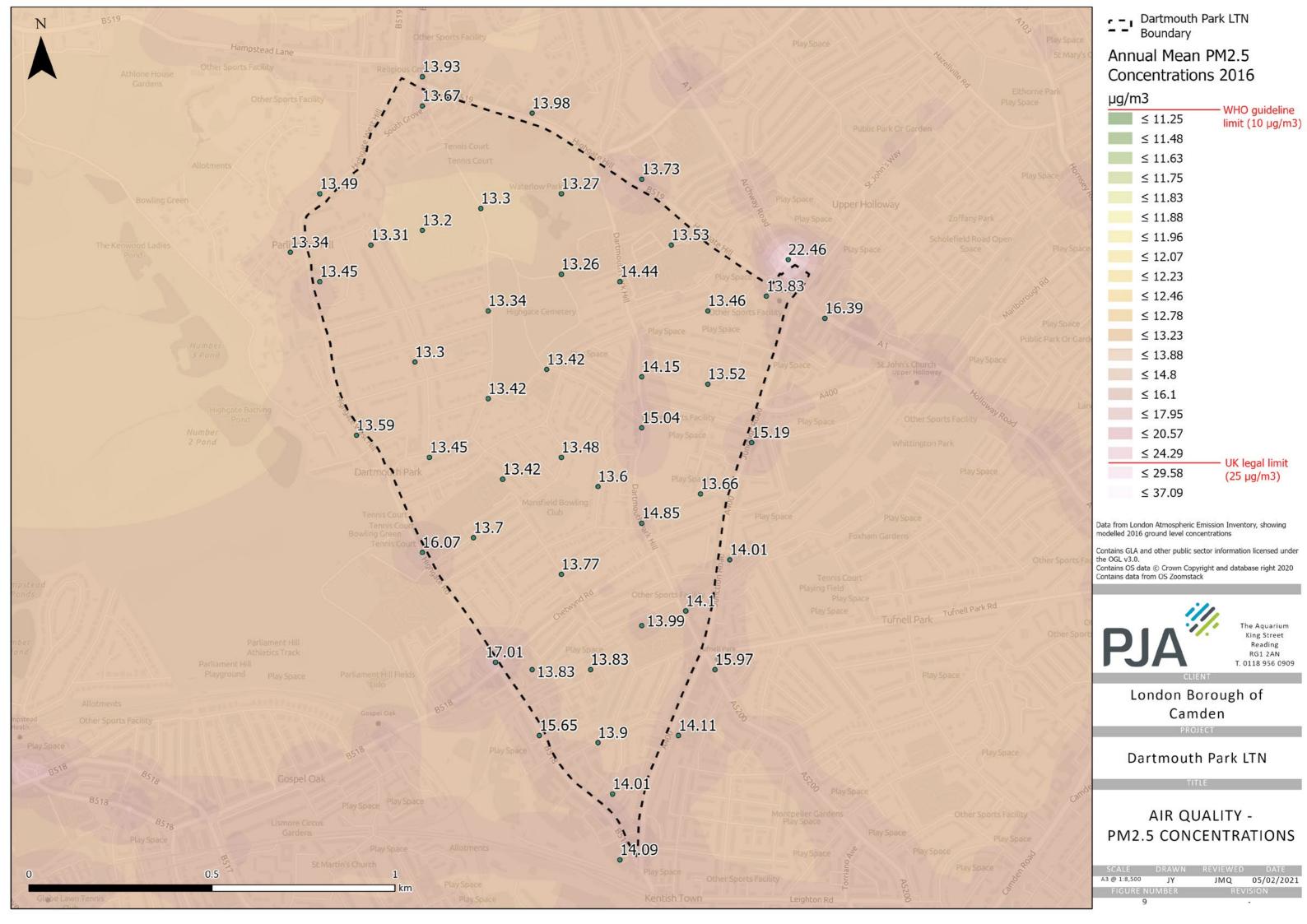
PM2.5

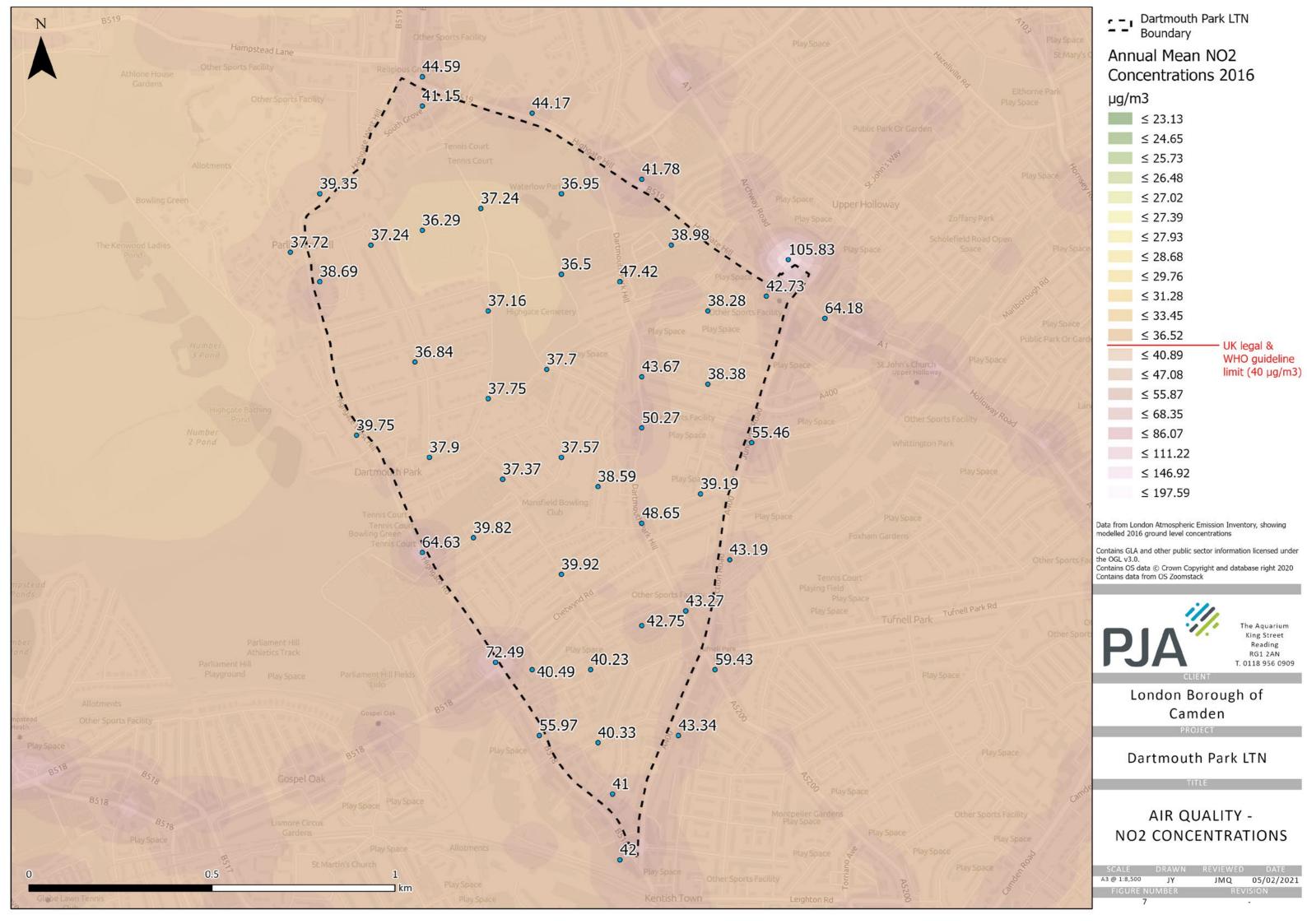
Like PM10, the modelled PM2.5 concentrations within and in close proximity to Dartmouth Park are within the UK legal limit of 25 μ g/m3. However, the modelled estimates are still higher than the WHO guideline limit of 10 μ g/ m3. A PM2.5 concentration of 22.46 μ g/m3 was estimated for the A1/ Archway Road junction with Highgate Hill/St John's Way/A400. 17.01 μ g/m3 was estimated for the Chetwynd Road junction with Highgate Road.

NO2

Unlike PM10 and PM2.5, the UK's NO2 legal limit is the same as the WHO's guideline limit (40 μ g/m3) and many of the modelled estimates within the study area exceeded this legal limit. An NO2 concentration of 72.49 μ g/m3 was estimated for the Chetwynd Road junction with Highgate Road. A concentration of 105.83 μ g/m3 was estimated for the A1/Archway Road junction with Highgate Hill/St John's Way/A400, which is over 2.5 times the UK/WHO legal limit. Areas of higher concentrations appears to correlate with roads with higher traffic volumes.











TRAFFIC MANAGEMENT

This plan shows the distribution and type of traffic management features within and in close proximity to the proposed Dartmouth Park LTN.

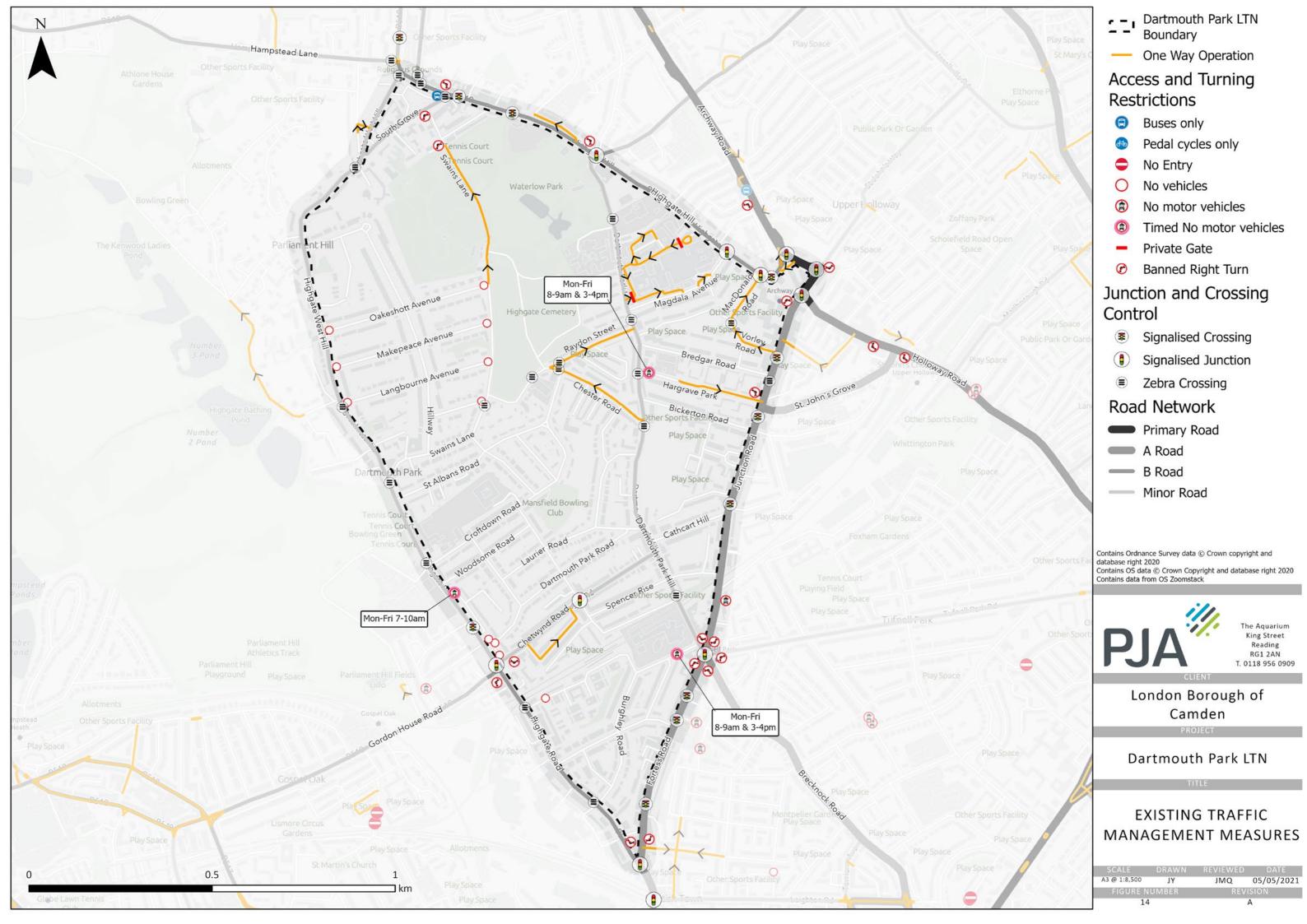
Two pedestrian and cycle zones are currently in place on Burghley Road and Grove Terrace. The arrangement on Burghley Road is effective on weekdays during 8-9am and 3-4pm. The one on Grove Terrace is effective on weekdays between 7 and 10am.

There are several one way arrangements in place on Swains Lane. Chester Road, Raydon Street, Vorley Road-MacDonald Road, Hargrave Grove and Twisden Road.

Several turning restrictions are also in place at the following junctions:

- Fortess Road J/W Junction Road,
 Dartmouth Park Hill, Brecknock Road and Tufnell Park Road
- Kentish Town Road J/W Highgate Road and Fortess Road

- Highgate Road J/W Gordon House Road
- Hargrave Grove J/W Junction Road
- Swains Lane J/W South Grove
- Swains Lane J/W Bisham Gardens
- South Grove J/W Highgate High Street
- Dartmouth Park Hill J/W Highgate Hill
- St. John's Way J/W Archway Road



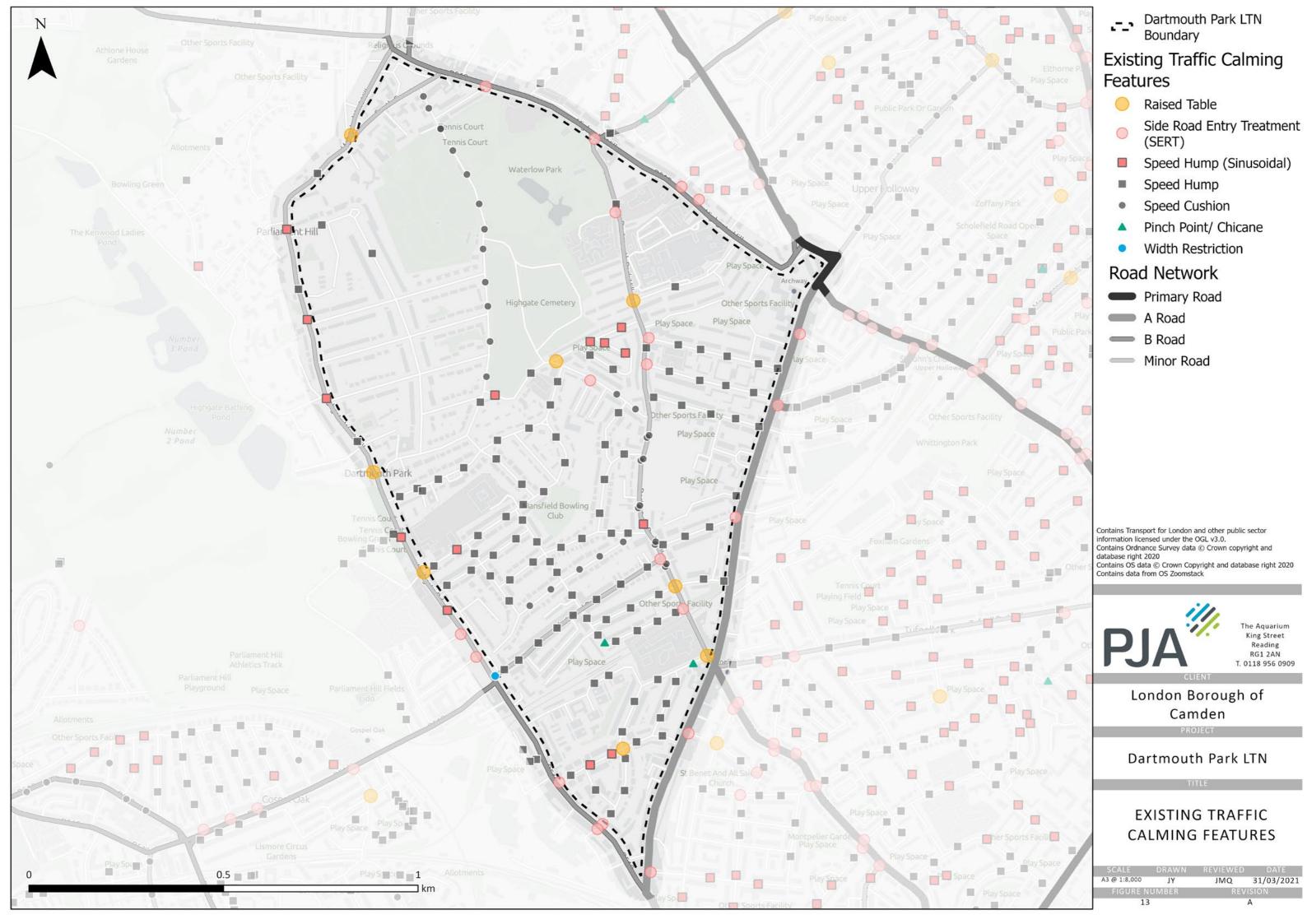
TRAFFIC CALMING

This plan shows the distribution and type of traffic calming features found within and in close proximity to the proposed Dartmouth Park LTN boundary.

The plan identifies several different types of traffic calming feature, located on the streets within and on the boundary of Dartmouth Park. Dartmouth Park Hill and Chetwynd Road are two significant access roads within Dartmouth Park and there are a number of speed humps/cushions located along the length of each of these roads.

Chetwynd Road has a significant pinch point to reduce vehicle speeds, at its junction with Highgate Road.

There is another significant pinch point on Burghley Road, indicating the start of the pedestrian and cycle zone.



TRAFFIC COLLISIONS

The latest five-year data from August 2015 to August 2020 shows that there has been a total of 282 collisions within the vicinity of the proposed Dartmouth Park LTN boundary. The study area encompasses a 50m offset from the proposed LTN boundary to incorporate the boundary roads. The recorded 282 collisions resulted in 321 casualties. The collisions resulted in 275 slight injuries and 46 serious injuries.

It should be noted that the data only includes recorded collisions which resulted in personal injury, therefore collisions which go unreported and/or only resulted in material damage are not included in the data analysed.

The table to the right shows a breakdown of collisions by year, severity (KSI = Killed or Serious Injured), location and road user group. The table shows a similar level of recorded collisions over the five-year period, with the most KSI collisions occurring in 2017. 2017 was also the year with the most pedestrian/cyclist casualties.

Two plans showing the location of all traffic collisions, as well as collisions involving pedestrians and cyclists, are also presented on page 42 and 43 respectively.

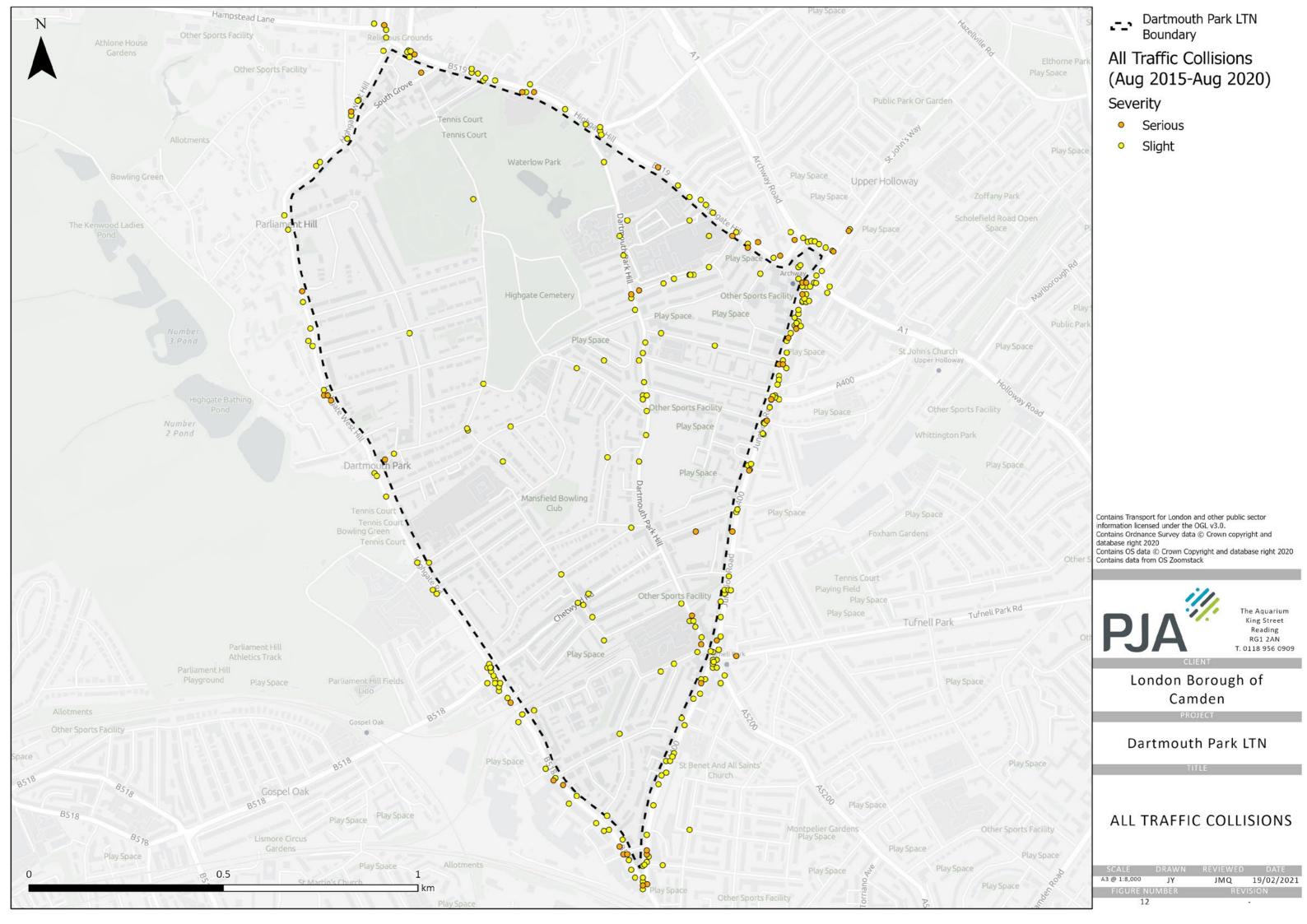
Reviewing casualties by location shows a relatively uniform distribution across the main corridors, with concentrations on the following links or intersections:

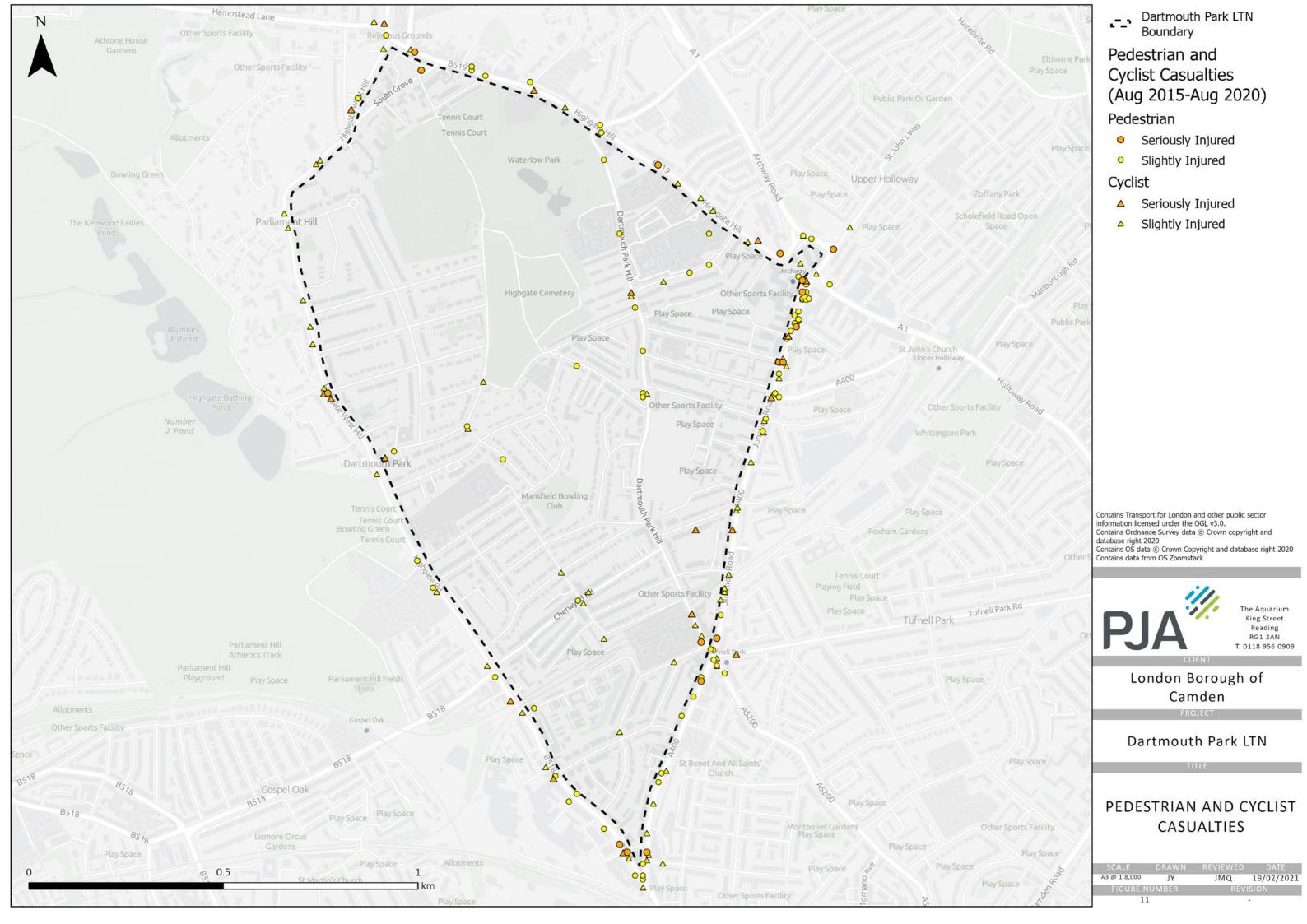
- Junction Road section between Holloway Road and St. John's Grove
- Fortess Road J/W Junction Road,
 Dartmouth Park Hill, Brecknock Road and Tufnell Park Road
- Kentish Town Road J/W Highgate Road and Fortess Road
- Highgate Road J/W Gordon House Road

Seven serious collisions occurred inside of the proposed LTN boundary, six of which involved pedestrians or cyclists.

Collisions and Casualties in and around the proposed Dartmouth Park LTN boundary between August 2015 and August 2020

	No. of Collisions				No. of Casualties					
	All collisions	KSI collisions	Within LTN	Boundary roads	Peds	Pedal cycles	P2W	Car & taxi	Bus & coach	Other
2015 (Aug-Dec)	21	4	3	18	12	5	4	5	1	0
2016	60	8	15	45	18	16	11	22	1	1
2017	60	11	18	42	21	17	8	19	3	1
2018	56	5	18	38	17	14	15	16	4	0
2019	55	4	16	39	13	13	14	12	7	0
2020 (Jan-Aug)	30	6	8	22	7	11	9	4	0	0
Total	282	38	78	204	88	76	61	78	16	2









AUTOMATIC TRAFFIC COUNTS

The plan overleaf presents the 16-hour weekday daily flows and turning counts on certain roads in the vicinity of the Dartmouth Park area.

The data shown comprise of ATCs commissioned by LB Camden within the last five years and traffic counts obtained from Department for Transport.



GENERAL TRAFFIC FLOWS (WEEKDAY AM PEAK)

The plan overleaf summarises the estimated traffic flows in the Weekday AM peak periods on roads in the vicinity of Dartmouth Park area. The data was provided in the format of each road segment per hour, per direction, representing weekdays between January and December 2019. This data, as well as in the through traffic data on the following pages, were provided by The Floow using telematics technology.

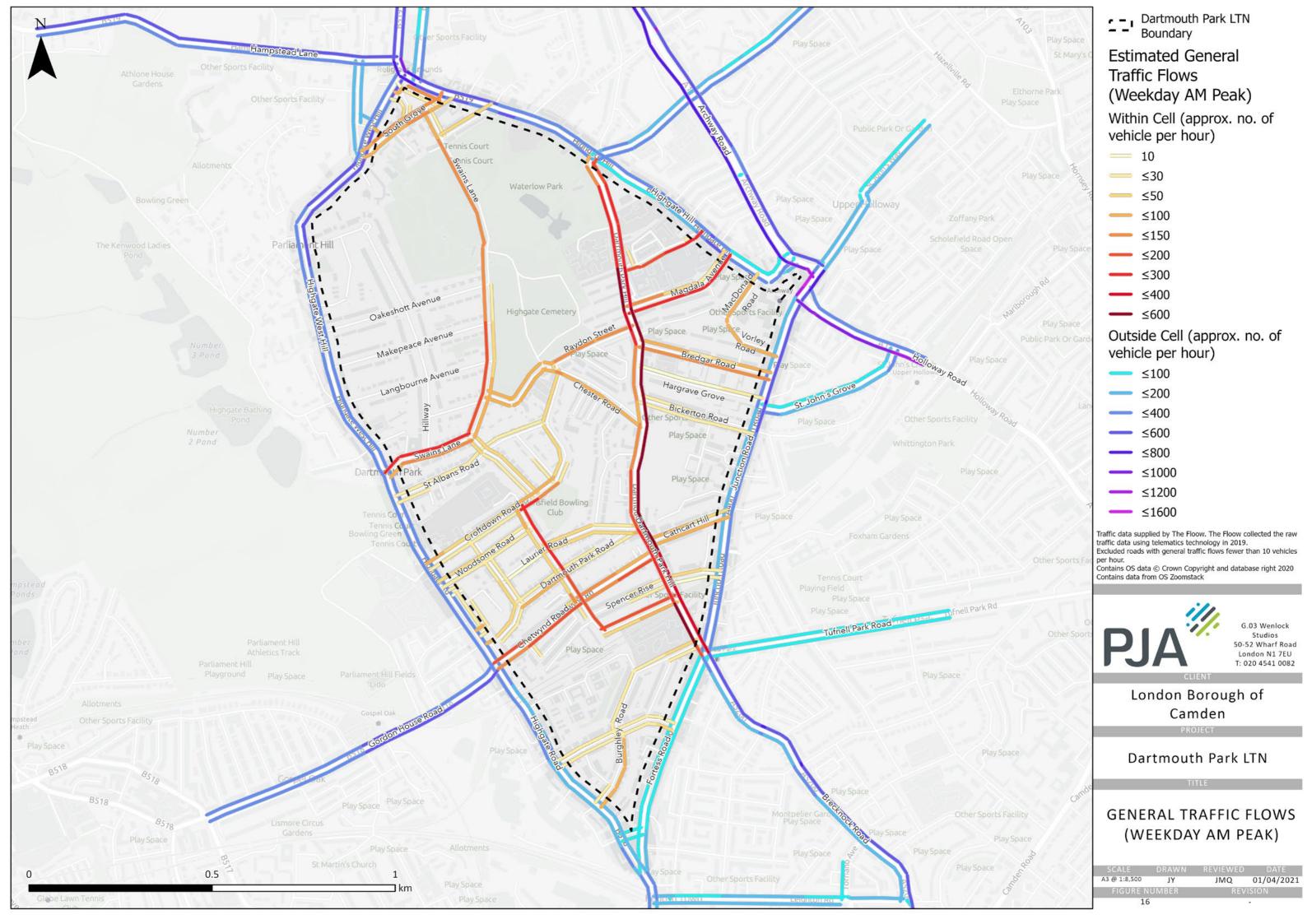
Unlike the Automatic Traffic Counts presented on the previous page, this data was modelled using from Department for Transport's and LB Camden's traffic counts, from scattered locations across the road network. Although this modelled data cannot be fully accurate to the actual flows and should be interpreted as an approximation, it aims to provide a general overview on the usual traffic conditions.

The main roads around the proposed LTN boundary are Junction Road, Fortess Road, Archway Road (Between Holloway Road and Highgate Hill), Highgate Hill, Highgate West Hill and Highgate Road, with their general flows summarised below:

- Junction Road (A400) carried about 200-400 vph northbound; and about 400-600 vph southbound
- Fortess Road (A400) carried about 100 vph northbound; and about 100-200 vph southbound
- Archway Road (A1) between Holloway Road and Highgate Hill carried about 1000-1600 vph north-westbound; and about 600-800 vph south-eastbound
- Highgate Hill (B519) carried about 100-600 vph on both directions
- Highgate West Hill and Highgate Road (north of Gordon House Road) carried about 400-600 vph on both directions
- Highgate Road (B518), south of Gordon House Road, carried about 200-400 vph on both directions

Roads within the proposed LTN boundary generally carried between 10 and 50 vph each direction, with some exceptions listed as follows:

- Dartmouth Park Hill carried about 100-600 vph northbound; and about 300-600 vph southbound
- Swains Lane carried about 150-300
 vph north-eastbound; and about 30 150 vph south-westbound
- Chetwynd Road carried about 100-200 vph eastbound; and about 150-200 vph westbound
- York Rise-Churchill Road carried about 200-300 vph south-eastbound
- Magdala Avenue carried up to 300 vph westbound
- Gordon Close within Whittington Hospital carried about 200-300 vph westbound



THROUGH TRAFFIC % AND FLOWS (WEEKDAY AM PEAK)

The two plans in the following pages present the estimated through traffic percentage and flows respectively, for roads within the proposed Dartmouth Park LTN in the Weekday AM peak periods. The data was provided in the format of each road segment per hour, per direction, representing weekdays between January and December 2019. This data was provided by The Floow using telematics technology.

Overview on through traffic data methodology

Having applied a method called 'Blend Analysis' to identify through traffic levels, The Floow identified the origin and destination for each journey in terms of the boundary for the proposed Dartmouth Park LTN. The Floow repeated this process for several time periods, in this case, the daily average, AM and PM peak periods. The analysis classifies the trip travel under the following three categories:

- Exclusively internal to the cell ('In-In'), with both origin and destination located within the cell
- Exclusively external to the cell ('Out-Out'), with both origin and destination located out of the cell.
- Involves an origin ('In-Out') or destination ('Out-In') inside of the cell only. These are trips with a purpose related to the cell, i.e. by people who live, work, spend time in, or deliver to the cell.

Through traffic is defined as the 'Out-Out' trips, with trip purposes unrelated to the cell. The occurrences of segments within journeys were then tallied in terms of the category of trip travel, and were stored as a percentage of all journeys.

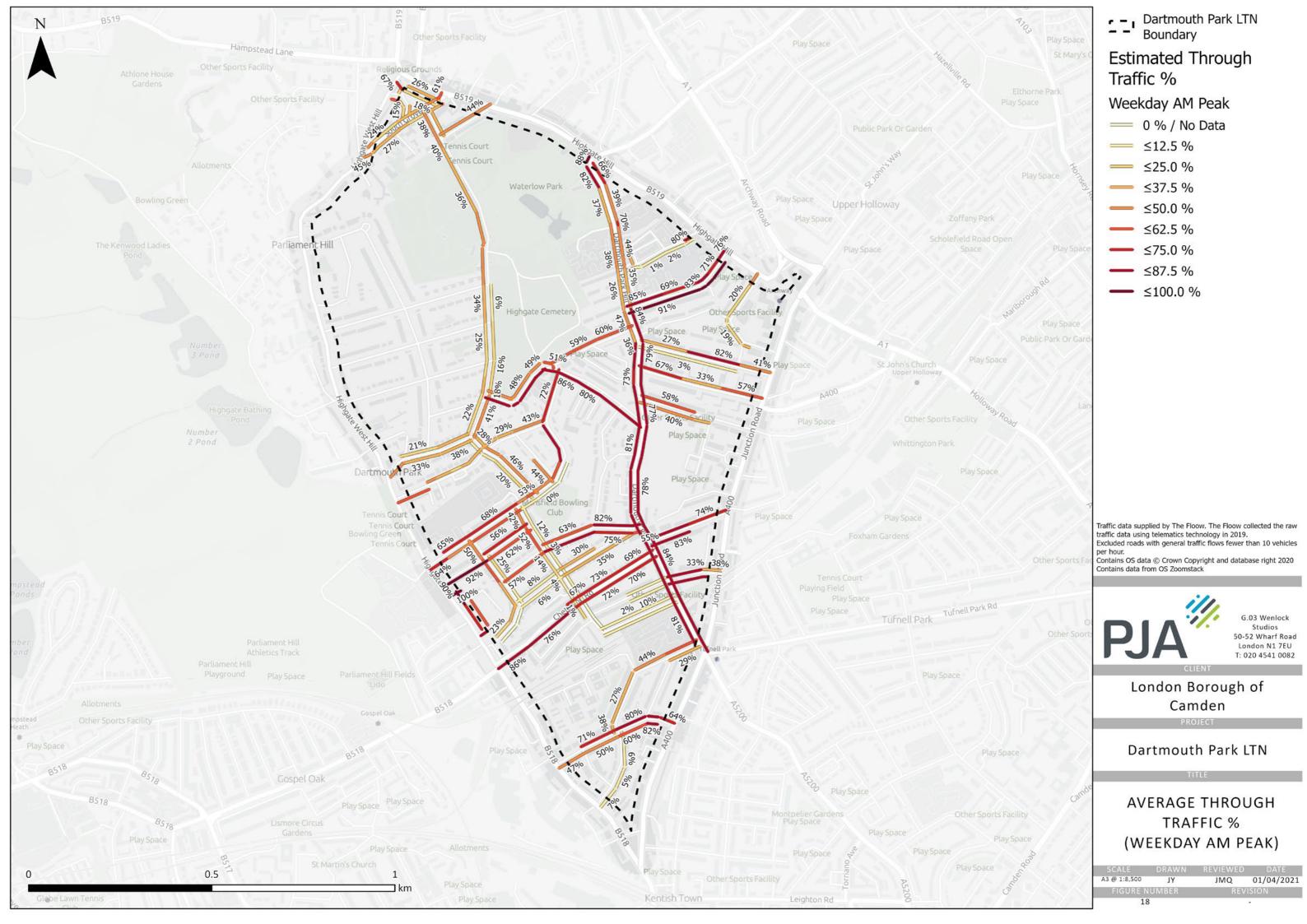
The through traffic flows were then calculated by multiplying with the general traffic flow numbers shown on the previous page.

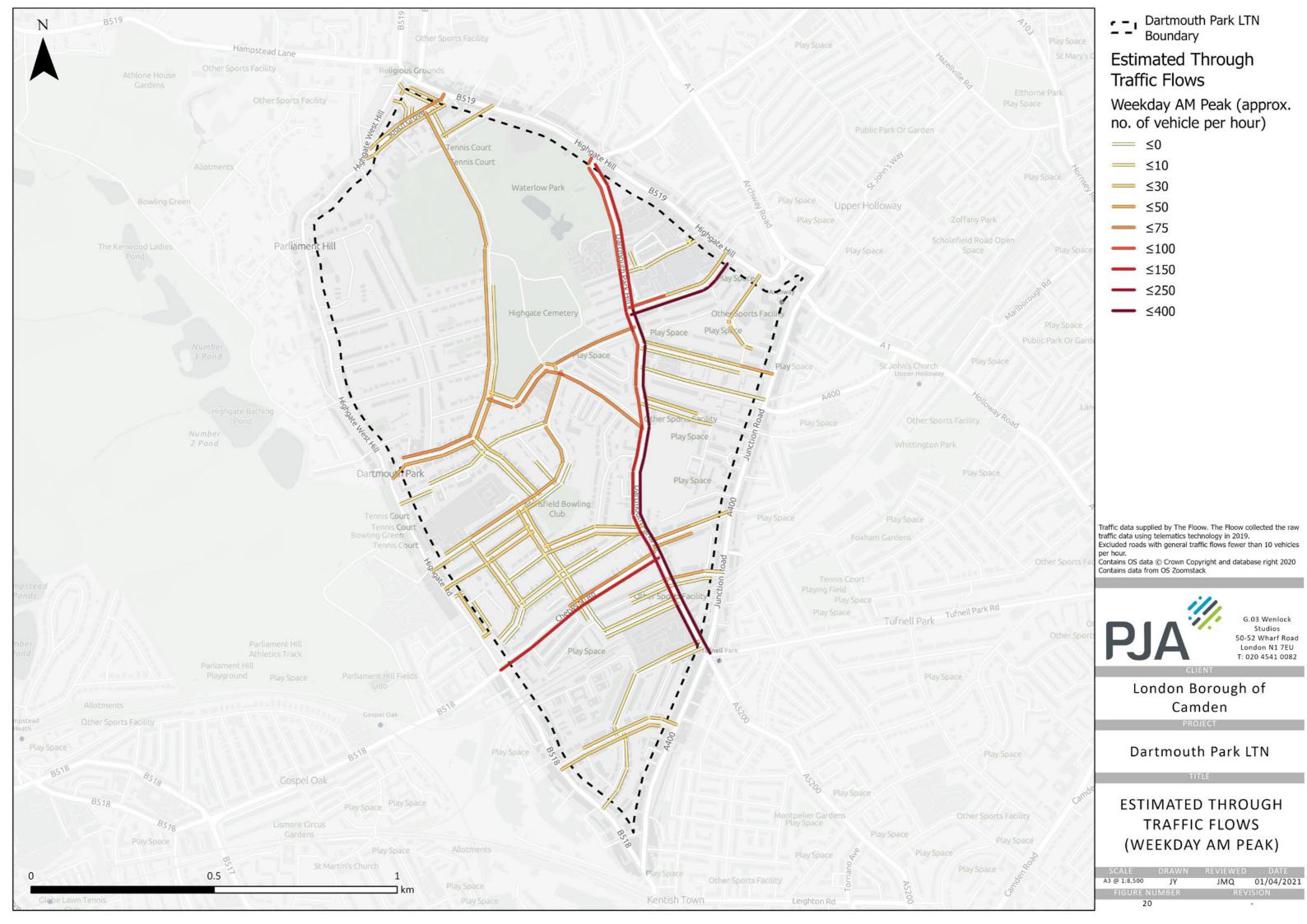
Through traffic % and Flows (Weekday AM Peak)

Roads within the proposed LTN boundary generally carried between 10 and 30 vph of through traffic per direction. Listed below are roads with considerably more through traffic flows estimated:

- Dartmouth Park Hill was estimated to carry about 37-81% (about 100-400 vph) of through traffic northbound; and about 35-78% (about 150-400 vph) of through traffic southbound.
- Magdala Avenue was estimated to carry 91% (up to 400 vph) of through traffic westbound. It is evident that the prevailing flow of through traffic ran from Magdala Avenue westbound to Dartmouth Park Hill southbound.
- Chetwynd Road was estimated to carry about 70-86% (up to 150 vph) of through traffic westbound
- Swains Lane was estimated to carry about 21-40% (about 50-75 vph) of through traffic northbound

- Raydon Street was estimated to carry about 51-60% (up to 75 vph) of through traffic eastbound
- Chester Road was estimated to carry about 72-86% (up to 75 vph) of through traffic north-westbound





GENERAL TRAFFIC FLOWS (WEEKDAY PM PEAK)

The plan overleaf summarises the estimated traffic flows in the Weekday PM peak periods on roads in the vicinity of Dartmouth Park area. The data was provided in the format of each road segment per hour, per direction, representing weekdays between January and December 2019. This data, as well as in the through traffic data on the following pages, were provided by The Floow using telematics technology.

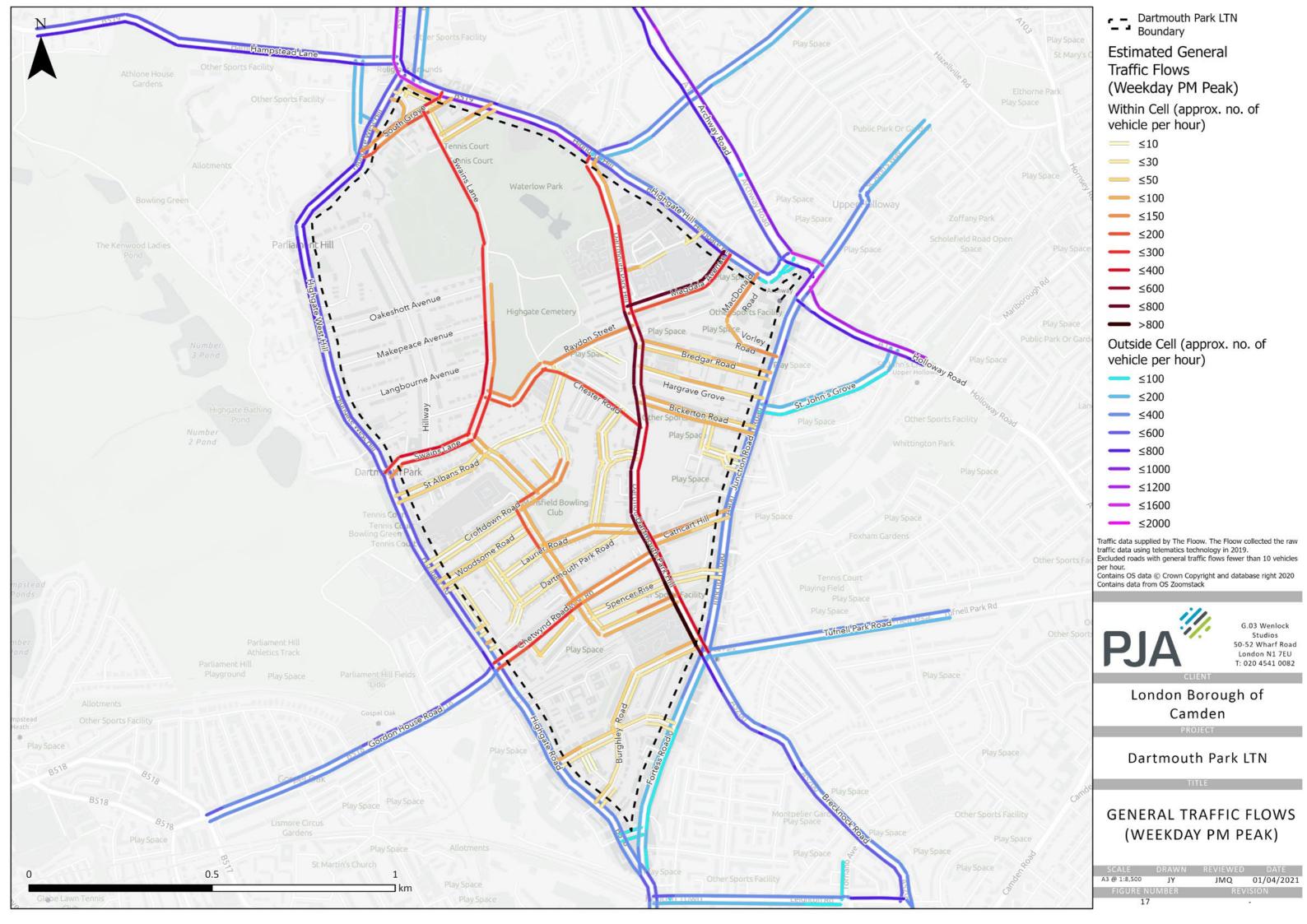
Unlike the Automatic Traffic Counts presented at the start of this section, this data was modelled using from Department for Transport's and LB Camden's traffic counts, from scattered locations across the road network. Although this modelled data cannot be fully accurate to the actual flows and should be interpreted as an approximation, it aims to provide a general overview on the usual traffic conditions.

Weekday PM peak period generally saw more traffic around and across the cell. The general flow estimates on the peripheral main roads are summarised below:

- Junction Road (A400) carried about 400 vph northbound; and about 400-600 vph southbound
- Fortess Road (A400) carried about 200-400 vph northbound; and about 100-200 vph southbound
- Archway Road (A1) between Holloway Road and Highgate Hill carried about 800-1000 vph north-westbound; and about 1600 vph south-eastbound
- Highgate Hill (B519) carried about 400-1600 vph north-westbound; and about 400-600 vph south-eastbound.
- Highgate West Hill and Highgate Road (north of Gordon House Road) carried about 600-800 vph northbound; and about 400-800 vph southbound
- Highgate Road (B518), south of Gordon House Road, carried about 400 vph on both directions

Roads within the proposed LTN boundary generally carried between 30 and 100 vph each direction, with some exceptions listed below:

- Dartmouth Park Hill carried about 400-800 vph northbound; and about 100-600 vph southbound
- Magdala Avenue carried up to 800 vph eastbound; and about 200-300 vph westbound
- Swains Lane carried about 300 vph north-eastbound; and about 100-300 vph south-westbound
- Chester Road carried about 200 vph north-westbound
- Chetwynd Road carried about 150-300 vph on both directions
- South Grove carried about 150-200 vph westbound; and about 150-300 vph eastbound
- A short section of York Rise-Croftdown Road carried about 150-200 vph north-eastbound; and about 100-150 vph south-westbound



THROUGH TRAFFIC % AND FLOWS (WEEKDAY PM PEAK)

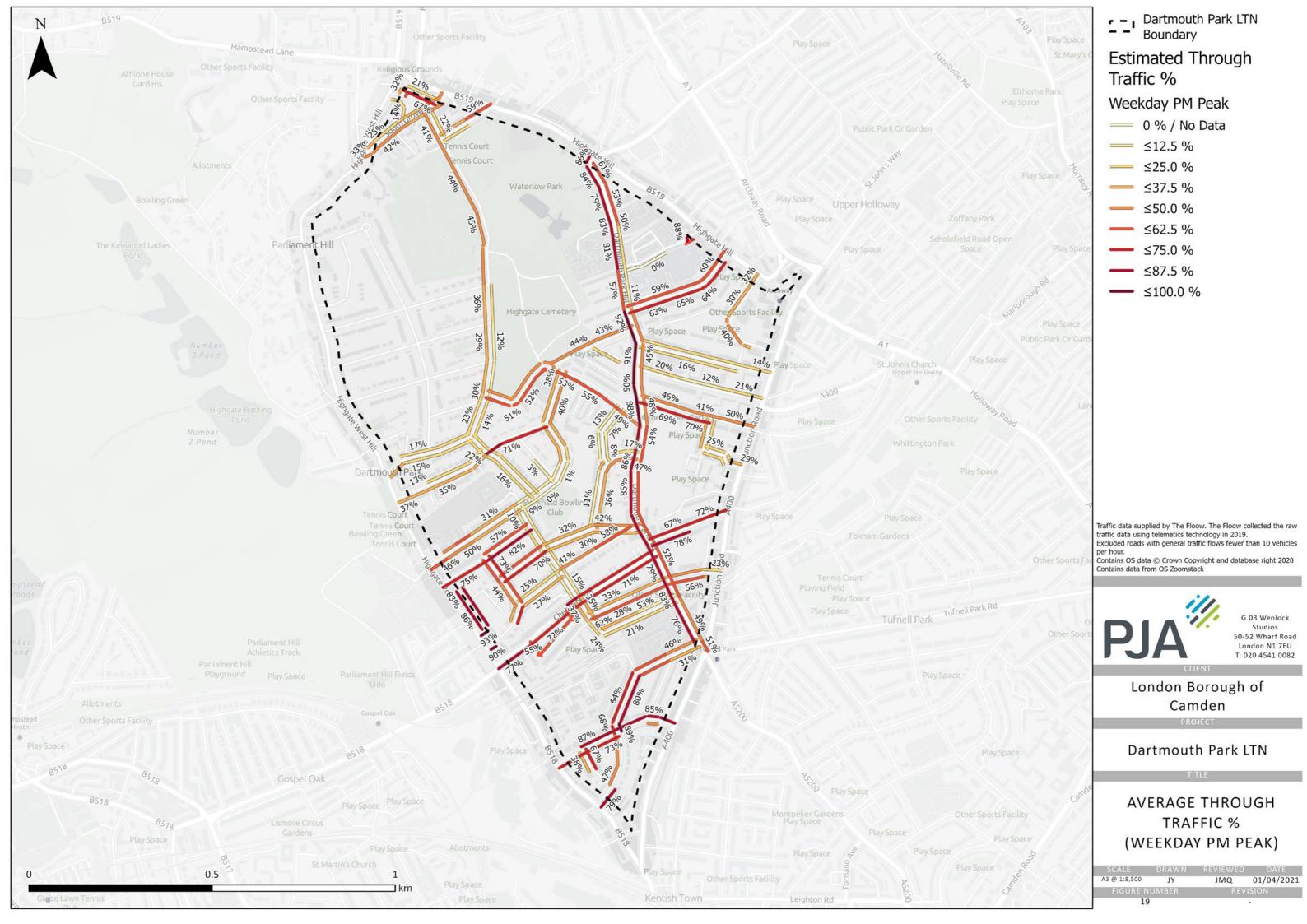
The two plans in the following pages present the estimated through traffic percentage and flows respectively, for roads within the proposed Dartmouth Park LTN in the Weekday PM peak periods. The through traffic data was provided in the format of each road segment per hour, per direction, representing weekdays between January and December 2019.

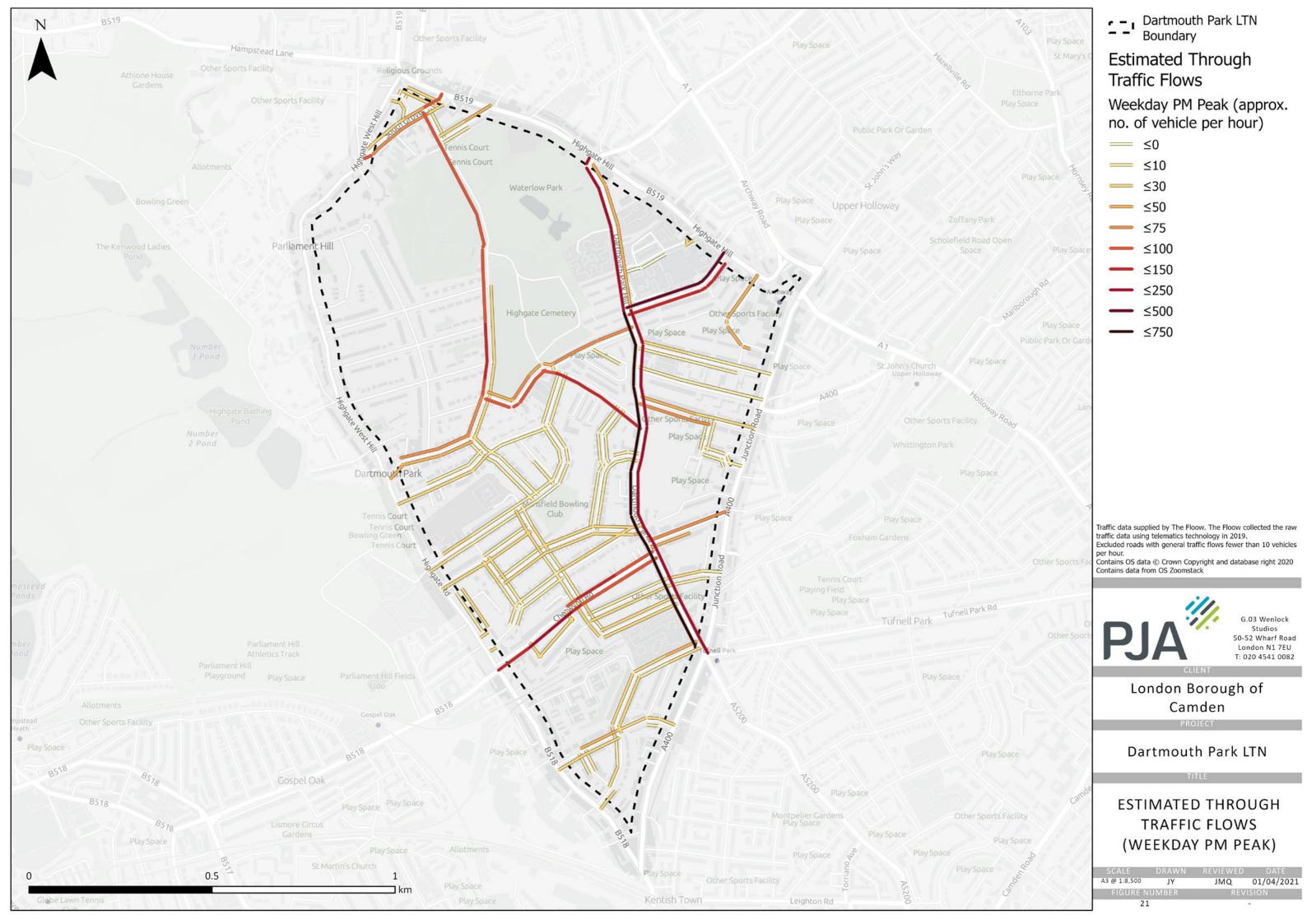
This through traffic percentage data was provided by The Floow using telematics technology. The through traffic flows were then calculated by multiplying with the general traffic flow numbers shown on the previous page.

Similar to the general flows, there were more through traffic passing within the proposed LTN during weekday PM peak periods. Roads within the proposed LTN boundary generally carried around 10 to 30 vph of through traffic per direction. Listed below are roads with considerably more through traffic flows estimated:

- Dartmouth Park Hill was estimated to carry about 57-92% (about 250-750 vph) of through traffic northbound; and about 11-61% (about 50-250 vph) of through traffic southbound.
- Magdala Avenue was estimated to carry about 59% (up to 500 vph) of through traffic eastbound; and about 63-65% (up to 150 vph) of through traffic westbound. It is evident that the prevailing flow of through traffic ran from the southern section of Dartmouth Park northbound onto Magdala Avenue eastbound.
- Chetwynd Road was estimated to carry about 71-77% (about 100-250 vph) of through traffic westbound; and about 63-70% (about 100-150 vph) of through traffic eastbound
- Swains Lane was estimated to carry about 17-45% (about 75-150 vph) of through traffic northbound
- Chester Road was estimated to carry about 51-55% (about 100-150 vph) of through traffic north-westbound

- South Grove was estimated to carry about 42% (about 75-100 vph) of through traffic westbound; and about 25-50% (about 30-100 vph) of through traffic eastbound
- Raydon Street was estimated to carry about 43-44% (up to 75 vph) of through traffic eastbound
- Cathcart Hill was estimated to carry about 67-72% (up to 75 vph) of through traffic eastbound
- Bickerton Road was estimated to carry about 69-70% (up to 75 vph) of through traffic westbound
- Vorley Road-MacDonald Road, located at the north-eastern corner of the proposed LTN boundary, were estimated to carry about 30-40% (up to 75 vph) of through traffic northwestbound





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NEXT STEPS

This chapter summarises the main findings from the baseline analysis and presents the key information to inform and substantiate the future designs.

ISSUES AND CONSIDERATIONS

The plan overleaf presents the main issues and considerations found in and around the proposed Dartmouth Park LTN. This plan in combination with the opportunities plan is intended to serve as a comprehensive summary tool for the design stage.

Streets that present more than 200vph either direction have been identified as Heavy Traffic Streets. This value is used on Transport for London's Cycle Route Quality Criteria guidance as follows:

The design of new cycle routes should only mix people cycling with motorised traffic where there are fewer than 500 motor vehicles per hour (vph – two-way) at peak times, and preferably fewer than 200vph.

One-way streets and banned turns will affect the final movement patterns for general traffic within the neighbourhood.

Bus routes using roads within the proposed LTN boundary should also be taken into consideration while planning the final scheme.

There are areas deficient in Public Open Space within the LTN, which could benefit from the street space unveiled by the LTN design measures.

Key amenities may require specific access requirements that will need to be retained at the design stage. Similar attention needs to be given to car park and loading access.

The plan identifies the sections in the LTN boundary roads which present a gap in the connectivity on foot between Dartmouth Park and other surrounding neighbourhoods. Location of existing footway parking on Chetwynd Road and Spencer Rise are also highlighted.

Collision hotspots underline the locations where road safety needs to be improved. This can be achieved through a combination of street design interventions and traffic speed reductions.

The whole extension of the LTN presents an NO2 concentration higher than 32 $\mu g/m$ 3, which is the limit recommended in the TfL's Healthy Streets Check.

Other key consideration for the Low Traffic Neighbourhood process would be deprivation levels across the area (p.26). It is important to bear in mind inequality levels while designing to avoid schemes that impact predominantly deprived areas, thus exacerbating issues associated with deprivation and inequality.



- Dartmouth Park LTN boundary
- Heavy Traffic Streets
- Collision hotspots
- \rightarrow One-way streets
- --- Internal bus routes
- Areas deficient in Public Open Space
- Potential footway widening
- Potential need for controlled pedestrian crossing
- Existing footway parking
- Key amenities
- + Hospital
- Post office
- Supermarket/ retail point
- Fire station
- Major building site

NEXT STEPS

OPPORTUNITIES

The opportunities plan identifies several areas that could benefit from the LTN scheme interventions.

The additional road space for walking and cycling revealed by the LTN scheme can be very valuable for town and neighbourhood centres with amenities such as shops and restaurants.

Similarly, this is the case for areas with neighbourhood amenities including shops, post offices and cafés.

Walking and cycling connectivity to the Public Open Spaces within the neighbourhood can be improved as part of the LTN scheme.

The traffic reduction within the neighbourhood as a result from the LTN measures will directly impact the proposed cycle routes in the area, making cycling conditions safer and more enjoyable.

There is also an opportunity for the installation of cycle crossings at the junctions between the potential cycle routes and the LTN boundary roads. This would improve cycle permeability with the adjacent neighbourhoods.

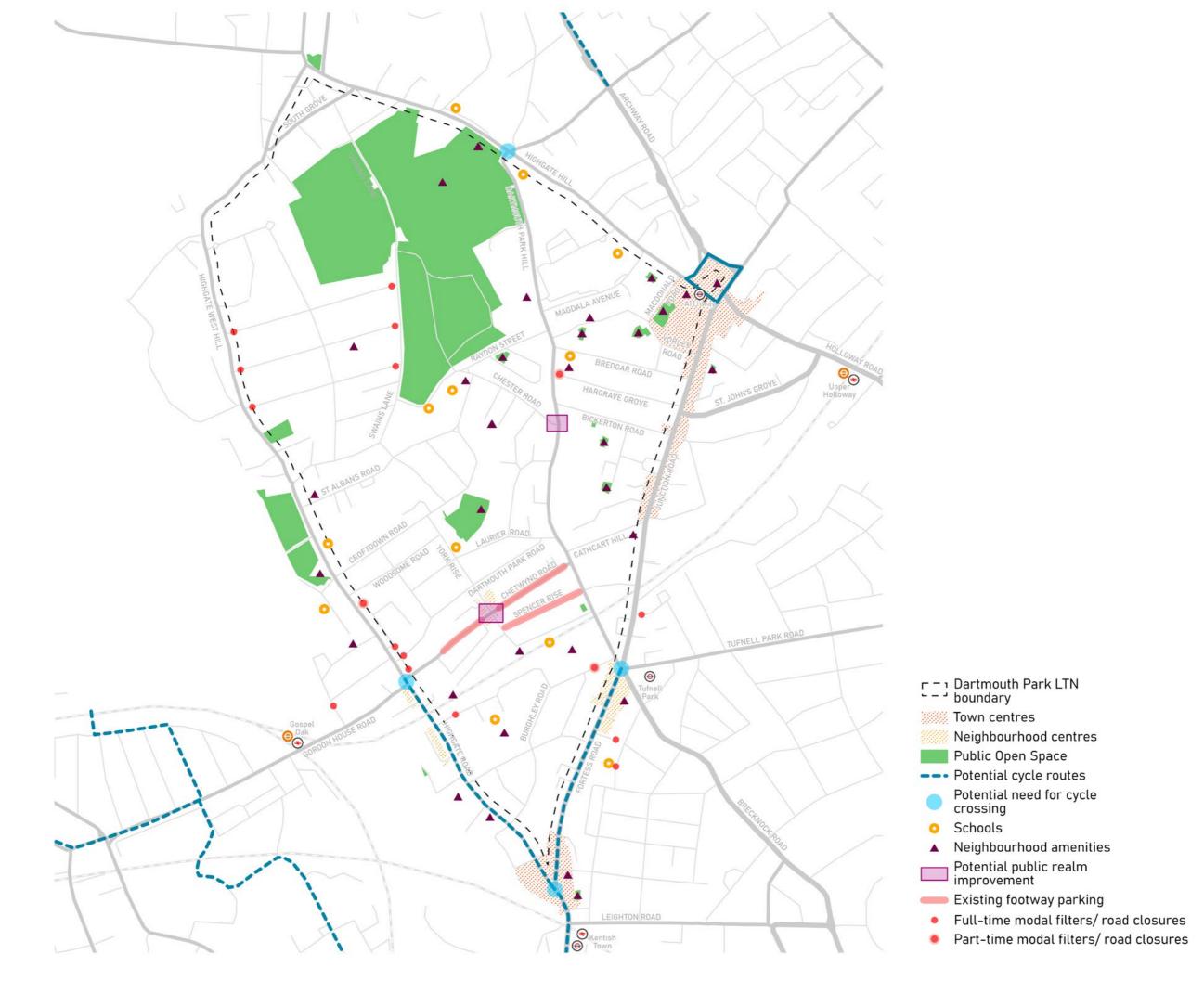
LTNs also provide an opportunity for the creation of 'School Streets' around schools in the neighbourhood, improving the road safety at those locations and promoting active travel. In the case where schools are located at boundary roads, measures should be considered to limit an increase in air pollution outside schools.

The locations of the existing modal filters have been indicated in the plan overleaf. There is a potential for these modal filters to be upgraded into permanent modal filters and/ or pocket parks.

Location of existing footway parking has also been highlighted. There is a potential to relocate footway parking back onto the carriageway, improving the accessibility of footway space.

Key opportunities

- Removal of through traffic along key routes including Dartmouth Park Hill, Swains Lane, Magdala Avenue and Chetwynd Road and Chester Road.
- Installation of 'School Streets' on Chester Road, Croftdown Road, York Rise, Churchill Road and Bredgar Road.
- Linking up potential cycle routes with modal filters and better sign-posting on Dartmouth Park Hill, Chetwynd Road, Anatola Road and MacDonald Road.
- Improvement of cycle connectivity with installation of cycle crossings, cycle priority or protected junction layouts on:
 - Dartmouth Park Hill J/W Highgate Hill
 - Chetwynd Road J/W Gordon House Road, Highgate West Hill & Highgate Road
 - Dartmouth Park Hill J/W Junction Road, Turnell Park Road & Brecknock Road
 - Kentish Town Road J/W Highgate Road & Fortess Road







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